



TH NATIONAL HEALTH SURVEY

Integrated Stepwise Household Survey 2023

Ministry of Health 2023







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5th National Health Survey: Integrated Stepwise Household Survey 2023

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Foreword



It is with great pride and a deep sense of responsibility that I present the National Health Survey Report 2023. This comprehensive document encapsulates the current state of health and well-being in our nation, providing invaluable insights that will guide our future health plans, policies, and interventions.

Driven by the benevolent leadership of our monarchs, our noble development vision of Gross National Happiness, and the holistic growth and development of our people, our country has made significant strides in improving the health of its citizens over the years. The findings of NHS 2023 serve as a testament to these efforts,

capturing detailed data across a range of health indicators. It reflects not only our achievements but also highlights areas that require renewed focus, attention, and action. One of the key highlights of the 2023 edition of the National Health Survey is that 14 different household surveys were integrated into one, thereby making the task a challenging one but the findings multidisciplinary and multi-faceted. The effort to consolidate all data in this innovative manner was aimed at achieving cost efficiency, alleviating respondent survey fatigue, and maintaining high standards of data quality.

The findings of this survey underscore the importance of continuing to invest in our health system, enhancing the quality of people-centered healthcare services, and promoting preventive healthcare. The report also sheds light on emerging health challenges, such as the rising incidence of non-communicable diseases, mental health issues, and unhealthy behavior, which demand urgent, collective, and coordinated efforts.

I would like to express my heartfelt gratitude to all those who have contributed to this monumental task. The dedication and hard work of our healthcare professionals, statisticians, enumerators, field workers, and all other stakeholders have been instrumental in the successful completion of this survey. I am particularly grateful to all the respondents for their participation and cooperation, without which this report would not have been possible. I would also like to thank our development partners for their financial and technical support right from the inception of the survey till the completion of this report.

As we move forward, let us be guided by the insights from this survey to formulate effective health policies, prioritize resource allocation, and implement targeted programs that will improve the health and well-being of every Bhutanese citizen. Our collective efforts will ensure that we continue to build a healthier, happier, and more prosperous Bhutan.

I encourage all stakeholders, from policymakers and healthcare providers to community leaders and individuals, to engage with the findings of this report and work collaboratively toward our shared vision of a healthier nation.

May this report serve as a beacon of our progress and a catalyst for continued improvement in our health sector.

Tandin Wangchuk Health Minister



Message from the Health Secretary

It is my privilege and honor to present the National Health Survey Report which has been put together by my colleagues in the Ministry of Health and other partner agencies with immense hard work, determination, and resilience. This edition of the National Health Survey was truly a unique and challenging task as we worked on integrating 14 different household surveys into a single one, which is unprecedented even by global standards.

Therefore, this report which has been meticulously put together is a testament to our ongoing commitment to understanding and improving the health and well-being of our citizens. It is also a reflection of the health sector's commitment to fully leverage evidence-informed planning and decision-making as we embark on implementing the highly ambitious 13th Five-Year Plan. The data presented herein offer a detailed snapshot of the current health status of our nation, highlighting both the progress we have made and the challenges that lie ahead. It may be noted that the NHS 2023 has gathered an extensive amount of data, which cannot be published in a single report. Therefore, a series of thematic reports and in-depth analyses will be conducted to make optimal use of the data for evidence-based policy-making in the country.

Over the past decades, we have seen significant advancements in various health indicators, including reduced rates of mother and child mortalities, improved access to healthcare services, and increased public awareness about the importance of preventive health measures in light of the mounting risks posed by non-communicable diseases. These achievements are the result of collaborative sefforts across the Ministry of Health, other government agencies, health care providers, non-governmental organizations, community-based organizations, and our development partners.

While significant gains have been made, this report also reminds us that there is much more to be done. Disparities in health outcomes persist, particularly among marginalized and vulnerable populations. The ever-increasing burden of lifestyle-related diseases and mental health issues, and the impact of environmental factors on health continue to be areas requiring focused attention and action.

Our response to these challenges must be multifaceted and inclusive, involving innovative health programs, enhanced healthcare infrastructure, and a steadfast dedication to equity in health services. We must leverage the power of technology, data analytics, and community engagement to drive meaningful improvements in public health.

As we move forward, I call upon all stakeholders—policymakers, civil society groups, healthcare professionals, researchers, and common citizens—to join hands in our mission to build a healthier, more resilient nation. Your support is crucial as we strive to create an environment where everyone has the opportunity to lead a healthy and fulfilling life.

In closing, I am confident that the wealth of information in this report will help us pave the way for a healthier future for all.

M-M

Pemba Wangchuk Secretary

List of Abbreviations

ADB	: Asian Development Bank	GFR	: General Fertility Rate
ANC	: Antenatal Care	HDL	: High-Density Lipoprotein
ANCP	: Arena Nut-Containing Products	HEAD	: Heavy Episodic Alcoholic Drinking
ARI	: Acute Respiratory Infection	HFC	: High Frequency Checks
ASDR	: Age-Specific Death Rate	HLC	: High Level Committee
ASFR	: Age-Specific Fertility Rate	HPV	: Human Papilloma Virus
BHU	: Basic Health Unit	IDD	: lodine Deficiency Disorder
BMI	: Body Mass Index	IGN	: Iodine Global Network
BP	: Blood Pressure	IMR	: Infant Mortality Rate
CAPI	: Computer Assisted Personal	IQR	: Interquartile Range
CBR	: Crude Birth Rate	ISH	: International Society of Hypertension
CEB	: Children Ever Born	IUD	: Intrauterine Device
CEI	: Cost-Effectiveness Threshold	IYCF	: Infant and Young Child Feeding
CI	: Capital Intelligence	JDWNRH	: Jigme Dorji Wangchuck National Referral Hospital
CSS	: Circular Systematic Sampling	IMP	· Joint Monitoring Programme
CVD	: Cardiovascular Disease		: Lactational Amenorrhea Method
DHS	: Demographic and Health Survey		: Long Losting Insecticidal Not
DoPH	: Department of Public Health		. Long Lasting insecticidal Net
DPT	: Dephtheria Pertusis Tetanus	LOD	: Limit of Dectection
EA	: Enumeration Area	MIYCN	: Maternal, Infant and Young Child Nutrition
EDTA	: Ethylenediamine Tetra-acetic Acid	MMR	: Maternal Mortality Ratio
FAS	: Fetal Alcoholic Syndrome	МоН	: Ministry of Health
FCS	: Food Consumption Score	MRDR	: Modified Relative Dose Response
FYP	: Five Year Plan	NCD	: Non-Communicable Diseases
GC-FID	: Gas Chromatography Flame	NHS	: National Health Survey
GDP	· Gross Domestic Product	NICU	: Neonatal Intensive Care Unit
		NMR	: Neonatal Mortality Rate



NSB	: National Statistics Bureau	SBA	: Skilled Birth Attendant
OOP	: Out-of-Pocket	SD	: Standard Deviation
ORC	: Outreach Clinic	SDG	: Sustainable Development Goals
ORS	: Oral Rehydration Solution	SDM	: Standard Day Method
ORT	: Oral Rehydration Therapy	SSU	: Secondary Sampling Unit
PCR	: Polymerase Chain Reaction	STH	: Soil-Transmitted Helminth
PHC	: Primary Health Care	TFR	: Total Fertility Rate
PHCB	: Population and Housing Census	TWG	: Technical Working Group
	of Bhutan	U5MR	: Under-five Mortality Rate
PICU	: Pediatric Intensive Care Unit	UIE	: Urinary lodine Excretion
PNC	: Postnatal Care	UNFPA	· United Nations Population Fund
PPP	: Purchasing Power Parity		: United Nations Children's Fund
PPS	: Probability Proportional to Size		
PSU	: Primary Sampling Unit	VAW	: Violence Against Women
	Quality Adjusted Life Veer	WASH	: Water, Sanitation and Hygiene
QALY	: Quality-Adjusted Life Year	WFP	: Water Flagship Programme
RBP	: Retinol-Binding Protein	WFP	: World Food Programme
RCDC	: Royal Centre for Disease Control	WG-SS	Washington Group Short Set
RGoB	: Royal Government of Bhutan		
RNR	· Renewable Natural Resource	VHU	: world Health Organization
		WTP	: Willingness To Pay

Executive Summary

The National Health Survey (NHS), a joint initiative by the Ministry of Health (MoH) and the National Statistics Bureau (NSB), is conducted every 10 years to track trends in Bhutan's population health. The NHS 2023 is the fifth in the series, following those held in 1984, 1994, 2000, and 2012. The NHS 2023 was designed to ensure comparability with previous national health surveys and to align with international standards, particularly for SDG indicators. It adopted standard methodologies and model questions from globally recognized surveys, such as DHS and WHO NCD STEPS, with adaptation to the local context.

The NHS 2023 utilized a modular, stepwise approach for data collection. STEP 1 involved questionnaire-based modules, including the household, individual, and women and child modules. STEP 2 focused on physical measurements, such as blood pressure and anthropometry, while STEP 3 covered the laboratory module. This survey expanded the range of health indicators collected, including new data on micronutrients and ethanol concentration in home-brewed alcohol that had not been gathered in past surveys.

The household questionnaire comprehensively gathered demographic details about all household members and information about the household as a social entity. It also included sections on disability, general household characteristics, malaria indicators, dietary diversity, consumption of homebrewed alcohol, salt iodine content, household expenditure patterns, health status using the EQ-5D-5L scale, willingness to pay (WTP) for certain services, mortality data, and practices regarding child discipline.

The individual questionnaire targeted individuals aged 15-69 years to gather detailed information on their knowledge and behaviors related to various health-related topics. It encompassed inquiries regarding the utilization of health services, habits such as tobacco, areca nut consumption, alcohol consumption patterns, dietary habits, salt intake, engagement in physical activity, history of raised blood pressure and diabetes, mental health status, cardiovascular diseases, substance abuse, and physical measurements mainly the BP and anthropometry. The physical measurements (anthropometry and blood pressure) were carried out in the household during the interview by the health professionals ons randomly selected individuals.

The women and child questionnaire was designed to gather data from women of reproductive age on various aspects including reproduction, contraception, pregnancy, and ANC. It also focused on child immunization, child health, and nutrition, as well as topics like marriage, sexual activity, fertility preferences, and other health concerns specific to women and children. Additionally, it included inquiries about experiences of violence against women, including attitudes towards violence by intimate partners and instances of victimization by intimate partners and/or others.

The rapid tests (Hb, blood glucose) were conducted on the spot and samples for wet chemistry (blood, urine and stool) were collected by laboratory professionals and transported to the RCDC and JDWNRH to test for micronutrients, lipid profiling, STH and urine sodium, creatinine and iodine. Testing of Vitamin A, Vitamin B1 and Vitamin B2 were outsourced to the JDWNRH's collaborating laboratory in India. The collection, transportation, testing and storage of the biological samples followed the national and international standard operating procedure. Data collection was conducted by 270 trained enumerators from 19th May 2023 to 31st July 2023.



Out of the targeted 11,880 households, 11,626 (97.8%) participated in the survey, and basic demographic information was collected from 40,617 household members in the NHS 2023. The response rate for individuals aged 15-69 years was 95.4% and for women aged 15-49 years was 86.7%.

WASH

Almost all households (99.7%) and the population (99.7%) have access to improved sources of drinking water. Basic drinking water service is defined as drinking water obtained from an improved source where either the water is available on the premises or the round-trip collection time is 30 minutes or less. The percentage of both households and the population with basic drinking water service was 98.8%. Improved sanitation facilities were used by 99.1% of households, with 55.3% of households and 55.6% of the population having sanitation facilities within their own dwellings. Access to basic sanitation services, which includes improved facilities not shared with other households, was available to 83.8% of the population, while 81.4% have access to safely managed sanitation services. Despite these high rates, about 0.2% of households still practiced open defecation during the data collection. Additionally, 99.5% of the population had designated places for washing hands, with 94.7% having water available and 96.9% having soap at these locations.

Mortality

Half of the deaths occurred at home (50.9%) and three fourth of the deaths were due to illnesses (78.1%). The crude death rate was 10.2 deaths per 1000 populations. The Maternal Mortality Ratio (MMR) was 53 deaths per 100,000 live births. The neonatal mortality rate was 6.9, the infant mortality rate was 15.2, and the under-five mortality rate was 19.5 per 1000 live births.

Disability

The prevalence of self-reported disability was 6.8%. The prevalences by the six functional domains were vision (1.8%), hearing (2.0%), mobility (2.0%) communicating (0.8%), self-care (2.4%) and cognition (1.5%).

Malaria

The proportion of households with at least one LLINS available was 84.1%. The utilization of the LLINS by the population decreased from 92.2% in 2017 to 72.6% in the NHS 2023.

Eye health

About 67.9% of newborns received an eye examination within 72 hours after birth. However, only 31.3% of children aged less than 5 years (0-59 months) underwent a vision screening beyond the initial 72 hours post-birth. Among individuals aged 15-69 years with raised blood sugar, 51.4% received an eye examination following their diagnosis.

Health care access, utilization and household health expenditures

Hospitals were reported as the nearest health facility for 55.8% of households and Primary Health Centers (PHCs) for 34.4% of households in Bhutan. Almost three out of four (72.9%) households were within a 30-minute travel time from the nearest health facility.



In the 12 months preceding the survey, 79.7% of the population visited health facilities for health concerns and 91.2% of them were satisfied with the services received. Consultations with a *Drungtsho or sMenpa* were reported by 22.9% of those who sought medical care. There were 2.8% of households who reported to have accessed health services outside Bhutan. On average, households spent Nu. 1001 per month on healthcare, constituting 5.6% of total household consumption expenditure. Additionally, households spent an average of Nu. 5485 per month on spiritual and religious activities.

Willingness to pay

The willingness to pay (WTP) for one quality-adjusted life year (QALY) was Nu. 101,285 (95% CI: 94,682-107,889), equivalent to \$4,963. For five QALYs, the WTP was Nu. 238,220 (95% CI: 220,423-256,017), equivalent to \$11,672. These values represent 0.26 to 0.8 times the GDP per capita

Place of delivery and birth attendant

The institutional delivery rate was 98.0% and births attended by skilled workers was 98.5%. The cesarean section rate was 29.3%. About 81.1% of newborns had skin-to-skin contact with their mothers immediately after birth.

Family Planning

The contraceptive prevalence rate was 74.2%. The most popular method was injectables (22.1%). The overall unmet need for family planning among currently married women age 15-49 was 8.5%.

Fertility

The total fertility rate for the three years preceding the survey was 2.0 births per woman. The median age at first birth among women aged 25-49 was 22.8 years. Regarding teenage pregnancy, 4.5% of women aged 15-19 have ever been pregnant, 1.1% were currently pregnant, and 3.1% have had a live birth.

Fertility preferences

Among women surveyed, 59.0% expressed that they do not desire to have more children, while 7% indicated a desire to have another child soon. The mean ideal number of children per family among women was 2.1.

Marriage and sexual activity

Among women aged 15-49 years in Bhutan, 63.5% were currently married and 16.9% were never married. The median age of marriage among women in Bhutan was 20.8 years. The median age at first sexual intercourse for women aged 25-49 was 20.3 years.

Child Size and weight at birth

Among all births, 98.6% had records of birth weight with them during the interview. The prevalence of low birth weight (less than 2.5 kg) was 6.9%.

Immunization

Among children aged 12-23 months, 99.4% received all basic vaccinations as evidenced by card and history and 100% of children aged 24-35 months have received all basic vaccinations.

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Child Health and Care seeking Behavior

Among children under the age of five, 2.5% experienced symptoms of acute respiratory infection (ARI) in the two weeks prior to the survey, and advice or treatment was sought for 64.7% of these cases. In the same period, 36.4% of children had a fever, with 60.9% of them seeking advice or treatment. Similarly, 17.7% of children under the age of 5 had diarrhoea during the same timeframe, and 52.6% sought advice or treatment for it.

Soil Transmitted Helminths (STH)

Among children 6 to 12 years of age, 0.4% had Soil Transmitted Helminths (STH) and 3.1% had other intestinal protozoan parasites. The overall prevalence of either STH or intestinal protozoan parasites was 3.5%.

Household food security and dietary diversity

Household food insecurity was reported by 5.1% households. A poor food consumption score was reported by 0.3% of households, while 3.7% of households had a borderline food consumption score. Dietary diversity patterns show a homogeneous food consumption pattern across rural and urban areas and income quintile groups.

Child nutrition

In terms of nutritional assessment of children under five years, 5.1% were wasted (too thin for their height), 17.9% were stunted (too short for their age), and 8.7% were underweight.

Anemia

The prevalence of anemia was 36.5% among adolescent girls, 33.3% among pregnant women, and 40.9% among women of reproductive age.

Micronutrient and Iodine Deficiency Disorder (IDD)

The prevalence of micronutrient deficiencies was as follows: Vitamin D (91.4%), ferritin (50.6%), folate (38.1%), vitamin B12 (29.5%), calcium (19.7%), vitamin A (0.3%), vitamin B1 (3.1%), and vitamin B2 (9.0%). The percentage of households using iodized salts (iodine content \geq 15 ppm) was 95.07%. The overall median urinary iodine excretion was 119 µg/L.

Alcohol

Among the Bhutanese population aged 15-69 years, 40.2% consumed alcohol in the past 12 month and 34.5% consumed alcohol in the past 30 days, 48.7% had never consumed alcohol in their life, and 11.1% were former drinkers. Among those who consumed alcohol in the past 30 days, 39.8% indulged in heavy episodic drinking.

Among those who consumed alcohol in the past 12 month, 5.1% reported daily or almost daily consumption. Beer was the most popular beverage (56.2%), followed by home-brewed Ara/ Shingchang (30.5%), with wine being the least consumed (6.6%).

Home-brewed alcohols

Among households in Bhutan, 30.7% brew local alcohol at home. The average ethanol concentration was $15.1\pm7.9\%$ v/v, ranging from 1.3% to 48.1% v/v. Methanol, a toxic form of alcohol, was detected in 17.7% of the samples, with concentrations ranging from below the limit of detection (0.000085% v/v) to 2.0% v/v.

Prevalence of Tobacco Use

Among individuals aged 15-69 years, 31.4% were current users of any tobacco products and 14.4% were current smoker. The mean age of smoking initiation was 18.2 years. Of current smokers, 65.5% smoke daily. One in five Bhutanese experienced second-hand smoke exposure at home, while more than shalf of the Bhutanese were exposed to it in the workplace. The percentage of current smokers who tried to stop smoking was 64.6%.

Areca nut and/or areca nut-containing products

Among individuals aged 15-69 years, 59.7% currently use areca nut and/or areca nut-containing products. Among the current users, 45.4% uses areca nut and/or its product daily. Among Bhutanese youths aged 15-24 years, over half (54.7%) were current users. The highest prevalence (64.5%) was observed among individuals aged 25-39 years and the lowest (51.1%) among those aged 55-69 years.

Dietary habit

The mean daily intake of fruits and vegetables among people aged 15-69 were 1.6 servings and 3.7 servings, respectively. The combined mean daily intake of fruits and vegetables was 5.3 servings. The prevalence of insufficient fruits and vegetable intake (<5 serving a day) was 74.6%.

Dietary salt

The population's average daily salt intake was 8.5 g, with men averaging 9.4 g and women 7.4 g. A notable portion (18.2%) frequently added salt or salty sauce to meals, and 11.7% consumed processed foods high in salt. The percentage of people who frequently consumed salted tea was 10.7%.

Physical Activity

The percentage of population with insufficient physical activity was 18.3%. The average percent contribution to overall physical activity was 60.1% from work, 20.6% from travel and 19.2% from recreational activities.

Adult Anthropometry

The mean Body-Mass Index (BMI) for the population aged 15-69 years was 25 kg/m², with women averaging a higher BMI of 25.7 kg/m² as compared to 24.4 kg/m² in men. One out of three of people was found to be overweight, more than one in ten (12.5%) were obese and a small percentage (4.0%) were underweight.

Raised blood pressure

The prevalence of raised blood pressure was 30.3%. Among those with raised BP, 62.6% were unaware of their status, 16.7% were aware of diagnosis but not on treatment, 13.0% were under treatment but had not achieved BP control. Only 8.1% were on treatment with their BP successfully controlled.

Raised blood sugar

The prevalence of raised blood sugar was 5.6% (95% CI: 4.3 to 7.3). Among people aged 15-69 years, 38.4% had ever had their blood sugar measured by a doctor or healthcare provider. Around 59.4% of the people with raised blood sugar were unaware of their raised blood sugar levels. Among those who were aware, 1.3% were not undergoing any treatment, 13.5% were on treatment but their blood glucose levels remained uncontrolled, and 25.8% were on treatment and with controlled blood sugar.

Raised blood cholesterol

Among population aged 15-69 years, the prevalence of raised blood cholesterol was 20.9%. Among those with raised blood cholesterol levels, 90.5% were unaware of their elevated cholesterol levels. Among those with raised blood cholesterol levels, 2.4% were not receiving treatment, 0.9% were on treatment but have not achieved control, and 6.1% were on treatment with controlled cholesterol levels. Among population aged 15-69 years, 16.4% had ever had their blood cholesterol measured by a healthcare professional.

Cardiovascular diseases

About 4.5% of people aged 15-69 years and 5.1% of people aged 40-69 years had ever had a heart attack or chest pain from heart disease or stroke. About 5.3% of people aged 40-69 years had a predicted 30% or more risk of having a fatal or non-fatal major cardiovascular event (myocardial infarction or stroke) in the next 10 years based on WHO/ISH risk prediction charts.

Cervical and Breast Cancer Screening Coverage

The survey found that 87.1% of women aged 30-65 years had been screened for cervical cancer, with rural women showing slightly higher coverage than their urban counterparts. In contrast, only 54.5% of women aged 40-65 years had undergone breast cancer screening, with no significant difference in coverage between rural and urban areas. These findings highlight the strong progress in cervical cancer screening, while underscoring the need for improved efforts in breast cancer screening.

Mental health

Among peopled aged 15-69 years in Bhutan, 0.8% had moderate to severe depression and 12.1% experienced mild depression. In terms of anxiety, 0.4% had severe anxiety and 1.4% showed moderate anxiety. Among peopled aged 15-69 years in Bhutan, 0.6% seriously considered attempting suicide in past 12 months (0.8% women, 0.4% men) and 1.6% had history of suicide attempt in the past. About 2.3% had history of close family members who died by suicide. About 7.5% used marijuana and 2.7% used inhalants in their lifetime. The percentage of individuals aged 15-69 years diagnosed with a mental health disorder was 2.8% and whose family members were diagnosed with a mental health disorder was 4.6%. The percentage of individuals aged 15-69 years who talk to professional clinician while experiencing serious emotional distress was 16.8%.

Violence against women (VAW) and girls

Among women aged 15-64 years, 43.9% believed that a man is justified in hitting his wife for one or more of the seven reasons asked during the interview. There was near-unanimous agreement (99.5%) that it is acceptable for a woman to refuse sex under certain circumstances. Among everpartnered women, 29.0% reported experiencing controlling behaviors at some point in their lives,



with 18.3% facing such behaviours in the past year. Among ever-partnered women, 16.4% had ever faced physical violence and 6.9% had ever had sexual violence, and 17.5% had endured emotional violence at some point in their lives. In the past 12 months, 4.4% experienced physical violence, 2.6% faced sexual violence, and 8.5% endured emotional violence. Percentage of ever-partnered women aged 15-64 years who reported physical or sexual or emotional violence or controlling behaviours or economic violence at some point in their lifetime was 39.7% and in the previous 12 months was 23.6%.

In terms of non-partner violence, 11.0% of women experienced physical violence and 1.3% experienced sexual violence from non-partners at some point in their lives. The non-partner violence figures for the past 12 months were 2.2% and 0.5%, respectively.

Child Discipline

Four out of five (82.2%) children aged 1 to 14 years experienced some form of violent disciplining from adult family members. Among children aged 1 to 14 years, 18.3% have experienced severe form of physical punishment, and 73.5% had psychological aggression. The percentage of mothers/ caretakers who believed that a child needs to be physically punished was 29.8%.

Conclusion

The National Health Survey (NHS) 2023 provided a comprehensive and detailed overview of Bhutan's health landscape, reflecting both progress and areas requiring attention. The survey findings indicate high coverage in critical areas such as water, sanitation, immunization, and healthcare access, demonstrating Bhutan's ongoing commitment to improving the health and wellbeing of its citizens. However, the findings also highlight persistent challenges, including rising levels of non-communicable diseases, mental health issues, substance abuse, and gaps in nutritional outcomes. Additionally, significant societal issues like violence against women and child discipline practices require continued intervention and policy focus.

The findings from NHS 2023 offer a robust evidence base for the Royal Government of Bhutan to shape future health strategies and interventions and for individual citizens to make the best decision for their health. These findings will directly inform the 13th Five-Year Plan (2024-2029) and support Bhutan's broader goal of achieving a High-Income Gross National Happiness (GNH) Economy by 2034. Addressing the highlighted gaps, particularly in non-communicable diseases, mental health, and social determinants of health, will be crucial in advancing Bhutan's Development agenda and achieving both the Sustainable Development Goals (SDGs) and national priorities. This survey underscores the importance of sustained efforts in public health and the need for targeted programmes to address emerging health challenges while building on the successes achieved thus far.



Introduction and Method



1.1 Background

The National Health Survey (NHS) is a periodic event of the Ministry of Health (MoH) and National Statistics Bureau (NSB) which is conducted every 10 years since 1984 to monitor trends in the population health situation in Bhutan. The NHS 2023 is the fifth such survey implemented by the MoH in collaboration with the NSB, following those implemented in 1984, 1994, 2000, and 2012.

The survey took into account of both national and global priority health indicators including indicators for 12th and 13th Five-Year Plans and Sustainable Development Goals (SDGs) ^(1,2). Unlike past surveys which were largely confined to traditional demographic health survey modules, NHS 2023 is a landmark survey in terms of its magnitude and scope. The survey consolidates relevant modules of 14 health-related surveys which are being periodically conducted. Some of the indicators are assessed for the first time in the country. The specific surveys integrated into NHS 2023 are:

- 1. National Health Survey (conventional DHS-based)
- 2. Bhutan Multiple Indicators Survey
- 3. Cost-Effectiveness Threshold & Quality of Life (EQ 5D) Survey (first time in the country)
- 4. Iodine Deficiency Disorder Survey
- 5. National Immunization Coverage Survey
- 6. National Malaria Indicators Survey (high-risk areas)
- 7. National Mental Health Survey (first time in the country)
- 8. National Micronutrients Survey (first time in the country)
- 9. National Nutrition Survey (including MIYCN)
- 10. National Survey of Drugs
- 11. NCD STEPS Survey (Core modules)
- 12. Soil Transmitted Helminths (STH) Survey
- 13. Violence Against Women & Girls
- 14. Water, Sanitation and Hygiene (WASH) Survey

The consolidation of various surveys and data collection mechanisms into a single consolidated survey was intended to generate reliable and consistent nationally representative data, improve efficiency and cost-effectiveness in the use of resources, and minimize survey fatigue among the people. Consequently, a cost saving of Ngultrum 384 million (~USD 4.8 million)¹ is estimated from integrating the 14 independent surveys into a single consolidated NHS 2023.

The findings of the survey are expected to support the Ministry of Health and other relevant stakeholders in formulating evidence-based health policies, plans, and interventions. The timing and scope of the NHS 2023 are even more critical as Bhutan is currently preparing the 13th FYP and other long-term plans for the country. The results will be particularly useful for target setting, monitoring and accountability

¹ This is an estimated figure based on the available information. A district-level representative household-based survey in Bhutan usually costs around Ngultrum 32 million (~USD 0.4 million) per survey cumulating to approximately Ngultrum 416 (~USD 5.6 million) for 14 surveys. A cost saving of about Ngultrum 384 million (~USD 4.8 million) is estimated as a result of the consolidation.



in health service planning and service delivery, as well as ease resource mobilization and coordination efforts with developmental partners.

The objectives of NHS 2023 are:

- 1. Monitor trends in population health through timely and reliable data on population health status, risk factors, and outcomes;
- 2. Strengthen baseline information on emerging health issues such as non-communicable diseases and health emergencies;
- 3. Examine trends in health service access and utilization as well as peoples' perception on quality of care, affordability and willingness to pay for health;
- Provide inputs for national development policies and planning such as the 13th five-year plan, health policies and legislation as well as track progress on internationally agreed instruments such as the WHO Framework Convention on Tobacco Control (WHO FCTC), and the Sustainable Development Goals; and
- 5. Provide evidence-based data to guide public health interventions and resource allocation.

1.2 Survey Structure

1.2.1. SURVEY IMPLEMENTING ORGANIZATION

The implementation of NHS 2023 was led by the Ministry of Health in collaboration with the National Statistics Bureau. The Health Information and Research Unit under Policy and Planning Division, Ministry of Health, was the secretariat for NHS 2023. The survey coordination was supported by two main committees: a National Steering Committee and a Technical Working Group (TWG). Dzongkhag teams spearheaded by respective Dzongdas were formed for oversight, spot monitoring and quality assurance during data collection.

The National Steering Committee was formed to provide oversight, facilitate decision-making, and provide strategic guidance and support to ensure the implementation of the survey to achieve the desired outcome. The members of the committee include high-level officials of the Ministry of Health and other development partners/institutions (Annex 1).

The TWG was established to provide technical guidance and inputs on the design and conduct of the survey including the development of the survey questionnaire, preparation of interview manuals, field testing, training of survey supervisors and interviewers, and other technical oversight related to the survey (Annex 2).

Apart from the Steering Committee and TWG roles, the NSB spearheaded the sample design, stratification and sampling weights for NHS 2023. In ensuring the relevance of the data collection, programme managers of the various departments under the Ministry of Health were consulted about their respective data requirements. Technical experts from Hitotsubashi University, UNFPA, UNICEF, WFP and WHO validated the consolidated survey questionnaires. Professionals from UNFPA and UNICEF provided special training sessions on ethical and safety recommendations for research on domestic violence against women, research on persons with disabilities, and research on children.



1.2.2 Survey Design and Implementation

The key principle underlying the design of NHS 2023 was to make data comparable to those in the past national health surveys (1984, 1994, 2000 and 2012) while also maintaining international comparability, particularly for global indicators used in monitoring SDGs.

At the same time, extreme caution was taken to ensure that the survey instruments were robust, redundancies were minimized and the quality of data was preserved. The selection of topics was guided by the objectives of the survey, the national health priorities, and the technical and financial feasibility of collecting the information. In situations where the survey was unable to serve the purpose of collecting comprehensive information, questions were only targeted to collect the baseline information that can be used for further exploration in the future. Due to feasibility considerations, the prevalence and putative sources of blood lead among children and pregnant women were decided to be carried out as a follow up survey.

Data for the survey was collected through three steps. STEP 1 was the interview of participants; STEP 2 involved physical measurements to assess blood pressure, height, and weight; and STEP 3 included measurement of biochemical parameters. The target population for this survey were Bhutanese population who were permanent residents in the country during the time of the survey. The survey instruments consisted of four main modules – the Household module, the Individual module (15-69 years), the Women and Child module, and the Physical Measurement and Biochemistry Module.

The Household module collected demographic information about all the members of the household and information about the household as a social and economic unit. It includeds sections to collect information on mortality, disability, income and expenditure, health status, and willingness to pay for health gain. The head of the household or any knowledgeable member of the household responded to the questions in this module. Household salt samples were also collected and assessed for salt iodine content. Alcohol samples were collected if the sampled household brewed alcohol. Child discipline questions were asked to the mother or the caregiver of the randomly selected child aged 1-14 years.

The Individual module collected information on the knowledge and behavior of individuals about a wide range of health-related issues. One randomly selected household member (aged 15 - 69) responded to the questions in this module.

The Women and Child Module was designed for female aged 15-49 to collect data related to reproductive and maternal health, violence against women (VAW), immunization, and nutrition (including IYCF). VAW questions were asked to women aged 15-64 in the women module. In addition, the immunization section was also used to determine the coverage of child immunization (BCG, hepatitis, polio, measles and rubella), and tetanus toxoid for pregnant mothers. Information about immunization received was primarily based on the Maternal and Child Health (MCH) handbooks issued by the Ministry of Health. Verbal reports were used in cases where such Health Cards are not available. The cervical cancer and breast cancer screening questions were asked to women aged 30-65 and 40-65 respectively.

The physical measurement section included measuring the height and weight, and blood pressure of all the selected individuals. The STEP 3 (biological sample collection section) included the collection of stool, urine, and blood samples from the targeted population groups.

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1.2.3 Administrative and Ethical Clearance

Administrative approval was accorded by the High Level Committee of the Health sector (HLC). The ethical clearance was granted by the Institutional Review Board (IRB), Khesar Gyalpo University of Medical Sciences of Bhutan (KGUMSB) and Research Ethics Board of Health (REBH), Ministry of Health, Bhutan. The clearance was obtained from the Ministry of Home Affairs for the field work of the survey. Written informed consents were obtained from the participants or their guardians. Respondents were explained about the purpose of the survey including the confidentiality, privacy, and benefits of the survey. The field teams were provided special training sessions on ethical and safety recommendations for research on domestic violence against women, research on persons with disabilities, and research on children.

1.3 Survey Methodology

1.3.1 Sampling Frame

NHS 2023 adopted the sampling frame developed by the National Statistics Bureau based on the 2017 Population and Housing Census (updated in 2022 with the addition of Enumeration Areas and household listing in rural areas). The Primary Sampling Units (PSU) are Enumeration Areas (EA) in both rural and urban areas, with the inclusion of smaller Chiwogs in rural areas as PSUs in certain isolated instances.

1.3.2 Sample Design

NHS 2023 is designed to produce estimates at the national level for both rural and urban areas, and for 20 Dzongkhags and four Thromde. The rural and urban areas in each of the Dzongkhag and Thromdes were defined as the sampling strata.

A stratified two-stage sampling method was adopted, where PSUs were selected in the first stage and households were selected in the second stage. From the sampling frame, the PSUs were selected through Probability Proportional to Size (PPS) with the number of households as the size of the variable. All the households in the selected PSUs were listed using Circular Systematic Sampling (CSS) method to select households in each PSU. Twelve households were selected from each PSU in both urban and rural areas. Furthermore, two households were randomly selected from each PSU for willingness to pay for health gains questionnaires.

Sample size and sample allocation: There are 24 survey domains (20 Dzongkhags and 4 Thromdes) and the sample size for each domain was estimated using the following formula;

$$n=\frac{z^2 p(1-p)(f)(k)}{e^2}$$

where:

n is the required number of households

z is the value of the statistic in a normal distribution for a 95% confidence interval (this value is 1.96)

p is the general fertility rate. GFR is used from the 2017 PHCB

e is the acceptable margin of error in estimating p; set at 3%

f is the sample design effect, assumed to be 2.0

k is the adjustment factor for an anticipated non-response of 5%



Based on the above formulae, the total sample of 11,880 households was estimated at the national level. The estimated sample size in each survey domain was then allocated to urban and rural areas in proportion to their size, where the size was measured by the number of households. The sample size across 24 domains and allocation to urban and rural areas is presented in Table 1. For sample allocation, 70% importance was accorded to the national-level indicators and 30% to the survey domain using the compromise allocation technique. Lunana was excluded from this survey due to its inaccessibility during the survey period.

Describer /Throwste	Households						
Dzongknag/Thromde	Urban	Rural	Total				
Bumthang	144	204	348				
Chhukha	108	492	600				
Phuentsholing Thromde	468	-	468				
Dagana	72	360	432				
Gasa	96	168	264				
Наа	60	252	312				
Lhuentse	36	276	312				
Monggar	132	444	576				
Paro	168	480	648				
Pema Gatshel	132	312	444				
Punakha	96	348	444				
Samdrup Jongkhar	48	384	432				
Samdrup Jongkhar Thromde	288	-	288				
Samtse	156	732	888				
Sarpang	48	492	540				
Gelephu Thromde	288	-	288				
Thimphu	24	384	408				
Thimphu Thromde	1,488	-	1,488				
Trashigang	120	564	684				
Trashi Yangtse	72	288	360				
Trongsa	72	264	336				
Tsirang	60	348	408				
Wangdue Phodrang	156	408	564				
Zhemgang	72	276	348				
Total	4,404	7,476	11,880				

Table 1.3.a Sample Size Allocation by Dzongkhag & Area [Bhutan NHS 2023].

Access to Health Services

1.3.3 Sampling process for STEP 3

The sampling frame was prepared after collecting general household information from all the sampled households in selected PSUs. Based on the target population for different laboratory tests, the required samples were randomly selected for each laboratory test individually. The target population and sample sizes for each laboratory test are as follows;

Parameters Target populationSample size							
Non-Communicable Disease (NCD) screening -Fasting Blood Glucose -Total Cholesterol -Triglycerides -HDL -LDL -Urine sodium and creatinine	Population aged 15-69 years	1 male and 1 female per PSU					
Blood Haemoglobin	Children aged 6-59 months Adolescent girls (aged 10-19 years) Pregnant women aged 15-49 years Non-pregnant women aged 15-49 years	1 pregnant woman per PSU 1 non-pregnant woman per PSU 1 adolescent girl per PSU 1 child per PSU					
Urine lodine Excretion	Children aged children 6-12 years Women aged 15-49 years	1 child per PSU 1 pregnant/lactating woman per PSU					
Soil-Transmitted Helminths (STH)	Children aged 6-12 years	1 child per PSU					
Micronutrients	Women aged 15-49 years Adolescents aged 10-19 years (both sex)	1 woman per PSU 1 adolescent per PSU					
Alcohol	Household	1 sample per PSU					
lodized salt coverage	Household salt sample	All Household					

Table 1.3.b Target population and sample size [Bhutan NHS 2023].

1.3.4 Questionnaire design and translation

The questionnaire was built on the Survey Solutions platform. Considering that the majority of local dialects are unwritten, the questionnaire for NHS 2023 was developed exclusively in English. However, interviews were conducted in the language or dialect deemed most appropriate by the interviewers. Measures taken to avoid potential mistranslation or variable translation of the questionnaire included recruitment of interviewers familiar/proficient with both reading and spoken English, posting interviewers in their own hometowns or areas/regions where they are proficient with the local language/dialect, and comprehensive trainings at the national level with the attendance of all interviewers. Training of interviewers included discussions on translating certain questions, especially those that are complicated and likely to be interpreted in variable ways. In addition, a list of English technical terms used in the survey was translated into predominant local languages, printed and distributed to all interviewers. Furthermore, experiences from previous surveys indicated that the use of an English language questionnaire for data collection did not pose serious problems.



1.3.5. Pretesting the questionnaire and manuals of instructions

Pretesting of the questionnaire and instructions manual was done by TWG members. Pretesting provided insights into the accuracy of the skip patterns and the average duration of an interview session per household, informing survey administration and logistical decisions. Pretests were conducted in areas that were not selected for the main survey to prevent contamination of the survey results.

1.3.6. Training of field staff

The training of enumerators was conducted in Thimphu for 10 days from 10th May to 19th May 2023. The contents of the training were drawn mainly from the Interviewer's Manual and was focused on understanding the features of the questionnaire, question structure, meaning of each question, likely response it intends to elicit, and how to record the responses provided by the respondents. There were additional sessions on household listing, selection of sample households and tips to conduct a successful interview. Programmatic domain and subject experts were invited to cover the training sessions on various thematic areas. Mock interviews were organized to evaluate interviewing skills with immediate expert feedback. In addition, team supervisors underwent an extra 2 days of training on how to discharge their function as team supervisors and as field editors based on the Supervisor's Manual. Upon completion of the training, all enumerators were assigned for field practice in areas that were not selected for the actual survey and a discussion and feedback session was conducted on the following day.

1.4 Data Collection

Data and sample collection was conducted from 19th May 2023 to 31st July 2023. The country was zoned into 24 sampling domains and a supervisor was assigned to oversee the field work in their respective areas. Data collection was carried out by a total of 90 teams consisting 270 interviewers using a team approach. The teams were led by health professionals and every team had a male and a female to handle gender-sensitive questions. Additionally, 24 lab professionals were recruited for the biological sample collection with each one supported by a university graduate. District/Thromde Teams were also formed to provide necessary logistical support to the survey teams under their jurisdiction.

The team supervisor was in charge of the team for the logistic organization and supervision of the team's daily work. As concurrent field editor, he/she was also in charge of checking the quality of the interviews, both by reviewing all questionnaires and observing interviews.

Survey teams were assigned sample areas considering their proficiency in the local language/dialect. Upon arrival at the enumeration area, the first day was used for household listing in the area. Sample households were then drawn from the list by the team supervisor following the prescribed procedure. He/she then assigned interviewers to visit and interview specific sample households. Data for the field interviews were collected using the Computer Assisted Personal Interviewing (CAPI) method. The data collection/ sample collection consisted of the following steps:-

- 1. Step 1: Questionnaire based data collection and salt and alcohol sample collection;
- 2. Step 2: Physical measurements (BP, Height, weight);
- 3. Step 3: Biological sample collection conducted on the following day by lab professionals;



If an interview could not be completed with the first visit, the interviewer went back at least 2 times to that household and attempted to complete the interview. If the interview could not be completed even after making repeated attempts, then that household was considered a non-response case. When most of the team had finished work but one or two callbacks remained for another day, the team moved to the next sample area leaving one interviewer behind to complete the callbacks, if the next sample area was not too far away. Otherwise, the whole team stayed together until all work in the area was completed.

1.5 Data Quality Control

The quality of data was emphasized in every step of the planning and execution of the survey to ensure integrity in the data collection process and the quality of collected information and samples. To minimize errors during data collection, a system of multi-level supervision was established. The first level of supervision was provided by the team supervisors who were responsible for closely monitoring the work of the teams. The team supervisor ensured that all sampled households were canvassed and all eligible respondents were contacted. They are required to observe at least one interview each by his/her interviewers and take corrective measures as relevant. As field editors, team supervisors were also responsible for reviewing all completed questionnaires for accuracy and completeness, ideally before leaving an enumeration area. In addition, field level verification of data was carried out through cumulatively tabulating certain statistics about the target population and matching them with criteria established to determine the possible range of values. In cases where data was missing or deemed grossly inaccurate, the relevant interviewers would go back to the household to collect or correct the information. For the second level of supervision, an independent consultant was hired and tasked to perform high-frequency checks on the collected data.

In addition, members of the Technical Working Group and the survey secretariat carried out monitoring and supervision visits, unannounced, at least one at the beginning of the fieldwork and one towards the end of the survey using a standard checklist. Spot checks were also carried out by members of the National Steering Committee.

1.6 Laboratory Tests and Process

Physical measurements (anthropometry and blood pressure) were carried out in the household during the interview by the health professional (interviewer) for a randomly selected individual. The rapid tests (Hb, blood glucose) were conducted on the spot and samples of home brewed alcohol were collected. Samples for wet chemistry (blood, urine, and stool) were collected by laboratory professionals the next day and transported to the RCDC and JDWNRH to test for micronutrients, lipid profiling, STH and urine sodium, creatinine and iodine. Testings of Vit A, Vit B1 & Vit B2 were outsourced to the JDWNRH's collaborating lab in India. The collection, transportation, testing and storage of the biological samples followed the national and international standard operating procedure (Annexure 4).

As a part of validation, STH qPCR testings were carried out for a selected set of sub-samples at Christian Medical College (CMC) Vellore, India, free of cost. All 27 positive samples (by wet mount microscopy) were included for qPCR testing. For the negative samples, experts from CMC selected samples proportionate to the number of samples collected from each of the Dzongkhags bringing the total to 127 samples. This ensures the samples collected from the Dzongkhags are proportionately tested.



1.7. Data Processing and Analysis

A series of data cleaning, sorting, processing, and imputations were performed by TWG and the survey secretariat until the entire data set could be considered 'clean and acceptable.' The process included verification of data by independent consultants managing the Survey Solutions platform and High Frequency Checks (HFC).

Sampling weights were computed and attached to the data file prior to the generation of the final statistical tables. All tabulation programmes were developed using STATA.

Guide to DHS Statistics DHS-8,sss including STATA do files available in <u>https://github.com/DHSProgram/DHS-Indicators-Stata</u> was used for tabulations and analyses. The WHO's STEPwise approach to NCD risk factor surveillance (STEPS) methodology was used for tabulations and analyses of NCD related tables. ⁽³⁾

Chapter 2

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Population and Housing



2.1 Demographic Information

Background

The National Health Survey 2023 gathered health indicators alongside demographic and socioeconomic data from households. Demographic details, including age, gender, socioeconomic status, and geographic distribution, are fundamental for understanding health dynamics. These factors illuminate how individual characteristics intersect with health outcomes. The survey offers insights into prevalent health challenges, resource allocation, and the effectiveness of targeted interventions across diverse demographic groups.

Household population by age, sex and residence

In NHS 2023, demographic information of 40,617 individuals were collected. Of these individuals, 47.3% were males and 62.6% were from rural area. Rural residents constituted almost twice the proportion of urban residents (34.4%). The majority of individuals fell within the age brackets of 15-64 years (65.1%) and under 15 years (25.8%), while 9.1% were aged 65 years and older.

Table 2.1.a Percent distributions of the de facto household population by various age groups according to sex and residence [Bhutan NHS 2023].

A <i>n</i> o	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	10.6	8.3	9.4	8.4	7.7	8.0	9.2	8.0	8.6
5-9	10.1	8.7	9.4	9.3	7.9	8.6	9.6	8.2	8.9
10-14	10.2	9.0	9.6	7.8	7.6	7.7	8.7	8.1	8.4
15-19	7.9	7.9	7.9	5.4	5.3	5.4	6.3	6.2	6.3
20-24	6.0	7.5	6.8	4.5	4.5	4.5	5.1	5.6	5.4
25-29	8.7	10.1	9.4	5.9	6.7	6.3	6.9	8.0	7.5
30-34	9.1	11.3	10.2	7.9	8.5	8.2	8.3	9.5	9.0
35-39	10.2	10.7	10.5	7.5	8.6	8.1	8.5	9.4	9.0
40-44	7.5	7.8	7.7	7.4	7.9	7.7	7.4	7.9	7.7
45-49	5.8	5.5	5.7	6.6	7.3	6.9	6.3	6.6	6.5
50-54	4.8	3.5	4.1	6.0	6.6	6.3	5.5	5.4	5.5
55-59	2.9	2.8	2.9	5.6	5.8	5.7	4.6	4.7	4.6
60-64	2.0	2.3	2.2	4.9	4.6	4.7	3.8	3.8	3.8
65-69	1.5	1.5	1.5	4.6	4.0	4.3	3.5	3.1	3.3
70-74	0.9	1.1	1.0	3.3	2.9	3.1	2.4	2.2	2.3
75-79	0.6	0.7	0.7	2.3	1.8	2.0	1.7	1.4	1.5
80 +	1.1	1.2	1.1	2.5	2.4	2.5	2.0	2.0	2.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dependency age group	os								
0-14	30.9	26.0	28.3	25.5	23.2	24.3	27.5	24.3	25.8



A	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
15-64	64.9	69.5	67.3	61.7	65.7	63.8	62.9	67.1	65.1
65+	4.1	4.5	4.3	12.7	11.1	11.9	9.5	8.6	9.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Child and adult popula	Child and adult populations								
0-17	35.7	30.7	33.1	28.8	26.4	27.5	31.4	28.0	29.6
18+	64.3	69.3	66.9	71.2	73.6	72.5	68.6	72.0	70.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Adolescents 10-19	18.1	16.9	17.4	13.3	12.9	13.1	15.1	14.4	14.7
Number of persons	7,292	7,915	15,207	11,955	13,455	25,410	19,247	21,370	40,617

The table above shows the distribution of population by overall dependency age groups, by sex and age of residence. The dependency ratio provides a simple summary measure of age composition with reference to percentage of dependent groups. The ratios are based on a division of age range into three board categories, namely: children (0-14), the working age group (15-64) and old age (65 years and above). The table shows the distribution of household population by overall dependency ratio, age groups, sex, and residence.

The total dependency ratio for Bhutan is estimated at 65.1 per 100 people of the working age group (15-64 years). The child and old aged dependency ratio are estimated at 25.8 and 9.1, respectively.



Figure 2.1.1 Dependency Ratio [Bhutan NHS 2023].

The population pyramid of Bhutan, as per NHS 2023, is characteristic of a developing country, with a broad base indicating a large proportion of young people and a narrow top representing fewer elderly individuals. The largest age groups were those below 20 years, particularly the 5-9 and 10-14 age groups, each making up around 8-10% of the population for both males and females, suggesting a relatively high birth rate in recent years. The gender distribution was fairly balanced across most age groups, with slightly more males in the younger cohorts and a small surplus of females in the older cohorts. The 20-49 age group comprised a significant portion of the population,



indicating a potentially large workforce, though there was a noticeable decline in population size with increasing age within this bracket. Compared to the PHCB 2017 pyramid, there was a marked decrease in the 20-39 age group, possibly highlighting the significant attrition Bhutan has experienced in these age groups over the past few years.



Figure 2.1.2 Bhutan's population pyramid as per NHS 2023 [Bhutan NHS 2023].

2.2 Water, Sanitation and Hygiene

Key Findings

- Overall, almost all households (99.7%) and the population (99.7%) had access to improved sources of drinking water.
- A notable portion of the population had water on their premises, with 66.3% of households and 67.1% of the population reporting this. Excluding those with water on premises, 32.8% households and 32.0% population spent 30 minutes or less on a round trip to obtain drinking water.
- The proportion of population with basic drinking water services was 98.8%.
- Triangulating the data from this survey and the National Drinking Water Quality Surveillance Report 2023 by the RCDC, using the JMP methodology, the proportion of the population which used safely managed drinking water services could be 63.0%.
- A significant proportion of households (99.1%) and population (99.3%) used improved sanitation facilities.
- More than half of the households (55.3%) and the population (55.6%) had sanitation facilities within their own dwelling. 44.1% of households and 43.8% of the population, had facilities in their own yard/plot.
- A large majority of the population (83.8%) had access to basic sanitation services, defined as improved facilities not shared with other households. About 0.2% of the household still practiced open defecation.

- 81.4% had access to safely managed sanitation service.
- 99.5 % of the population had places for washing hands.
- 94.7% had water available for hand washing and 96.9% had soap available for hand washing at the place for washing hands.
- 92.6% of the de jure population had a basic hand washing facility

Background

Since the 1960s, Bhutan prioritized safe water and sanitation, launching the RWSS in 1974. The Royal Government of Bhutan had prioritized the Water Flagship Programme (WFP), focusing on Access to 24x7 Safe Drinking Water with Irrigation, as a key initiative for the 12th Five-Year Plan (12th FYP) restructuring.⁽¹⁾ Further, in early 2000s, over 90% had toilets, but only 58.4% used improved facilities by 2010. The Rural Sanitation and Hygiene Programme began in 2008, piloting in select gewogs and expanding to 16 Dzongkhags by 2019.⁽⁴⁾ This effort raised sanitation coverage in Lhuentse from 27% in 2010 to 85% in 2011. The improved water sources, and accessible and safe sanitation nationwide further advanced to 99.5% and 95.2%, respectively in 2019.⁽⁵⁾

This report presents estimates for the JMP's primary and secondary indicators on water, sanitation, and hygiene. The survey data covers various categories including residence (rural and urban), region (central, east, and west), and wealth quintile (least wealthy, lower, middle, upper, and wealthiest).

Water Supply

Access to improved drinking water was widespread, with 99.7% of households having access to such sources. The predominant sources of improved drinking water included piped water into dwellings, yards, or plots, which accounted for 94.2% of all households, followed by public taps or standpipes serving 3.4% of households. Across all Dzongkhags, the proportion of the population with access to improved drinking water sources was uniformly high at 98.7%. In terms of residence, urban areas exhibited complete coverage, with 100% of residents accessing improved drinking water sources, while in rural areas, the coverage was slightly lower but still extensive, with 99.5% of residents having access to improved sources.



Figure 2.2.1 Source of drinking water by area [Bhutan NHS 2023].



As shown in figure 2.2.2, 66.3% of the households (89.0% at urban and 53.2% at rural) have water available on their premises, depicting the huge difference between rural and urban areas. Excluding those with water on premises, around 32.8% of the household with 10.5% in urban and 45.6% in rural areas had water available within 30 minutes or less.



Figure 2.2.2 Time to obtain drinking water (round trip) by area [Bhutan NHS 2023].

Almost all the households (98.8%) had access to basic drinking water (drinking water from an improved source, available on premises or collection time less than 30 minutes).



Figure 2.2.3 Percentage with basic and limited drinking water by area [Bhutan NHS 2023].

Availability of water

NHS 2023 also assessed the availability of water in the last 7 days among households using piped water. Overall, 87.8% of the household had 24 hours supply of water and 5.4% of the household had water supply for only less than 6 hours. In the case of individual Dzongkhag, only 78.7% of the household in Tsirang had water supply for 24 hours as compared to 99.6% in Gasa and 97.0% in Lhuntse.





Figure 2.2.4 Percent distribution of households using piped water, by availability of water in the last 7 days by area [Bhutan NHS 2023].

Sanitation

Overall, 99.3% of the Bhutanese population had access to improved sanitation facilities. Flush to septic tank (74.9%) and sewer system (20.4%) were the predominant types of improved sanitation facilities used by Bhutanese households. Flush/pour flush to drain and pit latrine (without slab constitute unimproved sanitation facility) were used by 0.2% and 0.5% households, respectively. By area of residence, 99.6% of urban residents had access to improved sanitation facilities as compared to 99.1% of rural households with access to improved sanitation facilities.

More than half of the households (55.3%) had sanitation facilities in their own dwelling, 44.1% have sanitation facilities in their own yard/plot, and less than 1% had it elsewhere.






Overall, 83.8% of the household had access to basic sanitation service (improved facilities that are not shared with other households). However, 15.3% had access to only limited sanitation service (improved facilities shared by 2 or more households).





Hand Washing

In Bhutan, 99.5% of the population had a designated place for handwashing, with 98.5% having a fixed location and 1% using a mobile setup. Regarding water availability at handwashing places, 94.7% had water available. Among the Dzongkhags, 86.4% in Wangdue had water available at the station. Almost all households (99.6%) of households in Dagana had water at the hand washing facility. Overall, 92.6% of the population had access to basic handwashing facilities (facilities on premises with soap and water), while 6.9% had limited access (facilities without soap and/or water).





🛾 Urban 🛛 🗧 Rural



2.3 Mortality

Key findings

- A considerable proportion of deaths (63.6%) were recorded in rural areas.
- Males accounted for a higher proportion of deaths (53.5%) as compared to females (46.5%).
- The majority of fatalities transpired at home (50.9%), with a significant portion transpiring within healthcare facilities (43.2%).
- Predominant manner of death included natural (illnesses) (78.1%), accidents (6.9%), alcohol-related incidents (6.4%), and suicides (2.1%).
- The crude death rate for 2023 was 8.5 deaths per 1,000 populations, marking a notable increase from 6.2 per 1,000 populations in 2012.

Background Characteristics

The collection of mortality data plays an essential role in shaping public health policies and interventions, as it enables the tracking of disease prevalence and the identification of emerging health threats. For NHS 2023, data was collected on death occurred within the five years leading up to the survey, including death of the children.

In the past five years preceding the survey, a total of 1178 deaths were reported. It was observed that the majority of these deaths occurred in rural areas (63.6%), whereas urban areas accounted for 36.4% (Figure 2.3.1). Majority of the deaths occurred at home (50.9%) and in health facilities (43.2%).





Figure 2.3.1 Percentage of deaths by sex and area [Bhutan NHS 2023].



Figure 2.3.2 Percentage of deaths by sex and area [Bhutan NHS 2023].

Manner of deaths

The analysis of mortality data from the past five years revealed that natural (illness) was the leading cause of death in the country, accounting for 78.1% of fatalities. Accidents and alcohol-related causes contributed significantly with proportions of 6.9% and 6.4%, respectively, highlighting substantial public health concerns. Suicide, though accounting for a smaller proportion at 2.1%, remained a critical issue requiring focused prevention efforts.

Table 2.3.a: Propor	tionate m.	ortality of natio	nally relevar	nt manner of (deaths in Bhutan frc	om 2017 to 2023, b	y background chara	cteristics [B	hutan NHS	\$ 2023].
Background Characteristics	Illness	Accidents	Suicide	Violence	Alcohol related cause	Natural calamities or disaster	Poisoning (unintentional)	Others	Don't know	Total
Sex										
Men	74.3	9.6	2.3	0.4	7.6	0.2	0.3	1.3	4.0	100.0
Women	82.3	3.9	2.0	0.2	5.0	0.6	0.7	1.5	3.8	100.0
Location										
Urban	81.6	6.2	2.8	0.1	5.0	0.0	0.4	1.6	2.4	100.0
Rural	76.3	7.3	1.8	0.5	7,1	0.6	0.6	1.3	4.7	100.0
Total	78.1	6.9	2.1	0.3	6.4	0.4	0.5	1.4	3.9	100.0

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Crude Deaths Rate/Annual Deaths Rate

The crude death rate for both sexes was estimated at 8.5 per 1,000 population in 2023, a sharp increase from 6.2 per 1,000 population in 2012⁽¹⁵⁾ (figure 2.3.2). This suggests that more people were dying within the Bhutanese population ass compared to the past. Potential causes for this trend may include factors such as an ageing population, the rising prevalence of chronic diseases such as heart disease, cancer, or diabetes, and, in part, the recent COVID-19 pandemic. However, this sharp increase warrants further investigation to understand the underlying causes.





Age-specific death rate (ASDR)

Table 2.3.b shows a higher proportion of deaths among males (53.5%) as compared to females (46.5%). This translates to a crude death rate of 9.5 deaths per 1,000 populations for males and 7.5 deaths per 1,000 populations for females. The overall crude death rate for both sexes was estimated at 8.5 deaths per 1,000 populations, reflecting a slight increase from 6.2 deaths per 1,000 populations in 2012 (Figure 2.3.3). As expected, the crude death rate varied considerably by age group, ranging from a low of 3.2 deaths per 1,000 populations among 1-4 year olds to a high of 125.0 deaths per 1,000 populations among those aged 80 and over. Figure 2.3.4 visually depicts the ASDR, highlighting the changing incidence of death at each age group.

	Number of E	Deaths in the	Past 5 years	Annua	al Deaths pei	1000
Age Group	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	1718	919	799	8.5	9.5	7.5
<1	73	41	32	24.5	27.7	21.3
1-4	46	23	23	3.2	3.1	3.3
5-9	10	8	2	0.6	0.9	0.2
10-14	14	2	12	0.8	0.2	1.4
15-19	22	13	9	1.8	2.2	1.4
20-24	29	21	8	2.7	4.3	1.3
25-29	41	26	15	2.7	3.9	1.8

Table 2.3.b Distribution of deaths in the past 5 years and annual death rate by age and sex [Bhutan NHS 2023].



	Number of D	Deaths in the	Past 5 years	Annu	al Deaths per	1000
Age Group	Both Sexes	Male	Female	Both Sexes	Male	Female
30-34	49	18	31	2.7	2.2	3.1
35-39	75	54	21	4.1	6.6	2.1
40-44	73	43	30	4.6	6.0	3.5
45-49	82	45	37	6.2	7.4	5.2
50-54	95	60	35	8.4	11.3	5.9
55-59	84	45	39	8.9	10.1	7.9
60-64	112	56	56	14.1	14.6	13.6
65-69	113	59	54	17.6	18.4	16.8
70-74	143	74	69	30.7	32.2	29.1
75-79	149	85	64	47.5	51.7	42.8
80+	508	246	262	125.0	130.2	120.5
* D-+	19	4 4 - 1				

* Rates not estimated, as exact age at death was not reported.



Figure 2.3.4 Age-specific death rates by age groups using an arithmetical scale [Bhutan NHS 2023].

The overall mortality pattern across all age groups exhibits a J-shape (Figure 2.3.4). Mortality rates were initially high among infants and young children but declined sharply, reaching their lowest levels between ages 5-14. As anticipated, mortality rates began to rise exponentially from approximately age 35 onward.

In the graph utilizing a logarithmic scale, a noticeable increase in mortality was observed among young individuals aged 15-24 years, with a more pronounced effect among males (Figure 2.3.5). This rise in mortality within this specific age group is attributed, as supported by the literature, to heightened engagement in risky behaviours, leading to fatalities such as accidents and suicides.





Figure 2.3.5 Age-specific death rates by age groups using a logarithmic scale [Bhutan NHS 2023].

2.4 The Willingness-To-Pay for Health in Bhutan

Key Findings

- WTP per QALY in Bhutanese population was 0.3 to 0.8 times the GDP per capita PPP.
- Households preferred paying out-of-pocket for health expenses (WTP) using regular income, savings, or by borrowing from friends, relatives, and banks.
- WTP for health was primarily influenced by variations in education level and household income.
- There was no significant associations between WTP and demographic factors, including age, sex, marital status, working status, health status and residential areas

Policymakers in healthcare prioritize economic evaluation tools to ensure sustainable financing. This includes comparing costs and health benefits using a cost-effectiveness threshold (CET). While high-income countries have specific CETs, low- and middle-income countries often use the WHO CHOICE initiative's GDP per capita rule.⁽⁶⁾ Bhutan, facing rising health expenditures and declining external funding, is developing its CET to optimize resource allocation. This report outlines Bhutan's efforts to empirically estimate demand-side CETs through willingness-to-pay surveys integrated into the National Health Survey. These estimates will guide health resource allocation and Health Technology Assessment, facilitating international comparisons.

The predicted willingness-to-pay (WTP) for one year of cancer pain relief was 77,717 BTN (equivalent to USD 3808 at PPP conversion rate, 95% CI: 72,277-83,156). For one quality-adjusted life year (QALY), the WTP was 101,285 BTN (\$4,963, 95% CI: 94,682-107,889), and for five QALYs, it was 238,220 BTN (\$11,672, 95% CI: 220,423-256,017). These values correspond to 0.26 to 0.8 times the GDP per capita PPP (Table 2.4.1).

The most common sources of healthcare financing were household savings (53.6%), regular income (46%), borrowing from friends or relatives (42%), and borrowing from banks or money lenders (38%). However, 46 participants (2.5%) expressed no willingness to pay out-of-pocket for any of the scenarios, citing financial infeasibility and the belief that healthcare should be government-funded. WTP increased with household income and education level. No significant associations were found between WTP and demographic factors such as age, sex, marital status, employment status, and



residential areas. Additionally, people's health conditions did not affect their WTP perceptions. (Figure 2.4.2).

Table 2.4.a willingness-to-pay (WTP) for one year of cancer pain relief, one and five quality-adjusted life year [Bhutan NHS 2023].

	Oha		Descriptive	e Statistics		Predicted Means
Age Group	Obs.	Mean (SD)	Median (IQR)	Min Max.	95% CI	[95% CI]
Cancer pain relief	1,807	77475.9 (124586.4)	36,000 (40,000)	20 –1,800,000	[71727.7, 83224.1]	77716.6 [72277.3, 83156.0]
1-QLAY general health	1,828	101005.3 (153131.5)	50,000 (70,000)	40 – 3,000,000]	[94588.9, 108784.8]	101285.3 [94681.9, 107888.6]
5-QLAY general health	1,828	237127.6 (411285.8)	90,000 (190,000)	3,000 –5,400,000	[219471.2, 257607.0]	238220.0 [220423.0, 256016.9]



Figure 2.4.1 Financing sources for those willing to pay [Bhutan NHS 2023].



Figure 2.4.2 WTP by per capita education level of the people [Bhutan NHS 2023].



Predictive margins with 95% CIs



Figure 2.4.3 WTP by per capita household income [Bhutan NHS 2023].

This is Bhutan's maiden attempt to quantify the monetary value of health improvements in Bhutan across three scenarios. The study found that WTP varied by scenario with values ranging from \$3,808 to \$11,672 for a 5-QALY gain. These values correspond to 0.26-0.8 times GDP per capita, and are below the WHO's recommended threshold of 1–3 times GDP per capita. Moreover, these estimates align with a recent study conducted using relevant data from across 174 countries where CET per QALY was less than 1 GDP per capita in 97% of the countries.⁽⁶⁾ This suggests that the derived WTP per QALY estimates are reasonable and in line with expectations for countries at similar income levels.

These findings provide valuable insights into the value placed on health improvements in Bhutan, serving as a baseline for evidence-informed CET and a reference for comparisons with supply-side thresholds.

2.5 Disability

Key Findings

- The overall national prevalence of self-reported disability was 6.8%.
- The prevalence of disability in vision (1.8), hearing (2.0%), mobility (2.0%), communication (0.8%), self-care (2.4%) and cognition (1.5%).
- Prevalence of disability/impairment increases with age and was relatively higher among the 65+ years age group. The age group 5-17 shows a relatively lower prevalence rate overall with selfcare (4.8%) being the most prevalent.

Background

Disability is a multifaceted concept encompassing various physical, mental, intellectual, or sensory impairments that significantly impact an individual's ability to perform daily activities. Disabilities may be congenital or acquired through illness, injury, or aging, affecting millions globally and influencing access to education, employment, and social participation. The National Health Survey 2023 collected comprehensive data on disabilities related to vision, hearing, mobility, communication,

Population and Housing

self-care, and cognition using the Washington Group Short Set on Functioning (WG-SS), administered to a population aged 5 years and above. As recommended by the WG, respondent who reported to having a lot of difficulty or cannot do at all in anyone domain/question were considered having disability.



Prevalence of Self-reported Disability





Figure 2.5.2 Prevalence of self-reported disability by Dzongkhag [Bhutan NHS 2023].



The prevalence of vision, mobility, and cognition was slightly higher among female (2.0, 2.1, and 1.6 respectively) while disability related to hearing (2.1), communication (0.8) and self-care (2.8) was higher among men. The prevalence of disability steadily increased with and was relatively higher among population aged 60 and above. The prevalence of self-reported disability in any of the domains was the highest in Wangdue Phodrang district (12.0%).





In rural areas, the prevalence of vision-related disabilities (2.2%) was more than double that of urban areas (1.0%). Hearing disabilities were also notably higher in rural areas (2.8%) as compared to urban areas (0.7%). Overall, the prevalence of any disability was substantially higher in rural areas (8.6%) as compared to urban areas (4.0%). Disability prevalence also varied significantly across different income quintiles. The lowest income quintile had the highest overall prevalence of any disability at 11.2%.





Multi-disability among Bhutanese population

Districts with relatively high proportions of multiple disabilities included Wangdue Phodrang (0.26), Samtse (0.23), and Sarpang (0.21). Some districts, like Gasa (0.01), Samdrup Jongkhar Thromde (0.01), and Trashi Yangtse (0.01), had very low reported rates of multiple disabilities.



Figure 2.5.6 Percentage prevalence of self-reported Multi-disability among Bhutanese population by Dzongkhag [Bhutan NHS 2023].

2.6 National Malaria Indicator Survey at High-Risk Areas of Bhutan

Key findings

- 84.1% of the household had at least one LLINS available
- The utilization of LLINS by the population decreased from 78.0% in 2009 to 72.6% in NHS 2023.

A total of 2,768 heads of the households were interviewed with Malaria questionnaires. Only malaria endemic districts of the country were chosen for the survey. This included both the urban and rural areas.



Figure 2.6.1 Number of household interviewed for malaria [Bhutan NHS 2023].

Population and Housing



Household access and use of long-lasting insecticidal nets

The overall percentage of households with at least one LLINS available was 84.1 % with almost all the nets in good condition (97.2 %). The availability of LLINs was more in the residents of rural areas as compared to the urban areas (thromde). LLINs utilization summary showed that almost three quarters of the households always slept under the LLINs. Furthermore, Phuntsholing Thromde was found to have relatively poor coverage. This could be attributed to the Annual Household Survey not being conducted in Phuentsholing Thromde, thereby the hospital not having the list of households for the Thromde leading to these discrepancies. Nevertheless, specific intervention for increasing the distributions of LLINS in Phuentsholing Thromde is recommended.

Ownership trends of LLINs

The ownership of LLINs over the years had increased from 63.8% in 2006 to 84.1% in the current NHS 2023 survey. A slight decrease in the possession of LLINs was observed in the 2013 Bhutan Malaria Indicator Survey, however, the trend improved in the proceeding years untill 2017 with the implementation of public health measures.



Utilization trends of LLINS

Figure 2.6.2 shows the trends in percentage of people who slept under LLINS the previous night, among households with LLINS available over the years 2009 to 2023. The utilization of the LLINS by the population increased from 83 to 84.1%, respectively.







Among the households with LLINS, only three quarter (72.6%) of the people slept under LLINs the night before the survey day. This specifies that one in four people didn't sleep under LLINS. Notably, this indicates that about 12.0% of people were not sleeping under the LLINS despite it being available in the household. Almost a third quarter of the people use fans and nearly half of them used mosquito repellents to substitute the use of LLINS.

Reasons	%
No enough LLIN bed nets	0.7
Use other bed nets	3.7
Use mosquito repellents	47.1
Use fans	74.6
Off-season	8.2
Others	5.5

Table 2.6.a Reasons for not sleeping under LLINS or only sleeping sometimes [Bhutan NHS 2023].

This survey interviewed the head of households on washing of the LLINS and the findings indicate that nearly half of the household had their nets washed. Amongst the people who washed their LLINs, nearly half of them dry it under the sun.

Only 38 (1.3%) people reported that they or their household member faced difficulty in availing malaria services.

2.7 Eye Health

Key Findings

Eye Examination of newborn and pediatrics

- The average of 67.9% of children received an eye examination within 72 hours after birth by a healthcare professional.
- Only 31.3% of children (aged 0-59 months) received an eye checkup (excluding checkup within 72 hours after birth).

Diabetic Retinopathy Screening among individual with raised blood sugar

- 51.4% of the individuals (aged 18-69 years) received an eye examination after being diagnosed with raised blood sugar.
- More (68.3%) elder population (40-69) received eye examination after being diagnosed with raised blood sugar as compared to younger population (39.8%).
- Retired and non-working population, and those residing in Thromdes underwent eye examination as compared to the working population and those outside Thromdes.

Newborn and Paediatric eye screening

Newborn and paediatric eye screening is crucial for detecting conditions that can lead to visual impairment or blindness. At birth, infants undergo routine exams, including the red reflex test, to identify congenital abnormalities such as cataracts and retinoblastoma. Early detection allows timely interventions, improving visual and developmental outcomes.⁽⁷⁾



Regular eye screenings during well-child visits monitor vision development and detect issues like strabismus, amblyopia, and refractive errors. Early treatment with lenses, patching, or surgery can prevent long-term impairment.

Hospital and school-based screenings help identify vision problems early, reducing the impact of untreated conditions on academic performance, social development, and quality of life.

To assess the uptake of eye screening among newborns and children under five years, this survey collected and analyzed data on two key metrics: the percentage of newborns who received eye examinations within 72 hours of birth, and the percentage of children who underwent eye screenings within their first five years, excluding the initial 72-hour examination.

Eye Examination of newborn

An average of 67.9% of newborns received an eye examination within 72 hours after birth by a healthcare professional. According to WHO recommendations on maternal and newborn care for a positive postnatal experience, all (100%) newborns should receive an eye examination as part of their routine neonatal care.

There was no significant difference in demographic characteristics of mothers of children receiving eye examination for their newborn within 72 hours. 91.6% of the children in Bumthang received eye screening for newborn while only 49.8% in Trongsa received the examination.

Eye Examination of children younger than 5 years

Only 31.3% of children (aged 0-59 months) received an eye checkup (excluding checkup within 72 hours after birth). There was no significant difference in percent distribution of 0-59 months children who received an eye checkup, excluding check-up within 72 hours after birth, according to background characteristics. There is also no difference between Dzongkhags.

Diabetic Retinopathy Screening among individual with raised blood sugar

Eye examinations for patients with elevated blood sugar are crucial for the early detection and management of diabetic retinopathy, a common diabetes complication that can lead to blindness if untreated. High blood sugar can damage retinal blood vessels, causing swelling, leakage, or abnormal growth. Regular eye exams allow early identification of these changes, enabling timely interventions such as laser therapy or injections to prevent significant vision loss and improve patient outcomes. Additionally, routine eye exams are essential for monitoring overall eye health and managing other conditions like cataracts and glaucoma, which are more prevalent in individuals with high blood sugar.

Integrating eye exams into standard care protocols for patients with high blood sugar enhances patient outcomes and quality of life. The "Action Plan for Integrated People-Centred Eye Care in South-East Asia 2022–2030" mandates that at least 80% of people with diabetes undergo regular retinopathy screening and that 80% of those with sight-threatening retinopathy receive treatment. ⁽⁸⁾ This survey collected information on whether an individual received an eye examination after being diagnosed with raised blood sugar.

Of the individuals aged 15-69 years diagnosed with raised blood sugar, 51.4% received an eye examination. The elder population (aged 40-69) had a higher rate of eye examinations at 68.3%



compared to the younger population (aged 18-39), which had a rate of 39.8%. Additionally, retired and non-working individuals, as well as those residing in Thromdes, were more likely to undergo eye examinations than the working population and those living outside Thromdes.

Relatively more individuals residing in urban areas (53.8%) underwent eye examinations after being diagnosed with raised blood sugar than those in rural areas (49.8%). However, the difference was not significant. By Dzongkhags, those residing in Trashi Yangtse (16.6%) and Lhuentse (16.9%) were less likely to receive an eye examination as compared to those in other Dzongkhags.

Chapter 3



Health Care Access, Utilization, and Health Expenditure

3.1 Health Care Access, Utilization, and Satisfaction

Key Findings

- 55.7% of Bhutanese households reported hospitals and 34.5% report PHCs as the health facilities within closest distance to the households
- 72.9% of the population lived within travel time of less than 30 minutes from the health facility closest to their household. The proportion of households within less than 30 minutes of travel time to health facilities had almost doubled between 2012 and 2023.
- In the 12 months prior to the survey, 78.6% of the population (aged 15-69 years old) visited health facilities for any health concern. Utilization of health care was higher in rural areas (85.2%) as compared to urban areas (72.8%) and was higher among women (86.0%) than men (74.0%).
- 91.2% of the population visiting health facilities reported satisfaction with the health services, with a higher proportion of women reporting satisfaction (92.3%) than men (90.3%). Satisfaction levels increase with age, were reported higher in rural areas and declined along subsequent higher levels of income.
- 22.9% of the population who visited a health facility reported consulting with a Drungtsho or Menpa.
- 2.8% of Bhutanese households reported to accessing health services from outside Bhutan, with a higher proportion of urban residents (3.9%) as compared to rural residents (2.1%) availing these services.

Access to health facilities

Health services delivery in Bhutan is operationalized through a hierarchical network of health facilities; one National Referral Hospital at the apex, two Regional Referral Hospitals in the eastern and central regions, 51 hospitals of various bed strengths, 187 Primary Health Centers which includes five Thromde health centers, 50 sub-posts and 551 outreach clinics.⁽⁹⁾ Other health facilities include those operated by the military. The survey asked household respondents about the type of health facility (excluding outreach clinics) located closest to their households. As illustrated in Figure 3.1.1, a majority of households reported hospitals (55.7%), followed by PHCs (34.5%) as their closest health facilities. There exist significant variations in this pattern among the rural and urban population and along the quintiles of income with access to hospital services higher among urban population and progressively richer households.



Figure 3.1.1 Type of health facility located within closest distance to the households [Bhutan NHS 2023].

Travel time to reach health facilities

The survey collected data to assess the time taken to reach the nearest health facility by household members, either on foot or through a particular mode of transport or a combination of both. As shown in Figure 3.1.2, 72.9 percent of Bhutanese population lived less than 30 minutes of travel time from the nearest facility, 15.3% within 30 minutes to 1 hour, 8.6% within 1-2 hours, 2.5% within 2-3 hours while 0.8% of the population lived at distances of more than 3 hours from the nearest health facility. However, there were significant variations to the average travel time to health facilities among the Dzongkhags and Thromdes in the country (Figure 3.1.2).



Figure 3.1.3 Time taken to reach health facilities by Dzongkhags and Thromdes [Bhutan NHS 2023].

Distance to health facilities had significantly narrowed when we compare the survey results to the National Health Survey of 2012 (Figure 3.1.3). The proportion of households within less than 30 minutes of travel time to health facilities had almost doubled between 2012 and 2023.

Chapter 3



Figure 3.1.3 Time taken to health facilities; trend between 2012 and 2023 [Bhutan NHS 2023].

Choice of health facilities and bypass

While the national health policy calls for structured and hierarchical referral process and mechanism, there are no active guidelines and established process on the choice of facilities and empanelment. People avail health services from any level of health facilities at any location according to their convenience. The survey asked the respondents where the household members usually go to avail health services. A small percentage of households, specifically 7.2%, reported to using health services from facilities other than the nearest one. This trend was slightly more common in rural areas, compared to urban areas (Figure 3.1.4).



Figure 3.1.4 Proportion of households bypassing the closest health facilities [Bhutan NHS 2023].

The survey attempted to delve into the reasons for accessing health facilities other than the ones that were closest to the respondents. A large majority of people reported availability and provision of better services as reasons for their choice (Figure 3.1.5) as well as result for bypassing (Figure 3.1.6).



Figure 3.1.5 Reasons for bypassing the nearest health facilities in urban area [Bhutan NHS 2023].



Figure 3.1.6 Reasons for bypassing the nearest health facilities in rural area [Bhutan NHS 2023].

Utilization and satisfaction with health services

In the 12 months prior to the survey, 78.6% of the population (aged 15-69 years) visited health facilities for any health concern (Figure 3.1.7). Utilization patterns indicate an age gradient with older age groups recording progressively higher level of utilization. Utilization of health care was higher in rural areas (79.4%), compared to urban areas (77.3%) and was higher among women (85.2%) as compared to men (72.8%).



Figure 3.1.7 Proportion of population who visited health facilities for any health concern [Bhutan NHS 2023].

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Survey respondents who visited health facilities were asked whether they were satisfied with the quality of services provided by health facilities. Nine out of ten people, (91.2%) reported satisfaction with the health services at the facilities they visited. A higher proportion of women reported satisfaction compared to men (92.3% vs 90.3%). Satisfaction levels increased with increasing age, were reported higher in rural areas, and declined along subsequent higher levels of income (Figure 3.1.8).





Amongst Dzongkhags and Thromdes (Figure 3.1.9), Trongsa reported the highest levels of satisfaction, followed by Monggar and Samtse Dzongkhags. The lowest levels of satisfaction were reported from Chhukha, Thimphu, and Paro Dzongkhag.



Figure 3.1.9 Satisfaction with health services by Dzongkhag and Thromde [Bhutan NHS 2023].

Satisfaction with health services had mildly declined when compared with the survey results of National Health Survey of 2012 (Figure 3.1.10). Proportion of population not satisfied with health services increased from 6.8% in 2012 to 8.2% in 2023.



Note: Respondent 24861 (10-75 years) in 2012 and 9313(15-69 years) in 2023

Utilization of formal traditional medicine services

The Bhutanese traditional medicine system, known as *Sowarigpa*, is a component of mainstream health system and functions in an integrated service delivery channel. People who visit a health center have the choice to avail services from either an allopathic system or *Sowarigpa* system. More than one out of five people who visited, of the population who visited a health facility reported consulting with a *Drungtsho* or *Menpa* with increasing preference along the increasing age categories.



Figure 3.1.11 Percentage of population visiting health facilities who consulted a *Drungtsho/sMenpa* [Bhutan NHS 2023].

Use of health services abroad

Bhutanese households access health services from outside the country either though the formal medical referral abroad programme or availing health services abroad at their own choice. Health services are primarily availed from India, Thailand, Nepal, Bangladesh and others and financed by either the government referral programme or through personal finances, insurance or reimbursement programmes. The survey aimed to capture the availing health care services from outside. A small proportion of Bhutanese households reported availing health care services from outside Bhutan, with a higher proportion of urban residents (3.9%) compared to rural residents (2.1%), availing them.





3.2 Household Health Expenditure

Key findings

- 46.7% of Bhutanese households incurred expenditures on health with a higher proportion of urban households reporting health expenditure (53.6%) as compared to rural areas (42.8%).
- On average, a Bhutanese households spent Ngultrum 1000.8 per month on health care which includes costs for medical care and transportation.
- Costs for medical care constituted 60.4% of household health expenditure in urban areas while transportation costs accounted for 60.7% of household health expenditure in rural areas.
- On average, 5.6% of total household consumption expenditure was spent on health care with the proportion slightly higher in the urban areas (6.0%) as compared to the rural areas (5.3%).
- Bhutanese households spent an average of Ngultrum 5,485 per month on spiritual and religions activities, ranging from Ngultrum 17,133 in Paro Dzongkhag to Ngultrum 985 in Samtse Dzongkhag.

Health expenditure consist of formal or informal payments, without the possibility of reimbursement, made by people while using any health care product or service. Monitoring such expenses enables assessment of country's health financing situation, financial protection of the population and assess whether a country is moving towards universal health coverage. The survey asked the respondents about the expenditures on health care made by all members of the household and asked them to estimate the total household consumption expenditure¹ during the past one month.⁽¹⁰⁾

Household health expenditure

Almost half, (46.7%) of Bhutanese households incurred expenditures on health, with a higher proportion of urban households (53.6%) reporting health expenditure as compared to rural areas (42.8%). The proportion of households incurring health expenditure increased along increasing household income status (Figure 3.2.1). Among the Dzongkhags and Thromdes, Paro Dzongkhag and Thimphu Thromde registered the highest proportion of households incurring health expenditure while Samdrup Jongkhar and Pemagatshel Dzongkhags registered the lowest (Figure 3.2.2).

¹ One questionnaire item where a respondent per household were asked to estimate the total household consumption expenditure for all purposes including food and health

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Figure 3.2.1 Proportion of households incurring health expenditure, by income quintile, rural/urban and Dzongkhag/ Thromde [Bhutan NHS 2023].

On average, households spend Nu 1000.8 per month in health expenditures, which includes medical costs incurred from healthcare utilization (services and medicine) as well as expenditures on transportation to and from health facilities. Average household health expenditure were Nu 1315.6 per month in urban areas and Nu 820.2 per month in rural areas. Medical cost constituted 49.4% and transportation cost constitutes 50.6% of total health care expenditure. Medical costs accounted for 60.4% of the total health expenditure in urban areas while transport cost accounted for 60.7% of the total health expenditure in rural areas.



Figure 3.2.2 Average monthly household health expenditure in Ngultrum [Bhutan NHS 2023].

Financial burden of health expenditure on households

The proportion of household consumption expenditure^{*} spent on health care, or the household budget share of health expenditure, reveals critical insights into the financial burden of health care on households. On average, 5.6% of household consumption expenditure was spent on health care with the proportion slightly higher in the urban areas (6.0%) compared to the rural areas (5.3%). Among the Dzongkhags and Thromdes, Gasa Dzongkhag registered the highest level of financial burden on household budget followed by Samdrup Jongkhar Thromde, Paro Dzongkhag, and Thimphu Thromde².

² *Note: estimated household total expenditure in the last one month reported by household head or one member of the household. The household representative was asked a single question to recall and estimate total household expenditure in the last one month.

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Figure 3.2.3 Health expenditure as a proportion of household consumption expenditure [Bhutan NHS 2023].

Household expenditure on spiritual and religious activities

Bhutanese households spend a significant proportion of their household budget on spiritual and religious activities that have direct and indirect linkages to health and wellbeing. On average, Bhutanese households spent an average of Nu 5,485 monthly on spiritual and religions activities with urban residents and households in the highest quintile spending the most. Significant variations across Dzongkhags and Thromdes exist in household spending on spiritual and religions activities ranging from Nu 17,136 in Paro Dzongkhag to Nu 985 in Samtse Dzongkhag.



Figure 3.2.4 Monthly household expenditure on spiritual and religious activities [Bhutan NHS 2023].

Chapter 4

Sexual and Reproductive Health



4.1 Marriage and Sexual Activity

Key findings:

- Current marital status: 63.5% of women in Bhutan were currently married and 16.9% were never married.
- Age at first marriage: The median age of marriage among women in Bhutan was 20.8 years.
- Age at first sexual intercourse: The median age at first sexual intercourse for women (25-49) was 20.3 years.
- Percentage of men aged 20-24 years who were married or in a union before age 15 years was zero.
- Percentage of men aged 20-24 years who were married or in a union before age 18 years was 1.4%.
- Percentage of women aged 20-24 years who were married or in a union before age 15 years was 0.7%.
- Percentage of women aged 20-24 years who were married or in a union before age 18 years was 9.0%.

The timing and circumstances of marriage and sexual activity have profound consequences to individual's lives. This section presents information on marital status, age at first marriage, median age at first marriage, age at first sexual intercourse, and recent sexual activity.

Current Marital Status

The survey revealed that about 63.5% of women aged 15-49 were currently married, while 16.9% have never been married. Around 11% were living with a partner, 2.4% were either engaged or dating, and a negligible 0.2% were in same-sex relationships. Conversely, 4% of women in this age group were divorced, 1.2% were widowed, and less than 1% were separated (Fig 4.1.1).





Figure 4.1.1 Percentage distribution of women aged 15-49 by current marital status [Bhutan NHS 2023].

Among women who have never been married, the largest percentage was found in the 15-19 age group, comprising approximately 86.9%, followed by the 20-24 age group at 43.7%, and the 25-29 age group at 13.9%. Approximately 5% of women in the age groups of 30-34, 35-39, 40-44, and 45-49 were found to be unmarried (see Fig. 4.1.2).



Figure 4.1.2 Percentage distribution of women aged 15-49 never married by age group [Bhutan NHS 2023].



Age at first marriage

The median age at first marriage for women aged 25-49 was recorded at 20.8 years. As illustrated in Figure 4.1.3, the median age of the first marriage tends to decrease with increasing age brackets. Women aged 25-29 had a median first marriage age of 22.2 years, while those aged 45-49 married at a median age of 19.4 years. This indicates that women in previous generations tended to marry at younger ages as compared to more recent generations.



Figure 4.1.3 Median age at first marriage by age group [Bhutan NHS 2023].

Table 4.1.2 in the annexure presents the median age at first marriage across different demographic groups. Rural women aged 25–49 generally marry earlier than urban women, with median ages of 20.0 years and 22.0 years, respectively. Among the 20 districts, Thimphu had the highest median age at first marriage at 22.3 years, whereas Trashigang had the lowest at 18.6 years.

Educational attainment also influences the median age at first marriage. Women with higher secondary education and above married later, with a median age of around 24 years. In contrast, those with no formal education or only primary education typically married at a median age of 19 years. Additionally, there was a variation based on income levels: women in the highest income quintile married at a median age of 22.2 years, compared to 19.9 years in the lowest quintile.

Age at first sexual intercourse

The median age at first sexual intercourse for women aged 25-49 was 20.3 years. Among different age groups, the highest median age at first sexual intercourse was found in the 25-29 age group at 21.5 years, while the lowest was in the 45-49 age group at 19.1 years. These findings suggest that women of older generation tended to start sexual intercourse at younger ages as compared to the younger generation women.

Table 4.1.5 in the annexure presents the median age at first sexual intercourse according to background characteristics. The median age at first sexual intercourse for urban women aged 25-49 was 21.2 years, while for rural women of the same age group, it was 19.8 years. Women with no education had an earlier median age at first sexual intercourse at 18.8 years compared to those with higher education (Bachelor and above) at 24.4 years. Women in the lowest income quintile initiated sexual intercourse nearly 2 years earlier than those in the highest income quintile (19.6

years versus 21.4 years, respectively). Among the 20 districts, Trashigang recorded the lowest median age at first sexual intercourse at 18.9 years, whereas Bumthang and Thimphu reported the highest at 21.3 years.

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Recent sexual activity

More than 65% of women aged 15-49 reported to having sexual intercourse within the last four weeks prior to the survey data collection. While 9.7% reported having sex within the past year from the survey period, a similar percentage (9.6%) reported having had sex more than a year ago. In contrast, 15.2% of women in this age group reported to never having had sex (Figure 4.1.4). The pattern of sexual activity varies across age groups, increasing steadily with age, peaking in the 35-39 age bracket, and declining thereafter from the 40-44 age group onwards (Fig 4.1.5)



Recent sexual activity





Figure 4.1.5 Percentage distribution of women aged 15-49 by timing of last sexual intercourse by age group [Bhutan NHS 2023].








The coverage of at least one antenatal care (ANC) visit by a healthcare professional among women aged 15-49 years for their most recent live birth in the two years preceding the survey was 98.5%, reflecting a slight increase from 97.9% in 2012. Of these women, 87.2% received a minimum of four ANC visits, while 38.0% received at least eight ANC visits during their pregnancy.

Among those who received ANC, 47.9% initiated their first check-up within the first three months of pregnancy. Conversely, 1.9% of the women had their first ANC visit after eight months of pregnancy. The proportion of women who received their first ANC visit within the first three months was higher among urban residents (52.6%) as compared to their rural counterparts (45.0%).

Notably, in Haa and Trashiyangtse Dzongkhags, all women (100%) aged 15-49 years with a recent live birth within the past two years had received at least four ANC visits. In terms of eight ANC visits, the highest proportions were observed in Tashigang (54.0%) and Sarpang (52.3%) districts.

Among women who received ANC for their most recent live birth in past 2 year, 99.6% had their blood pressure checked; 99.7% had their baby's heartbeat checked and 98.5 were counseled about their diet. Only 98.5% of women received counseling on breastfeeding and 96.5% were asked about vaginal bleeding. However, with high coverage of ANC (at least one ANC coverage), there is no significant difference in the proportion of women receiving specific services for their most recent live birth as compared to those who received at least one ANC.

4.3 Postnatal Care

The terms "postpartum period" and "postnatal period" are frequently used interchangeably, though sometimes "postpartum" pertains specifically to maternal issues and "postnatal" to issues concerning the baby. For clarity, this report opted to use the unified term "postnatal" to encompass all aspects related to both the mother and the baby after birth.⁽¹¹⁾ The postnatal period starts immediately after the birth of the baby and continues for up to six weeks (42 days) afterward.



The postnatal period is a critical phase for both mothers and newborns as the majority of maternal and infant deaths occur during this time. Nearly half of maternal deaths occur within the first 24 hours and about 75% of neonatal deaths occur during the first week of life. Postnatal care (PNC) is important not only to treat complications arising from delivery to both mother and child but also serves as an avenue to provide mothers with important information on how to take care of themselves and their newborns. Postnatal care in Bhutan is facility-based. The Ministry of Health recommends that postnatal visits be scheduled within 24 hours after delivery, on the 3rd day after delivery, 1-2 weeks after delivery, 3 weeks after delivery, and 6 weeks after delivery.

The postnatal care data for both mothers and children for NHS 2023 was sourced from records in the Mother and Child Health (MCH) handbook, covering women aged 15-49 who gave birth in the two years prior to the survey.

4.3a Postnatal care for mother

As per the record maintained in the MCH Handbook, the first postnatal care (PNC) visit within 24 hours was attended by 69.5% of mothers, while 79.1% received the second PNC visit within 3 days. The third PNC visit, scheduled between 1-2 weeks after delivery, was attended by 93% of mothers, and 92.6% received the fourth PNC visit at 3 weeks. Approximately 88% of mothers received the final PNC visit scheduled at 6 weeks post-delivery. It is concerning to note that 1.6% of mothers did not receive any postnatal care (Figure 4.3a.1)



Figure 4.3a.1 Percentage of the mother's postnatal check for the five scheduled PNC visits as recorded in the MCH Handbook [Bhutan NHS 2023].

Given Bhutan's impressive 98% institutional delivery rate, the first postnatal care visit within 24 hours after delivery both for mother and child should ideally match this high level. However, the survey indicated that the disparity was primarily because most deliveries occurred at the Jigme Dorji Wangchuck National Referral Hospital (JDWNRH), where Maternal and Child Health (MCH) services must be accessed through various departments and locations. Consequently, although services were provided, it appears that their records were not promptly updated in the MCH handbooks as expected. In 2023, JDWNRH accounted for about 39% of the total deliveries in the country, with 3,557 out of 9,240 deliveries taking place there.⁽⁹⁾



Postnatal care for mother by mother's age

There was no significant disparity among the mothers seeking postnatal care by the mother's age. For the second PNC visit, scheduled on the third day after delivery, the coverage was between 78-79% across all age groups. It then increased to over 90% for the next scheduled visit between 1-2 weeks after delivery, except for mothers under 20 years of age, where it slightly dropped. For the final PNC visit, scheduled six weeks after delivery, the coverage decreased slightly to about 88% for all age groups. Although all mothers under 20 years old attended at least one postnatal care (PNC) visit, a small yet concerning proportion of mothers aged 20-34 (1.8%) and 35-49 (1.1%) did not attend any PNC visits (Fig 4.3a.2).





There was notable PNC coverage among mothers of all educational levels, with the third PNC visit scheduled at 1-2 weeks after childbirth having slightly higher attendance compared to the rest of the scheduled PNC visits. Regarding non-attendance, all mothers with qualifications above a bachelor's degree attended at least one visit, while a very small percentage ranging from 0.7-2.5% of mothers in other educational categories did not attend any PNC visits (Figure 4.3a.3)



Figure 4.3a.3 Percent of postnatal checks by mother's education level as recorded in the MCH Handbook [Bhutan NHS 2023].

Postnatal care for mother by mother's income quintile

The survey did not identify a clear correlation between scheduled postnatal care (PNC) visits and the mothers' income quintiles. However, mothers from the upper-income quintile generally adhered better to most PNC schedules. In terms of mothers not seeking any PNC, the highest percentage was recorded among mothers in the middle-income quintile at 2.9%, while the lowest was less than one percent among the upper-income quintile.

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■ Least Income (Q1) ■ Lower (Q2) ■ Middle (Q3) ■ Upper (Q4) ■ Highest Income (Q5) Figure 4.3a.4 Percent of postnatal checks as recorded in the MCH handbook by mother's income quintiles [Bhutan NHS 2023].

Postnatal care for mother by area and district

Overall, the coverage of all scheduled postnatal care (PNC) visits for mothers was higher in urban areas than in rural areas, with the highest percentage recorded for PNC visits at 1-2 weeks and the lowest coverage for PNC on the third day. A small percentage of mothers did not attend any PNC visits in both rural and urban areas, at 1.8% and 1.2%, respectively.



Figure 4.3a.5 Percentage of mother's postnatal checks for the five PNC scheduled as recorded in the MCH Handbook by area [Bhutan NHS 2023].

Overall, nearly half of the twenty districts achieved over 95% coverage of mothers for the PNC visit scheduled at 1-2 weeks after childbirth. Dagana, Gasa, Sarpang, and Trashiyangtse were the top districts, each with an impressive 100% coverage for this PNC visit. In contrast, Punakha (76.3%) and Chukha (83.1%) had the lowest coverage. In terms of non-compliance, seven of the twenty districts reported of mothers who have never attended any PNC visit with proportions ranging from 0.8% to 8%.



Figure 4.3a.6 Percentage of mother's postnatal check for PNC scheduled at 1-2 weeks after delivery as recorded in the MCH handbook by district [Bhutan NHS 2023].

4.3b Postnatal care for child

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The postnatal care data for children was sourced from records in the Mother and Child Health (MCH) handbook, which covered women aged 15-49 who gave birth in the two years prior to the survey. Postnatal care for children mirrored the coverage and pattern of postnatal care for mothers. The PNC coverage has steadily increased from the first visit (69.9%) to the fourth visit (92.6%) before slightly dropping at the final scheduled visit at 6 weeks (87.8%). Similar to postnatal care for mothers, 1.6% of children did not receive any postnatal care (Fig 4.3b.1).



PNC Schedule

Fig 4.3b.1 Percentage of child's postnatal check by schedules as recorded in the MCH handbook Postnatal care for the child by mother's age [Bhutan NHS 2023]. The report did not show a clear correlation between a mother's age and seeking PNC visits for the child, as the coverage varied across different PNC schedules. Although postnatal care coverage was highest for mothers aged 35-49 years (81%) for the second PNC visit scheduled three days after delivery, mothers aged 20-34 had the highest coverage (93%) for the third PNC visit scheduled 1-2 weeks after delivery. For the fourth PNC visit (three weeks after childbirth), mothers aged less than 20 years had the highest coverage (95%). For the final PNC visit at six weeks after delivery, the coverage was similar across the three age groups (88-89%).

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Figure 4.3b.2 Percentage of postnatal checks for child as recorded in the MCH handbook by mother's age [Bhutan NHS 2023].

Postnatal care for the child by mother's education

Children of mothers with bachelor's degrees or higher education levels predominated at all PNC visit schedules. However, there doesn't seem to be a clear association between the rest of the education levels of mothers and their utilization of PNC services. While all children of mothers with bachelor's degrees or higher attended at least one PNC visit, a marginal proportion (1-3%) of children of mothers with less than a bachelor's degree or no education did not receive any PNC.







Postnatal care for the child by area and district

Overall, children in urban areas attended more PNC visits at all scheduled times compared to those in rural areas. The highest PNC coverage for both urban and rural areas was recorded in the third week after delivery, with 94% and 91.5%, respectively. The lowest coverage was recorded for the second PNC visit scheduled three days after delivery, with 81% in urban and 76% in rural settings. Both urban and rural areas had a very small proportion of children who did not attend any PNC visits, with 1.2% and 1.8% respectively.

Among the twenty districts, Dagana and Pemagatshel achieved an impressive 100% coverage for the second PNC visit for children, scheduled on the third day after delivery. On the other hand, nearly half of the districts were below the national average of 78.6%.



Figure 4.3b.4 Percentage of postnatal checks for the child as recorded in the MCH handbook by area [Bhutan NHS 2023].



Dzongkhag

Figure 4.3b.5 Percentage of postnatal checks for the child as recorded in the MCH handbook by districts [Bhutan NHS 2023].

4.4 Place of delivery and skilled birth attendance

Key findings

- 98.5% of births were attended by skilled health personnel in 2023, with 98% occurring in health facilities.
- Out of 1,237 recorded births, 29.3% were delivered via cesarean section.
- 81.1% of newborns had skin-to-skin contact with their mothers, immediately after birth,

Place of delivery and the presence of skilled health personnel are critical factors influencing maternal and neonatal health outcomes. Ensuring that every birth occurs in health facilities and is attended by skilled health providers significantly reduces the risks associated with childbirth. Skilled birth attendants, equipped with the necessary knowledge and tools, are essential for managing complications and providing immediate care to both the mother and newborn. Health facilities offer a safer environment with access to emergency obstetric care if needed.⁽¹²⁾

In total, 98.5% of deliveries were attended by skilled health personnel, with 98.0% of these deliveries occurring in health facilities (institutional delivery), demonstrating widespread access to safe and well-equipped environments for childbirth. The rate of deliveries by cesarean section was 29.3%. More than 81% of newborns had immediate skin-to-skin contact with their mothers following birth, which is also commonly known as Kangaroo Mother Care (Figure 4.4.1)



Figure 4.4.1 Percentage of births attended by skilled health personnel, births occuring in health facilities, cesarean section, and skin-skin contact after birth [Bhutan NHS 2023].

Over the decades, there had been notable progress in maternal healthcare, as evidenced by increasing percentages of deliveries attended by skilled health personnel and occurring in health facilities. In 1994, only 15.1% of deliveries were attended by skilled health personnel, and merely 10.9% occurred in health facilities. By 2000, these figures had risen to 23.7% and 19.8%, respectively. A significant improvement was seen in 2012, with 74.6% of deliveries attended by skilled providers and 73.7% occurring in health facilities.^(13,14,15,16) The most recent data from NHS 2023 indicates substantial advancement, with 98.5% of deliveries attended by skilled providers and 98% in health facilities.







The percentage of births attended by skilled health personnel and occurring in health facilities shows a slight decrease with increasing maternal age. Among mothers aged under 20 years, both skilled provider attendance and health facility deliveries stood at an impressive 100%. For mothers aged 20–34, the percentage of births attended by skilled health personnel and occurring in health facilities decreased slightly to 99.1% and 98.5%, respectively. Among mothers aged 35-49, these percentages decreased to 96.2% and 96.1% for skilled health personnel attendance and health facility deliveries, respectively. Overall, the data indicates consistently high levels of healthcare provision across all age groups.



Figure 4.4.3 Percentage of births attended by skilled health personnel and the rate of births occurring in health facilities by mother's age group [Bhutan NHS 2023].

In urban areas, nearly all deliveries (99.6%) were attended by skilled providers, highlighting access to professional care and safe delivery environments. Conversely, in rural areas, though rates are also high, there are slightly lower percentages, with 97.7% of deliveries attended by skilled providers and 96.9% occurring in health facilities. Among the twenty districts, approximately half achieved an impressive 100% score for skilled birth attendance, setting benchmarks for maternal and child care standards.





Percentage delivered in a health facility

Figure 4.4.4 Percentage delivered by a skilled provider and percentage delivered in a health facility by area [Bhutan NHS 2023].



Figure 4.4.5 Percentage of skilled birth attendance by Dzongkhag [Bhutan NHS 2023].

4.5 Maternal Mortality Ratio (MMR)

The maternal mortality ratio (MMR) serves as a crucial public health indicator, reflecting not only the health status of mothers and the quality of healthcare services but also at a broader societal level. It signifies economic, social, cultural, and political dynamics, as well as the status of women within their communities. It is expressed as the number of maternal deaths per 100,000 live births. ⁽¹⁷⁾ Reducing maternal mortality is a central objective of Sustainable Development Goal (SDG) 3, specifically Target 3.1, which aims to achieve a global maternal mortality ratio (MMR) of less than 70.

The MMR has decreased nearly fifteen-fold over four decades, dropping from 777 maternal deaths per 100,000 live births in 1984 to a two-digit figure of 53 in 2023.^(15,16) The latest data from NHS 2023 corroborates with administrative data maintained by the Ministry of Health (55.5 per 100,000 live births). This achievement highlights Bhutan's significant progress toward surpassing the ambitious SDG 3 target (Figure 4.4.1).





Figure 4.5.1 Trend in Maternal Mortality Ratio (per 100,000 live births) [Bhutan NHS 2023].

4.6 Family Planning

Contraceptive use

Appropriate family planning is important to the health of women and children by: 1) preventing pregnancies that are too early or too late; 2) extending the period between births; and 3) limiting the number of children. Access by all couples to information and services to prevent pregnancies that are too early, too closely spaced, too late, or too many, is critical.⁽¹⁸⁾

The contraceptive prevalence rate (CPR) by any method among currently married or in union women aged 15-49 was reported to be 74.2%. The most prevalent method was injectables, used by 22.1% of married women in Bhutan. The next popular methods reported were male condoms, used by 18.4%, and female sterilization, utilized by 13.7%. Usage rates for oral pills, intrauterine devices (IUDs), male sterilization, and traditional methods ranged from 4.5 percent to 6.8%. Contraceptive methods such as implants, female condoms, emergency contraception, the Standard Days Method (SDM), Lactational Amenorrhea Method (LAM), and other methods were each used by less than 0.1 percent of women surveyed. The traditional method including rhythm and withdrawal methods accounted for about 5.6% of contraceptive use.





Figure 4.6.1 Percentage distribution of currently married women or women living together aged 15-49 by contraceptive method currently used [Bhutan NHS 2023].

Table 4.6.1 in the annexure presents contraceptive usage across different demographic factors. Contraceptive use was most prevalent among reproductive-aged women with 3-4 living children, at 83%, while those with no living children showed the lowest usage at 42%. Surprisingly, women with no educational background reported the highest usage (76.4%), while women with secondary education reported the lowest usage (69.3%). Geographically, rural areas exhibited a slightly higher contraceptive usage (76%) than urban areas (71%). Across 20 districts, Haa reported the highest contraceptive prevalence at 89.0%, whereas Trongsa exhibited the lowest at 62.3%.

Unmet need for contraception

Unmet need for contraception refers to women who are fecund and sexually active but are not using any method of contraception, yet they express either a desire to stop having children altogether or a wish to delay their next pregnancy. The concept of unmet need highlights the disparity between women's reproductive intentions and their contraceptive behavior. The prevalent of unmet need is expressed as a percentage of women who are not using a method of contraception and are:⁽¹⁸⁾

a) For spacing

- Fecund and say they want to wait two or more years for their next birth;
- · Fecund and are unsure whether they want another child;
- Fecund, want another child, but is unsure when to have the birth;
- Pregnant and wanted current pregnancy later; or
- · Postpartum amenorrhoeic and wanted last birth later



b) For limiting

- · Fecund and do not want any more children;
- · Pregnant and did not want current pregnancy; or
- Postpartum amenorrhoeic and did not want the last birth.
- c) Total unmet need: Percentage of women with an unmet need for family planning for spacing or limiting.

Unmet need for contraception among currently married women or in union

The overall unmet need for contraception among married or partnered women aged 15-49 was 8.5%, primarily driven by 8% unmet need for spacing and a minimal 0.5% unmet need for limiting.

Unmet need by age

Among different age groups, the highest overall unmet need was observed in the 15-19 age group (13.7%), while the lowest was in the 20-24 age group (5.9%). The unmet need for contraception tends to rise with age, particularly for limiting methods. This is likely because, as women grow older, more of them have achieved their desired number of children. Therefore, the unmet need among older women mainly involves limiting fertility, suggesting that family planning services should prioritize limiting methods for this age group.





Unmet need by education

When it comes to educational background, women who lacked any formal education had the highest rate of unmet contraceptive needs at 10.2%, while those with a bachelor's degree or higher had the lowest at 1.6%. For women who had other educational backgrounds, the unmet need for contraception ranged from 6.1% to 8.2%.

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Figure 4.6.3 Percentage of currently married women aged 15-49 with unmet need for contraception by educational background [Bhutan NHS 2023].

Unmet need by income quintile

Women who were currently married or in a union and belonged to the lowest income quintile had the highest unmet need for contraception, standing at 9.6%. In contrast, those in the highest income bracket had the lowest unmet need, with a prevalence of 6.6%. For the remaining, the unmet need for contraception averaged around 9%.



Figure 4.6.4 Percentage of currently married women or in union women aged 15-49 with unmet need for contraception by income quintile [Bhutan NHS 2023].

Unmet need by area

Geographically, the unmet need for contraception among currently married women or in union women aged 15-49 was slightly higher in urban areas at 9.1% compared to rural areas at 8%. Among the 20 districts, Samdrupjongkhar had the highest unmet need at 19%, whereas Haa reported the lowest at 4.1%.





Dzongkhag

Figure 4.6.5 Percentage of currently married women or in union women aged 15-49 with unmet need for contraception by districts [Bhutan NHS 2023].

4.7 Fertility

Key findings

- Total Fertility Rate (TFR): The total fertility rate for the 3 years preceding the survey was 2.0 births per woman
- The median age at first birth among women aged 25-49 was 22.8 years.
- Teenage pregnancy: Among women aged 15–19, 4.5 % have been pregnant, 1.1 were currently pregnant, and 3.1 % have had a live birth.

Fertility analysis is central to demography as births are vital to population growth. Fertility is also considered one of the three principal components of population dynamics that determine the size, structure, and composition of the population in any country. Additionally, fertility provides important information about women's reproductive behavior and attitudes.

Current Fertility

The table below shows measures of current fertility which include age-specific fertility rates (ASFRs), total fertility rate (TFR), general fertility rate (GFR), and crude birth rate (CBR) by area.



Age group	Residence		Tatal
	Urban	Rural	Ισταί
15-19	14.8	22.1	18.6
20-24	81.0	142.5	113.4
25-29	131.7	139.4	135.8
30-34	106.6	96.7	101.1
35-39	48.0	43.7	45.4
40-44	12.0	14.7	13.8
45-49	[3.5]	[3.8]	3.5
TFR (15-49)	1.98	2.31	2.0
GFR	74.3	76.0	75.2
CBR	20.0	16.0	18.0

Table 4.7.a Age-specific fertility rates by area [Bhutan NHS 2023].

Notes: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1-36 months preceding the interview. Rates for the 10-14 age group are based on retrospective data from women aged 15-17.

TFR: Total fertility rate expressed per woman

GFR: General fertility rate expressed per 1,000 women aged 15-44

CBR: Crude birth rate expressed per 1,000 population

Age-specific Fertility Rate (ASFR) and Total Fertility Rate (TFR)

ASFR is expressed as the number of births per 1,000 women in a certain age group and is an important measure to assess the current age pattern of childbearing. As shown in the table above ASFRs varied from a high of 135.8 in the age group of 25-29 years to a low of 3.5 in the age group of 45-49 years. TFR is a summary measure of fertility, defined as the average number of births a woman would have by the end of her childbearing period if she experienced the current ASFRs. The 2023 NHS revealed a TFR of 2.0 which indicates that a Bhutanese woman, on average, would have 2 children by the end of her reproductive years if the current fertility pattern were to prevail.

GFR and **CBR**

The GFR is the number of live births per 1,000 women aged 15-49 years in a given period. As illustrated in the table, the GFR was found to be 75.2 births per 1,000 women. The survey also revealed a CBR, which is expressed as births per 1,000 populations, of 18.0 births per 1,000 populations.

Trend in Fertility Rate

The trends in ASFRs reflect changes in fertility rates for each specific age group at the given time period. Figure 4.7.1 illustrates the current ASFR trend in Bhutan as compared to the past NHS 2000 and 2012. Overall, the ASFR has dropped significantly across almost all age groups over the past two decades. The decline was substantial among the younger age groups of 15-19 years and 20-24 years. The ASFR among the 15-19 age group declined from a high of 61.7 in 2000 to 28.4 in 2012 to a current rate of 18.6. Similarly, the ASFR declined from 245.4 in 2000 to 134.7 in 2012 to 113.4 currently among the 20-24 years' age group.^(14,15,16)





Figure 4.7.2 Trend in total fertility rate [Bhutan NHS 2023].

The average number of births that a Bhutanese woman would bear over her reproductive lifespan has dropped from a high of 5.6 in 1994 to below replacement fertility level in 2023.

Children ever born and living

The women's questionnaire included questions related to the total number of children a woman has ever given birth to in her lifetime. The examination of children ever born (CEB) is important to understand changes in women's fertility behavior from the early stage of their reproductive age (15-19 years) to their later completed fertility stage (45-49 years).

Table 4.7.6 illustrates the distribution of ever-married women aged 15-49 years by age group, and number of children ever born. Ever-married women were defined as women who have been married at least once in their lifetime, although their current marital status may not be "married". Among women aged 15-49 years, 25.7% gave birth to two children, 19.7% to three children while 23.7% did not give any live births.

For all currently married women aged 15-49 years, the mean number of CEB was found to be 1.11. The mean number of CEB increased with women's age. The survey revealed that the mean number of children ever born varied from 0.03 to 3.24 for women of all reproductive age and from 0.31 to 2.86 among currently married women (Figure 4.7.3)





Figure 4.7.3 Mean number of children ever born [Bhutan NHS 2023].

Birth intervals

Birth spacing less than 24 months are associated with increased health complications for both the mother and child.⁽¹⁹⁾ Thus, optimal spacing is important to ensure the health of both the mother and child.



Figure 4.7.4 Median number of months since preceding birth [Bhutan NHS 2023].

Figure 4.7.4 displays the median number of months since the preceding birth across different age groups. For women aged 15-19, the median time since their last birth is relatively short, at 13 months, indicating a higher frequency of births within this age group. As women age, the median duration between births significantly increases. For the 20-29 age group, the median is 84.3 months, showing a substantial increase from the younger cohort. Similarly, women aged 30-39 have a median time of 83.7 months since their last birth, nearly the same as the 20-29 age group. However, for women aged 40-49, the median time since the preceding birth jumped to 127.1 months, indicating a much longer interval between births as women approach the end of their reproductive years. This pattern suggests that younger women tend to have births closer together, while older women experience longer intervals between births, likely due to a combination of biological, social, and personal factors.

The median birth interval was 24.8 months shorter when the preceding child had died (41.2 months) compared to when the child was living (66.0 months). Geographically, the median birth interval is higher in urban areas (111.3 months) compared to rural areas (93.1). When it comes to educational background, the median birth interval was highest among women with no education at 101.3 months as compared with women with a bachelor's degree and above at 64.8 months'. The highest median birth interval was reported among women in the lowest income quintile at 121 months and the lowest was reported among women with income quintile at 77.0 months.



Age at first birth

The onset of early-age pregnancy and childbearing has a substantial effect on the health of both the mother and the child. The survey asked all women aged 15-49 years about their age at first pregnancy.

Among women aged 25-49, 48.2% had their first child by age 25, 33.1% by age 22, and 21.1% by age 20. Additionally, 1.3% of women had their first child at age 15, raising concerns about teenage pregnancy. The median age at pregnancy for women aged 25-49 years was 22.8 years. The median age at first pregnancy was slightly higher among those living in urban areas (23.9%) compared to rural (21.9%).



Figure 4.7.5 Percentage of women age 15-49 who had first live birth by specific exact ages [Bhutan NHS 2023].

By district, the median age at first live birth for women aged 15-49 varied, with Trashigang having the lowest at 20.7 years and Thimphu the highest at 24.2 years. The median age at first birth also increased with wealth, from 21.8 years for women in the lowest income quintile to 24.3 years for those in the highest quintile.



Figure 4.7.6 Median age at first live birth among women age 25-49 by districts [Bhutan NHS 2023].

Adolescent Fertility

Adolescent/teenage pregnancy and motherhood is a major social and health concern. It not only poses a substantial health challenge to young women and children born to them but also deprives young women of educational and socioeconomic opportunities. The adolescent fertility rate, which is also referred to as the adolescent birth rate, is the number of live births to adolescent women (15-19 years) per 1,000 adolescent women. The survey found an adolescent fertility rate of 18.6 per 1,000 adolescent women which shows a decline from 28.4 in 2012 and a significant decline from 120.2 in 1994 and 61.7 in 2000.



Figure 4.7.7 Trend in adolescent fertility rate [Bhutan NHS 2023].

Sexual and Reproductive Health



4.8 Fertility Preferences

Key findings

- Desire for another child: In general, 59.0% of women do not want to have more children and 7% want to have another child soon.
- Ideal family size: The mean ideal number of children is 2.1% among women. The ideal family size increases within age groups from 1.3 for the age group 15-19 to 2.5 for the age group 45-49.

Desire for another child

Information on fertility preferences can help policymakers in family planning programmes to understand the desire of couples for children, the extent of mistimed and unwanted pregnancies, and the demand for contraception to space or limit births. Information on the desire for more children is important for understanding the future reproductive behaviours of women. Currently married women, whether pregnant or not, were asked about their intention to have another child. Those who reported that they wanted another child were further asked how soon they wanted the child. Information on those who were sterilized and declared infecund was also collected.

Figure 4.8.1 illustrates the percentage distribution of currently married women aged 15-49 based on their desire for another child according to the number of living children. Generally, the proportion of women wanting another child decreased as the number of living children increased, with a minor exception. Among women aged 15-49, 44.4% expressed a desire for another child, with the highest proportion among those with no children (92%) and the lowest among those with four children (27.5%).



Figure 4.8.1 Percentage of currently married women aged 15-49 who desire for another child by number of living children [Bhutan NHS 2023].

Ideal number of children

Respondents with no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" Respondents who had children were asked: "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"

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Nearly 40% of women aged 15-49 considered two children to be the ideal number, while 25% thought three was ideal. On the contrary, 16.2% of women responded having no children is ideal.

On average, the ideal number of children among all women aged 15-49 was 2.1, and it was 2.3 among currently married women. This ideal number increased with age, starting at 1.3 for women aged 15-19 and rising to 2.5 for those aged 45-49. Women in rural areas reported a slightly higher ideal number of children than those in urban areas (2.2 versus 2.1). The ideal number of children also decreased with higher income, from 2.2 among women in the lowest income quintile to 2.1 among those in the highest income quintile.



Figure 4.8.2 Percentage distribution of women aged 15-49 by ideal number of children [Bhutan NHS 2023].

Chapter 5

Child Health and Immunization



5.1 Childhood Vaccination

Key Findings

- Percentage of children age 12-23 months who received all basic vaccinations¹ by appropriate age according to vaccination card was 99.4%
- Percentage of children age 12-23 months who received Measles Mumps & Rubella (MMR 1) by appropriate age according to vaccination card was 99.4%
- Percentage of children age 12-23 months who received all age appropriate vaccinations² by according to vaccination card was 89.0%
- Percentage of children age 24-35 months who received all basic vaccinations by appropriate age according to vaccination card was 100.0%

A vaccination is considered to have been given at the appropriate age if the vaccination was given within the first 12 months for vaccines scheduled to be given in the first year of life and given within the first 24 months for vaccines scheduled to be given at 2 years of life.⁽²⁰⁾ In Bhutan, all childhood vaccines are given in the first year of life except for MMR 2 & DTP, which are scheduled to be given at 2 years of life. In NHS 2023, vaccination data were collected from vaccination cards. Only 41 women said they don't have a card or other document where vaccinations are written down and among those with a card or other document, only for 2 children the card or other document was not seen by the enumerator.



Figure 5.1.1 Percentage of children age 12-23 months who received specific vaccines at any time before the survey [Bhutan NHS 2023].

- 1 BCG, three doses of DTP-Hep B-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), and MMR1
- 2 For children 12-23 months: BCG, hepatitis B (birth dose), three doses of pentavalent (DTP-Hep B-Hib), four doses of oral polio vaccine, three doses of pneumococcal vaccine, and MMR1.

5.2 Infant and Child Mortality

Key Findings

- The neonatal mortality rate (dying before reaching the age of 1 month)³, infant mortality rate (on or after the age of 1 month but before reaching the age of 1), and under-5 mortality rate (dying before reaching the age of five) were 6.9, 15.2, and 19.5 deaths per 1,000 live births, respectively.
- The postneonatal mortality rate (on or after the age of 1 month but before reaching the age of 1), and child mortality rate (on or after their first birthday but before reaching the age of five) are 8.3 and 4.3 deaths per 1,000 live births, respectively.
- Between 2012 and 2023, neonatal mortality fell from 21.0 to 6.9, infant mortality declined from 30.0 to 15.2, and under-5 mortality fell from 37.3 to 19.5 deaths per 1,000 live births.

Estimation method used in NHS 2023: There are two principal categories of estimation methods for calculating infant and child mortality rates: direct and indirect. NHS 2023 used a synthetic cohort life table⁴ which is the method that the DHS has chosen to use. Synthetic cohort life table approach is one of the three variants of direct estimation methods for estimating infant mortality rates and other rates.

Infant and under-five mortality rates are critical health indicators. They reflect healthcare adequacy, nutrition, sanitation, and maternal health. The Infant Mortality Rate (IMR) indicates the probability of a child dying in the first year per 1,000 live births. The Under-Five Mortality Rate (U5MR) measures the likelihood of dying before age five per 1,000 live births. The Neonatal Mortality Rate counts deaths within the first 30 days per 1,000 live births in a year.

One of the targets of Sustainable Development Goal (SDG) 3 is to end preventable deaths of newborns and children under 5 years of age, with all countries committed to reducing neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to 25 per 1,000 live births. The SDG targets are translated into successive national five-year development plans with the current 13th Five-Year Plan (2024-2029) for the Health Sector set to reduce the U5MR from 19.5 to 17.0 by 2029.⁽²⁾

The neonatal mortality rate was estimated at 6.9 deaths per 1,000 live births. The probability of dying during the first year of life was estimated at 15.2 deaths per 1,000 live births, the under-5 mortality rate (U5MR) was found to be 19.5.

[Discussion Note: Globally, neonatal mortality is typically higher than postneonatal mortality. However, this trend is reversed in Bhutan. The country experiences approximately 69 neonatal deaths annually out of about 10,000 live births. This is a commendable achievement, likely due to several factors, including a 98% institutional delivery rate, the practice of Kangaroo Care, improvements in NICU and PICU services, and the implementation of a protocol for administering thiamine to children with Meningoencephalitis or acute encephalopathy since August 2018, Mobile Cardiotocography (iCTG) amongst other factors]

³ DHS's definition is deaths at ages 0 to 30 days, including deaths reported at age zero months. WHO's definition is deaths during the first 28 completed days of life (0-27 days).

⁴ A synthetic cohort life table approach in which mortality probabilities for small age segments based on real cohort mortality experience are combined into the standard age segments. This approach allows full use of the most recent data and is also specific for time periods.



Figure 5.2.1 Early childhood mortality per 1000 live births in the 5-years period before the survey [Bhutan NHS 2023].



Figure 5.2.2 Trend in early childhood mortality rates, death per 1000 live births, between 1984 and 2023 [Bhutan NHS 2023].

The IMR and U5MR witnessed a steady decline over the years, dropping from triple digits during the first national health survey in 1984 to 15 and 20 deaths per 1000 live births respectively by 2023 (Figure 5.2.2).

Overall, there is a significant difference in the probability of dying between the male and female child with male child mortality higher than their counterpart across all given age categories (Table 5.2.1). The neonatal and infant mortality rates among males were estimated at 8.9 and 20.5 respectively, which is around fifty percent higher as compared to their counterparts. Similarly, the under-five mortality rate among male children was estimated at 24.2, while the mortality rate for their counterparts was estimated at 14.5.

Chapter 5

In terms of place, the risk of dying was comparatively higher in rural than urban areas across all given child age categories. While the neonatal mortality rate in urban areas was estimated at 5.0, it was comparatively higher in rural areas at 8.3. Almost a similar gap was observed in the infant mortality rate. The gap was much higher for the under-five mortality rate, with the rural mortality rate estimated at 23.5 as compared to urban areas with 13.7.

Child Health and Immunization



Figure 5.2.3 Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 5-year period preceding the survey (per 1000 live births), according to background characteristics [Bhutan NHS 2023].

5.3 Child's Size at birth

Key Findings

- Among the live births in the 2 years preceding the survey, 98.6% of had a reported birth weight.
- Out of the births with a reported birth weight, 6.9% of them were less than 2.5 kg.
- There is a notable difference in the prevalence of low birth weight between urban and rural areas. In urban areas, 4.9% of births were under 2.5 kg, compared to 8.4% in rural areas.

Information on birth weight was derived from MCH Handbook or the mother's recall. Among the live births in the 2 years preceding the survey, 98.6% had a reported birth weight.

The prevalence of low birth weight (<2.5 kg) was 6.9% (Figure 5.3.1). The prevalence of low birth weight was lower in urban areas at 4.9% compared to 8.4% in rural areas, indicating a comparatively higher risk for low birth weight in rural regions.





Figure 5.3.1 Percentage of live birth with birth weight less than 2.5 Kg by area (urbal/rural) [Bhutan NHS 2023].

The prevalence of low birth weight among newborns varies significantly with the mother's age (Figure 5.3.2). Mothers under 20 years old have the lowest rate at 2.5%, while those aged 20-34 have a higher rate of 5.9%. The highest prevalence, 10.9%, was observed in mothers aged 35-49, indicating increased risk with advancing maternal age.



Figure 5.3.2 Percentage of live birth with birth weight less than 2.5 Kg by mother's age group [Bhutan NHS 2023].

5.4 Infant and Young Child Feeding Practices

Key Findings

- 81.8 % of the children below two years of age started breastfeeding within one hours of birth
- 69.4 % of the children aged 0-5 months old were exclusively breastfed
- 86.7% of the children aged 12-23 months were currently breastfed
- Around 4.2% of children aged 0-5 months were never breastfed
- For the entire 0–5 month age group, the overall rate of exclusive breastfeeding has increased from 51.4% in 2015 to 69.4% 2023.

Optimal infant and young child feeding practices, particularly from birth to two years of age, are essential for survival and healthy development. Breastfeeding offers protection from infection,



ideal nutrition, and is cost-effective and safe. However, many regions struggle with suboptimal breastfeeding practices, leading to early cessation and insufficient exclusive breastfeeding. This issue is exacerbated by pressures to use infant formula, which can be dangerous in unsanitary conditions. From six months onward, combining breastfeeding with safe, appropriate complementary foods can improve health and growth, reducing stunting. UNICEF and WHO recommend initiating breastfeeding within one hour of birth, exclusive breastfeeding for six months, and continued breastfeeding up to two years and beyond.⁽²¹⁾



Figure 5.4.1 Percent of infants aged 0-5 months receiving breastmilk only, breastmilk and plain water, breastmilk and non-milk liquids, breastmilk and other milk/formula, breastmilk and complementary foods and no breastmilk [Bhutan NHS 2023].

For the entire 0–5-month age group, the overall rate of exclusive breastfeeding has increased from 51.4% in 2015 to 69.4% 2023.⁽²²⁾ Exclusive breastfeeding rates decline with increasing age: 84.1% at 0-1 months, 79.6% at 2-3 months, and 55.4% at 4-5 months. At 4-5 months, a notable 18.8% received breast milk and plain water, 11.4% were given breast milk and non-milk liquids, and 5.8% were fed breast milk and solid, semi-solid, or soft foods, with another 5.8% not being breastfed at all. Comparatively, exclusive breastfeeding was slightly higher among male infants (70.1%) than female infants (68.5%), and was marginally more common in rural areas (70.2%) than in urban areas (68.0%). By income quintile, exclusive breastfeeding was highest among the second quintile (82.8%) and lowest in the middle and fourth quintiles (59.2% and 58.1%, respectively).



5.5 Acute Respiratory Infection, Fever, Diarrhoea, and Care-seeking Behavior

Key Findings

- Among children under five years of age, 2.5% exhibited symptoms of Acute Respiratory Infection (ARI) in the 2 weeks before the survey, 36.4% had a fever, and 17.7% experienced Diarrhoea.
- Among children under five years of age, 64.7% of those with ARI symptoms, 60.9% with fever, and 52.6% with Diarrhoea sought advice or treatment.

Child health is crucial, particularly in children under five who frequently suffer from Acute Respiratory Infections (ARI), fever, and Diarrhoea. These conditions are major contributors to child morbidity and mortality, especially in low- and middle-income countries. Symptoms of ARI include short, rapid breathing which was chest-related and/or difficult breathing which was chest-related. Fever, often indicative of infections, needs careful management with hydration and antipyretics. Diarrhoea can lead to severe dehydration and malnutrition, best managed with oral rehydration therapy and continued feeding.⁽²³⁾



Figure 5.5.1a Percentage of children under age 5 who had symptoms of acute respiratory infection (ARI) in the 2 weeks before the survey by sex [Bhutan NHS 2023].







Health facilities across the countries see a notable number of children with ARI and acute ARI. About 2.5% among children under five had symptoms of ARI (Figure 5.5.1a). The prevalence of Acute Respiratory Infection (ARI) symptoms was 2.2% among male children and 2.9% among female children. Advice was sought for 64.7% of the children with ARI. Majority of advice or treatment was sought from health facilities (89.8%) followed by local healers (4.6%) and spiritual/lama (4.5%).

ARI symptoms were highest among children of women with primary or less education and certificate/ diploma level education, at 4.1% and 5.6% respectively. There was a slight increase in ARI symptoms among children born to women in higher income quintiles. The percentage of children seeking advice or treatment for ARI symptoms on the same day was higher among those with higher educational levels and higher income quintiles.



Figure 5.5.2 Percentage of children under age 5 who had symptoms of acute respiratory infection (ARI) in the 2 weeks before the survey by Dzongkhag [Bhutan NHS 2023].

Children with fever and care seeking behavior for fever



Figure 5.5.3a Percentage of children under age 5 who had fever in the 2 weeks before the survey by sex [Bhutan NHS 2023].





Figure 5.5.3b Among children age 5 with fever, percentage for whom advice or treatment was sought [Bhutan NHS 2023].

Fever is an abnormally high body temperature, which is usually accompanied by shivering, headache, and restlessness. Fever indicates the presence of various illnesses, which can include malaria, measles, pneumonia, influenza, and other infections. It was reported that 36.4% children had fever in the 2 weeks preceding the survey (Figure 5.5.3a) and advice or treatment was sought for 60.9% of the children (Figure 5.5.3b).



Figure 5.5.4 Percentage with symptoms of fever among children aged 5 by Dzongkhag [Bhutan NHS 2023].



Fever was most prevalent among children aged 12-23 months (43%). Fever occurrence was slightly higher in male children (38.1%) compared to female children (34.6%). The incidence of fever in children increased with the mother's wealth quintile, while no significant difference was observed across different educational levels. Health-seeking behavior for fever showed no significant variation among women from different income quintiles and educational levels.



Children with Diarrhoea and care seeking for Diarrhoea

Figure 5.5.5a Percentage of children under aged 5 who had symptoms of Diarrhoea in the 2 weeks before the survey by sex [Bhutan NHS 2023].



Figure 5.5.5b Among children aged 5 with symptoms of Diarrhoea, percentage for whom advice or treatment was sought [Bhutan NHS 2023].

Diarrhoeal diseases remain as one of the leading causes of morbidity among children in Bhutan. Oral rehydration therapy (ORT) and supplemental zinc, combined with continued feeding, are the recommended interventions for treating Diarrhoea.⁽²³⁾ The prevalence of Diarrhoea among children under five was 17.7% (Figure 5.5.5a) and advice and treatment was sought for 52.0% of the children (Figure 5.5.5b).





Figure 5.5.6 Percentage with symptoms of Diarrhoea among children age 5 by Dzongkhag [Bhutan NHS 2023].

The prevalence of Diarrhoea was highest among children aged 12-23 months (25.4%), followed by those aged 6-11 months (20.2%). Diarrhoea was slightly more prevalent in male children compared to female children (18.6% versus 16.8%). Urban areas had a higher prevalence of Diarrhoea among children (19.7%) compared to rural areas (16.3%). As shown in Figure 5.5.6 by district, the highest prevalence rates were in Haa (29.5%), Dagana (25.2%), and Samtse (22.4%).



Children with Diarrhoea are advised to be given more liquids than usual and as much food or more than usual. Overall, 37.6% of children were given more liquids than usual while 35.1% were given usual liquids and 25% were given somewhat less or much less liquids than usual (Figure 5.5.7). With regards to food, 18.9% were given more food than usual, 34.4% were given usual amount of food and 39.2% gave somewhat less or much less food than usual.



Oral rehydration salts, zinc, continued feeding and other treatments for Diarrhoea

Among children who had Diarrhoea in the 2 weeks preceding the survey, 52.3% of the children were given fluid from ORS packet or pre-packaged ORS fluid, 42.5% were given zinc and 33.0% were given ORS and zinc. Overall, 47.4% of the children with Diarrhoea were not given any treatment.

5.6 Soil Transmitted Helminths (STH)

Key Findings

- A total of 752 samples were collected and screened for STH from 6 to 12 years of age (both boys and girls).
- 0.40% of samples were positive for STH and 3.05% were positive for other intestinal protozoan parasites.
- The overall prevalence of either STH or intestinal protozoan parasites was 3.45%.
- The prevalence of STH has decreased from about 70% in the 1980s to 0.4% in 2023.

In NHS 2023, a child within the age range of 6 to 12 years was specifically selected from each primary sampling unit (PSU) for screening soil-transmitted helminths. Stool specimens were obtained using sterile wide-mouth clinical containers and subsequently divided into two cryovials. One set was preserved in 10% formalin for wet microscopy, while the other set contained absolute ethanol for polymerase chain reaction (PCR). Throughout transportation, the samples were stored at a temperature of 2-4°C until the testing phase, maintaining the cold chain integrity. 10% formalin samples were screened by trained laboratory staff for STH and other intestinal parasites within 14 days of sample collection. Subsequent analysis involved performing multiplex PCR for the detection of STH. Samples for PCR testing were shipped following triple packaging guidelines and transported with dry ice following the IATA regulations (UN3373). The multiplex PCR testing was carried out at the Wellcome Trust Research Laboratory, Christian Medical College in Vellore, South India.

Standard protocol as per the National guideline on infection control and medical waste management was followed for laboratory waste management. To ensure quality assurance, known control samples were provided, with each batch of tests performed. Quality control organisms, including eggs, larvae, and cysts of hookworm, roundworm, and whipworm, were utilized for this purpose. A total of 752 samples were collected from children, both boys and girls, aged 6 to 12 years as part of the soil-transmitted helminths (STH) screening conducted during the survey. The table below illustrates the prevalence of soil-transmitted helminths and other identified intestinal parasites. The overall prevalence of STH was determined to be 0.40%. Additionally, the prevalence of other intestinal parasites/protozoa was 3.05%, with a combined prevalence of STH and protozoa at 3.45%.


Table 5.6.a Prevalence of soil transmitted helminths and other intestinal/protozoan parasites among 6 to 12 years old children [Bhutan NHS 2023].

Types of Soil Transmitted Helminths	Prevalence (%)
Ascaris lumbricoides	0.18
Trichuris trichiura	0.11
Necator americanus	0.11
Total Soil Transmitted Helminths	0.40
Other intestinal/protozoan parasites	Prevalence (%)
Enterobius vermicularis	0.37
Entamoeba spp.	1.52
Giardia cyst	1.16
Other intestinal parasites	3.05
Overall prevalence (Any STH and Other parasites/protozoan)	3.45

The prevalent types of STH included *Ascaris lumbricoides* (0.18%), *Trichuris trichiura* (0.11%), and *Necator americanus* (0.11%). Other frequently observed intestinal parasites encompassed *Entaemobea spp.* (1.52%) and *Giardia cyst* (1.16%).



Figure 5.5.1 Trend of soil transmitted helminths prevalence in Bhutan [Bhutan NHS 2023].

Note: Three STH surveys has been carried out in 1985, 1986, and 1989 and these surveys found STH prevalence between 20% and 70%

Of the total samples tested by microscopy, 16.88% (n=127) samples were randomly selected for multiplex PCR on four STH parasites. One sample initially diagnosed as *Entamoeba* through microscopy was tested positive for *Necator americanus* upon PCR testing. Another sample identified as *Ascaris lumbricoides* by microscopy was negative in PCR analysis. Additionally, a sample identified as *Ascaris lumbricoides* by microscopy was detected with double infection of *Ascaris lumbricoides* and *Trichuris trichiura* by PCR. However, all the samples reported negative by microscopy were tested negative by PCR analysis.

Despite the low prevalence of STH at 0.40%, the overall prevalence of the STH along with other intestinal protozoan parasites stands at 3.45%. Reduction in the prevalences of STH from about 70% in 1980s to 0.4% in 2023 is another public health success of Bhutan.

Chapter 6



Nutrition and Micronutrients



6.1 Household food security and dietary diversity

Key Findings

- The percentage of household facing food insecurity in Bhutan was 4.9%.
- Only 0.3% of households had a poor food consumption score (FCS) and 3.7% of the households had a borderline FCS.
- Dietary diversity patterns show a homogeneous food consumption pattern across rural urban areas and income quintile groups.

Food Consumption Score

Food Consumption Score (FCS) is a "composite score based on dietary diversity, food frequency, and relative nutritional importance of different food groups" developed by the World Food Programme (WFP). The FCS divides households into three categories based on their food consumption: poor, borderline, and acceptable, which indicates household food security. Data shows that 0.3% of the households had a poor FCS while 3.7% of the households had a borderline FCS (Figure 6.1.1a). Income quintile groups (figure 6.1.1b) observed negligible variations in the FCS.



Figure 6.1.1a Household food consumption score [Bhutan NHS 2023].



Figure 6.1.1b Household food consumption score by income quintile groups [Bhutan NHS 2023].

Figure 6.1.2 shows the average number of times that households ate foods from each food group in the week. Dietary diversity pattern shows a homogeneous food consumption pattern across rural/urban areas and income quintile groups with cereals and grains being the most consumed by the population all seven days in a week. Data also reveals a poor consumption of fruits, vegetables and animal source protein with consumption ranging between 1.5 and 2.5 days per week among the population.



Organ meat	0.2	0.2	-0.1-	0.2	-0.1-	-0.1	-0.1-	0.2
Fish/shellfish	0.8	0.8	0.8	0.9	0.8	0.8	0.8	-0.7
Orange vegetables	1.4	1.8	-1.1-	-1.1-	1.3	1.3	1.5	1.7
Flesh meat	1.4	1.5	1.3	1.2	1.3	1.3	1.4	1.7
orange fruits	1.9	2.2	1.7	1.6	1.7	1.8	2	2.5
Pulses/Legumes/Nuts	2.4	2.5	2.3	2.4	2.3	2.3	2.3	2.6
Fruits	2.5	3.3	2.1	1.8	2	2.4	2.7	3.6
Green Leafy vegetables	2.6	3.3	2.2	2	2.2	2.6	2.8	3.3
Eggs	2.7	3.2	2.4	22	2.3	2.6	2.9	3.5
Roots & Tubers	3.7	3.7	3.7	3.8	3.9	3.9	3.7	3.4
Sugar/sweet	4	4	4	3.5	3.9	4.1	4.2	4.3
Milk & other Dairy Products	5.2	5.2	5.2	4.8	5.1	5	5.3	5.6
Condiments/Spices	5.4	5.4	5.5	5.2	5.4	5.5	5.5	5.6
Oil/Fat/Butter	6.7	6.7	6.6	6.5	6.7	6.7	6.7	6.7
Cereals & Grains	6.7	6.7	6.8	6.6	6.8	6.8	6.7	6.8
N	lational	Urban	Rural	Lowest	Second	Middle	Fourth	Highest

Figure 6.1.2 Household dietary diversity [Bhutan NHS 2023].

The data provides insights into the dietary patterns in terms of the number of days various food items were consumed by households on a national level, and compares urban and rural areas.

National Level Consumption:

Almost all households consumed cereals and grains (6.7 days) and oil/fat/butter (6.7 days) every day, making them a staple in the diet. Roots and tubers were consumed 3.7 days a week, showing moderate frequency in meals. Pulses, legumes, and nuts were eaten 2.4 days a week. Milk and dairy products were included significantly in the diet, being consumed 5.2 days a week. Flesh meat, fish and shellfish were minimally included in the diet and consumed 1.4 and 0.8 days a week. Organ meat was very rarely consumed at 0.2 days a week indicating a very lower frequency of consumption, while eggs were eaten 2.7 days a week, showing moderate frequency.

Orange vegetables were occasionally included in the diet, with a consumption rate of 1.4 days a week. Green leafy vegetables were consumed regularly, 2.6 days a week, and fruits were included moderately at 2.5 days a week. Orange fruits were consumed 1.9 days a week. Oil, fat, and butter were used daily, being consumed 6.7 days a week. Sugar and sweets were eaten 4.0 days a week, showing moderate frequency. Condiments and spices were regularly used, with a consumption rate of 5.4 days a week.

Both urban and rural households exhibit nearly daily consumption of cereals and grains, with urban households averaging 6.7 days per week and rural households averaging 6.8 days per week. Rural households had much less diverse diets than urban households and consumption of pulses, legumes, flesh meat, fish and shellfish and eggs were higher among urban households. However consumption of milk and dairy products were almost similar among the rural and urban households. The consumption of oil, fat, and butter was nearly identical in both urban (6.7 days per week) and rural (6.6 days per week) areas.



Urban households also have a higher intake of orange vegetables (1.8 days per week) compared to rural households (1.1 days per week). Fruits intake were higher in urban areas (3.3 days per week) compared to rural areas (2.1 days per week). There was a notable difference in the consumption of protein sources like flesh meat and eggs, which were consumed more frequently in urban areas than rural areas.

Household food security

According to the the Food and Agriculture Organization of the United Nation's, food nutrition security is achieved when "all people, at all times, have physical and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life". The NHS 2023 asked households if there been a situation when the household did not have enough food to feed all the members in the preceding 12 months. Those who said 'Yes' were categorized as household facing food insecurity issues.

The percentage of household in Bhutan with food insecurity was 5.1, which was slightly higher in rural areas compared to urban areas (Figure 6.1.1a).

Household food insecurity increased from 2.9% in 2015 to 5.1 in 2023 (Figure 6.1.1b). This might be because the country was coming out of the COVID-19 pandemic in the preceding 12 months where people lost their employment and income thereby affecting their household food security.



Figure 6.1.3a Percentage of household facing food insecurity [Bhutan NHS 2023].



Figure 6.1.3b: Trends in household food insecurity from 2010 to 2023 [Bhutan NHS 2023].

6.2 Child Nutrition

Key finding

- 5.1% of children under five were too thin for their height, known as wasting.
- 17.9% of children under five were too short for their age, indicating stunting.
- 8.7% of children under five were underweight.
- The prevalence of stunting has decreased from 33.5% in 2010 to 17.9% in 2023.

Background

The NHS 2023 provides an analysis of the nutritional status of children under the age of five, focusing on three key indicators: stunting (height-for-age), wasting (weight-for-height), and underweight (weight-for-age). These indicators are critical for understanding the health and nutritional well-being of children in different demographic segments, including age, sex, mother's education, residence, income, quintiles and Dzongkhag.



Stunting (height-for-age)

Figure 6.2.1 Percentage of children under age 5 classified as stunting (height-for-age) [Bhutan NHS 2023].

The overall prevalence of stunting was 17.9% (Figure 6.2.1). Stunting was most prevalent in children aged 24-35 months at 20.3% and least prevalent in children aged 0-11 months at 13.3%. The prevalence was slightly higher in males (18.5%) compared to females (17.2%). It was highest among children whose mothers have no education (23.5%) and lowest among those with mothers holding certificates or diplomas (15.2%). The prevalence was nearly equal in urban (18.0%) and rural (17.9%) areas. It was highest in the lowest income quintile (21.1%) and lowest in the middle income quintile (16.1%).





Figure 6.2.2 Percentage of children under age 5 classified as stunted (Weight-for-height) [Bhutan NHS 2023].

The overall prevalence was 5.1%. It was highest in children aged 0-11 months at 5.9% and lowest in children aged 36-47 months at 4.2% (Figure 6.2.2). The prevalence was slightly higher in females (5.4%) compared to males (4.9%). It was highest among children whose mothers have lower secondary education (7.1%) and lowest among those whose mothers have a Bachelor's, Master's, or PhD education (2.6%). The prevalence was equal in both urban and rural areas at 5.1%. It was highest in the lowest income quintile (7.2%) and lowest in the middle income quintile (3.3%).



Underweight (Weight-for-age)

Figure 6.2.3 Percentage of children under age 5 classified as stunted (Weight-for-age) [Bhutan NHS 2023].

The overall prevalence of underweight (Weight-for-age) among children was 8.8%. The prevalence was highest in children aged 48-59 months, with 9.9%, and lowest in children aged 36-47 months, at 7.5% (Figure 6.2.3). There was a slight difference in prevalence between sexes, with females at 8.7% and males at 8.6%. Regarding maternal education, the prevalence was highest among children whose mothers have no education, with 11.5%, and lowest among those whose mothers have a Bachelor's, Master's, or PhD education, with 6.3%. Residence-wise, underweight prevalence was slightly higher in rural areas (8.7%) compared to urban areas (8.5%).

The prevalence of underweight was higher in the least income quintile (11.9%), and lowest in the middle income quintile, with 7.4%. These statistics underscore significant disparities influenced by age, maternal education, residential location, and socioeconomic status among children as indicated by the survey.

6.3 Anemia

Anemia is a condition in which the number of red blood cells or their oxygen-carrying capacity is insufficient to meet physiological needs which varies by age, sex, altitude, smoking and pregnancy status. Iron deficiency is identified as the commonest cause of anemia and the WHO estimates that half of these cases are caused by it. Other conditions such as folate, cyanocobalamin and vitamin A deficiency, parasitic infections, chronic inflammation and genetic disorders are also cause anemia. (24)

Anemia is associate with fatigue, weakness, dizziness and drowsiness when it manifests in severe form. Children and pregnant women in particular have been identified as vulnerable groups. Globally 29% (496 million) of non-pregnant women and 38% (32.4 million) of pregnant women were found to be anemic in 2011. Anemia increases the risk of adverse maternal and neonatal outcomes. ⁽²⁵⁾ Given the public health significance, the WHO, during its 65th session of the World Health Assembly in 2012, endorsed anemia as the second global nutrition target for 2025, with target to achieve 50% reduction of anemia in women of reproductive age.

Furthermore, the WHO recommends daily iron and folic acid supplementation as a part of antenatal care for all pregnant women and a weekly supplementation for menstruating women where the prevalence of anemia in the population is over 20%. This recommendation has now been identified as essential nutrition actions to improve maternal, newborn, infant and young child health and nutrition.

The National Nutrition Survey of Bhutan 2015 reported a significant reduction in the prevalence of anemia in children aged 6-59 months from 80.6% in 2003 to 43.8% in 2015. Despite these reductions, anemia among children aged 6-59 months continues to be an issue of 'severe' public health significance in the country, based on the anemia prevalence categorization of the WHO. The prevalence of anemia among adolescent girls stood at 31.1%, 27.3% among pregnant women and 34.9% among women of reproductive age of which are categorized as issues of 'moderate' public health significance.

Study population

HemoCue 301 analyzer was used for measuring haemoglobin concentration from the capillary blood, expressed in grams per deciliter (g/dL). The survey analyzed the haemoglobin for the four population groups;

- i. Children (6 59 months)
- ii. Non-pregnant women (15 49 years)
- iii. Adolescent girls (10-19 years) and
- iv. Pregnant women (15 49 years)

The measured haemoglobin values were adjusted in line with WHO recommendations, using the altitudes recorded for each individual and cutoff value as mentioned in the table below for defining anemia.



Definition

The following cutoff criteria will be used to define anemia.

Table 6.3.a Haemoglobin cutoffs to define anemia in individuals and populations [Bhutan NHS 2023].

Population	Haemoglobin concentration (g/L)*
Children, 6 - 23 months	<105
Children, 24 – 59 months	<110
Children, 5 – 11 years	<115
Children, 12 – 14 years (non-pregnant girls)	<120
Children, 12 – 14 years (boys)	<120
Adults, 15 – 65 years (non-pregnant women)	<120
Adults, 15 – 65 years (men)	<130
Pregr	nancy
First trimester	<110
Second trimester	<105
Third trimester	<110

*based on 5th percentile

The table below shows the cutoffs is used to determine the severity of anemia

Table 6.3.b Haemoglobin cutoffs to define anemia severity in individuals [Bhutan NHS 2023].

	Haemoglobin concentration (g/L)*			
Population	No anemia	Mild anemia	Moderate anemia	Severe anemia
Children, 6 - 23 months	≥105	95 – 104	70 – 94	<70
Children, 24 – 59 months	≥110	100 – 109	70 – 99	<70
Children, 5 – 11 years	≥115	110 – 114	80 – 109	<80
Children, 12 – 14 years (non-pregnant girls)	≥120	110 – 119	80 – 109	<80
Children, 12 – 14 years (boys)	≥120	110 – 119	80 – 109	<80
Adults, 15 – 65 years (non-pregnant women)	≥120	110 – 119	80 – 109	<80
Adults, 15 – 65 years (men)	≥130	110 – 129	80 – 109	<80
Pregnancy				
First trimester	≥110	100 – 109	70 – 99	<70
Second trimester	≥105	95 – 104	70 – 94	<70
Third trimester	≥110	100 – 109	70 – 99	<70

*Based on 5th percentile

The haemoglobin levels will be adjusted as per the criteria as presented in table 3 below.



Table 6.3.c Adjustments to haemoglobin concentration (g/L) in 500m increments in elevation [Bhutan NHS 2023].

Elevation range (meters above sea level)	Adjustments ^a in haemoglobin concentration (g/L) ^b
1 – 499	0
500 – 999	4
1000 – 1499	8
1500 – 1999	11
2000 – 2499	14
2500 – 2999	18
3000 – 3499	21
3500 – 3999	25
4000 – 4499	29
4500 – 4999	33

^a Adjustments are the amount substracted from an individual's observed haemoglobin level or added to the haemoglobin cutoff defining anemia (g/L)

^b Proposed adjustments for all population groups based on equation;
haemoglobin adjustment (g/L) = (0.0056384 X elevation) + (0.0000003 X elevation)

Results

The prevalence of anemia is summarized in the figure 6.3.1. The highest anemia was found amongst the children 6 - 59 months (44.7%) and lowest among the pregnant women 15 - 49 years (33.3%).



Figure 6.3.1 Trend in Anemia prevalence among different categories of study population [Bhutan NHS 2023].

The prevalence of anemia amongst the children 6 – 59 months has significantly dropped from 80.6% in 2003 to 43.8% in 2015 and a slightly increase to 44.7% in 2023. Similarly the anemia prevalence amongst the non-pregnant women also dropped significantly from 54.8% in 2003 to 40.9% in 2023. According to the WHO's classification, anemia among children in Bhutan represents a "severe" public health issue with the prevalence anemia more than 40%.



Figure 6.3.2 Anemia prevalence 2003, 2015 and 2023 [Bhutan NHS 2023].

Table 6.3.d Classification of public health significance of anemia in populations based on prevalence estimated from blood levels of hemoglobin [Bhutan NHS 2023].

Prevalence of anemia (%)	Category of public health significance	NHS 2023
< 4.9	Normal	
5-19.9	Mild	
20-39.9	Moderate	36.5% - Adolescent girls (10-19 years) 33.3% - Pregnant women (15-49 years)
> 40	Severe	44.7% - Children(6 – 59 months) 40.9% - Non-pregnant women (15-49 years)



Figure 6.3.3 Anemia severity prevalence [Bhutan NHS 2023].

Among children aged 6-59 months, severe form of anemia was only 0.7% and it remains similar to 2015 National Nutrition Survey. While 2.1% of pregnant women and 1.3% of non-pregnant women had severe anemia, only 0.1% of Adolescent girls had severe anemia. While the national data indicate a severe public health concern based on the classification of public health significance, most of the anemia cases were mild.

6.4 Micronutrients Assessment

Key Findings

- Among women (15-49 years): The percentage with micronutrient deficiency was vitamin D (90.5%), ferritin (59.8%), folate (45.2%), vitamin B12 (32.7%), calcium (24.0%), vitamin B2 (8.4%), vitamin B1 (3.3%), and vitamin A (0.4%).
- Among adolescent (10-19 years): The percentage with micronutrient deficiency was vitamin D (93.9%), ferritin (43.4%), folate (30.3%), vitamin B12 (27.6%), calcium (12.4%), vitamin B2 (9.3%), vitamin B1 (2.4%), and vitamin A (0.2%).
- Ferritin deficiency among women aged 15-49 years (59.8%) is a high magnitude public health problem as per the WHO guideline on use of ferritin concentrations to assess iron status in individuals and populations. As per the guideline, prevalence range of ≥40.0 % is classified as high magnitude public health problem.
- Both adolescent and women had almost no vitamin A insufficiency or deficiency with less than 1% of the study population having vitamin A insufficiency or deficiency.

This is the first population-based survey for micronutrients assessment conducted in Bhutan. In this survey, the target population for micronutrients analysis were adolescent boys and girls (10-19 years) and women aged 15-49 years old. A total of 1590 blood samples were collected from two population groups to generate nationally representative results. From each participant, 5-10 ml of venous blood samples (fasting blood samples) was collected in accordance with the standard operating procedure. Each sample was identified using a unique sample identification code. The unique sample ID was auto generated as per the protocol set by NSB.

The micronutrients analysed were: Ferritin, Folate,Vitamin B12, Calcium, Vitamin D, Vitamin A, Vitamin B1, and Vitamin B2. Tests were conducted at the JDWNRH Laboratory, Royal Centre for Disease Control (RCDC), and Dr. Lal Path Labs Ltd., India, as per the testing methodologies presented in Table 6.4.1. A cold chain was maintained throughout the sample shipment process and it adhered to IATA (UN3373 Biological Substance Category B) guidelines. All the samples were stored in -80°C until testing. The internal laboratory quality control was performed using IQC materials (Low/ Normal/High) and interpreted as per the Westgard rules to rule out any laboratory analytical errors.

The three micronutrients (vitamin A (Retinol), vitamin B1 (Thiamine) and vitamin B2 (Riboflavin)) were outsourced for testing to Dr. Lal Paths Laboratory, New Delhi, India. Dr. Lal Path Labs Limited is a diagnostic and related healthcare testing laboratory, Accredited ISO 9001:2015, (FS60411) and ISO 27001:2013 (616691), NABL certified laboratory.





* All samples should be labelled with unique sample ID

** The person should be on fasting for 9-12 hours prior to sample collection

Figure 6.4.1 Sample collection and preparation for micronutrients analysis [Bhutan NHS 2023].

Parameters	Methodology	Samples	Analysing Laboratory
Ferritin	Electrochemiluminescence (ECL)	Serum	RCDC
Vitamin B9	Electrochemiluminescence (ECL)	Serum	RCDC
Vitamin B12	Electrochemiluminescence (ECL)	Serum	RCDC
Vitamin D	Electrochemiluminescence (ECL)	Serum	RCDC
Calcium(non-ionized)	Modified Arsenazo III method	Serum	JDWNRH
Vitamin A	HPLC-FLD	Serum	Dr. Lal Path
Vitamin B1	LC-MS/MS	Whole blood	Dr. Lal Path
Vitamin B2	HPLC-FLD	Whole blood	Dr. Lal Path

There were 942 samples for women 15-49 years old and 748 samples for the adolescents aged 10-19 years old (480 male and 268 female).

Among the tested micronutrients, the prevalence of vitamin D insufficiency or deficiency was observed to be the highest in both adolescent and women groups, 93.9% and 90.5% respectively (Figure 6.4.2). With the insufficiency or deficiency percentages of less than 1%, both study groups had almost no vitamin A insufficiency or deficiency.





Figure 6.4.2 Percentage of micronutrient deficiency or insufficiency by target two groups [Bhutan NHS 2023].

Ferritin

Serum ferritin is the most specific biomarker used to determine total body iron stores in an individual and it is a recommended indicator to assess iron status. A low concentration of serum ferritin indicates iron deficiency.⁽²⁶⁾

In this survey, the serum ferritin cutoff value for defining depleted iron stores used was <30 ng/mL, although the presence and absence of inflammation should be mathematically corrected. Using these cutoff values, the highest prevalence of ferritin deficiency of 59.8% was seen in women aged 15-49 years old and 43.4% amongst adolescents aged 10-19 years old. Female adolescents had 20.2 percentage points higher prevalence of ferritin deficiency as compared to their male counterpart (56.3% vs 26.1%).

Table 6.4.2 Population prevalence ranges to define the magnitude of iron deficiency as a public health problem using ferritin concentrations [Bhutan NHS 2023].

Magnitude of the public health problem	Prevalence range (%)	Country status (NHS 2023)
High	≥40.0	
Moderate	20.0–39.9	Women: 59.8%
Mild	5.0–19.9	Adolescent: 43.4%
No public health problem	≤4.9	

Source: WHO guideline on use of ferritin concentrations to assess iron status in individuals and populations. Geneva: World Health Organization; 2020 (https://apps.who.int/iris/handle/10665/331505) (16).

*Ferritin values not adjusted due to unviability of inflammatory markers.

Folate (Vitamin B9)

Folic acid (Vitamin B9) is an important micronutrient required for the generation of cells. During pregnancy, folic acid helps to form the neural tube and thus an adequate amount of folic acid is required to prevent major birth defects, such as anencephaly and spina bifida. Folate deficiency causes macrocytic anaemia.



Folate deficiency was assessed using the cutoff value of <5 ng/mL. The prevalence of folate deficiency among women was 45.2% and 30.3% amongst adolescents.

Calcium

Calcium is an essential mineral that is used by the human body in many ways. It mainly strengthens the bones and the teeth, helping the body's muscle and nerve function. Different forms of calcium exist systematically; ionized calcium, calcium anions that are bound to other minerals and calcium bound to proteins like albumin. However, the most active form of calcium, known as the ionized calcium or the free calcium is the appropriate biomarker to be considered for assessment. The serum calcium blood test was used to measure the total calcium in an individual's body.

The WHO defined cutoff value of <8.5 mg/dL was considered in this study to define calcium deficiency. Based on the given cutoff, prevalence of calcium deficiency was 24.0% with a mean calcium serum level of 8.8 ± 1.1 mg/dL among women. The prevalence of calcium deficiency was 12.4% with a mean calcium serum level of 9.0 ± 1.2 mg/dL among adolescents.

Cobalamin (Vitamin B12)

The deficiency of Vitamin B12 contributes to the failure to thrive in infants, macrocytic anemia, and neurologic disorders across all age groups. This is more common amongst elderly as vitamin B12 deficiency may also result from an inability to absorb due to underlying disorder of the stomach, such as hypertrophy of the intestines, reduced gastric acidity, lack of intrinsic factor, or an interference with medications. Serum total cobalamin is the most common biomarker used to assess the vitamin B12 status in the population.

A serum concentration of <200 pg/mL is considered vitamin B12 deficient as per the cutoff standards set by WHO. Therefore, the vitamin B12 deficiency prevalence was observed to be 32.7% among women aged 15-49 years, and 27.6% in adolescents aged 10-19 years. The current findings are in contrast with the study conducted in 2018 by Dzed et al., which reported a vitamin B12 deficiency of 64% among boarding school children from seven districts of Bhutan. These differences could be attributed to implementation of public health interventions, particularly the supply of fortified rice to schools.

Vitamin D

Vitamin D is a fat-soluble vitamin which is produced by the skin when exposed to the sun. It is essential for bone health. The commonly used indicator of vitamin D status is plasma or serum 25-hydroxyvitamin D (25(OH)D), which is reflective of exposure to vitamin D from both cutaneous synthesis and dietary intake from food and supplements. Serum 25-hydroxyvitamin D is commonly measured by a competitive protein-binding assay.

Adolescents had slightly higher prevalence of vitamin D deficiency when compared to the women aged 15-49 years with a prevalence of 93.9% and 90.5%, respectively. The female adolescents had 3.8 percentage points higher prevalence of vitamin D deficiency as compared to their male counterpart (96.3% vs 92.5%).

In terms of risk categories of Vitamin D deficiency, 31.9% of women and 31.6% of adolescents were under severe deficiency (Table 6.4.3). Among the adolescents, a higher percentage of females were either severely deficient or deficient in Vitamin D. Among the micronutrients assessed in this

survey, Vitamin D deficiency was the highest. Similarly, a recent article published by Dhakal et la (2023), reported the prevalence of vitamin D deficiency of 83% across all the age groups.

Target Group	Normal (≥30 ng/ mL)	Insufficiency (20-29.9 ng/ mL)	Deficiency (10-19.9 ng/ mL)	Severe Deficiency (≤30ng/mL)	Respondent Number
Adolescents (10-19 years)					
Female	3.7	16.1	42.8	37.4	268
Male	7.5	29.2	35.0	28.3	480
Both	6.1	24.5	37.8	31.6	748
Women (15-49 years)	9.5	24.6	34.0	31.9	942

Table 6.4.3 Percentage of adolescents and women of reproductive age by vitamin D risk categories [Bhutan NHS 2023].

Vitamin B1 (Thiamine)

Vitamin B is a group of water-soluble vitamins. Thiamine (vitamin B1) helps in basic cell function and breakdown of nutrients for energy and plays an important role in deriving energy from carbohydrates (carbohydrate metabolism) and fats. Thiamine deficiency is often associated with deficiencies of other vitamins as well. The high-risk group for thiamine deficiency includes old age, long term parenteral nutrition, haemodialysis and malabsorption or alcohol abuse. Severe thiamine deficiency causes congestive heart failure (wet beriberi), peripheral neuropathy (dry beriberi), Wernicke encephalopathy (WE) and Korsakoff syndrome (KS).

Thiamine deficiency is treatable yet under-diagnosed. Thiamine pyrophosphate, an active form of thiamine, was measured with a cutoff value of $<2.5 \mu g/dL$, as defined by WHO as deficiency. The current survey found thiamine deficiency prevalence of 3.3% among women aged 15-49 years and 2.4% among adolescents.

Vitamin B2 (Riboflavin)

Riboflavin, Flavin Adenine Dinucleotide (FAD) and Flavin Adenine Mononucleotide (FMN) are collectively called flavonoids or vitamin B2. Vitamin B2 are important coenzymes in protein and energy metabolism. In the central nervous system vitamin B2 is involved in the control of neurohormones and biogenic amines. A lack of vitamin B2 leads to nonspecific symptoms such as fatigue and listlessness. Major deficiency of the B2 vitamins leads to inflammation of the mucous membrane in mouth and nose, skin disease (dermatitis), ophthalmic disorder (reduction of the acuteness of vision, cataract), neurological disorders and disturbance of the iron metabolism. Severe riboflavin deficiency affects conversion of vitamin B6 to its coenzyme and conversion of tryptophan to niacin.

Whole blood riboflavin (an active form of vitamin B2) was analysed with a cutoff value of <10 μ g/dL defined by WHO as deficiency. Among women of reproductive age 8.4% had riboflavin deficiency and among the adolescents, 9.3% showed deficiency. Female adolescents had 2.1 percentage points higher riboflavin deficiency prevalence as compared to their male counterparts (10.6% vs 8.5%).



Vitamin A (Retinol)

Vitamin A is a fat soluble essential for vision, maintaining a healthy immune system, growth development and reproduction. Retinol is the predominant circulating form of vitamin A in the blood. While there are multiple indicators for determining vitamin A deficiency, the commonly used biological indicators are serum (or plasma) retinol, retinol-binding protein (RBP), and the modified relative dose response (MRDR). Serum/plasma retinol concentrations are homeostatically controlled, but inflammation does cause them to decrease. Deficiency of vitamin A is associated with significant morbidity and mortality from common childhood infections and is the world's leading preventable cause of childhood blindness.⁽²⁷⁾

A serum retinol cutoff value of <0.7 µmol/l was used to study the prevalence of low serum retinolfor this survey. Vitamin A deficiency had the lowest prevalence rate among the micronutrients studied in the survey with a prevalence of 0.4% among women and 0.2% among adolescents. The low vitamin A deficiency could be attributed to robust public health interventions in place.

Table 6.4.4 Prevalence of low serum retinol (0.7 µmol/l or below) to define a public health problem* [Bhutan NHS 2023].

Degree of public health concern	Prevalence (≤ 0.70 μmol/L) serum retinol	Country status (NHS 2023)
Mild	2 -9 %	
Moderate	10-19%	Women: 0.4%
Severe	≥20%	
Note: * These cut-offs do not apply in infan	ts vounger than 6 months of age	*

se cut-offs do not apply in infants younger than 6 months of age

Vitamin A levels >7.77 µmol/L of serum retinol is known as hypervitaminosis A or toxicity. The maximum Vitamin A level in the survey was 7.6 µmol/L of serum retinol observed in one sample, therefore, there was no cases of known vitamin A toxicity in the study population.

6.5 Iodine Deficiency Disorder (IDD)

Key Findings

- Percentage of household using iodized salts (iodine content ≥15 ppm) was 95.1%.
- The median urinary iodine excretion (UIE) was 114 μg/L among children aged 6-12 years and $124 \mu g/L$ among pregnant women and lactating women.

Background

Salt Sample: All the households salt was tested using a rapid MBI kit to assess the coverage of iodized salt at the household level. The test was conducted on the spot and results recorded as ≥15PPM or <15PPM.

Urine sample: Urine samples were collected from school aged children 6-12 years, pregnant and lactating women, for measuring urinary iodine excretion.

Spot urine sample was collected in a pre-labelled wide-mouth container (sterile uricol). Exactly 2 ml of urine sample was transferred into a pre-labelled leakproof cryovials using a plastic pasture pipette. The cryovial was then packed in a ziplock plastic bag and stored in 2-8°C at the nearest health centre. The sample was then finally transported to RCDC for analysis.

The urine samples were analysed for urinary iodine excretion at RCDC, following standard operating protocol based on the Sandell–Kolthoff reaction, a quantitative method. The method incorporates microplate for both the reaction and the digestion process. The reading of the microplate was done using a microplate reader and the optical density plotted against a known standard concentration.

All the reagents and standard used were prepared in house. Internal quality control was performed using known concentration of standard and included in all batches of testing. Standard deviation, mean, median, and coefficient of variation were calculated.

Salt lodine: Out of the total 11,626 household salt samples tested for salt iodine, 95.1% of the samples had iodine content \geq 15 ppm - the level recommended as adequate for household consumption by UNICEF, lodine Global Network (IGN) and WHO. However, the iodized salt coverage has reduced by 3.9 percentage points as compared to 99.0% in the National Nutrition Survey 2015.



Table 6.5.1 Percentage of iodized salt coverage at household level [Bhutan NHS 2023].

Figure 6.5.1 Trend of household coverage with iodized salt from 2010 to 2023 [Bhutan NHS 2023].

Urinary Iodine Excretion: A total of 1518 urine samples were analysed for median urinary iodine excretion analysis, of which 48.2% samples were children aged 6-12 years and 51.8% samples were from pregnant and lactating women.

The median urinary excretion for children aged 6-12 years was 114 μ g/L and it was 124 μ g/L for pregnant women and lactating women, indicating that Bhutan is still sustaining the IDD elimination status achieve in 2003.





Figure 6.5.2 Trend of median urinary iodine excretion from 2000 to 2023 [Bhutan NHS 2023].

The WHO categorization of iodine deficiency disorders for public health significance indicates that a median urinary iodine excretion of equal to or greater than 100 μ g/L is indicative of adequate iodine intake for school aged children and lactating women. However, a median UIE of less than 150 μ g/L in pregnant women indicates a presence of mild iodine deficiency in these population groups.

From Figure 6.5.3 below, none of the population groups had a median urinary iodine excretion below the 100 μ g/L threshold, thereby, indicating adequate iodine nutrition among these population groups in Bhutan.



Bhutan eliminated iodine deficiency disorder (IDD) as a public health problem in 2003. However, the iodine deficiency disorder can re-emerge if the control programmes are not monitored (IDD elimination is termed as sustainable elimination). The household with iodized coverage was found to be 95.1% which has decreased as compared to 99% in the National Nutrition Survey 2015. Similarly, the median urinary iodine excretion was 183 μ g/L in the 2010 study which has decreased to 119 μ g/L in the current survey. Nonetheless, with the median urinary iodine excretion of >100 μ g/L and >90% household coverage of iodized salt, it indicates that Bhutan is sustaining the IDD elimination status achieved in 2003.



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7.1 Alcohol

Key Findings

Status of Alcohol Consumption:

- **Current Drinkers:** Overall, 34.5% of the population (Men= 41.6%; Women= 26.3%) were identified as current drinkers (who drank alcohol in the past month before the survey).
- Lifetime abstainers: 48.7% (Men=42.2%; Female= 56.1%) of the population never drank alcohol in their lives. The percent of life-time abstainers ranged from a high of 60.5% among 15-24 years to a low of 44.1% among 25-39 years.
- Former Drinkers: 11.1% (Men=11.5%; Women=10.7%) of the population were identified as former drinkers as they did not drink alcohol in the past 12 months before the survey.
- Frequency of alcohol use: Among those who consumed alcohol in the past 12 months, 5.1% reported drinking on a daily or almost daily basis, while 13.2% drank 1-4 days per week, and 21.8% drank 1-3 days per month or less.
- **Types of Alcohol Consumed:** Beer was the most widely used alcoholic beverage (56.2%), followed by home-brewed Ara/Shingchang (30.5%). Wine was the least consumed (6.6%).
- Heavy Episodic Alcohol Drinking (HED): 39.8% of current drinkers engaged in heavy episodic drinking, with a higher prevalence among men as compared to women (45.4% vs 29.7%).
- **Practice of Home Brewing:** Around 30.7% of households reported engaging in home brewing, primarily for religious purposes (75.0%) followed by self-consumption (51.8%).
- Alcohol consumption by Dzongkhags: Lhuentse Dzongkhag had the highest percentage of 30 days current drinkers (50.6%), while Bumthang recorded the lowest (21.8%).

Alcohol is a psychoactive substance with addictive properties that have profound health, social, and economic implications. Its use is linked to over 200 diseases and injuries, including mental disorders.⁽²⁸⁾ Additionally, it significantly contributes to unintentional and intentional injuries, through road traffic accidents, violence, and suicide. Furthermore, alcohol abuse increases susceptibility to infectious diseases such as tuberculosis and HIV. For expectant mothers, alcohol consumption poses risks of fetal alcohol syndrome (FAS) and preterm births.

In Bhutan, alcohol use remains a pressing public health concern. Alcohol-related liver diseases persist as a leading cause of mortality, compounded by an increasing burden of alcohol-related road traffic accidents and social issues. The ready availability of alcohol, ranging from homebrewed to commercially manufactured and imported varieties, has fuelled its accessibility, availability and the expansion of the alcohol market. Update and reliable national evidences from credible sources such as the National Health Survey are essential to inform development of national strategies and programmes to mitigate alcohol use in the country. The 2023 NHS collected data among Bhutanese population aged 15-69 years to gauge status of alcohol consumption, frequency of alcohol use, commonly used alcohol products, patterns of heavy episodic drinking, and alcohol home-brewing practices.

Status of Alcohol consumption

Former Alcohol users and lifetime abstainers

Overall, 11.1% (Men:11.5%; Women:10.7%) were categorized as former alcohol drinkers who had abstained from alcohol consumption in the past 12 months, and 48.7% (Men:42.2%; Women:56.1%) were classified as lifetime abstainers, indicating that they had never consumed alcohol in their lifetime (Figure 7.1.1).



Figure 7.1.1 Former drinkers and life-time abstainers by sex and age among population aged 15-69 years [Bhutan NHS 2023].

Current Alcohol Drinkers

Overall, 34.5% of the population were identified as current drinkers, with men comprising 41.6% and women 26.3% (Figure 7.1.2). This indicates nearly twice as many male drinkers as compared to female. The highest percentage of current drinkers, 39.9%, falls within the 25-39 age group. Notably, the highest prevalence of current drinkers was observed among the retired population (44.2%), and 14.8% of student population were identified as current alcohol drinkers. There were no significant differences in the percentage of current alcohol users by income group.



Figure 7.1.2 Percentage of current drinkers by selected background characteristics among population aged 15-69 years [Bhutan NHS 2023].



Alcohol use Frequency

The survey gathered information on the frequency of alcohol use among the population aged 15-69 years who had consumed alcohol in the past 12 months. The findings show that 5.1% drank on a daily or almost daily basis, 13.2% drank 1-4 days per week, and 21.8% drank 1-3 days per month or less than a month (Figure 7.1.3).



Daily or almost daliy
1-4 days/weeks
1-3 days/months or <than a month
Figure 7.1.3 Alcohol use frequency among the population aged 15-69 years who consumed alcohol in the past 12 months by gender [Bhutan NHS 2023].





Figure 7.1.4 Percentage of current drinkers of alcohol in the last 30 days [Bhutan NHS 2023].

Lhuentse district recorded the highest percentage of 30 days current drinkers at 50.6%, indicating that approximately one out of every two individuals in Lhuentse had consumed alcohol in the past 30 days (Figure 7.1.4). Conversely, Bumthang Dzongkhag reported the lowest percentage of current drinkers at 21.8%. Samdrup Jongkhar reported highest percent of population (25.3%) who drank alcohol previously but did not drink in the past 12 months preceding the survey.



Former drinkers (not consumed alcohol in past 12 months)
Current drinkes (consumed alcohol in the past 12 month)
Figure 7.1.5 Percentage distribution of former and current drinkers of alcohol by districts [Bhutan NHS 2023].

Type of alcohol consumed in Bhutan

The survey gathered information on the types of alcohol products consumed in the country by current drinkers in the seven days preceding the survey. The most prevalent alcohol product used was beer, accounting for 56.2%, followed by home brewed Ara/Shingchang at 30.5% (Figure 7.1.6). The least utilized alcohol product was wine, registering at 6.6%, along with other home-brewed options such as Tongba, Changkoe, and Bangchang.



Figure 7.1.6 Type of alcohol used in the past 7 days by current drinkers aged 15-69 years [Bhutan NHS 2023].

Beer was the predominant choice of alcohol across diverse age groups and genders, with over 50% of both men and women currently favoring beer consumption (Figure 7.1.6). The liking for wine generally decreases with increasing age, ranging from 11.1% in the 15-24 age group to 2.8% in the 55-69 age group. Conversely, the preference for locally brewed Ara/Singchang steadily increases with age, varying from 19% in the 15-24 age group to 44.5% in the 55-69 age group. Notably, a significantly higher percentage of men (20.3%) among current drinkers prefer spirits as compared to women (4.8%).

Beer was also the most frequently chosen alcoholic beverage across all education levels and in both urban and rural areas (Figure 7.1.7). In rural settings, the locally brewed Ara/Shingchang (37.7%) was the second most commonly used alcohol after beer, while spirits (22.4%), such as whiskey and vodka, take the second position after beer in urban areas. By income levels, the wealthiest quintile group consists of the highest percentage of consumers of wine and spirits (Figure 7.1.9). In contrast, the largest consumers of locally brewed Ara/Shingchang were from the lowest Q1 and Q2 income brackets.

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Figure 7.1.7 Type of alcohol consumed by current drinkers aged 15-69 by education and area of residence [Bhutan NHS 2023].



Figure 7.1.8 Type of alcohol consumed by current drinkers aged 15-69 years, by age and gender [Bhutan NHS 2023].





Heavy Episodic Alcohol Drinking (HED)

Heavy episodic drinking is defined as the proportion of adult drinkers (15+ years) who have had at least 60 grams of pure alcohol (which corresponds to +6 standard drinks) on at least one occasion in the past 30 days. Heavy episodic drinking is associated with different types of illnesses including cardiovascular disorders, different forms of cancer, liver cirrhosis, and chronic pancreatitis.

Overall, 13.6% of the total population and 39.8% of the current drinkers aged 15-69 years indulged in heavy episodic drinking. There was a steady increase in HED with increase in age among the current drinkers, ranging from 33.9% in the 15-24 years to 43.2 in the 40-54 years (Figure 7.1.10). Notably, a significantly higher percentage of men (45.4%) engage in HED as compared to women (29.3%) who partake in heavy episodic drinking. Current drinkers indulging in HED were highest among retired population (46.7%) and nearly three out of every 10 students who currently drink were classified as HED (Figure 7.1.11).

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Figure 7.1.11 Percentage of current drinkers aged 15-69 years who indulge in HED by usual activity [Bhutan NHS 2023].

Home Brewing of Alcohol

The survey assessed the prevalence of home brewing of alcohol in the country. In total, 30.7% of households reported engaging in home brewing for various reasons (Figure 7.1.12). The primary purpose reported for brewing was religious, with 75% of households engaging in this practice, followed by self-consumption at 51.8%. Commercial purposes accounted for home brewing in only 8.8% of the surveyed households.



Figure 7.1.12 Percentage of households brewing local alochol by purpose of brewing [Bhutan NHS 2023].

The districts/Dzongkhags with the highest percentages of home brewing of alcohol are Trashigang (73.3%), Mongar (65.9%), Lhuentse (62.5%), and Zhemgang (62.3%). In contrast, Chhukha and Thimphu reported the lowest percentages of household brewing at 11.7% and 12.1%, respectively.





Figure 7.1.13 Percentage of households brewing local alcohol by districts [Bhutan NHS 2023].



Figure 7.1.14 Trend in the prevalence of life time abstainers, former drinker, and current drinkers among 18-69 years from 2014-2023 [Bhutan NHS 2023].

The trend in the prevalence of current drinkers shows a decline from 2014 to 2023 (Figure 7.1.14). Among the population aged 18-69 years, there has been an overall reduction, with the percentage of current drinkers decreasing from 50% in 2014 to 45% in 2019 and further to 42% in 2023. Likewise, among men, the percentage of current drinkers decreased from 57% in 2014 to 46% in 2023. Among women, the prevalence of current drinkers declined from 41% in 2014 to 33% in 2023.

Quantification of Ethanol and Methanol from home-brewed alcohols

Key findings

- 774 home-brewed samples (Ara, Bangchang, Singchang, Tongba) analysed for quantification of Ethanol and Methanol content.
- The average concentration of ethanol in all the samples were $15.12 \pm 7.9 \%$ v/v with a range . of 1.31 to 48.09 % v/v.

- Methanol, a toxic form of alcohol was detected in 17.7% of the samples (ranged from <LOD of 0.000085 to 1.53 % v/v).

Home brewed alcohol samples were collected from the selected sampling unit of 990 PSUs in a sterile polyethene sample container. The collected samples were stored in a cold box maintaining 2-8 degree Celsius in the field and later transported to the laboratory and stored at -40 degree Celsius until analysis.

Both distilled and non-distilled home-brewed alcohol samples were collected for the analysis of the ethanol and methanol content in the home-brewed samples. More specifically, the following samples were collected:

- 1. Ara
- 2. Bangchang
- 3. Singchang
- 4. Tongba

The analytical method used to quantify the chemical was gas chromatography flame ionization detector (GC-FID) as per the standard method of analysis. As a part of method development, the quality control measures and the reliability check of the method used, including the analytical method selectivity, accuracy, precision and sensitivity, were determined.

Methanol and thanol were separated in the GC column at the retention time of 3.101 and 3.279 minutes, respectively. Certified reference material of Iso-propyl alcohol was used as an internal control and was retained at 3.401 minutes.

To determine the accuracy and precision of the method, samples were spiked with known concentration of the standard reference materials of ethanol and methanol. These spiked samples were analyzed using the same sample preparation method and analysed. The recovery rate of the current method ranged from 78-136.6 %, determining the reliability of the method.

The current method showed a good linearity of 0.991 and 0.999 for both ethanol and methanol which was derived from the regression analysis from the standard reference materials using standard calibration curves.

A total of 774 home-brewed samples were included for the study and subjected to the analysis for the quantification of the ethanol and methanol concentration. The overall average concentration of ethanol in all the samples was $15.1\pm7.9 \%$ v/v with a range of 1.3 to 48.1 % v/v. Similarly, the methanol concentration ranged from less than limit of detection of 0.000085 % v/v to 1.5% v/v respectively. Among the concentration of ethanol in different samples, the highest was observed in Singchang (21.8 % v/v), followed by Ara (19.84 % v/v). The lowest was seen in Changkoe (9.08 % v/v). Likewise, for methanol, the highest detected positive rate was in Bangchang (31.8 %), followed by Tongba (21.9 %).

Methanol is a toxic chemical that is detrimental to health and due to which it needs to be regulated in the drinks. Consequently, the European Union limit methanol content of 2% v/v in four standards (25ml) drinks containing 40% alcohol by volume over a period of 2 hours. In the current survey, none of the samples exceeded the limit of 2% v/v. However, we detected methanol in 17.7% of the samples, which exhibits a concern for public health.



Types	Mean	Median	Minimum	Maximum
Ara	19.8	18.5	4.7	48.1
Bangchang/Tongba	9.5	8.9	1.5	21.3
Changkoe	9.1	8.6	1.9	16.8
Singchang	21.8	21.9	4.1	36.9

Table 7.1.a Ethanol % v/v by types of home-brewed alcohol [Bhutan NHS 2023].





7.2 Tobacco Use

Key Findings

Prevalence of Tobacco Use:

- 31.4% (Men: 42.7%; Women: 18.5%) of population aged 15-69 years old were current users of any tobacco products (smoked such as cigarettes or smokeless products such as Baba).
- 14.4% (Men: 21.6%; Women: 6.1%) of the population aged 15-69 currently smoke any tobacco products.
- 21.1% (Men: 27.9%; Women: 13.5%) of the population use any smokeless tobacco products.
- 4.1% (Men: 6.7%; Women: 1.1%) of the population currently use both smoked and smokeless products.

Age at Initiation and Frequency of Smoking:

- The mean age of individuals who initiated smoking any tobacco products was 18.2 years.
- 65.5% (Men: 66.2%; Women: 64.7%) of current smokers smoked on a daily basis.

Second-hand Smoke Exposure:

- 18.2% of the population aged 15-69 years reported exposure to second-hand smoke at home.
- 51.2% reported exposure to second-hand smoke in workplaces.

Tobacco Cessation:

- 64.6% of current smokers considered quitting tobacco smoking in the past 12 months.
- 20.4% of current smokers who visited health facilities received advice to quit smoking from health professionals.

Types of Tobacco Products Used:

Cigarettes are the most prevalent tobacco product (87.7%), followed by bidis (28.9%), vape/e-cigarettes (17.7%), and cigars/chiroots/cigarillos (15.2%).

Tobacco use, whether through smoking (e.g., cigarettes) or in smokeless form (e.g., chewing tobacco products such as Baba), damages every part of human body. It is one of the most potent behavioral risk factors for noncommunicable diseases (NCDs) which continue to be among the leading cause of death in Bhutan. Apart from severe health consequences, tobacco users, especially those in low-income groups, divert their limited income from vital needs like food and healthcare to purchase tobacco products. The highly addictive nature makes quitting tobacco very challenging once habituated, thus trapping individuals in a vicious cycle of poverty. Furthermore, tobacco-induced NCDs incur significant lifelong treatment costs for both the health system and individuals and affects productivity of national workforce through debilitating chronic conditions and premature deaths.

The survey assessed the status of tobacco use, both smoked and smokeless forms, among individuals aged 15 to 69 years old. It explored the frequency and patterns of tobacco consumption, identified commonly used tobacco products, prevalence of second-hand smoke exposure, and examined national efforts at tobacco cessation.

Use of any form of tobacco products

Approximately three out of ten individuals (31.4%) aged 15-69 years old currently use some form of tobacco product, whether smoked, smokeless, or both. Notably, the prevalence was significantly higher among men (42.7%) as compared to women (18.5%). Additionally, a small proportion (4.1%, Men: 6.7%, Women: 1.1%) engaged in both smoked and smokeless forms of tobacco use.

The prevalence of any tobacco product use varies across age groups, with the highest rate observed in the 25-39 years age group (35.2%) and the lowest in the 55-69 years age group (27.6%). Interestingly, the highest percentage of users of both smoked and smokeless products were identified in the younger age groups (Figure 7.2.1). However, there was no significant difference in tobacco use prevalence across different income levels.





Figure 7.2.1 Percentage of population aged 15-69 years' old who currently use any tobacco products by selected background characteristics [Bhutan NHS 2023].

Current tobacco smokers

Overall, 14.4% of the population aged 15-69 currently smoke any tobacco products. Current smokers were more than three times higher for men (21.6%) as compared to women (6.1%). The percentage of current smokers rises proportionally with income, ranging from 10.6% in the lowest quintile to 17.6% in the highest quintile. The prevalence was highest at 21.7% in the 15-25 age group and steadily declined to 4.5% in the 55-69 age group. It is noteworthy that individuals with education qualifications beyond middle secondary school exhibit a higher percentage of smokers. By area of residence, urban areas present a higher prevalence of smokers (19.0%) as compared to their rural counterparts (11.2%).



Figure 7.2.2 Percentage of current smokers among the population aged 15-69 years by background characteristics [Bhutan NHS 2023].

Age at initiation of Tobacco Smoking

The mean age of individuals who initiated smoking any tobacco products was 18.2 years, with a median age of 18.0 years. Men tend to start smoking a bit earlier, with an average age of 17.9 years and a median of 18 years, compared to women who start at an average age of 19.5 years, with a median age also at 20 years. The average age of initiation shows a gradual increase with age, ranging from 15.9 years in the 15-24 age group to 21.9 years in the 40-54 age group.



Figure 7.2.3 Mean age at initiation of smoking any tobacco products among population aged 15-69 years [Bhutan NHS 2023].

Frequency of current tobacco smokers

The current tobacco smokers were asked if they smoked any tobacco products on a daily or nondaily basis. As shown in figure 7.2.4, 65.5% of current smokers smoked on a daily basis.





Former and never tobacco smokers

Among Bhutanese aged 15-69 years, 16.1% were former smokers and 69.9% never smoked tobacco products (Figure 7.2.5).





■ Former ■ Never smoked tobacco Figure 7.2.5 Percentage of non-smokers aged 15-69 years by former and never tobacco smokers [Bhutan NHS

2023].

Smokeless tobacco

Overall, 21.1% of the population aged 15-69 currently use smokeless tobacco products such as the commercially available Baba which is imported from India. Among these users, 76.0% (men: 81.8%; women: 62.4%) use smokeless products on a daily basis. Unlike the notable threefold difference in smoking rates between men (21.6%) and women (6.1%), the use of smokeless tobacco was only slightly over twice as prevalent in men (27.9%) as in women (13.5%). In contrast to tobacco smoking which gradually increases with increasing income, the overall consumption of smokeless tobacco gradually decreases with an increase in wealth quintile, ranging from 26.9% in the lowest quintile to 15.5% in the highest income group.



Figure 7.2.6 Percentage of current smokeless tobacco users aged 15-69 years by gender and age group [Bhutan NHS 2023].



Figure 7.2.7 Current smokeless tobacco users aged 15-69 years by background characteristics [Bhutan NHS 2023].

Trend

The prevalence of current tobacco users (any form) increased over time from 2014 to 2023 and the increase in 2023 when compared to 2019 was hogher by almost eight percentage points .



Figure 7.2.8 Trend in prevalence of current tobacco users among population aged 18-69 years old, 2014-2023 [Bhutan NHS 2023].



Second-hand smoke exposure

Second-hand smoking is the inhalation of smoke from smoked tobacco products such as cigarettes which contain a mixture of more than 7000 chemicals, the majority of which are toxic.⁽²⁹⁾ Second-hand smoking causes wide range of diseases like lung cancer, stroke, heart diseases, and adverse reproductive health outcomes. Further, children also suffer from respiratory infections, ear infections, and asthma attacks. Globally, of the eight million tobacco related annual deaths, about 1.2% are due to second-hand smoke exposure and majority of this burden is borne by developing nations where laws and enforcement capacities to protect citizens from the harms caused by tobacco users are lacking or inadequate.⁽²⁹⁾ Smoking in Bhutan is prohibited by law in most indoor and outdoor public places.

Exposure to second-hand smoke at home

The survey assessed population exposure to tobacco smoke at home by asking exposure experience in the past 12 months. Overall, 18.2% of the population aged 15-69 years reported exposure to second-hand smoke with slightly more men (18.5%) as compared to women (17.9%) being exposed to second-hand smoke at home. Exposure was higher among urban residents (20.8%) when compared with their rural counterparts (16.5%). Exposure ranged from a high of 22.9% in the 15-24 years age group to a low of 12.1% among 40-54 years old. Exposure ranged from a high of 19.3% in the middle-income group to a low of 17.0% in the least income group.



Figure 7.2.9 Percentage of population aged 15-69 years exposed to second-hand smoke at home [Bhutan NHS 2023].



Exposure to second-hand smoke at work places

The survey examined population exposure to second-hand smoke in workplaces by asking exposure history in the past 12 months. Overall, 51.2% of individuals aged 15-69 reported exposure, a figure nearly three times higher than the rate of second-hand smoke exposure at home. Men had a higher prevalence of exposure at workplaces (54.1%) as compared to women (47.8%). The disparity was significant between urban and rural areas, with 65.5% of urbanites and 41.6% of rural residents reporting exposure at workplaces. The percentage of exposure correlated with education levels, ranging from 38.4% among those with no education to 61.2% among those with bachelor's or higher-level education. Similarly, exposure percentages increased in proportion to income, ranging from 38.3% in the lowest income group to 60.3% in the highest income group.



Figure 7.2.11 Percentage of population aged 15-69 years exposed to second-hand smoke at workplace by gender [Bhutan NHS 2023].



Figure 7.2.12 Patterns of exposure to second-hand smoke at work place among population aged 15-69 years by background characteristics [Bhutan NHS 2023].
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Trend



Figure 7.2.13 Trend in prevalence of exposure to second-hand smoke at home and work place among population aged 15-69 years old, 2014-2023 [Bhutan NHS 2023].⁽⁵⁾

Tobacco Cessation

The nicotine content of tobacco, which is comparable to that of highly addictive drugs like cocaine and heroin makes it very difficult to quit tobacco once habituated without professional help. Tobacco cessation support such as counselling and medication can more than double the user's chance of quitting. Therefore, providing a comprehensive tobacco cessation service should be an integral component of national tobacco control strategy to help tobacco users to quit and for prevention and control of diseases like cancers, heart attack, stroke, diabetes and lung diseases, among others. The National Tobacco Control Act of Bhutan mandates the competent authorities to design and implement effective cessation services in health facilities, including for diagnosis, counselling, and availability of pharmaceuticals for treatment of tobacco dependence.

The survey assessed quit attempt made by current tobacco smokers aged 15-69 years and whether or not tobacco users who visited health facilities received any advice to quit from health professionals.

Attempt to quit tobacco smoking

Overall, 64.6% of current smokers aged 15-69 years considered quitting tobacco smoking with slightly more men (64.9%) as compared to women (63.5%) reported considering to quit in the past 12 months. The percent of those who considered quitting ranged from 62.8% in the Q3 to 66.1% in the Q4 group.

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Figure 7.2.14 Percentage of current smokers aged 15-69 years who considered quitting tobacco smoking in the past 12 months [Bhutan NHS 2023].

Advice to quit tobacco smoking by health professionals

Among the population aged 15-69 years who are current smokers, 20.4% who visited health facility in the past year received advice to quit smoking from health professionals. The percentage of the population receiving advice to quit tobacco increased with age, ranging from 15.8% in the 15-24 age group to 42.4% in the 55-69 age group. This pattern reflects a focus on providing advice to older smokers who are more likely to exhibit symptoms, rather than a comprehensive tobacco cessation approach of advising all smokers visiting health facilities, regardless of age and symptoms.



background characteristics [Bhutan NHS 2023].



Type of tobacco products smoked

The cultivation and production of any tobacco products in Bhutan are strictly prohibited by law. Therefore, all tobacco products within the country are imported, primarily from India. E-cigarettes are also commercially available in the country and becoming more prominent. E-cigarettes have been established to generate toxic substances which are detrimental to health of users and bystanders, affect brain development and lead to learning disorders for young people, and adversely affect the development of the fetus in pregnant women.

The survey examined the types of tobacco products used by current smokers aged 15-69 years. Cigarettes were identified as the most prevalent tobacco product, with a usage rate of 87.7%, followed by bidis at 28.9%, vape/e-cigarettes at 17.7%, and cigars/chiroots/cigarolls at 15.2%, respectively (Figure 7.2.16).



As shown in Table 7.2.5, the percent of individuals smoking cigarettes was highest in the 15-24 age group at 91.2%, gradually decreasing with age to 51.4% in the 55-69 age group. Similarly, the use of e-cigarettes was most prominent in the younger population, with 20.2% in the 15-24 age group, gradually declining to the lowest percentage of 14.2% in the 40-54 age group. In contrast, the preference for bidis increases with age, ranging from 29.3% in the 15-24 age group to 57.8% in the 55-69 age group. In terms of residence, a notable disparity was observed only for bidis, with a significantly higher prevalence in rural areas (37.9%) as compared to urban areas (21.0%).

The percent of cigarette users shows a proportional increase with educational qualifications, in contrast to the preference for bidis, which decreases with higher qualifications. The use of e-cigarettes varies, with the highest prevalence at 28.7% among those with lower secondary education and a lower prevalence at 7.4% among those with bachelor's degrees and higher qualifications.

7.3 Areca Nut

Key Findings

Prevalence:

• 59.7% of the population aged 15-69 years old currently used areca nut and/or areca nutcontaining products (AN and/or ANCP).

Frequency of Use:

• Among current users, 45.0% use on a daily basis, while 55.0% use on a non-daily basis.

Demographic Patterns:

- Usage between men and women was nearly equal, with 60.7% of men and 58.6% of women being current users.
- Over half (54.7%) of Bhutanese youths aged 15-24 years were current users.
- The prevalence of current users varies with age, with the highest percentage (64.5%) among the 25-39 age group and the lowest (51.1%) among those aged 55-69.

Background

Areca nut consumption is deeply ingrained in Bhutanese tradition and culture. It is widely available and consumed in the country, primarily in the form of betel guid (a mixture of areca nut, betel leaves and slaked lime), locally referred to as "doma khamtog," and a variety of industrially processed and pre-packaged areca nut containing products (e.g. Shakila, Rajanigandha) which are imported from neighbouring countries. The WHO working group of the International Agency on Research for Cancer (2004) provided their overall evaluation with sufficient evidence in humans as well asexperimental animals proving the carcinogenicity of areca nut use and betel guid and classified areca nut as Group 1 human carcinogens. Considering its addictive nature, it is the fourth most selfadministered and universally abused psychoactive substance and widely accepted masticatory productafter nicotine, ethanol and caffeine.⁽³⁵⁾ Areca nut chewing is known to cause oral cancers and is associated with other cancers such as those of pancreas and liver. Its consumption is also linked with many health conditions such as metabolic syndrome, diabetes, hypertension and obesity. Head and neck cancers continue to rank among top five leading cancers by site in the country. A national school health survey conducted in 2016 found that about 58% of students consume packaged areca nut containing products. There are currently no national policies or laws to prevent the promotion, cultivaton and use of areca nut, including for children, in the country.⁽³¹⁾ Unlike tobacco aceca nut is grown at commercial scales in the low altitude areas of the country.

Status (Current, former, and never users) and frequency of use of areca nut and/or areca nut containing products (AN and/or ANCP).

This survey assessed the status of AN and/or ANCP use (categorized as current, former and never users) among population aged 15-69 years old, as well as the frequency (daily and non-daily) of chewing among current and former users.

Overall, 59.7% of the population aged 15-69 years old currently use AN and/or ANCP. About 12.3 % are former users, and 28.0% have never used them. Among the current users, 45.0% use on a daily basis and 55.0% do so on a non-daily (figure 7.3.1) with men using more frequently (47.2%) than women (42.3%) on a daily basis.





Figure 7.3.1 Percentage of current, former, and never users of AN and/or ANCP use among the population aged 15-69 years and 18-69 years old by sex [Bhutan NHS 2023].





Current users of AN and/or ANCP by background characteristics

A nearly equal percentage of men (60.7%) and women (58.6%) aged 15-69 years currently used areca nut and/or areca nut-containing products (AN and/or ANCP). The percentage of current users varies, with a high of 64.5% in the 25-39 age group and a low of 51.1% among those aged 55-69. However, it is important to note that among the current users, the percentage of those who use on a daily basis increases with age. By education levels, a higher percent of current AN and/ or ANCP users was found among those with a higher secondary education or lower, as compared to individuals with certificates/diplomas and higher education levels. Interestingly, there was no significant difference in the percent of current users across income levels, ranging from a high of 61.7% in the Q4 group to a low of 58.6% in the Q2 group.



Daily Non-daily

Figure 7.3.3 Percentage of current user of AN and/or ANCP by age and frequency of use [Bhutan NHS 2023].



Figure 7.3.4 Percentage of current users of AN and/or ANCP by education and frequency of use [Bhutan NHS 2023].



7.4 Dietary Habits

Key Findings

Consumption of Fruits and vegetables:

- The average number of servings of fruits and vegetables consumed per day was 5.3 servings (1.6 servings of fruit and 3.7 servings of vegetables per day).
- The prevalence of insufficient fruits and vegetable intake (<5 serving a day) was 74.6% (75% for women, 74.3% for men).

Practice of Vegetarianism

- Overall vegetarianism was reported amongst 11.3% of the people (9.2% in women, 13.6% in men).
- The most common type of vegetarianism was Lacto- vegetarianism (4%) followed by Lactoovo-vegetarianism (3.5%).

Household dietary diversity

- Cereals & grains and oil/fat/butter were the two most frequently consumed food groups in Bhutan, with households consuming them on average 6.7 days per week.
- Organ meat and fish/shellfish were the two least frequently consumed food groups in Bhutan, with households consuming them on average 0.2 and 0.8 days per week, respectively.

Background

An unhealthy diet is one of the five main risk factors for NCDs. Promotion of a healthy diet is one of the recommended components for policies and programmes in the Global Action Plan against NCDs15. WHO recommends mean population intake of at least 5 servings (400g) of fruits and vegetables as part of a healthy balanced diet which provides a rich mix of nutrients and bioactive substances for the prevention of diet-related non-communicable diseases.

This chapter summarizes average recommended fruits, and vegetables consumption levels at the individual level and dietary diversity at the household level.

Consumption of fruits and vegetables

On an average, the daily consumption of fruit and vegetable amongst the respondent was 5.3 servings. The average daily fruit consumption was 1.6 servings while the vegetable consumption was 3.7 servings. Almost three in every four Bhutanese aged 15-69 years were consuming less than five servings of fruits and vegetables per day - not meeting the WHO recommendation of fruits and vegetables.

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Figure 7.4.1 Mean serving of fruits and vegetables [Bhutan NHS 2023].

Patterns by background characteristics

- Overall, consumption of vegetables was higher than that of the fruit servings.
- Average daily servings of fruits and vegetable consumption did not vary significantly by sex, residence and level of education.
- The total servings of fruits and vegetables amongst population increased with household wealth quantile (4.4 servings in the lowest quintile and 6 servings in the fourth quintile).
- The prevalence of inadequate fruit and vegetable consumption was the highest amongst the oldest (55-69 years) and the youngest age (15- 25 years) groups with 77.8% and 76.3% respectively.





Figure 7.4.2 Percentage of people aged 15-69 years with an inadequate intake of fruits and vegetables, by age group, education and wealth [Bhutan NHS 2023].



Vegetarianism

Overall 11.3% of the respondents were vegetarian. The common type of vegetarianism was lacto-vegetarian (4%) followed by lacto-ovo vegetarian (3.5%), ovovegetarian (2.7%) and vegan (1.2%).



Figure 7.4.3 Percentage of different group of vegetarian [Bhutan NHS 2023].

Patterns by background characteristics (Table 6.6)

- Vegetarianism was higher among the age group 15-24 years (14.1%) as compared to other age groups
- More men (13.6%) reported being vegetarian than women (9.2%).
- People residing in the rural and higher education level were more likely to be vegetarian than their counterparts, while no significant different has been noted among different wealth quintles.



Figure 7.4.4 Percentage of vegetarian by background [Bhutan NHS 2023].

Comparative Analysis between 2014, 2019 and 2023 STEPS Survey

The mean consumption of fruits and vegetables has increased from 3.1 servings per day in 2019 to 5.3 servings per day in 2023 (Figure 7.4.5).

Furthermore, the percentage of inadequate consumption of fruits and vegetables declined from 2019 to 2023 indicating improvement in dietary habit among the population.^(5,30)



Figure 7.4.5 Mean serving of fruits and vegetables [Bhutan NHS 2023].



Figure 7.4.6 Percentage of inadequate consumption of fruits and vegetables [Bhutan NHS 2023].

7.5 Dietary salt

Key Findings

Average Daily Salt Intake

• The average population daily salt intake was estimated at 8.5 g/d (Men: 9.4g/d; Women: 7.4g/d) based on the spot urine test.

Salt Consumption Behaviors

Salt Addition While Eating:

• 18.2% of the population "often or always" add salt or salty sauce while consuming food, with slightly higher prevalence among females (19.5%) as compared to males (18.1%).



Consumption of High-Salt Processed Foods:

- 11.7% of the population "often or always" consume processed foods high in salt, with a higher prevalence among males (13.21%) as compared to females (10.4%).
- The percentage of individuals who "always or often" consume processed foods high in salt was the highest (18%) among the younger population aged 15-24 years old.
- The percentage of the population reporting a habit of adding salt or salty sauce while eating varies by Dzongkhags, with Haa at the highest (47.1%) and Wangdue at the lowest (26%).

Perception of Salt Intake:

- 12.6% of the population perceive their daily salt intake as "far too much or too much." It is also noteworthy that 66% of the population perceive their intake to be "just right," despite average population intake levels exceeding WHO recommendations.
- Younger individuals (15-24 years old) and students exhibit the highest percentage (70% and 73% respectively) perceiving their daily salt intake as "just right."
- The percentage of individuals perceiving their salt intake as "just right" varies across regions, ranging from 75% in Dagana to 56% in Samtse.

Salted Tea Consumption:

• Approximately 10.7% of the population "always or often" consume salted tea, with higher prevalence among older individuals, lower-income groups, lower education qualifications, and rural residents. Additionally, 53.4% of the population reported "rarely or never drinking" salted tea.

Background

Unhealthy diets are one of the major risk factors of non-communicable diseases such as cancer, diabetes, and lung diseases. A major culprit in this regard is sodium, which constitutes 40% of salt by weight. Excessive sodium intake is strongly associated with various diet-related illnesses, particularly hypertension and cardiovascular diseases, leading to significant morbidity and mortality. In Bhutan, dietary salt used during cooking is a primary source of the population sodium intake, alongside others sources like ezay (a mixture of chili powder with salt and other ingredients such as cheese, dry meat), pickles, deep-fried foods, and prepackaged processed foods such as potatoes chips and noodles.

To better understand salt consumption patterns and perceptions among the Bhutanese populations, this survey collected data and analysed population-level average daily dietary salt intake and various salt consumption practices and perceptions.

Average Daily Salt Intake

The average population dietary salt intake was estimated at 8.5 g/d, with men averaging 9.4 g/d and women averaging 7.4 g/d based on spot urine tests. Notably, this estimate exceeds the World Health Organization's recommended level of more than 2g/d and less than 5 g/d. While there were slight differences between male and female intake, there was no significant disparity in daily mean salt intake observed across other background characteristics.



Figure 7.5.1 Mean salt intake among population aged 15-69 years old by sex [Bhutan NHS 2023].

Dietary salt consumption behaviors

Adding Salt While Eating

The survey found that 18.2% (Men: 18.1%; Female: 19.5%) of the overall population "often or always" added salt or salty sauce while eating food. Additionally, 36% of the population (Men: 34.9%; Women: 36.3%) engaged in this behavior "sometimes" only. Notably, 45.8% of the population never or rarely added salt or saucy salt when eating.

There was a notable difference in the proportion of the population who indulge in this behavior across different age groups, with the highest proportion observed among individuals aged 15-24 years old. This gradually declined with increasing age, reaching its lowest point among individuals aged 55-69 years old. While no notable differences in this behavior were observed based on other background characteristics, the proportion of individuals engaging in this behavior increases proportionally with education qualifications. By Dzongkhag/district, the proportion of the population reporting the habit of adding salt or salty sauce while eating varies, with Wangdue at the highest (46.6%) and Trashi Yangtse at the lowest (4.4%).



Figure 7.5.2 Percentage of population aged 15-69 years' old who "always or often" added salt or salty sauce while eating by selected background characteristics [Bhutan NHS 2023].





Figure 7.5.3 Percentage of population indulging in adding salt or salty sauce while eating by districts [Bhutan NHS 2023].

Consumption of processed food high in salt

The survey findings showed that a significant portion of Bhutanese population consumes processed foods high in salt. Specifically, 11.7% reported "often or always" engaging in this behavior. This tendency was slightly higher among women (13.21%) as compared to men (10.4%). Additionally, a substantial 50.5% of the population reported consuming such foods "sometimes", with women slightly more likely to do so than men (51.8% versus 49.3%). Encouragingly, 37.8% of the population stated they "never or rarely" indulge in this unhealthy eating behavior.

Notable disparities exist based on age, geographical and socioeconomic factors. The highest proportion of those who always or often consume processed foods high in salt was observed among individuals aged 15-24 (18.1%), and the lowest among those aged 55-69 (6.4%). A higher percentage of individuals residing in urban areas and those with higher incomes were found to indulge in this behavior more frequently. Analysis by district found that the population consuming processed foods high in salt was the highest in Wangdue (46.6%) and the lowest in Trashi Yangtse (4.4%).



Figure 7.5.4 Percentage of population aged 15-69 years old "who always or often" consumed processed food high in salt by selected background characteristics [Bhutan NHS 2023].

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Figure 7.5.5 Percentage of population consuming processed food high in salt by districts [Bhutan NHS 2023].

Perception about the level of salt intake

Approximately 21.4% of the population (21.8% men; 20.8% women) perceived their daily salt intake as either "too little or far too little." Conversely, only 12.6% (12.2% men; 13% women) believed their salt intake was "far too much or too much." Alarmingly, despite exceeding the WHO recommended level with a mean salt intake of about 8.5g/d, 66% of the population (66% men; 66% women) still perceive their salt intake to be "just right."

It is noteworthy that the highest percentage of individuals who perceived their daily salt intake as "just right" was found within the younger age group of 15-24 years old (70%). Similarly, students exhibited the highest percentage with such perception at 73%. Notably, there wasn't a significant difference in the percentage of the population perceiving their salt intake as "just right" across income groups, education levels, and place of residence (Table 1.3). When analyzed by Dzongkhag/ district, the percentage of the population who considered their salt intake as "just right" ranged from a high of 75% in Dagana to a low of 56% in Samtse.



Figure 7.5.6 Perception about the level of salt intake among population aged 15-69 years old by selected background characteristics [Bhutan NHS 2023].



Figure 7.5.7 Perception about the level of salt intake among population aged 15-69 years old by districts [Bhutan NHS 2023].

Salted Tea Drinking Habits

Approximately 10.7% of the population (11.2% men; 10% women) reported "always or often" drinking salted tea, while 36% (36.1% men; 35.7% women) drank it "sometimes." Interestingly, 53.4% of the population stated they "rarely or never drink" salted tea. Notably, the percentage of individuals who "always or often drink" salted tea was higher among older people, lower income groups, lower education gualifications, and those residing in rural areas.





Trend in mean Salt Intake



Figure 7.5.9 Trend in mean salt intake

7.6 Physical Activity

Key findings

Time Spent on Physical Activity

- On average, individuals aged 15-69 in Bhutan dedicated 299 minutes to moderate-intensity or equivalent levels of physical activity per day, with a median of 120 minutes.
- The average daily minutes for vigorous and moderate-intensity activities were 90 and 120, respectively.
- Rural populations spent significantly more time on physical activity as compared to urban populations, with men also spending more time than women.
- Total average minutes of physical activity per day decreased with increasing income and higher levels of education qualifications.
- The 45-54 age group recorded the highest total average minutes spent on physical activity.

Insufficient Physical Activity:

- Overall, 18.3% of the population aged 15-69 experienced insufficient physical activity, with a higher percentage among women when compared to men.
- Urban residents were more likely to fall below the recommended activity levels as compared to rural residents.
- The prevalence of insufficient physical activity varied across districts, with Trashigang and Wangdue reporting the highest rates.
- There has been a significant rise in insufficient physical activity from 6% in 2014 to 18.3% in 2023, consistent across genders.

Percent Contribution of Physical Activity from Each Domain:

- Among individuals engaging in physical activity, work accounts for the largest proportion (61%), followed by travel (20.6%) and recreation (19.2%).
- The contribution of work-related physical activity decreases with increasing income bracket, while contributions from travel and recreational activities decrease with lower income levels.
- Work-related physical activity was higher in rural populations as compared to urban areas.
- Over time, the contribution to physical activity from travel and recreation has increased, while the contribution from work has decreased

Time spent on physical activity

The survey gathered data on daily time allocations for physical activity in three primary domains (work, transportation, and recreation) at both moderate and vigorous intensity levels. Vigorousintensity minutes were converted to moderate intensity using a multiplication factor of 2, and total physical activity minutes were expressed as moderate-intensity minutes per day.



On average, individuals in Bhutan aged 15-69 dedicated 299 minutes to moderate-intensity or equivalent levels of physical activity per day, with a median of 120 minutes.



Figure 7.6.1 Differential in total minutes of Physical Activity by residence and sex among population aged 15-69 years [Bhutan NHS 2023].

The average daily minutes for vigorous and moderate-intensity activities were 90 and 120, respectively. The median for moderate-intensity physical activity was 67.7 minutes per day.

Patterns by background characteristics

When examining physical activity time across different background characteristics, the total average minutes of moderate-vigorous intensity physical activity per day consistently appear higher across all groups, suggesting that the averages were influenced by reports of extended physical activity hours.

Rural populations spend significantly more time on physical activity, averaging 375.7 minutes per day, compared to their urban counterparts at 186.3 minutes. Men also surpass women in total average minutes, with men averaging 373 minutes and women 216 minutes. The total average minutes of physical activity per day exhibit a consistent decline with increasing income, ranging from 398.3 minutes in the lowest income group (Q1) to 219.3 minutes in the highest income group (Q5). Similarly, the total average minutes decrease steadily with higher levels of education qualifications. The 45-54 age group records the highest total average minutes spent on physical activity, while the 15-24 age group reports the lowest.

Insufficient Physical Activity

Overall, 18.3% of the population aged 15-69 experienced insufficient physical activity, with a higher percentage among women (22.3%) as compared to men (14.7%). The age groups of 15-24 years (21.6%) and 55-69 years (21.9%) had the highest proportions not meeting recommended activity levels. Urban residents were more likely to fall below the recommended activity levels compared to their rural counterparts. The student population (27.9%) and the retired population exhibited the highest percentages of individuals not meeting recommended physical activity levels. Notably, there was no significant difference in prevalence across income and education qualifications. The prevalence of insufficient physical activity varies across districts. Trashigang and Wangdue

reported the highest rates at 26.7% and 22.3%, respectively, while Haa and Bumthang had the lowest percentages at 4.6% and 9%, respectively.



Figure 7.6.2 Prevalence of insufficient physical activity among population aged 15-69 years by age, gender and area of residence [Bhutan NHS 2023].



Figure 7.6.3 Prevalence of insufficient physical activity among population aged 15-69 years by usual activity [Bhutan NHS 2023].



Figure 7.6.4 Prevalence of insufficient Physical Activity among population aged 15-69 years by Dzongkhag [Bhutan NHS 2023].



Trend in insufficient physical activity, 2014-2023

The trend in insufficient physical activity among population aged 18-69 years old demonstrates a nearly threefold rise, surging from 6.4% in 2014 to 17.1% in 2023 (Figure 7.6.5). This pattern is consistent across both sexes, with the prevalence of insufficient physical activity among women increasing from 9.6% in 2014 to 20.9% in 2023, and among men, rising from 3.8% in 2014 to 13.8% in 2023.^(5,30)



Figure 7.6.5 Trends in prevalence of insufficient PA, 2014-2023 among population aged 18-69 years [Bhutan NHS 2023].

Percent contribution of physical activity from each domain (work, recreation, transport)

Among individuals aged 15-69 years who engaged in some form of physical activity, work accounted for 60.1%, followed by travel at 20.6%, and recreation at 19.2% (Figure 7.6.6). The proportion of physical activity attributed to work diminishes with an increase in income bracket, while the contributions from travel and recreational activities increase with higher income levels (Figure 7.6.7).





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Figure 7.6.7 Contribution to total physical activity from each domain by wealth amongst adults aged 15-69 [Bhutan NHS 2023].

Trends in contribution from different domains to Physical Activity, 2014-2023

The percentage contribution of work to Physical Activity decreased from slightly over 70% in 2014 and 2019 to 60.1% in 2023. However, the contribution from travel increased from 15.3% in 2019 to 20.6% in 2023. Similarly, the contribution from recreation increased from 9.5% in 2014 to 19.2% in 2023.



Figure 7.6.8 Trends in contribution from different domains between 2014 to 2023 amongst adults aged 18-69 years Note: for 2014, age group 18-69 was used [Bhutan NHS 2023].



7.7 Anthropometry

Key Findings

BMI Categories:

- Underweight: 4 % of people aged 15-69 years (3.4% women, 4.5% men)
- Overweight: 33.3% of people aged 15-69 years (33.1% women, 33.6% men)
- Obesity: 12.5% of people aged 15-69 years (16.9% women, 8.6% men)
- Mean population Body-mass Index (BMI): 25 kg/m2 (25.7 kg/m2 in women and 24.4 kg/m2 in men)

Background

The escalating global epidemic of overweight and obesity is increasingly recognized as a significant public health issue, despite the simultaneous prevalence of undernutrition in many developing nations. In 2022, one out of every eight individuals worldwide was living with obesity. The prevalence of adult obesity has more than doubled since 1990, while adolescent obesity has quadrupled.⁽³²⁾ The increasing prevalence of overweight and obesity is associated with many chronic diseases including type 2 diabetes mellitus, cardiovascular disease (CVD), stroke, hypertension, non- alcoholic fatty liver disease, and certain cancers. One of the nine voluntary global targets set under the WHO Global Action Plan against NCDs is to halt the rise in diabetes and obesity by 2025. Hence, Bhutan has incorporated the implementation of Roadmap 2023-2030 for the Global Action Plan for Prevention and Control of NCDs 2013-2030. The anthropometry measurement is encouraged during the national and global event celebration to keep the population informed on their body mass index.

This chapter provides a summary of anthropometric parameters, particularly focusing on general obesity, body-mass Index (BMI). The indicators presented will help Bhutan in evaluating current trends in overall nutrition status, the risk for chronic diseases and metabolic disorders and the effectiveness of current policy and programs.

BMI Categories

The mean body mass index of the people (15-69 years) was 25 kg/m². Of all the people aged 15-69 years, 4.0% were underweight (BMI<18.5 kg/m²), 33.3% were overweight (BMI 18.5-24.9 kg/m²) and 12.5% were obese (BMI> =30 kg/m²).

Patterns by background characteristics for BMI Categories

- The younger age group 15-24 years had the highest prevalence of underweight and lowest prevalence of overweight and obesity while it was the opposite for the age group 40-54 years (Figure 7.7.1).
- Women and population residing in urban areas have a significantly higher mean BMI; reflected as a higher prevalence of overweight and obesity as compared to their counterparts.
- The prevalence of overweight and obesity increased with increasing household income (Figure 7.7.2).



Figure 7.7.1 BMI Categories among people aged 15-69 years by age groups [Bhutan NHS 2023].



Income quintles



Comparative Analysis between 2014, 2019 and 2023 survey.

- The mean population BMI has increased to 25 kg/m² from 24.9kg/m² in 2019 and 24.0 kg/ m^2 in 2014
- There was a significant rise in the prevalence of overweight from 26.7 % in 2014 to 33.5% in 2019. However, a gradual decline in the prevalence of overweight was noted from 33.8% in 2019 to 33.3% in 2023 (Figure 7.7.3.)
- Underweight prevalence remained low (3.3% in 2014, 3.1% in 2019 and 4% in 2023), while obesity increased to (12.5% in 2023 from 11.4% in 2019 and 6.2% in 2014) (Figure 7.7.3).^(5,30)





Figure 7.7.3 Trends in prevalence of under weight, over weight and obesity among population aged 15-69 years in Bhutan from 2014-2023 [Bhutan NHS 2023].



Figure 7.7.4 Trends in prevalence of overweight and obesity by age group amongst adults between 2014, 2019 and 2023 [Bhutan NHS 2023].

The substantial increase in overweight prevalence, escalating from 10.9% to 41.0% and 41.6%, and obesity, climbing from 3.2% to 14.4% to 16.8%, was notably observed within the 40-69 age group. This surge contrasts with the trends observed among individuals aged 18-39, where overweight prevalence ranged from 15.9% to 30.1%, and 29.4% respectively for the years 2014, 2019, and 2023 (Figure 7.7.4).

Comparative Analysis of BMI status in Dzongkhag

- The survey gathered information on the normal, underweight and overweight individuals in the 20 districts. Bumthang (59.2 %) and Gasa (58.8 %) exhibit the highest percentage of normal BMI. In contrast, Trongsa reported the lowest percentage of normal BMI.
- Trashiyangtse recorded the highest percentage of overweight individuals, with a prevalence rate of 39.7 %. This suggests that nearly 40% of the population in Trashiyangtse are overweight.
- Haa recorded the highest percentage of underweight individuals, with a prevalence rate of 7.8 %, while Trongsa had the lowest percentage of underweight with a prevalence rate of 0.6% (figure 7.7.5).



7.8 Raised Blood Pressure

Key Findings

Prevalence of raised blood pressure (BP) among people aged 15-69 years

- Based on the criteria of systolic blood pressure being greater than or equal to 140 mm Hg or diastolic BP being greater than or equal to 90 mm Hg, the prevalence of raised blood pressure was found to be 30.3%.
- The prevalence of raised blood pressure was the highest in Lhuentse Dzongkhag (41.6%) while Punakha District (22.3%) recorded the lowest prevalence.

Diagnosis and treatment gap among those who have raised BP at the time of the survey (15-69 years)

- Unaware of their raised BP status: 62.6 %
- Not on treatment: 16.3% were aware of their raised BP but were not on treatment.
- On treatment but BP was not controlled: 13.0%
- On treatment and BP was controlled: 8.1%

Screening coverage, prescription of medications, treatment compliance

- Screening coverage: 76.2% had their BP ever measured by a doctor or a health worker.
- 89.4% from Bumthang Dzongkhag had their BP ever measured by a doctor or a health worker as compared to 63.9% at Wangduephodrang Dzongkhag.
- Prescription of medications: Of those diagnosed with raised BP, 73.5% were told in the past 12 months that they have raised BP but only 36.6% were currently taking medication to control BP (In the past 2 weeks).



Sources of care and medications

- 3.1% had seen a local healer *Tsip/ Jhakri/ Neyjom/ Lama/ Pow* at least once for raised BP and 6.0% reported taking herbal or traditional remedy for BP.
- Seeking treatment for raised BP from a local healer was most prevalent in Tsirang Dzongkhag (8.3%), while it was the least prevalent in Trashi Yangtse Dzongkhag (0.4%).

Background

Worldwide, an estimated 1.28 billion people aged 30-79 years are hypertensive, with the majority (two-third) residing in low- and middle-income countries.⁽²⁹⁾ Elevated BP or hypertension is a serious medical condition which significantly increases the risk of heart attack, stroke, kidney and other diseases. An individual is considered hypertensive, if when measured on two consecutive occasions, their systolic blood pressure is \geq 140mm Hg and their diastolic blood pressure is \geq 90mm Hg on both occasions.

Hypertension is often considered a "silent killer" as most people with hypertension are unaware of the problem and the condition may not represent any warning signs or symptoms. Several modifiable risk factors may lead to hypertension. These include unhealthy diets (excessive salt consumption, a diet high in saturated fat and trans fats, low intake of fruits and vegetables), physical inactivity, consumption of tobacco and alcohol, and being overweight or obese.

Under the WHO Global Action Plan, one of the nine voluntary targets is to achieve 25% relative reduction in the prevalence of raised blood pressure by 2025 relative to 2010 levels. Furthermore, aligning with the WHO SEARO's regional NCD road map 2022-2030 Bhutan comitted to achieved 25% relative reduction in prevalence of raised blood pressure by 2030.

This chapter focuses on indicators related to blood pressure; assessing prevalence, diagnosis and treatment gaps and care seeking behaviors around blood pressure management. This information will help Bhutan assess trends and progress towards hypertension management as specified in its multisectoral action plan as well as evaluation of current policies and programmes in place to reduce population blood pressure levels. These will also guide future policy and programmes to manage hypertension at population level.

Blood Pressure Measurement

Blood pressure was measured with a digital, automated blood pressure monitor (OMRON digital device) using universal adult cuff size for all participants. Three readings of systolic and diastolic blood pressure were obtained. Participants rested for three minutes between each reading and the mean of the second and third readings was calculated. The cuff was placed on the left arm while the participant rested their forearm on a table with the palm facing upward. Participants were requested to remove or roll up clothing on the arm.

Analysis

Hypertension was defined as having systolic blood pressure \geq 140 mm Hg and/or diastolic blood pressure \geq 90 mm Hg during the study, or normotensive at the time of survey but previously diagnosed as having hypertension and currently taking medications to control blood pressure.

Observations which had systolic BP <40 mm Hg or \ge 300 mm Hg and Diastolic BP <30 mm Hg or \ge 200 mm Hg supposed to be excluded, but none of adults were recorded in this range. In case the third reading was invalid, the average of the first two readings was considered.

Prevalence of Raised Blood Pressure based on the measurement and medication history

Self-reported prevalence is likely to underestimate the true prevalence as many people may be asymptomatic and not aware of their BP status. Therefore, carrying out measurements in order to determine the actual prevalence is essential to understanding the overall risk of hypertension across the population.

The prevalence of raised blood pressure among people aged 15-69years based on the actual measurement and medication history was 30.3% (Figure 7.8.1) with higher prevalence among male (32.5%) as compared to female (27.7%). On the other hand, self-reported history of raised blood pressure was 17.3%.



Figure 7.8.1 Prevalence of raised blood pressure [Bhutan NHS 2023].

Patterns by background characteristics

- The prevalence of hypertension increases with age, rising significantly after the age of 40, with 46.1% for adults aged 40-54 years and 57.6% for those aged 55-69 years.
- Prevalence of hypertension was significantly higher in men compared to women (32.5% vs 27.7%).
- In terms of education level, a higher prevalence of hypertension was observed among uneducated population (41.4%), while the lowest prevalence was among those with higher secondary education (15.3%). Additionally, an increase in hypertension prevalence was noted as income decreased, with 34.3% in the lowest income quintile as compared to approximately 28% in the wealthiest quintile.
- Prevalence of hypertension was observed higher among rural (31.9%) residents than urban residents(27.8%).





Diagnosis and Treatment gap

Raised BP increases the risk of developing several health complications such as heart disease or stroke. Ensuring early diagnosis and treatment enables people to make necessary lifestyle adjustments and reduces the risk of lasting complications.

Diagnosis Gap:

- Of all those with raised blood pressure, 37.4% were reported to be aware of their hypertensive status.
- 62.6% were observed to be unaware of their raised BP status with higher prevelance in male than women (68.6% in men vs 55.5% in women).

Treatment Gap:

• Among those with raised BP, 13.0% were on treatment but their BP was not under control and 8.1% were on treatment with their blood pressure under control.



Figure 7.8.3 Care cascade among 15-69 years' people with raised blood pressure [Bhutan NHS 2023].

 The proportion of individuals receiving treatment for raised blood pressure increased with age. Similarly, the proportion of those whose blood pressure were not under control despite treatment also increased with age, from 7.4% in the 15-24 year age group to 26.7% in the 55-69 year age group.



■ On treatment but not controlled ■ On treatment and controlled Figure 7.8.4 Percentage of BP treatment status by age [Bhutan NHS 2023].

Quality of Treatment:

Overall, 8.1% on treatment had controlled blood pressure within the targeted range. The proportion of those likely to be on antihypertensive treatment and controlled increased with age.

Screening Coverage

Early detection of raised BP through regular screening of healthy individuals is one of the key public health strategies for reducing the morbidity and mortality associated with raised blood pressure.

Patterns by background characteristics

- More women reported ever having their BP measured (80.7% in women vs 72.3% in men).
- Younger age group (15-24) years were less likely to have measured their BP as compared to other age groups
- The likelihood of ever having BP measured did not vary much by residence and household income quintiles.



Figure 7.8.5 Proportion of those who ever measured BP [Bhutan NHS 2023].



Dzongkhag wise data shows that screening coverage in Bumthang was the highest (89.4%) followed by Gasa (85.6%) and Mongar (84.5%) Dzongkhags while Wangdue Phodrang Dzongkhag (63.9%) reported the lowest percentage of people having their BP measured (Figure 7.8.6).



Figure 7.8.6 Dzongkhag wise proportion of people who ever had their BP measured [Bhutan NHS 2023].

Consultation with Traditional Healers and Use of Herbal Remedies

Of all with raised BP, 3.1% reported visiting local healers (Tsip/ Jhakri/ Neyjom/ Lama/ Pow) for treatment while 6.0% reported taking herbal or traditional remedies for raised blood pressure.

- The likelihood of seeking care from local healer and taking herbal remedies for raised BP increased with the age. The highest proportion of people currently taking a herbal remedy was observed among 55-69 years group (8.5%).
- Women were more likely to have visited a local healer as compared to men (3.4% of women vs. 2.8% of men). However, a higher proportion of men reported currently taking herbal or traditional remedies to control their BP as compared to women (7.5% men vs 4.5% women)
- The people from the Tsirang Dzongkhag were more likely to have visited a local healer (8.3%). However, the proportion of people currently taking herbal medication for raised BP was the highest among residents of Chhukha Dzongkhag (13%).

Comparative Analysis between 2014, 2019 & 2023 STEPS Survey among 18-69 years

- The prevalence of raised blood pressure among people decreased from 35.7% in 2014 to 28% in 2019. However the prevalence of raise BP slightly increased to 30.1% in 2023 (Figure 7.87).^(5,30)
- Furthermore, percentage of people who reported their blood pressure ever measured by a doctor or health care provider decreased from 83.3% in 2019 to 76.2% in 2023 (Figure 7.8.8). This decrease was observed in both sexes.



Figure 7.8.7 Trends in the prevalence of raised blood pressure by sex [Bhutan NHS 2023].





7.9 Raised Blood Sugar

Key Findings

Prevalence of raised blood sugar among people aged 15-69 years.

- Actual measurement: Based on the criteria of fasting blood glucose 126 mg/dl, the prevalence
 of raised blood sugar was 5.6%. This includes individuals with a history of diabetes who
 were on medication and had normal blood sugar levels at the time of the survey.
- Self-reported prevalence: Among those who have had their blood sugar measured, 4.0% reported being informed by a doctor or healthcare provider that they have elevated blood sugar levels.



Diagnosis and treatment gaps

Among those noted to have raised blood sugar at the time of the survey;

- 59.4 % were unaware about their raised blood sugar.
- 1.3 % were aware of their raised blood sugar but were not on treatment.
- 13.5 % were on treatment but their blood glucose level was not within the targeted level (uncontrolled).
- 25.8 % were on treatment with the blood glucose level within the targeted level (controlled).

Screening coverage and treatment compliance

- Screening coverage: 38.4% had their blood sugar ever measured by a doctor or a health care provider.
- Treatment compliance: 40.2% told that they have raised blood sugar reported currently taking either drugs or insulin for diabetes in the past two weeks.

Care seeking from traditional healer

• 7.2% reported seeking care from a local healer like *Tsip/Jhakri/Neyjom/Lama/Pow* while 2.3% reported having used herbal or traditional remedies to control their raised blood sugar.

Background

Diabetes is a chronic metabolic condition characterized by high blood sugar levels, or hyperglycemia resulting in significant complications due to damage such as heart, blood vessels, eyes, kidneys, and nerves as time progresses. This can result from the pancreas not producing enough insulin (Type 1 diabetes) or the body's inability to use insulin effectively (Type 2 diabetes). Type 1 diabetes predominantly manifests in children and adolescents, although it can occur in adults, literally with lesser prevalence. The prevailing type of diabetes is Type 2, predominantly observed in the adult population (generally 35 years or older) around the world. The risk for Type 2 diabetes increases among obese and physically inactive individuals. Smoking also notably increases the risk of diabetes and other cardiovascular diseases.⁽³³⁾

If an individual's fasting blood glucose level exceeds 7 mmol/L (126 mg/dl), they are classified as hyperglycemic or diabetic. Modest lifestyle changes, such as regular exercise, weight management, healthy diet, and quitting smoking, are effective Type 2 diabetes prevention methods. Promoting physical activity and minimizing inactive lifestyles can significantly contribute to achieving the 2030 Sustainable Development Goals (SDGs), particularly in Good Health and Wellbeing.

Under the WHO Global Action Plan, two of the nine voluntary targets are directed at global diabetes control. These goals include achieving a 25% relative reduction in the risk of premature mortality from cardiovascular diseases, cancer, diabetes, and chronic respiratory diseases, as well as preventing any increase in diabetes and obesity rates. Bhutan has also set a target of halting the rise in diabetes prevalence by the end of the 13th Plan (2024-2029).

This chapter focuses on the findings related to raised blood sugar, assessing prevalence, diagnosis and treatment gaps and care-seeking behaviors around blood sugar and diabetes management. This information will help Bhutan assess trends and progress towards diabetes management as specified in its multisectoral action plan as well as in working towards a Healthier Drukyuel. Furthermore, this will guide future policy and programs to manage diabetes at the population level.

Blood Glucose Measurement

Blood glucose was measured in step 3 of the survey. Venous whole blood was obtained following the guidelines and tested using validated equipment (Dr Morepan's B One glucometer and strips) to determine fasting blood glucose level. A Post hoc adjustment was carried out to convert glucose level from venous whole blood to plasma Autoanalyzer equivalents to estimate the true population level blood glucose following the published evidence. Consent was obtained from the people for their blood sample and carry out the biochemical measurements.

Prevalence of Raised Blood Sugar based on measurement and medications history.

Self-reported prevalence is likely to underestimate the true prevalence as many people with raised blood sugar may not have any symptoms in the initial stages and few asymptomatic people get their blood glucose measured regularly. Therefore, the prevalence of raised blood sugar, as indicated by measurement and medication history, is crucial for understanding population-level diabetes burden and guiding public health interventions.

Overall, 5.6% of population exhibited raised blood sugar based on measurement, prior diagnosis, and medications history. The prevalence among male (6%) respondents was observed to be higher than female (5.2%).



The prevalence of self-reported raised blood sugar was 4%.

Figure 7.9.1 Prevalence of raised blood sugar [Bhutan NHS 2023].

Patterns by background characteristics

 The prevalence of raised blood sugar increased with age, rising significantly after the age of 40, from 2.9% among those aged 18-39 years to 11% among those aged 40-69 years. The prevalence of diabetes was also higher among urban residents (6.5%) as compared to rural residents (5.1%).



Figure 7.9.2 Prevalence of raised Blood sugar by background [Bhutan NHS 2023].

Prevalence of self-reported raise blood glucose

- 38.4% ever had their blood glucose measured by a healthcare worker and 4.0% were ever told that they have a raised blood glucose level.
- The prevalence of self-reported raised blood sugar increased with the increase in age indicating that the elderly population were more aware of their blood glucose status (Figure 7.9.3).
- Among the occupation group, the respondent who identified themselves to be retired (16.7%) reported significantly higher prevalence of self-reported raised blood glucose.
- Urban (4.4%) respondents indicates a marginally higher prevalence of self-reported raise blood glucose as compared to rural people (3.7%), likely due to lifestyle and dietary differences.
- Among those reported to having raised blood glucose 40.2% were taking either insulin or other medication for raised blood glucose during the time of survey.



Figure 7.9.3 Self-reported prevalence of raised blood glucose by age groups [Bhutan NHS 2023].

Diagnosis and Treatment Gap

Diabetes increases the risk of developing severe health complications such as cardiovascular diseases, stroke, and chronic kidney disease/ kidney failure. Ensuring early diagnosis and initiation of treatment enables people to make necessary lifestyle adjustments and reduces the risk of lasting damage. Hence, early detection of diabetes by regular screening, using fasting blood sugar levels (at least annually) is an important secondary prevention strategy to control morbidity and mortality associated with diabetes.⁽³³⁾

Diagnosis Gap

- Of all people who had raised blood glucose, 59.4 % were unaware of the status of their raised blood sugar level. The largest proportion was observed to be between the ages 18-39 years (77.6%).
- More men (71.6%) were unaware of their raised blood sugar status than women (45.6%)
- People in rural areas were more likely to be unaware of their blood sugar status compared to urban residents (66.4 % in rural vs 49.7 % in urban).



Treatment Gap:

- 1.3% of those with raised blood sugar were aware of diagnosis but not on the treatment to reduce blood glucose level.
- The older age group (40-69 years) were less likely to be on treatment despite being aware of their diagnosis, while slightly more women (1.5%) who were aware of their raised blood sugar were not on treatment as compared to men (1.1%).
- Those in rural areas (1.9%) reported a higher percentage without treatment compared to those in urban areas (0.5%) despite raised blood glucose level.

Quality of Treatment:

 Overall, 25.8% of those with raised blood glucose and on treatment reported controlled blood sugar level while 13.5% showed blood sugar levels beyond targeted level despite treatment indicating poor control.

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- Uncontrolled blood sugar despite being on treatment was 29.3 % in the group aged 40-69 years, and 14.3% among men and those residing in urban areas (18.6%).
- Similarly, 39.5 % of those in the age group of 40-69 years were on treatment and controlled blood sugar. Women (40.2%) and those residing in urban areas (31.2%) reported significantly higher control of their blood glucose as compared to their counterparts.



Figure 7.9.5 Treatment control status of blood glucose by background [Bhutan NHS 2023].

Screening Coverage

In Bhutan, 38.4% of people aged 15-69 years have had their blood sugar ever measured by a doctor or a healthcare provider. The screening coverage was the highest in the age group 55-69 years (58.3%) and the lowest in 15-24 years (16.6 %).

Patterns by background characteristics:

Women were more likely to have had their blood sugar measured as compared to men, with 43.3% of women and 34.1% of men having undergone the screening. This higher screening coverage among women could be due to the mandatory screening during antenatal checkup for pregnant women. There is variation in screening coverage depending on the level of education, occupation, and income level and Dzongkhag. Zhemgang Dzongkhag has the highest screening coverage at 57.3%, while Trongsa had the lowest at 19.5%.

Prescription of medications and compliance to treatment

Monitoring prescription practices and treatment compliance is essential for evaluating outcomes at both individual and population levels. Elevated blood sugar is a chronic risk factor that necessitates lifelong treatment. Only 39.2 % of those who were told to have raised blood sugar reported ever taking medications to control their blood sugar. Similarly, only 40.2 % of them reported that they were currently taking their prescribed medications (including insulin).

Consultation with Local Healers and use of Herbal Remedies

Among those who have been ever told to have raised blood sugar, 7.2% sought treatment advice and care from local healers to control their blood sugar and 2.7 % were currently taking a herbal remedy.

Patterns by background characteristics

- Among those who have been ever told to have raised blood sugar, 12.4% of men sought care from local healers, as compared to only 2.3% of women.
- Among the Dzongkhags, Trashigang (49.9%) had the highest number of people who had seen a local healer to seek diabetic care. Likewise, Samtse (11.8%) has the highest number of diabetic patients who were currently taking herbal remedies to control their blood sugar level.

Comparative Analysis between 2014, 2019, & 2023 STEPS Survey

The prevalence of raised blood sugar among people aged 18-69 years remained almost the same between 2014 and 2019 at around 2%, However, there was a significant increase in 2023, with the prevalence rising to 5.8%.^(5,30)



Figure 7.9.6 Trend in prevalence of raised blood sugar among adults aged 18-69 years from 2014 to 2023 [Bhutan NHS 2023].

There was an overall decrease in the percentage of people who were not aware of their raised blood sugar status as compared to 2014, but there was a slight peak from 2019 to 2023(42.7 to 59.4%). Nervertheless, the percentage of people who were aware of their raised blood sugar status but were not on treatment has significantly decreased.^(5,30)


Figure 7.9.7 Comparative trend of raised blood sugar among 18-69 years adults by background characteristics [Bhutan NHS 2023].

7.10 Raised Blood Cholesterol

Key Findings

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Prevalence of raised blood cholesterol among the age group 15-69 years

- Prevalence of raised blood cholesterol among people aged 15-69 years was 20.9%.
- Among those who were ever measured, 18.5% were ever told by a doctor or health care provider that they have raised blood cholesterol level.

Diagnosis and treatment gap among those noted to have raised blood cholesterol

- 90.5% were unaware about their raised blood cholesterol.
- 2.4% of the people knew they had raised blood cholesterol but were not on treatment.
- 0.9% were on treatment but not controlled.
- 6.1% were on treatment and controlled.

Screening coverage, prescription of medications, treatment, and compliance

- Screening coverage: Overall, 16.4% of people aged 15-69 years (24.4% among 40-69 years old) had their blood cholesterol ever measured by a doctor or a health care provider.
- 77.7% of peopled aged 15-69 years who were told that they have raised blood cholesterol were diagnosed in the past 12 months.
- Treatment compliance: 32.4% of peopled aged 15-69 years who were told that they have raised blood cholesterol reported taking their prescribed medications to control their cholesterol in the 12 weeks prior to the survey.

Background

WHO recommends a reduction in serum cholesterol level and states that 10% reduction in serum cholesterol in men aged 40 years has been reported to result in a 50% reduction in heart disease, the same serum cholesterol reduction for men aged 70 years can result in an average 20% reduction in heart disease occurrence in the next 5 years.

Total cholesterol is a combination of both good (HDL) and bad (LDL) cholesterol. An individual is considered to have raised total cholesterol levels if, the individual's concentration of total cholesterol level is \geq 190 mg/dl.

Considering that high cholesterol is a significant biochemical risk factor for CVD, controlling its prevalence will contribute to achieving the SGD target of one third reduction of premature mortality from non-communicable diseases in premature mortality from NCDs through prevention and treatment.

This chapter focuses on indicators related to raised blood cholesterol, assessing prevalence, diagnosis and treatment gaps and care-seeking behaviours around blood cholesterol management. This information will help assess its current policies and programmes in place to reduce population blood cholesterol levels.

Blood Cholesterol Measurement

A biochemical assessment for total cholesterol was performed by collecting the venous blood and carrying out a test in the laboratory as part of STEP 3 of the survey.

Raised blood cholesterol was defined as having a lipid profile (total cholesterol, HDL and triglycerides) of \geq 190 mg/dl during the study, or normal cholesterol levels at the time of survey but previously diagnosed as having raised blood cholesterol and currently taking medications to control blood cholesterol.

Observations which had cholesterol levels <75mg/dl or ≥470 were supposed to be excluded, but none of adults were recorded in this range.

Prevalence of Raised Blood Cholesterol based on the measurement and medication history

Overall, 20.9% of peopled aged 15-69 years reported raised blood cholesterol based on both measurement and medications history. The self-reported prevalence was higher (18.5%) than those who got their blood cholesterol measured (16.0%).

Patterns by background characteristics:

- The prevalence of raised cholesterol increased with age. The prevalence increased substantially after 40 years. Furthermore, the prevalence of raised cholesterol was higher in men as compared to women (21.5% vs 20.5%).
- Adults from rural areas were more likely to have raised cholesterol when compared to those from urban areas (21.6% in rural vs 19.6% in urban).



Diagnosis and Treatment Gap

Diagnosis Gap

• Among those with raised blood cholesterol, 90.5% were not aware of their cholesterol level, of which 91.2 % were women and 89.9% were men (Figure 7.10.1).



Figure 7.10.1 Percentage of diagnosis and treatment gaps among people aged 15-69 years by sex [Bhutan NHS 2023].

Treatment Gap

Overall, 2.4% of people aged 15-69 years with raised cholesterol at the time of survey were aware of diagnosis but were not on medications (Figure 7.10.1). Among those with raised blood cholesterol who reported to be on treatment, 0.9% were not under control at the time of survey though 6.1% were on treatment and had controlled cholesterol level. Control of the cholesterol with treatment was higher in men (7.2%) as compared to women (5.0%).

Screening Coverage

Regularly screening for raised blood cholesterol among healthy individuals is one of the key public health strategies to reduce morbidity and mortality associated with high cholesterol such as cardiovascular diseases. This survey found that 16.4% of people aged 15-69 years had their blood cholesterol ever measured by a doctor or a health care provider.

Prescription of medications and compliance with treatment

Among those who have been told by a doctor or health care provider that they have raised blood cholesterol, 77.7% were told in the past 12 months and 34.2% reported that they have taken medication to control blood cholesterol in the past 12 weeks.

Comparative Analysis between STEPS 2014, STEPS 2019 and NHS 2023

The prevalence of raised blood cholesterol among people aged 18-69 years increased from 11.1%



Figure 7.10.2 Trends in the prevalence of raised blood cholesterol among people aged 18-69 years by sex [Bhutan NHS 2023].

The proportion of people aged 18-69 years who had ever had their blood cholesterol level measured increased from 3.2% in 2014 to 9.9% in 2019 and further increased to 16.3% in 2023.^(5,30)



Figure 7.10.3 Trends in screening coverage for raised cholesterol among people aged 18-69 years [Bhutan NHS 2023].

7.11 Cardiovascular Diseases

Key Findings

History of cardiovascular disease

• About 4.5% of people aged 15-69 years and 5.1% from the group aged 40-69 years reported ever having a heart attack or chest pain from heart disease or stroke.

Predicted 10-year cardiovascular disease risk

 About 5.3% of people aged 40-69 years have a predicted 30% or more risk of having a fatal or non-fatal major cardiovascular event (myocardial infarction or stroke) in next 10 years based on WHO/ISH risk prediction charts.

Lifestyle advice

 The most common lifestyle advice given by health workers was "eat at least five servings of fruit and/or vegetables each day" (54.5%), followed by "reduce salt in your diet" (48.6%) and "reduce fat in your diet" (44.9%).



Background

Cardiovascular diseases (CVDs) are the number one cause of death globally, taking an estimated 17.9 million lives each year. CVDs are a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions. Individuals at risk of CVD may demonstrate raised blood pressure, blood glucose, and dyslipidemia as well as overweight and obesity. These can all be easily measured in all health care facilities.

In Bhutan, the WHO/ISH chart is used to screen the risk of developing CVD among adult individuals, following which necessary steps are taken either for preventive or curative services. Bhutan is committed to reducing CVDs burden and has included the reduction of CVD risk as one of the outcome indicators in the 13th plan (2024-2029).⁽²⁾

This chapter describes self-reported history of cardiovascular diseases and lifestyle advice received from doctors or health workers. Additionally, 10-years CVD risk is predicted for people aged 40-69 years. This information will help to assess the trends and progress towards the reduction of CVDs burden as well as the evaluation of current policies and programmes in place.

History of Cardiovascular Disease

Overall, 4.5% of people aged 15-69 years reported ever having the risk of a CVD event, including heart attacks or chest pain from heart disease or a stroke. Amongst the high-risk age group (i.e. 40 years and above), 5.1% reported ever having a heart attack or chest pain. However, this data may underestimate the true prevalence of heart attacks/ stroke due to survivor bias (people who died from fatal cardiovascular events were excluded from the survey), recall bias, and failure to consider asymptomatic or undiagnosed non-fatal events.

Patterns by background characteristics

- For the people within the age group of 15-69 years, the proportion who ever experienced heart attacks or chest pain from heart disease, or a stroke prevalence were higher among females (5.1%) than males (3.9%), while no significant different was observed between areas of residence and income levels.
- The proportion of population reported ever having a heart attack, chest pain from heart disease, or stroke was the highest in Trashiyangtse, followed by Gasa and Punakha. The lowest proportion was reported in Zhemgang.



Dzongkhag

Figure 7.11.1 Dzongkhag wise percentage of respondent ever having a heart attack or chest pain from heart disease or stroke [Bhutan NHS 2023].

Predicted 10-year cardiovascular disease risk.

The 10-year cardiovascular disease risk at population-level was estimated using lab based WHO/ ISH risk prediction chart (2019) for South Asia (Bangladesh, Bhutan, India, Nepal, Pakistan). To calculate predicted risk for fatal or non- fatal CVD event (myocardial infarction or stroke), people's information on age, sex, smoking status, systolic blood pressure, total cholesterol and the presence or absence of type 2 diabetes are utilized and combined.

Amongst people aged 40-69 years, 5.3% had a predicted 10-year CVD risk of 30% or more with the proportion higher (6.2%) among older age group (55-69 years) as compared to the 40-54 years (4.9%) age group. However, for the people within the age group of 40-69 years, the prevalence of 30% or more CVD risk did not differ significantly with sex and area of residence.



Figure 7.11.2 Percentage of peopled aged 40-69 years with 10 years CDV risk of 30% or more by age group [Bhutan NHS 2023].

Comparative analysis of 30% or more predicted CVD risk

The percentage of individuals aged 40-69 years with a 30% or higher risk of CVD showed a steady increase from 2014 to 2023. It increased from 1.8% in 2014 to 4.9% in 2019, and increased significantly to 6.2% in 2023.^(5,30)





*For the comparative analysis, the 2023 data was reanalyzed using CVD Risk 2007 (SEAR D), as this metric was used during previous two surveys 2014 and 2019.



Lifestyle Advice

An individual-based intervention involving lifestyle advice from doctors and health workers to modify key risk behavior among high-risk individuals place an important role in overall NCD prevention and control along with population-based measures targeted at the whole population.

Amongst those who visited a doctor or health worker in the past 12 months, the three most common lifestyle advice that people received were: "eat at least five servings of fruit and/or vegetables each day" (54.5%), "reduce salt in your diet" (48.6%) and "reduce fat in your diet" (45.2%). Advice on tobacco cessation or prevention of initiation was the least commonly reported (31.4%) followed by advice for reducing sugary beverages (32.9%).



Figure 7.11.4 Percentage of people aged 15-69 years who have received different lifestyle advice from a doctor or health worker [Bhutan NHS 2023].

Patterns by background characteristics

- Female were more likely to receive any kind of lifestyle advice as compared to their counterparts (Figure 7.11.5).
- The likelihood of receiving lifestyle advice increased with age (Figure 7.11.6).



Lifestyle Advice

Men Women

Figure 7.11.5 Differentials in lifestyle advice received from a doctor or health worker in the past 2 months by sex



■ 15-24 ■ 25-39 ■ 40-54 ■ 55-69

Figure 7.11.6 Differentials in lifestyle advice received from a doctor or health worker in the past 2 months by age group [Bhutan NHS 2023].

Comparative Analysis between 2014, 2019 and 2023 STEPS Survey

- Overall, the percentage of people aged 18-69 years who have visited a doctor or health worker in the past 12 months and received lifestyle advice on behavioral risk factors for non-communicable diseases decreased in 2023 as compared to 2019 (Figure 7.11.7).
- Fewer people aged 18-69 years reported receiving advice on "quitting tobacco or don't start" in 2023 (31.2%) as compared to 2019 (35%) and 2014 (42.1%). Furthermore, people reported receiving advice on "reduce fat in your diet" reduced significantly from 56.1% in 2019 to 45% in 2023.^(5,30)



Figure 7.11.7 Trends between 2014, 2019 and 2023 in lifestyle advice received. [Bhutan NHS 2023].

7.12 Cervical and Breast Cancer Screening Coverage

Key Findings

Chapter 7

- **Cervical Cancer Screening:** The percentage of women aged 30-65 years who have ever been tested for cervical cancer was 87.1%, equating to seven out of every eight women.
- Breast Cancer Screening: The percentage of women aged 40-65 years who have ever been tested for breast cancer was 54.5%, corresponding to a little over one in two women.

Cervical cancer is both preventable and curable when detected early and managed effectively. Despite this, it remains the fourth most common cancer among women worldwide and the most frequently diagnosed cancer among Bhutanese women, with peak incidence occurring between ages 40-49. Bhutan has operated a cytology-based screening program using conventional Pap smears since 2006. According to the World Health Organization (WHO), to eliminate cervical cancer, 90% of girls must be vaccinated, 70% of women must be screened with a high-precision test such as HPV testing, and 90% of women with pre-cancerous lesions or cancer must receive treatment. Bhutan is committed to achieving these 90-70-90 targets by 2030. Routine surveillance by the Ministry of Health shows that more than 90% of young women in Bhutan are covered by the HPV vaccine. Cervical and breast cancer screening are two of the three cancer screening initiatives under the Health Flagship Project. The target groups are women aged 30-65 years for cervical cancer screening and 40-65 years for breast cancer screening. The findings from this survey are expected to provide a clear status on the screening coverage for these two preventable cancers.

As shown in Figure 7.12.1, among women aged 30-65 years, 87.1% have been screened for cervical cancer, with rural women (88.6%) slightly more likely to have been tested compared to urban women (84.2%). Screening coverage decreases with increasing education levels (Table 7.12.1). Women with lower secondary education had the highest screening coverage rate (90.7%), while those with a bachelor's degree or higher had a lower rate (79.2%). Screening coverage ranged from a low of

71.0% in Phuentshogling Thromde to a high of 98.9% in Gasa Dzongkhag. Of those screened, 88.3% had their most recent test within the past two years prior to the survey date.

Among women aged 40-65 years, 54.5% had undergone breast cancer screening (Figure 7.12.1). There was no significant difference in screening rates by area of residence. Women with Certificates or Diplomas had the highest coverage rate (73.0%), while those with no formal education had the lowest coverage (53.2%). Additionally, women in the highest income quintile (Q5) were more likely to have been screened for breast cancer (57.5%) as compared to those in the lowest income quintile (52.5%).



Figure 7.12.1 Percentage of women aged 30-65 years screened for cervical and 40-65 years screened for breast cancer by area of residence; [Bhutan NHS 2023].



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Mental Health and Substance Use



8.1 Mental Health

Key Findings

Depression and Anxiety

- About 0.4% of the population reported having symptoms of moderate to severe depression, 12.1% with mild depression and 85.5% with none or minimal depression.
- Approximately, 0.4% of the population reported having symptoms of severe anxiety, 1.4% showing moderate anxiety, and 8.4% with mild anxiety.

Suicidal Behaviors

- Of the total population, 0.6% of population seriously considered attempting suicide in the past 12 months (0.8% women, 0.4% men).
- About 1.6% of the population reported a history of suicide attempt in their lifetime (2.0% women, 1.2% men).
- An estimated 2.3% of the population reported a having history of their close family members who died by suicide.
- About 2.1 % of the population reported exhibiting self-harming behaviors in the past one month.

Substance Use

- Overall, 48.7% of the population were life-time abstainers, never consuming alcohol in their lifetime.
- About 7.5% population reported using marijuana and 2.7% reported using inhalants in their lifetime.
- Of the total population, 45.6% reported using tobacco in their lifetime and among them 54.6% of them still use tobacco.

History of mental health issues and protective factors

- Overall, 2.8% of the population reported having been diagnosed with some form of mental health conditions.
- About 80.9% of the population reported having supportive family members (always) and 2.9% receiving no support from their family members during challenging or difficult times.
- Approximately, 80.2% of the population reported seeking support from their family members during serious emotional distress followed by friends and professionals, 25.5% and 16.8% respectively.

In Bhutan, administrative data from the past three years show an increase in mental health cases, with anxiety and depression comprising over 55% of the reported cases.⁽³⁴⁾ Alcohol and substance use-related mental health issues are also rising. Efforts are focused on integrating mental health care within general health services and other relevant areas to improve community access. As of 2023, over 145 school counselors provide preventive interventions and counseling, and relevant



CSOs offer counseling and rehabilitation services. To promote and coordinate mental health efforts, Bhutan established The PEMA, a nodal agency for mental health guided by Her Majesty The Gyaltsuen. The institute prioritizes mental health as a critical component of overall well-being through coordinated, and comprehensive interventions. A series of mental health related questions were asked to individuals aged 15-69 years in NHS 2023.

Depression and Anxiety

Based on the Patient Health Questionnaire 9 (PHQ-9) scores, 0.1% of the population reported having symptoms of severe depression, 0.4% had moderately severe depression, 1.9% had moderate depression, and 12.1% had mild depression (Figure 8.1.1). According to the Generalized Anxiety Disorder 7-item scale (GAD-7), 0.4% of people had severe anxiety, 1.4% had moderate anxiety, and 8.4% had mild anxiety (Figure 8.1.2).











Overall, depression and anxiety were most prevalent among individuals aged 15-24 years and those aged 55-69 years (Figure 8.1.3 & Figure 8.1.4). Women exhibited higher rates of depression and anxiety as compared to men (Figure 8.1.5). Among different occupational categories, students showed higher rates of depression, while those categorized as "doing nothing" exhibited higher rates of anxiety (Figure 8.1.6). In terms of income quintiles, both depression and anxiety were more prevalent among individuals in the least income and lower income groups.



Figure 8.1.3: Differentials in levels of depression amongst people aged 15-69 years by age [Bhutan NHS 2023].



Figure 8.1.4: Differentials in levels of anxiety amongst people aged 15-69 years by age [Bhutan NHS 2023].



Figure 8.1.5: Differentials in levels of depression and anxiety amongst people aged 15-69 years by sex [Bhutan NHS 2023].



Figure 8.1.6: Differentials in levels of depression and anxiety amongst people aged 15-69 years by usual activity [Bhutan NHS 2023].



Suicidal Behaviours

Approximately 2.3% of the population reported having history of death due to suicide in their family while 1.6% reported their own suicide attempt within the past year (Figure 8.1.7). Additionally, 0.6% of people reported seriously considering attempting suicide. Among those engaging in self-harming behaviours, the highest prevalence (2.8%) was observed among students (Figure 8.1.8).



Figure 8.1.7 Suicidal behaviors among people aged 15-69 years and family history of suicide [Bhutan NHS 2023].



Figure 8.1.8 Self-harming behaviors among people aged 15-69 years by usual activity [Bhutan NHS 2023].

In 2023, the percentage of people with a history of suicide attempt had slighly increased compared to 2019 (figure 8.1.9). However, fewer individual reported having seriously considered suicide (0.8% vs. 0.6%) in 2023 as compared to 2019.





8.2 Substance Use

Based on the screening using ASSIST, alcohol was the most ever used substance followed by tobacco with 51.3% and 45.6% respectively.



Figure 8.2.1 Percentage of persons aged 15-69 years who ever used substances [Bhutan NHS 2023].

Reported Mental Health Conditions and Protective Factors

Overall, 2.8% of people aged 15-69 reported being diagnosed with a mental disorder - predominantly anxiety and depression were the diagnosis. The vast majority, (80.9%), indicated having constant support from family members, while 2.9% reported to having no support during times of challenges or difficulties. When facing serious emotional distress, as shown in Figure 8.2.2, approximately 80.2% of the population sought support from family members, followed by friends (25.5%) and professionals (16.8%).



Figure 8.2.2 Percentage of individuals aged 15-69 years who feel supported by family members when they face challenges or difficulties [Bhutan NHS 2023].



Figure 8.2.3 The percentage of individuals aged 15-69 years who communicate with others while experiencing emotional distress [Bhutan NHS 2023].



Figure 8.2.4 Percentage of individuals aged 15-69 years diagnosed with a mental health disorder by usual activity [Bhutan NHS 2023].

Considering the primary findings concerning prevalence, immediate strategies should target the reduction of existing treatment gaps and the implementation of prevention measures. Currently, the treatment gap for depression exceeds 60%. However, long-term objectives should prioritize the advancement of sustainable and resilient mental health prevention and response initiatives. There is a higher prevalence of suicidal behaviors among individuals aged 15-24, directly correlating with suicide fatalities according to the National Suicide Registry. The mortality rate due to suicide is notably higher within this demographic. The presence of protective factors such as familial support and the inclination to seek support from family and friends during periods of significant emotional distress provide evidence for the importance of investing in family-centered interventions and peer networks for enhancing mental health and psychosocial support systems.

Chapter 9

Violence Against Women and Child Discipline



9.1 Violence Against Women

Key findings

Attitudes towards violence:

- Approximately 44% of women aged 15-64 thought a man was justified in hitting his wife for one or more reasons given in the survey, a decrease from 53.4% in the 2017 survey.
- Nearly all women and girls (99.5%) agreed that refusing sex for one or more reasons was acceptable, up from 89.6% in 2017.

Controlling behaviors:

• Among ever-partnered women, 29.0% experienced controlling behaviours at some point in their lives, with 18.3% experiencing such behaviors in the past 12 months.

Experience of violence:

- Overall, 16.4% of women aged 15-64 faced physical violence, 6.9% have faced sexual violence, and 17.5% faced emotional violence at some point in their lives.
- In the last 12 months, 4.4% of women experienced physical violence, 2.6% experienced sexual violence, and 8.5% experienced emotional violence.

Intimate partner violence:

• 24.9% of women faced physical, sexual, or emotional violence from their current or most recent husband/intimate partner at some point in their lives, with 10.8% experiencing it in the past 12 months.

Non-partner violence:

- Lifetime prevalence of non-partner physical violence against women and girls was 11.0%, with 2.2% experiencing it in the past 12 months.
- Lifetime prevalence of non-partner sexual violence is 1.3%, with 0.5% experiencing it in the past 12 months.

Trends

• The overall prevalence of physical, sexual, emotional, controlling behaviours or economic violence decreased by 6.4 percentage points from 2017 to 2023.

Violence against women and girls by husbands/partners

Women and girls aged 15-64 who have ever had partners were surveyed about various forms of violence, including physical, sexual, emotional, and economic violence, as well as controlling behaviours inflicted by their current or former husbands/partners.

"Husbands/partners" includes any intimate relationship a woman has had or is currently in with a man, regardless of whether they lived together or were married. This encompasses current or former boyfriends, fiancés, de facto partners, and husbands. Respondents were asked about specific behaviours (without using the term 'violence'), including whether these behaviours had occurred at any point in their life and if they had occurred in the 12 months before the interview.

Attitudes around physical partner violence and sexual partner violence

During the survey, women and girls between 15-64 years were asked about their attitudes and perceptions on intimate partner violence. The questions on the respondents' perceptions if it is acceptable for a husband to hit his wife under certain circumstances and their perception of sexual autonomy were asked.

Attitudes around physical partner violence

Almost 44% of women aged 15-64 agreed that a man is justified in hitting his wife for one or more reasons.

The agreement was relatively higher among older women, with 47.5% of those aged 55-59 and 46.8% of those aged 60-64 in agreement, while the lowest agreement was found among women aged 25-29, at 40.5%.

By education level, the percentage of women who believed a man is justified in hitting his wife decreased as their education level increased. Among women with no education, 47.7% agreed, compared to only 32.8% of women with a Bachelor's degree or higher.

The highest percentage of women and girls who supported the idea of wife-beating was found among those involved in household chores (45.4%), while the lowest percentage was among those who were retired (38.0%).

Geographically, more women and girls in rural areas agreed with the wife-beating statement than those in urban areas (45.9% vs. 40.5%). Among districts and thromdes, Gelephu had the highest percentage of agreement (79.5%), while Monggar had the lowest (26.8%).









Figure 9.1.2 Percentage of women aged 15-64 years who agree that a man has a good reason to hit his wife by District and Thromde [Bhutan NHS 2023].

Attitudes around sexual partner violence

- About nine in every ten 10 women and girls (99.5%) agreed that it was acceptable to refuse sex for one or more reasons.
- There was no significant difference in attitude between women of different age groups, level of education, usual activity, location, wealth quintile and district.

Controlling behaviour

- Among ever-partnered women and girls, 29.0% reported experiencing controlling behaviours at some point in their lives, and 18.3% reported such experiences in the past 12 months.
- The incidence of controlling behaviour decreased as women's age increased. Women aged 20-24 years reported the highest rates (34.8% in their lifetime and 29.5% in the past 12 months), while those aged 60-64 years reported the lowest (22.7% in their lifetime and 9.8% in the past 12 months).
- Educational attainment also played a role, with the highest rates of controlling behaviour reported by women and girls with lower secondary education (34.4% in their lifetime and 23.5% in the past 12 months), and the lowest rates among those with a bachelor's degree or higher (17.3% in their lifetime and 11.0% in the past 12 months).
- By usual activity, a greater percentage of women and girls who were not engaged in any specific activity reported experiencing controlling behaviour over their lifetime (32.2%). The lowest percentages of lifetime and past 12-month experiences were reported by retired women (19.2% and 12.3%, respectively).

- In terms of location, women and girls in rural areas experienced higher rates of controlling behaviour in their lifetime as compared to those in urban areas (30.1% versus 27.2%). However, there was no significant difference between rural and urban areas in the past 12 months.
- By income quintile, women in the lowest income group (Q1) reported a higher prevalence of controlling behaviour over their lifetime at 32.6%, compared to those in the highest income group (Q5) at 24.7%. Similarly, women in the second-lowest income group (Q2) experienced the highest rates of controlling behavior in the past 12 months, at 20.1%.



Figure 9.1.3 Percentage of ever-partnered women aged 15-64 years who reported following controlling behaviour of their partner at some point in a lifetime and in previous 12 months [Bhutan NHS 2023].

Economic Violence

Several financial autonomy and control questions were asked to determine economic violence to ever-partnered women aged 15-64 years. It included whether their partner had ever prohibited them from getting a job or earning money; if their partner had ever taken their earnings or properties from them against their will; and if their partner ever refused to give them money for household expenses, even when he had money for other things.

The survey found that 11.3% of ever-partnered women and girls had experienced at least one form of economic violence in their lifetime and 5.5% experienced in the last 12 months. The most common economic violence was prohibiting women from getting a job and earning money (7.2%)

- The prevalence of economic violence was highest among women and girls aged 30-34 years, with 13.3% reporting such violence over their lifetime and among 20-24 years with 8.1% in the past 12 months. Conversely, it was lower among those aged 60-64, with 7.8% experiencing lifetime economic violence and 1.9% in the last 12 months.
- Regarding education levels, lifetime economic violence was most common among women with lower secondary education (11.8%) as compared to those with certificates or diplomas (2.8%) or bachelor's degrees and above (2.8%). Economic violence in the past 12 months was also highest among women with lower secondary education (9.2%) and lowest among those with certificates or diplomas (1.7%).
- Among those reporting their activities, lifetime economic violence was most prevalent among women who were not engaged in any specific activity (8.8%) and least among students (1.8%). In the past 12 months, it was highest among women doing household chores (6.1%) and absent among students (0.0%).



- By location, there was no significant difference in economic violence experienced by women from rural and urban areas.
- Lifetime economic violence was most common among women in the upper wealth quintile (Q4) at 8.1% and least among those in the highest income group (Q5) at 5.8%. In the past 12 months, the highest rates were observed among women in the lower income quintile (Q2) at 6.1%, with the lowest rates in the highest income group (Q5) at 4.3%.
- By district, Tragshiyangtse had the highest rate of lifetime economic violence (16.9%) and Pemagatshel had the lowest (1.9%). Economic violence in the past 12 months was most prevalent in Trashiyangtse (11.1%) and least in Trongsa (0.8%).



Figure 9.1.4 Percentage of ever-partnered women aged 15-64 years who reported economic abusive acts by partners, at some point in a lifetime and in previous 12 months [Bhutan NHS 2023].

Emotional violence

During the survey, ever-partnered women and girls between 15-64 years were asked if their partners insulted them or made them feel bad about themselves, or belittled or humiliated them in front of other people or did things to scare or intimidate them on purpose. Emotional violence by intimate partners (at least one act) affected 17.5% of women and girls in their lifetime and 8.5% of them experienced it in the last 12 months (Table VAW.7).

- Patterns of emotional violence by background characteristics show that lifetime emotional violence was most prevalent among women aged 50-54 (19.5%) and least common among those aged 15-19 (11.3%). In the past 12 months, the highest rates of emotional violence were among women aged 20-24 (11.9%), while the lowest were among those aged 60-64 (3.7%).
- Lifetime emotional violence was most common among women and girls with primary education or less (13.6%) and least among those with higher secondary education (7.8%). For emotional violence in the last 12 months, the highest prevalence was among those with lower secondary education (12.0%), and the lowest among those with higher secondary education (7.4%).
- Lifetime emotional violence was highest among women and girls who were working (19.6%) as compared to students (9.6%). In the past 12 months, emotional violence was most common among working women (9.7%) and least among students (4.1%).
- Overall, emotional violence was more prevalent among women and girls in rural areas than in urban areas, both for lifetime and past 12 months.

- By income quintile, lifetime emotional violence was the highest among women and girls in the lowest income group (Q1) at 14.9%, compared to those in the highest income group (Q5) at 9.5%. In the past 12 months, the highest rates of emotional violence were among women in the lower-income quintile (Q2), with the lowest rates found in the highest-income quintile (Q5) at 8.0%.
- By district and thromdes, Monggar had the highest percentage of women and girls experiencing lifetime emotional violence (50.7%) and emotional violence in the past 12 months (24.6%). Conversely, Samdrup Jongkhar had the lowest percentages for both lifetime emotional violence (4.2%) and emotional violence in the past 12 months (2.6%). (table VAW7)



Figure 9.1.5: Percentage of ever-partnered women aged 15-64 years who reported emotional abusive acts by partners, at some point in a lifetime and in the previous 12 months [Bhutan NHS 2023].

Physical and Sexual partner violence

Ever-partnered women aged 15-64 years were asked about physical and sexual violence at some point in a lifetime and in the previous 12 months. Sixteen percent (16.4%) of women reported experiencing physical violence and 6.9% reported sexual violence in their lifetime. In the previous 12 months, 4.4% of women had experienced physical violence and 2.6% had experienced sexual violence.

Physical violence



Figure 9.1.6 Percentage of ever-partnered women aged 15-64 years who reported physical violence by partners, at some point in a lifetime and in the previous 12 months [Bhutan NHS 2023].

• The lifetime prevalence of physical violence among ever-partnered women increased with age, while experiences of physical violence in the past 12 months were more common among younger women (table VAW8).



- The highest lifetime prevalence of partner physical violence was observed among those with only primary education (19.9%), whereas the lowest was among women with certificate or diploma-level education (4.6%). In the past 12 months, physical violence was most prevalent among women with lower secondary education (7.3%) and least common among those with certificate or diploma-level education (1.3%).
- Regarding usual activities, the lifetime prevalence of physical violence was highest among women not engaged in any specific activity (19.5%) and lowest among retirees (3.5%). In the past 12 months, physical violence was most common among those not engaged in any particular activity (4.3%) and least common among students and retirees (0%).
- Physical violence was more common in rural areas (18.5%) as compared to urban areas (12.7%), and the experience of physical violence in the past 12 months was also higher in rural areas (4.8%) than in urban areas (3.6%).
- By wealth quintile, the prevalence of both lifetime and past 12-month physical violence decreased with increasing income.
- Zhemgang had the highest lifetime prevalence of physical violence (26.5%), while Samdrup Jongkhar Thromde had the lowest (7.9%). For physical violence in the past 12 months, Lhuntse had the highest prevalence (7.4%), and Samdrup Jongkhar Thromde had the lowest (1.4%).

Sexual Violence

- Lifetime and past 12-month prevalence of sexual violence among ever-partnered women was the highest for those aged 30-34 (8.1% lifetime and 3.9% in the past 12 months). The lowest lifetime prevalence was observed among women aged 15-19 (3.4%), while the lowest prevalence in the past 12 months was among women aged 55-59 (1.1%).
- The highest lifetime prevalence of sexual violence was reported among women with lower secondary education (9.1%), and the lowest among those with certificate or diploma-level education (3.4%). In the past 12 months, the highest prevalence was among women with bachelor's degrees and above (3.8%), while the lowest was among those with no education or certificate and diploma-level education (2.2%).
- For usual activities, lifetime sexual violence was most prevalent among working women (7.6%) and least among retirees (3.5%). In the past 12 months, sexual violence was highest among working women (2.9%) and absent among retirees (0%).
- There was no significant difference in the prevalence of lifetime or past 12-month sexual violence between women in rural and urban areas.
- Lifetime sexual violence decreased with increasing income quantile. The past 12-month prevalence of sexual violence was the highest among the lower-income quintile (Q2) at 3.2% and the lowest among the upper quintile (Q4) at 2.2%.
- Dagana had the highest lifetime prevalence of sexual violence (14.3%), while Pemagatsel had the lowest (2.4%). For the past 12 months, Punakha had the highest prevalence (5.7%), and Wangdue had the lowest (0.4%).



Figure 9.1.7 Percentage of ever-partnered women aged 15-64 years who reported sexual violence by partners, at some point in a lifetime and in the previous 12 months [Bhutan NHS 2023].

Prevalence of Intimate Partner violence

Intimate Partner Violence (IPV): This refers to the percentage of women who have experienced any of the specified acts of physical, sexual, or emotional violence committed by their current or most recent husband/intimate partner, ever and in the 12 months preceding the survey.

The lifetime prevalence of IPV among women was 24.9%, while the prevalence in the past 12 months was 10.8%.

- The highest lifetime prevalence of IPV was observed among women aged 55-59 (27.5%), while the lowest was among those aged 15-19 (16.6%). In the past 12 months, IPV was most prevalent among women aged 20-24 (14.9%) and least prevalent among women aged 60-64 (5.2%).
- Women with lower secondary education had the highest lifetime IPV prevalence (28.9%), whereas those with certificate or diploma education had the lowest (13.1%). Similarly, IPV in the past 12 months was highest among women with lower secondary education (14.9%) and lowest among those with certificate or diploma education (8.4%).
- In terms of occupational background, women who were working reported the highest lifetime IPV prevalence (27.3%), while students had the lowest (9.6%). In the past 12 months, working women also reported the highest IPV experience, and students reported the lowest (4.1%).
- Lifetime IPV prevalence was higher among women in rural areas as compared to those in urban areas. This trend continued with a higher IPV experience reported in the past 12 months for women in rural areas (11.3%) compared to urban areas (10.0%).
- The lifetime prevalence of IPV decreased with increasing income quintile, with the highest rates among the lowest income group (28.4%) and the lowest among the highest income group (20.2%). IPV in the past 12 months was most common among women in the lower income quintile (Q2) at 12.4% and least common among women in the highest income quintile (Q5) at 9.8%.



In terms of districts and thromdes, the highest lifetime IPV prevalence was in Samdrup Jongkhar (excluding SJ thromde) at 28.9%, and the lowest was in Thimphu Thromde at 9.6%. For IPV experience in the past 12 months, the highest prevalence was in Monggar (25.4%), while the lowest was in Samdrup Jongkhar (excluding SJ thromde) at 4.7%.

Violence against women and girls by others (Non-partner Violence)

The survey covered violence against women and girls perpetrated by people other than their intimate partners which include family members, friends, and strangers, either male or female. The types of non-partner violence include both physical and sexual violence.

Non-partner physical violence

The lifetime prevalence of physical violence from non-partners among women aged 15 to 64 was 11.0%, with 2.2% experiencing it within the past 12 months.

- The highest lifetime prevalence of non-partner physical violence was found among women aged 20-24 at 14.0%, while the lowest prevalence was seen among women aged 60-64 at 8.6%. In terms of physical violence within the past 12 months, the highest prevalence was reported among women aged 15-19 at 4.5% and lowest among women aged 60-64 at 0.9%
- Physical violence for lifetime was most prevalent among women with primary and secondary education, hovering around 14% and highest among women with secondary education for the past 12 months at 4.2%.
- The highest lifetime prevalence of physical violence was found among retiree women (13.1%), and among students for the past 12 months at 3.8%.
- There were no significant differences in the prevalence of lifetime or past 12-month nonpartner physical violence base on location or income quintile.



■ Life time ■ last 12 months Figure 9.1.8 Percentage of women aged 15-64 years who experienced non-partner physical, since the age of 15 (lifetime) and in the previous 12 months by age group [Bhutan NHS 2023].



Figure 9.1.8 Percentage of women aged 15-64 years who experienced non-partner physical, since the age of 15 (lifetime) and in the previous 12 months by educational background [Bhutan NHS 2023].

Non-partner sexual violence

The lifetime prevalence of non-partner sexual violence among women aged 15-64 years old was 1.3% and in the past 12 months was 0.5%.

- The highest lifetime prevalence of non-partner sexual violence was among women aged 20-29 at 2.0%, while the lowest prevalence was found among women aged 45-49 and 60-64, each at 0.8%.
- Women with primary or less education and those with a bachelor's degree or higher also had the highest lifetime prevalence at 2.0%.
- Regarding occupation, the highest prevalence was among women who were not employed (2.6%), while students had the lowest (0.4%).
- In the last 12 months, retired women had the highest prevalence of non-partner sexual violence (1.9%), while students and women doing household chores both had the lowest at 0.4%.
- There were no significant differences in lifetime or recent non-partner sexual violence based on location or income.
- Dagana had the highest lifetime prevalence of non-partner sexual violence at 5.1%, while Gasa had the lowest at 0.2%.

Trends between 2017 and 2023

The overall prevalence of physical, sexual, emotional, controlling behaviours or economic violence has decreased from 30.0% to 23.6% between 2017 and 2023 showing a decrease of 6.4% points (figure 9.1.9). In terms of the point estimates, there were decreases in all types of violence except sexual violence. The largest decrease was in the controlling behaviour from 24.3% in 2017 to 18.3% in 2023.





VAW 2017 NHS 2023

Figure 9.1.9 Trend in the prevalence of physical, sexual, emotional violence, controlling behaviours and/or economic violence among ever-partnered women aged 15-64 years, in the previous 12 months; between 2017 and 2023 [Bhutan NHS 2023].

Generally, there was improvement in the attitudes around physical partner violence among women aged 15-64 years, in the previous 12 months, between 2017 and 2023 (Figure 9.1.10). With more than 10 percentage points decrease, the improvement was the largest in those who agreed that a man has a good reason to hit his wife if 'she does not take care of the children', and 'he finds out that she has been unfaithful.'



■ VAW 2017 ■ NHS 2023



The percentage of women aged 15-64 years who agreed that a married women can refuse to have sex with her husband for each of the reason decreased from 2.3 to 8.3 percentage points (Figure 9.1.11). However, the percentage for one or more of the reasons mentioned increased by more than 10 percentage points between 2017 and 2023.

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■VAW 2017 ■NHS 2023

Figure 9.1.11 Trend in the attitudes around sexual partner violence among women aged 15-64 years; between 2017 and 2023 [Bhutan NHS 2023].

9.2 Child Discipline

Key Findings

- Among parents or caregivers of children aged 1 to 14 years, 82.2% used some form of violent method, and 18.3% used severe physical punishment.
- Children aged 1 to 14 from the lowest income quintile reported the lowest levels of violent discipline.
- Children aged 1 to 14 in Wangdue experienced the highest rate of violent discipline at 91.39%, whereas Samdrup Jongkhar reported the lowest rate at 65.12%.
- Nearly 30% of mothers and caretakers believe that physical punishment is necessary for disciplining a child.

Background

Parents raise their children influenced by their own experiences, beliefs, and the social and cultural context around them. As a result, they employ various disciplinary practices, including physical, psychological, and non-physical methods. The National Health Survey 2023 gathered data to examine the prevalence of physical, psychological, and non-violent disciplinary approaches. Overall, 82.2% of children aged 1-14 years were subjected to some form of violent discipline, with little difference between boys and girls. Only 14.4% of children were disciplined exclusively using non-violent methods, while 73.5% experienced psychological aggression. Physical punishment was reported for 60.1% of children, and of those, 18.3% endured severe physical punishment, such as being hit or slapped on the face, head, or ears, or being beaten repeatedly as hard as one could. Violent discipline was comparatively lower among children aged 1-2 years as compared to older children. These statistics highlight the need to promote non-violent methods of child discipline.





Figure 9.2.1 Percentage of children age 1-14 years by child disciplining methods experienced during the last one month by sex [Bhutan NHS 2023].



Figure 9.2.2 Percentage of children age 1-14 years by child disciplining methods experienced during the last one month by age group [Bhutan NHS 2023].

The data on the percentage of children aged 1 to 14 years who experienced violent discipline methods in the past month reveals notable regional differences. The districts with the highest reported rates of violent discipline were Wangdue Phodrang (91.39%), Trongsa (91.29%), Thimphu (91.17%), and Gasa (91.14%), and the districts with the lowest percentages were Samdrup Jongkhar at 65.12% and Samdrup Jongkhar Thromde at 69.86%. Similarly, Lhuntse and Monggar districts reported lower rates of violent discipline methods, at 73.14% and 77.47%, respectively.

Violence Against Women and Child Discipline



Dzongkhag

Figure 9.2.3 Percentage of children aged 1 to 14 years who experienced any violent discipline method in the past month, by District and Thromde [Bhutan NHS 2023].



Attitudes toward physical punishment

Figure 9.2.4 Percentage of mothers/caretakers of children age 1-14 years who believe that physical punishment is needed to bring up, raise, or educate a child properly area [Bhutan NHS 2023].

Nearly one-third (29.8%) of the mothers or caretakers believe that physical punishment is necessary for disciplining a child, reflecting a notable acceptance of this method. When examined by location, attitudes differ between urban and rural areas. In urban areas, 28.3% of the mothers or caretakers share this belief, while in rural areas, the percentage is slightly higher at 30.8%. This indicates that rural caretakers are somewhat more likely to support physical punishment as compared to those in urban areas.
Limitation and Conclusion

Limitations of the Survey

The National Health Survey (NHS) 2023, while comprehensive, faced several limitations that may affect the interpretation and generalization of the results:

- Sampling Constraints: The survey used a complex sampling design to ensure representation across Bhutan. However, due to logistical constraints, Lunana Gewog was excluded because of geographic accessibility issues. Additionally, Step 3 of the survey, which involved the laboratory-based module, was designed to generate data only at the national level. These limitations may introduce biases, particularly in estimates related to health service access and health outcomes in these areas.
- 2. Data Collection Challenges: Although the survey utilized the Survey Solutions platform and trained enumerators proficient in local dialects, potential issues with translation and interpretation could have affected the consistency and accuracy of responses. Moreover, some respondents may have experienced survey fatigue due to the comprehensive nature of the questionnaire, which could have led to incomplete or non-committal answers, especially during longer interviews.
- Response Bias: As with any survey involving self-reported data, NHS 2023 is susceptible to response bias. This is particularly relevant in sections addressing sensitive topics such as intimate partner violence, substance use, and mental health, where underreporting or overreporting may have occurred due to social desirability or stigma.
- 4. Time-Sensitive Data: The data collection period spanned from May 2023 to July 2023. Given the rapidly changing public health landscape, especially concerning emerging health issues such as non-communicable diseases and mental health concerns, some findings may not fully capture the latest developments or seasonal variations in health indicators.
- 5. Exclusion of Certain Indicators: Due to financial and logistical constraints, the survey was unable to include certain health indicators and specific subpopulations, such as the prevalence and sources of blood lead among children and pregnant women. These indicators were deferred for future follow-up surveys, limiting the survey's ability to provide a complete health status picture.
- 6. Scope of the Report: This report covers only the key findings from the survey. Not all findings are presented in this report; more detailed analyses will be covered in future thematic series.
- 7. Population Representation: NHS 2023 is a household-based survey, which means it does not represent populations residing in institutions such as hostels, hospitals, or military barracks. As a result, health indicators for these groups may not be accurately captured.

These limitations underscore the need for cautious interpretation of the survey findings and highlight areas for improvement in future surveys.



Conclusion

The National Health Survey (NHS) 2023 marks a significant milestone in Bhutan's ongoing efforts to monitor and improve the health and well-being of its population. Conducted as part of a decennial series, this fifth iteration of the survey provides an in-depth analysis of health indicators across various domains, offering valuable insights into the progress made and the challenges that lie ahead.

The survey's comprehensive approach, integrating data from 14 different health-related surveys, has not only enhanced the breadth and depth of information but also improved efficiency and reduced respondent fatigue. The findings reveal substantial improvements in key areas such as access to improved water and sanitation, immunization coverage, and institutional delivery rates. These achievements reflect Bhutan's continued commitment to public health and its dedication to achieving both national and international health goals.

However, the survey also highlights persistent and emerging challenges that require immediate attention. The rising prevalence of non-communicable diseases, mental health issues, and substance abuse underscores the need for enhanced preventive measures, early detection, and effective management strategies. Additionally, the disparities in health outcomes among different population groups, particularly in rural areas, call for targeted interventions to ensure equitable access to healthcare services.

The data gathered from NHS 2023 will play a crucial role in shaping health policies and strategies under Bhutan's 13th Five-Year Plan (2023-2029). Furthermore, the insights gained from this survey will contribute to the broader national goal of achieving a High-Income Gross National Happiness (GNH) Economy by 2034, while also aligning with the Sustainable Development Goals (SDGs).

Moving forward, it is imperative that stakeholders across all sectors work collaboratively to address the identified gaps, prioritize resource allocation, and implement targeted programs. Continued investment in the health sector, along with a focus on preventive healthcare and public health education, will be key to sustaining the progress made and overcoming the challenges ahead.

As Bhutan progresses towards its development goals, the findings from NHS 2023 will serve as a foundational reference, guiding the nation's health agenda and ensuring that the health and wellbeing of every Bhutanese citizen remain at the forefront of national development efforts.

References

- 1. National Statistics Bureau of Bhutan. Royal Government of Bhutan 12 FIVE YEAR PLAN [Internet]. Thimphu, Bhutan; 2018. Available from: https://www.nsb.gov.bt/12th-five-year-plan/
- 2. Ministry of Health. Healthy Drukyul Program, The health Sector's 13th Five Year Plan [Internet]. Thimphu; Bhutan; 2024. Available from: https://www.moh.gov.bt/wp-content/ uploads/B5_13_FYP_Booklet.pdf
- Croft, N Trevor, Allen, K Courtney, Zachary, W Blake. Guide to DHS Statistics [Internet]. 2023 [cited 2024 Aug 18]. Available from: https://dhsprogram.com/data/Guide-to-DHS-Statistics/ index.cfm
- UNICEF. "Chapsang Chag Tshe Lo" ToileT, I PROSTRATE TO YOU [Internet]. Documentation of Best Practices for rural sanitation and Hygiene Programme (rsaHP) 1. Thimphu: Bhutan; 2017. Available from: https://www.unicef.org/bhutan/stories/chapsang-chag-tshe-lo-toilet-iprostrate-you
- 5. Ministry of Health. Non-Communicable Disease Risk Factors Survey: Bhutan STEPS survey Report [Internet]. Ministry of Health. Thimphu; Bhutan; 2019. Available from: https://cdn.who. int/media/docs/default-source/searo/ncd/noncommunicable-disease-risk-factors-bhutansteps-survey-report-2019.pdf
- Pichon-Riviere A, Drummond M, Palacios A, Garcia-Marti S, Augustovski F. Determining the efficiency path to universal health coverage: cost-effectiveness thresholds for 174 countries based on growth in life expectancy and health expenditures. Lancet Glob Heal [Internet]. 2023;11(6):e833–42. Available from: https://pubmed.ncbi.nlm.nih.gov/37202020/
- Malik ANJ, Evans JR, Gupta S, Mariotti S, Gordon I, Bowman R, et al. Universal newborn eye screening: a systematic review of the literature and review of international guidelines. J Glob Health [Internet]. 2022 [cited 2024 Aug 18];12(12003):12003. Available from: https://www.ncbi. nlm.nih.gov/pmc/articles/PMC9586142/
- 8. World Health Organiztion. Action plan for integrated people-centred eye care in south-East Asia 2022-2030 [Internet]. New Delhi: World Health Organization, Regional Office for South-East Asia; 2022. Available from: https://www.who.int/southeastasia/activities/accelerating-for-universal-eye-health#:[~]:text=The%20Action%20plan%20for%20integrated,universal%20 eye%20health%20by%202030.
- 9. Ministry of Health. Annual_Health_Bulletin_2024 [Internet]. Thimphu; Bhutan; 2024. Available from: http://www.healthcpc.org/downloads/annual_health_bulletin_2007.pdf
- Sharma J, Pavlova M, Groot W. Catastrophic health care expenditure and impoverishment in Bhutan. Health Policy Plan [Internet]. 2023 Mar 1 [cited 2024 Aug 18];38(2):228. Available from: https://academic.oup.com/heapol/article/38/2/228/6881115
- 11. Kumarasinghe M, Herath MP, Hills AP, Ahuja KDK. Postpartum versus postnatal period: Do the name and duration matter? PLoS One [Internet]. 2024;19(4 APRIL):1–14. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5747568/
- 12. Dhakal P, Shrestha M, Baral D, Pathak S. Factors Affecting the Place of Delivery among



Mothers Residing in Jhorahat VDC, Morang, Nepal. Int J Community Based Nurs Midwifery [Internet]. 2018 Jan 1 [cited 2024 Aug 18];6(1):2. Available from: /pmc/articles/PMC5747568/

- 13. Ministry of Health. National Health Survey 1994 [Internet]. 1994. Available from: http://www. moh.gov.bt/wp-content/uploads/moh-files/nationalHealthSurvey1994.pdf
- 14. Ministry of Health. National Health Survey, 2000 [Internet]. 2000. Available from: http://www. moh.gov.bt/wp-content/uploads/moh-files/nationalHealthSurvey2000.pdf
- 15. Ministry of Health. National Health Survey Report [Internet]. Thimphu; Bhutan; 2012. Available from: http://www.moh.gov.bt/wp-content/uploads/moh-files/nationalHealthSurvey2012.pdf
- Ministry of Health B. SUMMARY OF FINDINGS HANDBOOK National Health Survey 2012 SUMMARY OF FINDINGS HANDBOOK. 2012; Available from: http://www.moh.gov.bt/wpcontent/uploads/moh-files/NHS2012_SFHandbook.pdf
- 17. Sajedinejad S, Majdzadeh R, Vedadhir AA, Tabatabaei MG, Mohammad K. Maternal mortality: a cross-sectional study in global health. Global Health [Internet]. 2015 Feb 12 [cited 2024 Aug 18];11(1). Available from: https://pubmed.ncbi.nlm.nih.gov/25889910/
- Van Lith LM, Yahner M, Bakamjian L. Women's growing desire to limit births in sub-Saharan Africa: meeting the challenge. Glob Heal Sci Pract [Internet]. 2013 Mar 1 [cited 2024 Aug 18];1(1):97. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4168554/
- Molitoris J, Barclay K, Kolk M. When and Where Birth Spacing Matters for Child Survival: An International Comparison Using the DHS. Demography [Internet]. 2019 Aug 15 [cited 2024 Aug 18];56(4):1349. Available from: https://pubmed.ncbi.nlm.nih.gov/31270780/
- 20. Cutts FT, Izurieta HS, Rhoda DA. Measuring Coverage in MNCH: Design, Implementation, and Interpretation Challenges Associated with Tracking Vaccination Coverage Using Household Surveys. PLoS Med [Internet]. 2013 [cited 2024 Aug 18];10(5). Available from: https://pubmed. ncbi.nlm.nih.gov/23667334/
- 21. Dzed L, Pokhrel HP. NATIONAL NUTRITION STRATEGY AND ACTION PLAN (2021-2025) [Internet]. Nutrition Program, Ministry of Health. Thimphu; Bhutan; 2021. Available from: https://www.moh.gov.bt/wp-content/uploads/ict-files/2021/08/National-Nutrition-Strategyand-Action-Plan.pdf
- 22. Ministry of Health. National Nutrition Survey Nutrition Programme Department of Public Health Ministry of Health Bhutan [Internet]. Thimphu; Bhutan; 2015. Available from: https:// www.moh.gov.bt/wp-content/uploads/ict-files/2021/08/National-Nutrition-Strategy-and-Action-Plan.pdf
- 23. Rahman A, Hossain MM. Prevalence and determinants of fever, ARI and Diarrhoea among children aged 6–59 months in Bangladesh. BMC Pediatr [Internet]. 2022 Dec 1 [cited 2024 Aug 18];22(1). Available from: https://pubmed.ncbi.nlm.nih.gov/35248016/
- 24. Chaparro CM, Suchdev PS. Anemia epidemiology, pathophysiology, and etiology in low- and

middle-income countries. Ann N Y Acad Sci [Internet]. 2019 [cited 2024 Aug 18];1450(1):15. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6697587/

- Weckmann G, Kiel S, Chenot JF, Angelow A. Association of Anemia with Clinical Symptoms Commonly Attributed to Anemia—Analysis of Two Population-Based Cohorts. J Clin Med [Internet]. 2023 Feb 1 [cited 2024 Aug 18];12(3):921. Available from: https://www.ncbi.nlm.nih. gov/pmc/articles/PMC9918126/
- Daru J, Colman K, Stanworth SJ, De La Salle B, Wood EM, Pasricha SR. Serum ferritin as an indicator of iron status: what do we need to know? Am J Clin Nutr [Internet]. 2017 Dec 1 [cited 2024 Aug 18];106(Suppl 6):1634S. Available from: https://pubmed.ncbi.nlm.nih. gov/29070560/
- Carazo A, Macáková K, Matoušová K, Krčmová LK, Protti M, Mladěnka P. Vitamin a update: Forms, sources, kinetics, detection, function, deficiency, therapeutic use and toxicity. Nutrients [Internet]. 2021 May 1 [cited 2024 Aug 18];13(5). Available from: https://www.ncbi. nlm.nih.gov/pmc/articles/PMC8157347/
- MacKillop J, Agabio R, Feldstein Ewing SW, Heilig M, Kelly JF, Leggio L, et al. Hazardous drinking and alcohol use disorders. Nat Rev Dis Prim [Internet]. 2022 Dec 12 [cited 2024 Aug 18];8(1):80. Available from: https://pubmed.ncbi.nlm.nih.gov/36550121/
- Abbafati C, Abbas KM, Abbasi-Kangevari M, Abd-Allah F, Abdelalim A, Abdollahi M, et al. Global burden of 87 risk factors in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet (London, England) [Internet]. 2020 Oct 17 [cited 2024 Aug 18];396(10258):1223–49. Available from: https://pubmed.ncbi. nlm.nih.gov/33069327/
- 30. Ministry of Health. National survey for non-communicable diseases risk factors and mental health using WHO STEPS approach in Bhutan. Thimphu; Bhutan; 2014.
- 31. Ministry of Health. Bhutan Global School-Based Student Health Survey 2016 [Internet]. Thimphu; Bhutan; [cited 2024 Aug 19]. Available from: https://extranet.who.int/ncdsmicrodata/ index.php/catalog/643
- Hooper L, Abdelhamid A, Bunn D, Brown T, Summerbell CD, Skeaff CM. Effects of total fat intake on body weight. Cochrane database Syst Rev [Internet]. 2015 Aug 7 [cited 2024 Aug 18];2015(8). Available from: https://pubmed.ncbi.nlm.nih.gov/26250104/
- Ponraj DGS, Gopikrishnan SK, Newtonraj A, Arokiaraj MC, Purty AJ, Nanda SK, et al. Cardiovascular risk using WHO-ISH chart among Diabetes and Hypertensive patients in a remote rural area of South India. J Fam Med Prim Care [Internet]. 2020 [cited 2024 Aug 18];9(8):4145. Available from: https://pubmed.ncbi.nlm.nih.gov/33110823/
- 34. Ministry of Health. Annual_Health_Bulletin_2023.Pdf [Internet]. Thimphu; Bhutan; 2023. Available from: http://www.healthcpc.org/downloads/annual_health_bulletin_2007.pdf
- 35 Penjor T, Gurung MS, Robson MG, Siriwong W. Prevalence of current areca nut use and its associated factors among Bhutanese aged 15–69 years: Analysis of the nationally representative STEPS Survey 2019. WHO South-East Asia J Public Health 2024

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Table 2.2.1 Percentage of household and population by source of drinking water and by time to obtain drinking water, [Bhutan NHS 2023].

	F	lousehold	s		Populatior	1
Characteristics	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	100.0	99.5	99.7	100.0	99.5	99.7
Piped into dwelling/yard/plot	97.5	92.3	94.2	97.2	92.5	94.2
Public tap/standpipe	1.9	4.2	3.4	2.1	4.1	3.4
Tubewell/borehole	0.0	0.3	0.2	0.0	0.3	0.2
Protected dug well	0.0	0.1	0.1	0.0	0.1	0.1
Protected spring	0.3	2.2	1.5	0.3	2.2	1.5
Rainwater	0.0	0.2	0.1	0.0	0.2	0.1
Bottled water	0.3	0.2	0.2	0.4	0.2	0.2
Unimproved source						
Unprotected dug well	0.0	0.1	0.1	0.0	0.1	0.1
Unprotected spring	0.0	0.3	0.2	0.0	0.3	0.2
Surface water	0.0	0.1	0.1	0.0	0.1	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)					 	
Water on premises1	89.0	53.2	66.3	89.6	53.8	67.1
30 minutes or less	10.5	45.6	32.8	9.8	45.0	32.0
More than 30 minutes	0.0	0.7	0.4	0.1	0.6	0.4
Don't know	0.4	0.5	0.4	0.5	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Percentage with basic drinking water service ²	99.5	98.3	98.8	99.4	98.4	98.8
Percentage with limited drinking water service ³	0.5	1.1	0.8	0.6	1.1	0.9
Number of households/population	4,280	7,346	11,626	15,207	25,410	40,617
Adolescents (10-19)	18.1	16.9	17.4	13.3	12.9	13.1
Number of persons	7,292	7,915	15,207	11,955	13,455	25,410

¹ Includes water piped to a neighbor and those reporting a round trip collection time of zero minutes

² Defined as drinking water from an improved source, provided either water is on the premises or round-trip collection time is 30 minutes or less. Includes safely managed drinking water, which is not shown separately.

³ Drinking water from an improved source, provided round-trip collection time is more than 30 minutes or is unknown



Table 2.2.2 Percent distribution of de jure population by drinking water source, percentage of de jure population with basic drinking water service, and percentage with limited drinking water service, according to background characteristic, [Bhutan NHS 2023].

Background characteristics	Improved source of drinking water ¹	Percentage with basic drinking water service ²	Percentage with limited drinking water service ³	Number of persons
Residence				
Urban	100.0	99.4	0.6	15207
Rural	99.5	98.4	1.1	25410
Wealth quintile				
Lowest	99.3	98.0	1.2	8128
Second	99.7	97.9	1.8	9593
Middle	99.6	99.1	0.5	6802
Fourth	99.9	99.8	0.2	8037
Highest	99.9	99.3	0.6	8057
Dzongkhag				
Bumthang	100.0	99.8	0.2	1354
Chhukha	99.5	99.5	0.0	3375
Chhukha (Other than P/ling Thromde)	99.2	100.0	0.0	1951
Phuentsholing Thromde	100.0	98.2	0.0	1424
Dagana	100.0	99.3	1.8	1351
Gasa	100.0	99.1	0.7	856
Наа	100.0	94.5	0.9	990
Lhuentse	99.8	99.6	5.4	1055
Monggar	99.6	99.6	0.0	2031
Paro	100.0	92.2	0.0	2349



Background characteristics	Improved source of drinking water ¹	Percentage with basic drinking water service ²	Percentage with limited drinking water service ³	Number of persons
Pema Gatshel	99.9	99.7	7.7	1346
Punakha	99.7	99.4	0.0	1489
Samdrup Jongkhar	100.0	98.8	0.9	2482
Samdrup Jongkhar (Other than SJ Thromde)	100.0	98.5	1.2	1532
Samdrup Jongkhar Thromde	100.0	99.7	0.3	950
Samtse	99.8	98.9	0.7	3158
Sarpang	99.6	96.7	2.8	2892
Sarpang (Other than Gelephu Thromde)	99.5	96.3	3.2	1915
Gelephu Thromde	100.0	99.1	0.9	977
Thimphu	100.0	99.6	0.4	6748
Thimphu (Other than T/phu Thromde)	100.0	100.0	0.0	1408
Thimphu Thromde	100.0	99.5	0.5	5340
Trashigang	98.7	98.6	0.1	2242
Trashi Yangtse	100.0	100.0	0.0	1279
Trongsa	99.2	99.1	0.2	1085
Tsirang	99.5	98.9	0.6	1413
Wangdue	100.0	99.9	0.1	1875
Zhemgang	98.7	97.7	1.0	1247
Total	99.7	98.8	0.9	40617

¹ See Table 2.1.1 for definition of an improved source.

² Defined as drinking water from an improved source, provided either water is on the premises or round-trip collection time is 30 minutes or less. Includes safely managed drinking water, which is not shown separately.

³ Drinking water from an improved source, provided round-trip collection time is more than 30 minutes or is unknown



Table 2.2.3 Percent distribution of households using piped water, by availability of water in the last 7 days, according
to background characteristics, [Bhutan NHS 2023].

		Average	e daily availab	ility of water	in the las	st 7 days
Background characteristics	24 hrs	18-23.9 hrs	12-17.9 hrs	6-11.9 hrs	<6 hrs	Number of households using piped water ¹
Residence						
Urban	86.5	1.7	1.5	2.8	7.5	4243
Rural	88.5	1.5	3.0	2.7	4.2	7110
Wealth quintile						
Lowest	89.3	1.0	2.6	2.8	4.3	2516
Second	88.0	2.2	2.2	2.9	4.7	2685
Middle	87.0	1.4	2.9	2.6	6.0	1921
Fourth	86.3	1.7	2.3	3.4	6.3	2170
Highest	87.8	1.6	2.3	2.0	6.3	2061
Dzongkhag						
Bumthang	92.6	1.6	1.7	2.1	2.0	348
Chhukha	87.5	1.8	2.0	2.9	5.8	1028
Chhukha (Other than P/ ling Thromde)	89.7	2.2	2.3	1.6	4.2	588
Phuentsholing Thromde	84.6	1.2	1.6	4.7	7.9	440
Dagana	90.8	2.6	2.9	1.9	1.7	396
Gasa	99.6	0.0	0.4	0.0	0.0	254
Наа	89.8	0.8	3.0	3.3	3.1	308
Lhuentse	97.0	2.0	0.7	0.0	0.3	306
Monggar	86.7	3.3	1.5	2.1	6.5	557



		Average	e daily availab	ility of water	in the las	t 7 days
Background characteristics	24 hrs	18-23.9 hrs	12-17.9 hrs	6-11.9 hrs	<6 hrs	Number of households using piped water ¹
Paro	86.7	0.7	3.8	2.9	5.9	623
Pema Gatshel	93.8	0.7	1.4	1.8	2.3	427
Punakha	81.0	3.3	2.5	4.2	9.0	429
Samdrup Jongkhar	91.8	0.2	0.6	0.5	6.8	700
Samdrup Jongkhar (Other than SJ Thromde)	96.1	0.0	0.4	0.4	3.1	415
Samdrup Jongkhar Thromde	79.2	0.8	1.1	0.9	18.0	285
Samtse	92.4	0.3	1.5	1.9	3.9	836
Sarpang	83.4	2.7	5.6	3.2	5.1	780
Sarpang (Other than Gelephu Thromde)	82.8	3.2	6.2	3.3	4.6	506
Gelephu Thromde	86.1	0.8	2.7	2.6	7.8	274
Thimphu	88.5	1.9	1.7	2.0	5.9	1810
Thimphu (Other than T/ phu Thromde)	93.4	2.5	2.4	1.6	0.2	399
Thimphu Thromde	87.3	1.8	1.5	2.1	7.3	1411
Trashigang	86.2	1.1	2.7	4.6	5.3	672
Trashi Yangtse	91.0	1.5	2.5	2.1	3.0	360
Trongsa	89.2	0.7	3.7	1.5	4.9	333
Tsirang	78.7	2.6	5.2	6.0	7.5	320
Wangdue	81.3	1.1	2.8	5.4	9.5	531
Zhemgang	83.8	1.5	2.9	4.4	7.5	335
Total	87.8	1.6	2.5	2.7	5.4	11353

¹ Includes households/population reporting piped water or water from a tube well or borehole as their main source of drinking water and households/population reporting bottled water as their main source of drinking water if their main source of water for cooking and handwashing is piped water or water from a tube well or borehole



Table 2.2.4 Percent distribution of households and de jure population using improved water sources which are available when needed in the last 1 month, by background characteristics, [Bhutan NHS 2023

	House	holds	Popul	ation
Background characteristics	Percent of household with sufficient water	Total number of households	Percent of de jure population with sufficient water	Total number of de jure population
Residence				
Urban	65.8	4280	65.9	15207
Rural	61.0	7346	61.3	25410
Wealth quintile				
Lowest	57.9	2634	58.3	8128
Second	60.6	2749	60.8	9593
Middle	64.4	1964	63.1	6802
Fourth	65.4	2192	65.6	8037
Highest	67.5	2087	67.6	8057
Dzongkhag				
Bumthang	68.8	348	68.3	1354
Chhukha	58.8	1038	58.5	3375
Chhukha (Other than P/ling Thromde)	59.4	592	59.3	1951
Phuentsholing Thromde	58.0	446	57.5	1424
Dagana	67.9	398	68.2	1351
Gasa	75.4	254	72.8	856
Наа	87.1	309	87.5	990
Lhuentse	61.7	309	62.9	1055
Monggar	53.3	574	51.8	2031
Paro	63.9	623	62.7	2349
Pema Gatshel	56.6	433	59.5	1346



	House	holds	Popul	ation
Background characteristics	Percent of household with sufficient water	Total number of households	Percent of de jure population with sufficient water	Total number of de jure population
Punakha	60.6	435	60.2	1489
Samdrup Jongkhar	61.2	717	60.5	2482
Samdrup Jongkhar (Other than SJ Thromde)	61.6	432	61.0	1532
Samdrup Jongkhar Thromde	60.1	285	58.9	950
Samtse	66.9	882	68.1	3158
Sarpang	56.1	825	55.5	2892
Sarpang (Other than Gelephu Thromde)	56.4	538	55.4	1915
Gelephu Thromde	54.7	287	56.1	977
Thimphu	73.2	1817	73.1	6748
Thimphu (Other than T/phu Thromde)	86.1	400	87.7	1408
Thimphu Thromde	70.1	1417	69.7	5340
Trashigang	53.3	683	55.5	2242
Trashi Yangtse	75.2	360	75.1	1279
Trongsa	43.3	336	44.5	1085
Tsirang	66.4	408	66.9	1413
Wangdue	57.9	531	56.7	1875
Zhemgang	45.9	346	46.2	1247
Total	62.8	11626	63.0	40617

Note: As per the National Drinking Water Quality Surveillance Report by the RCDC, 58.7% of samples from urban and 73.8% of rural areas, tested in 2023, were found to comply with the Bhutan drinking water quality standard for E. Coli (0 CFU/100mL). It means 65.7% of water samples from Bhutan compilied with the Bhutan drinking water quality standard for E. Coli.

As per the JMP methodology, safely managed drinking water services is taken as the minimum of three indicators (1. The proportion of the population which uses improved water sources which are accessible on premises, or 2. The proportion of the population which uses improved water sources which are available when needed, or 3. The proportion of the population which uses improved water sources which are free from contamination), for any given year. Therefore, the proportion of the population which uses safely managed drinking water services could be 63.0%.



Table 2.2.5 Percent distribution of households and de jure population by type of toilet/latrine facilities, percent distribution of households and de jure population with a toilet/latrine facility by location of the facility, percentage of households and de jure population with basic sanitation services, and percentage with limited sanitation services, according to residence, [Bhutan NHS 2023].

	ŀ	lousehold	s		Populatior	1
Type and location of tollet/latrine facility	Urban	Rural	Total	Urban	Rural	Total
Improved sanitation facility	99.5	98.9	99.1	99.6	99.1	99.3
Flush/pour flush to piped sewer system	40.6	8.8	20.4	40.5	8.9	20.6
Flush/pour flush to septic tank	57.1	85.1	74.9	57.4	85.2	74.9
Flush/pour flush to a pit latrine	1.2	3.3	2.5	1.2	3.4	2.6
Ventilated improved pit (VIP) latrine	0.0	0.2	0.2	0.0	0.2	0.2
Pit latrine with a slab	0.5	1.5	1.1	0.4	1.4	1.1
Unimproved sanitation facility	0.5	0.8	0.7	0.4	0.7	0.6
Flush/pour flush to open drain/ open space	0.3	0.1	0.2	0.2	0.1	0.1
Pit latrine without slab/open pit	0.2	0.7	0.5	0.2	0.6	0.5
Open defecation (no facility/bush/field)	0.0	0.3	0.2	0.0	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population	4280	7346	11626	15207	25410	40617
Location of the facility						
In own dwelling	82.8	39.4	55.3	83.1	39.4	55.6
In own yard/plot	17.0	59.7	44.1	16.6	59.8	43.8
Elsewhere	0.2	0.9	0.7	0.2	0.8	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of households/population with a toilet/latrine facility	4280	7324	11604	15207	25354	40561
Percentage with basic sanitation service ¹	81.6	85.1	83.8	83.1	85.9	84.9
Percentage with limited sanitation service ²	17.8	13.8	15.3	16.5	13.2	14.4
Percentage with safely managed sanitation service ³	77.6	83.5	81.4	78.9	84.1	82.2
Number of households/population	4280	7346	11626	15207	25410	40617
Number of persons	7,292	7,915	15,207	11,955	13,455	25,410

¹ Defined as use of improved facilities that are not shared with other households.

² Defined as use of improved facilities shared by 2 or more households

³ Defined as improved sanitation facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite



Table 2.2.6 Percent distribution of de jure population by type of sanitation, percentage of de jure population with basic sanitation service, and percentage with limited sanitation service, according to region and wealth quintile, [Bhutan NHS 2023].

	Т	ype of sanitati	on		Percentage	Percentage	
Background characteristics	Improved sanitation facility ¹	Unimproved sanitation facility²	Open defecation	Total	with basic sanitation service ³	with limited sanitation service⁴	of persons
Residence							
Urban	99.6	0.4	0.0	100.0	83.1	16.5	15207
Rural	99.1	0.7	0.2	100.0	85.9	13.2	25410
Wealth quintile							
Lowest	98.9	0.8	0.3	100.0	84.3	14.6	8128
Second	98.9	0.8	0.4	100.0	84.2	14.7	9593
Middle	99.2	0.7	0.0	100.0	82.7	16.6	6802
Fourth	99.5	0.5	0.0	100.0	84.9	14.6	8037
Highest	99.8	0.2	0.0	100.0	88.0	11.9	8057
Dzongkhag							
Bumthang	99.8	0.2	0.0	100.0	92.3	7.5	1354
Chhukha	98.1	1.5	0.4	100.0	84.9	13.2	3375
Chhukha (Other than P/ling Thromde)	98.2	1.1	0.7	100.0	87.8	10.4	1951
Phuentsholing Thromde	97.9	2.1	0.0	100.0	80.8	17.1	1424
Dagana	99.5	0.4	0.1	100.0	94.8	4.7	1351
Gasa	93.8	6.2	0.0	100.0	83.0	10.8	856
Наа	98.6	1.3	0.1	100.0	91.0	7.6	990
Lhuentse	98.5	1.4	0.1	100.0	80.4	18.1	1055
Monggar	99.0	0.7	0.2	100.0	91.7	7.3	2031
Paro	99.4	0.4	0.3	100.0	86.9	12.5	2349



	т	ype of sanitati	on		Percentage	Percentage	Number
Background characteristics	Improved sanitation facility ¹	Unimproved sanitation facility ²	Open defecation	Total	with basic sanitation service ³	with limited sanitation service ⁴	of persons
Pema Gatshel	99.9	0.0	0.1	100.0	60.5	39.4	1346
Punakha	98.1	1.7	0.2	100.0	88.9	9.2	1489
Samdrup Jongkhar	99.6	0.4	0.0	100.0	75.5	24.0	2482
Samdrup Jongkhar (Other than SJ Thromde)	99.5	0.5	0.0	100.0	75.1	24.4	1532
Samdrup Jongkhar Thromde	100.0	0.0	0.0	100.0	77.0	23.0	950
Samtse	98.6	1.2	0.2	100.0	70.1	28.5	3158
Sarpang	99.8	0.2	0.0	100.0	93.1	6.7	2892
Sarpang (Other than Gelephu Thromde)	99.7	0.3	0.0	100.0	93.5	6.2	1915
Gelephu Thromde	100.0	0.0	0.0	100.0	90.9	9.1	977
Thimphu	99.7	0.3	0.0	100.0	83.7	16.0	6748
Thimphu (Other than T/phu Thromde)	99.8	0.2	0.0	100.0	82.8	17.0	1408
Thimphu Thromde	99.7	0.3	0.0	100.0	83.9	15.8	5340
Trashigang	99.4	0.3	0.4	100.0	96.3	3.1	2242
Trashi Yangtse	99.0	0.9	0.2	100.0	94.0	4.9	1279
Trongsa	100.0	0.0	0.0	100.0	81.8	18.2	1085
Tsirang	100.0	0.0	0.0	100.0	96.9	3.1	1413
Wangdue	99.5	0.3	0.2	100.0	87.7	11.8	1875
Zhemgang	99.3	0.3	0.4	100.0	66.5	32.8	1247
Total	99.3	0.6	0.2	100.0	84.9	14.4	40617

1 See Table 2.3.1 for definition of an improved facility.

² See Table 2.3.1 for definition of an unimproved facility.

3 Defined as use of improved facilities that are not shared with other households.

4 Defined as use of improved facilities shared by 2 or more households. Table 2.2.7 Percentage of the de jure population for whom the place most often used for washing hands was observed, by whether the location was fixed or mobile, water availability, soap availability, and cleansing agent other than soap available; percentage of population with a basic handwashing facility and limited handwashing facility, according to background characteristics [Bhutan NHS 2023].

	Percentage population fo washing hands	e of the de ju r whom place was observe	re e for d and:	Number	Place f washing ar	or hand observed ìd:	Percentage of the de jure	Percentage of the de jure	Number of persons for whom a place for
Background characteristics	Place for hand washing was a fixed place	Place for hand washing was mobile	Total	of persons	Water available	Soap available ¹	population with a basic handwashing facility²	population with a limited handwashing facility ³	nandwasning was observed or with no place for handwashing in the dwelling, yard, or plot
Residence									
Urban	99.2	0.8	9.99	15207	94.9	98.5	93.7	6.2	15207
Rural	98.1	1.2	99.3	25410	94.6	96.0	91.9	7.3	25410
Wealth quintile									
Lowest	96.9	1.9	98.8	8128	93.5	93.7	89.3	9.6	8128
Second	97.9	1.4	99.3	9593	95.2	96.6	92.9	6.4	9593
Middle	99.3	0.6	9.66	6802	94.6	98.3	93.1	6.8	6802
Fourth	98.9	0.8	99.7	8037	94.9	97.7	93.2	6.5	8037
Highest	99.7	0.1	9.66	8057	95.3	98.6	94.4	5.4	8057
Dzongkhag									
Bumthang	99.8	0.0	99.8	1354	0.66	97.5	96.3	3.4	1354
Chhukha	98.0	1.9	9.66	3375	94.7	94.8	90.2	9.7	3375
Chhukha (Other than P/ ling Thromde)	98.9	1.1	100.0	1951	93.9	92.3	87.2	12.8	1951
Phuentsholing Thromde	96.9	2.9	99.8	1424	96.0	98.3	94.3	5.4	1424
Dagana	96.8	3.2	100.0	1351	94.4	95.7	91.3	8.7	1351
Gasa	100.0	0.0	100.0	856	9.66	99.7	99.3	0.7	856
Haa	100.0	0.0	100.0	066	0.66	96.8	95.8	4.2	066
Lhuentse	100.0	0.0	100.0	1055	96.1	98.4	95.4	4.6	1055
Monggar	91.3	0.8	92.1	2031	89.7	91.0	88.2	3.9	2031
Paro	99.7	0.2	99.9	2349	95.0	98.6	93.7	6.2	2349
Pema Gatshel	99.2	0.8	100.0	1346	91.6	98.0	90.2	9.8	1346
Punakha	94.1	4.9	0.66	1489	88.5	87.4	79.3	19.7	1489

	Percentage population fo washing hands	e of the de jur r whom place was observe	e e for d and:	Number	Place f washing ar	or hand observed nd:	Percentage of the de jure	Percentage of the de jure	Number of persons for whom a place for
Background characteristics	Place for hand washing was a fixed place	Place for hand washing was mobile	Total	of persons	Water available	Soap available ¹	population with a basic handwashing facility²	population with a limited handwashing facility³	nandwasning was observed or with no place for handwashing in the dwelling, yard, or plot
Samdrup Jongkhar	6.86	1:1	100.0	2482	96.4	96.6	93.2	6.8	2482
Samdrup Jongkhar (Other than SJ Thromde)	6. 86 6	11	100.0	1532	98.0	96.1	94.3	5.7	1532
Samdrup Jongkhar Thromde	98.7	1.3	100.0	950	91.1	98.0	89.9	10.1	950
Samtse	8.8 8.8 8	1.2	100.0	3158	96.8	95.3	93.0	0.9 0	3158
Sarpang	6.66	0.1	100.0	2892	95.5	98.8	94.6	ົ ນ. ວ	2892
Sarpang (Other than Gelephu Thromde)	6. 6 6	0.1	100.0	1915	94.9	98.6	93.8	6.2	1915
Gelephu Thromde	100.0	0.0	100.0	977	98.9	100.0	6.86		977
Thimphu	99.8	0.2	100.0	6748	95.7	99.4	95.3	4.7	6748
Thimphu (Other than T/ phu Thromde)	8.66	0.0	99.8	1408	98.6	100.0	98.4	1.4	1408
Thimphu Thromde	8.66	0.2	100.0	5340	95.1	99.3	94.6	5.4	5340
Trashigang	6.66	0.1	100.0	2242	96.4	97.3	94.2	5.8	2242
Trashi Yangtse	100.0	0.0	100.0	1279	95.1	69.7	94.8	5.2	1279
Trongsa	100.0	0.0	100.0	1085	97.3	98.3	95.9	4.1	1085
Tsirang	99.4	0.6	100.0	1413	96.7	98.9	96.4	3.6	1413
Wangdue	0.66	0.8	99.8	1875	86.4	97.3	84.7	15.1	1875
Zhemgang	91.7	7.9	9.66	1247	93.5	95.1	89.9	9.7	1247
Total	98.5	1.0	99.5	40617	94.7	96.9	92.6	6.9	40617

Soap includes soap or detergent in bar, liquid, powder or paste form.

The availability of a handwashing facility on premises with soap and water.

The availability of a handwashing facility on premises without soap and/or water.

5th National Health Survey

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Table 2.5.1 Percentage of persons with imparment/disability by degree of difficulty and type of impairment, [Bhutan NHS 2023].

	Vision	Hearing	Mobility	Communication	Self care	Cognition	Any disability			
Sex										
Male	1.54	2.10	1.81	0.85	2.82	1.31	6.93			
Female	1.96	1.92	2.12	0.71	2.46	1.58	6.92			
Age										
5-17	0.39	0.22	0.42	0.61	4.80	0.48	5.63			
18-24	0.61	0.42	0.41	0.54	0.61	0.34	1.85			
25-34	0.71	0.51	0.46	0.42	0.41	0.52	2.21			
35-44	0.98	0.90	0.60	0.55	0.41	0.60	2.92			
45-54	1.73	1.45	1.38	0.85	0.63	1.31	5.47			
55-64	2.45	3.22	2.70	1.09	1.11	2.23	9.72			
65+	8.54	11.76	12.15	2.01	9.61	7.32	27.41			
Area										
Urban	0.98	0.70	0.80	0.38	1.91	0.57	4.03			
Rural	2.21	2.76	2.65	1.01	3.05	1.96	8.60			
Income Quii	Income Quintile									
Lowest	2.95	3.98	3.63	1.33	3.60	2.55	11.16			
Second	1.89	2.19	2.57	0.91	2.86	1.84	7.73			
Middle	1.48	1.55	1.18	0.64	2.68	1.20	5.83			
Fourth	1.09	1.23	1.28	0.46	2.14	0.84	5.06			
Highest	1.29	0.91	0.89	0.49	1.83	0.68	4.38			

Table 2.5.2 Percentage of persons with imparment/disability by degree of difficulty and type of impairment, [Bhutan NHS 2023].

	Number of persons with							
Disability	impairment*	Yes, some difficulty (%)	Yes, a lot of difficulty (%)	Cannot do at all				
Vision	3,371	14.3	1.6	0.1				
Hearing	3,371	7.1	1.7	0.3				
Mobility	3765	8.0	1.7	0.3				
Communication	890	1.6	0.5	0.3				
Self care	2287	3.5	1.1	1.6				
Cognition	4472	10.6	1.3	0.2				



Table 2.5.3 Prevalence of Self-reported disability by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Vision	Hearing	Mobility	Communication	Self care	Cognition	Any Disability
Bumthang	1.4	2.8	2.7	0.4	3.6	2.3	9.2
Chhukha	2.4	3.3	2.1	1.1	3.1	1.8	8.5
Phuentshogling Thromde	1.0	0.6	0.5	0.4	0.6	0.2	2.2
Dagana	1.9	3.7	4.2	1.7	3.1	2.6	11.2
Gasa	0.6	1.5	1.6	0.4	1.8	0.9	4.1
Наа	1.4	1.4	1.5	0.2	2.5	2.0	5.7
Lhuentse	4.6	2.9	3.2	1.1	3.5	1.8	11.9
Monggar	1.6	1.8	2.0	0.8	4.2	1.0	8.3
Paro	1.2	1.9	2.1	0.9	2.6	1.9	7.4
Pemagatshel	2.9	4.0	4.1	0.7	0.8	3.5	10.1
Punakha	2.0	2.8	1.5	1.6	1.3	0.5	6.9
Samdrupjongkhar	0.4	0.9	0.9	0.4	1.0	0.3	3.0
Samdrup Jongkhar Thromde	1.0	0.6	0.7	0.8	1.6	0.1	3.4
Samtse	1.3	1.0	0.9	0.4	1.8	0.5	4.2
Sarpang	3.5	3.4	2.4	1.1	2.5	1.7	8.6
Gelegphu Thromde	1.1	1.0	0.8	0.3	2.3	0.5	4.4
Thimphu	0.5	1.0	0.7	0.5	0.5	0.2	2.2
Thimphu Thromde	1.0	0.7	0.7	0.4	1.5	0.6	3.5
Trashigang	2.2	1.9	2.1	0.4	1.5	2.1	5.7
Trashi Yangtse	0.3	1.5	0.4	0.1	3.4	0.3	5.4
Trongsa	2.0	2.1	2.0	1.2	1.8	0.9	5.5
Tsirang	1.2	2.1	2.9	1.3	1.8	0.9	5.7
Wangduephodrang	3.6	3.4	4.9	0.7	5.7	4.1	13.3
Zhemgang	2.8	3.5	3.7	1.1	4.1	3.5	12.0

ANY DISABILITY: The level of inclusion is any 1 domain/question is coded A LOT OF DIFFICULTY or CANNOT DO AT ALL.



Table 2.5.4 Prevalence of Disability among Bhutanese population by Dzongkhag, [Bhutan NHS 2023].

Description	Url	ban	Ru	ral	Both Areas	
Dzongknag	Male	Female	Male	Female	Male	Female
Bumthang	0.1	0.3	0.2	0.3	0.2	0.3
Chhukha	0.1	0.1	0.6	0.5	0.4	0.4
Phuentshogling Thromde	0.2	0.3	-	-	0.1	0.1
Dagana	0.1	0.1	0.4	0.5	0.3	0.4
Gasa	0.0	0.0	0.0	0.0	0.0	0.0
Наа	0.1	0.1	0.1	0.1	0.1	0.1
Lhuentse	0.1	0.1	0.3	0.3	0.2	0.2
Monggar	0.3	0.1	0.7	0.4	0.6	0.3
Paro	0.3	0.3	0.6	0.7	0.5	0.6
Pema Gatshel	0.1	0.0	0.4	0.3	0.4	0.3
Punakha	0.2	0.1	0.3	0.3	0.2	0.2
Samdrup Jongkhar	0.1	0.0	0.2	0.1	0.1	0.1
Samdrup Jongkhar Thromde	0.1	0.2	-	-	0.0	0.0
Samtse	0.2	0.2	0.9	0.8	0.7	0.6
Sarpang	0.0	0.3	0.7	0.9	0.5	0.7
Gelegphu Thromde	0.3	0.2	-	-	0.1	0.1
Thimphu	0.1	0.1	0.1	0.1	0.1	0.1
Thimphu Thromde	1.7	2.1	-	-	0.5	0.6
Trashigang	0.0	0.1	0.6	0.4	0.4	0.3
Trashi Yangtse	0.1	0.1	0.2	0.1	0.1	0.1
Trongsa	0.1	0.1	0.1	0.1	0.1	0.1
Tsirang	0.1	0.1	0.3	0.3	0.2	0.2
Wangdue Phodrang	0.3	0.2	0.7	0.9	0.6	0.7
Zhemgang	0.1	0.2	0.4	0.5	0.3	0.4



Table 2.5.5 Prevalence of Multi-disability among Bhutanese population by Dzongkhag, [Bhutan NHS 2023].

	Male	Female	Total
Bumthang	0.03	0.08	0.06
Chhukha	0.14	0.13	0.13
Phuentshogling Thromde	0.02	0.02	0.02
Dagana	0.09	0.10	0.10
Gasa	0.00	0.01	0.01
Haa	0.03	0.02	0.02
Lhuentse	0.06	0.07	0.07
Monggar	0.09	0.11	0.10
Paro	0.15	0.16	0.15
Pema Gatshel	0.11	0.08	0.10
Punakha	0.06	0.07	0.07
Samdrup Jongkhar	0.03	0.01	0.02
Samdrup Jongkhar Thromde	0.01	0.01	0.01
Samtse	0.27	0.19	0.23
Sarpang	0.19	0.23	0.21
Gelegphu Thromde	0.02	0.01	0.01
Thimphu	0.03	0.04	0.03
Thimphu Thromde	O.11	0.17	0.14
Trashigang	0.19	0.14	0.16
Trashi Yangtse	0.01	0.01	0.01
Trongsa	0.04	0.03	0.04
Tsirang	0.11	0.08	0.09
Wangdue Phodrang	0.24	0.28	0.26
Zhemgang	0.08	0.14	0.11

Multi-disability: a person is said to be having difficulties in multiple domains if the person has coded for a lot of difficulty or cannot do at all in more than one domain.


Table 2.6.1 Number of households interviewed for the malaria module by district, [Bhutan NHS 2023].

Dzongkhag	Number of households interviewed
Chhukha	636
Chhukha (Other than P/ling Thromde)	190
Phuentsholing Thromde	446
Dagana	80
Pema Gatshel	189
Samdrup Jongkhar	477
Samdrup Jongkhar (Other than SJ Thromde)	192
Samdrup Jongkhar Thromde	285
Samtse	550
Sarpang	740
Sarpang (Other than Gelephu Thromde)	454
Gelephu Thromde	286
Zhemgang	96

Table 2.6.2 Percentage of households with Long Lasting Insecticidal Nets (LLINS) available, and condition and usage of those available LLINS by district, [Bhutan NHS 2023].

	Percentage of	Average	Percentage of	Number of	Among	the house	holds with L	LINS ave	ilable
Background characteristics	with at least	number of LLINS per	one LLINS for every two	households	% with good	% who	sleep under L	LINS	Number of
	one LLINS Available	household	persons who stayed in the household last night ²	Interviewed	CONDITION	Always	Sometimes	Never	interviewed
District									
Chhukha	67.8	3.1	62.6	636	95.8	61.7	19.3	19.0	431
Chhukha (Other than P/ ling Thromde)	83.2	4.8	77.9	190	97.5	83.5	0. 0	7.6	158
Phuentsholing Thromde	61.2	2.4	56.1	446	94.9	49.1	25.3	25.6	273
Dagana	98.8	5.9	97.5	80	91.1	91.1	7.6	. 1	79
Pema Gatshel	91.5	5.2	88.9	189	94.2	80.3	3.5	16.2	173
Samdrup Jongkhar	91.8	6.0	87.0	477	97.9	64.2	13.9	21.9	438
Samdrup Jongkhar (Other than SJ Thromde)	97.9	6.5	95.3	192	100.0	79.8	11.7	8.5	188
Samdrup Jongkhar Thromde	87.7	5.2	81.4	285	96.4	52.4	15.6	32.0	250
Samtse	91.8	4.7	88.9	550	99.4	76.4	11.9	11.7	505
Sarpang	82.0	6.3	79.9	740	97.2	79.7	8.9	11.4	607
Sarpang (Other than Gelephu Thromde)	97.1	7.1	96.5	454	97.7	86.2	9 9	7.0	441
Gelephu Thromde	58.0	3.2	53.5	286	95.8	62.7	14.5	22.9	166
Zhemgang	97.9	8.2	95.8	96	98.9	62.8	27.7	9.6	94
Total	84.1	5.1	80.6	2,768	97.2	72.5	12.7	14.8	2,327

Long-lasting insecticidal net (LLIN). ² De facto household members.

in Phuntsholing Thromde, therefore, the hospital may not be having the list of households under the Thromde. Specific intervention for increasing the distributions Coverage of LLINS under Phuntsholing Thromde is relatively poor as compared to other places. Could be because the Annual Household Survey is not conducted of LLINS under Phuntsholing Thromde is highly recommenable. 13.3% never use LLINS. The reason is not because of not having enough LLINS because only 0.7% (refer Figure number FMa.1) reported no enoungh LLINS as a reason for not using LLINS.

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Table 2.6.3 Reasons for not sleeping under LLINS or only sleeping sometimes, [Bhutan NHS 2023].

Reasons	%
No enough LLIN bed nets	0.7
Use other bed nets	3.7
Use mosquito repellents	47.1
Use fans	74.6
Off-season	8.2
Others	5.5

Table 2.6.4 Percentage of people who slept under Long Lasting Insecticidal Nets (LLINS) last night, among the households with LLINS available, [Bhutan NHS 2023].

Background characteristics	Percentage of people who slept under LLINS last night	Number of respondents interviewed
District		
Chhukha	59.9	431
Chhukha (Other than P/ling Thromde)	82.9	158
Phuentsholing Thromde	46.5	273
Dagana	92.4	79
Pema Gatshel	78.0	173
Samdrup Jongkhar	62.1	438
Samdrup Jongkhar (Other than SJ Thromde)	79.3	188
Samdrup Jongkhar Thromde	49.2	250
Samtse	78.0	505
Sarpang	81.5	607
Sarpang (Other than Gelephu Thromde)	88.0	441
Gelephu Thromde	64.5	166
Zhemgang	67.0	94
Total	72.6	2,327

One in four people didn't sleep under LLINS the night before the survey day. This indicates that about 12 percentage points of people are not sleeping under the LLINS despite of it being available in the household. Interventions to encourage people to regularly use the LLINS is recommendable.

While the Phuentsholing Thromde already has LLINS availability issue, less than half of the people with LLINS available slept under LLINS the night before the survey day. The utilization of available LLINS is similar in SJ Thromde too. The LLINS utilization rate in Gelephu Thromde and Zhemgang is below the national average.

Table 2.6.5 Percentage of households who ever washed Long Lasting Insecticidal Nets (LLINS), average number of wash, [Bhutan NHS 2023].

Background characteristics Yes District Chhukha Chhukha (Other than P/ling Thromde) 43.7	9 07 	ever wasned	u their L		Number of	Medium	% of househol	ds by places of	drying LLINS	Number of
Yes District Chhukha Chhukha (Other than P/ling Thromde) 43.7	Si -									
District Chhukha (A4.5 Chhukha (Other than P/ling 43.7 Thromde)	-	sometime	Ŷ	Not sure	interviewed	number of wash	Under the sun	Under the shade	Other	interviewed
Chhukha 44.5 Chhukha (Other than P/ling 43.7 Thromde)	-									
Chhukha (Other than P/ling 43.7 Thromde)	1.5	13.0	42.5	0.0	431	3.0	60.1	39.5	0.4	248
	3.7	9.5	46.8	0.0	158	2.0	53.6	45.2	1.2	84
Phuentsholing Thromde 45.1	5.1	15.0	39.9	0.0	273	4.0	63.4	36.6	0.0	164
Dagana 40.5	.5	6.3	53.2	0.0	79	2.0	32.4	67.6	0.0	37
Pema Gatshel 65.9	6.	0.6	32.9	0.6	173	2.0	47.0	52.2	0.9	115
Samdrup Jongkhar 50.2).2	11.6	36.8	1.4	438	2.0	62.0	38.0	0.0	271
Samdrup Jongkhar (Other than 51.6 SJ Thromde)	9.	12.2	35.6	0.5	188	2.0	58.3	41.7	0.0	120
Samdrup Jongkhar Thromde 49.2).2	11.2	37.6	2.0	250	2.0	64.9	35.1	0.0	151
Samtse 29.1	9.1	7.9	63.0	0.0	505	1.0	33.7	65.8	0.5	187
Sarpang 33.4	4.	0. 0. 0.	62.4	0.3	607	2.0	30.1	69.5	0.4	226
Sarpang (Other than Gelephu 32.2 Thromde)	2	4.5	63.3	0.0	441	2.0	25.3	74.1	0.6	162
Gelephu Thromde 36.7	3.7	1.8	60.2	1.2	166	2.0	42.2	57.8	0.0	64
Zhemgang 33.0	0.	30.9	36.2	0.0	94	3.0	46.7	51.7	1.7	60
Total 40.4	4.	80. 80. 80.	50.5	0.4	2,327	2.0	47.4	52.2	0.4	1,144

Nearly half of the people who wash their LLINS dry it under the Sun.





Table 2.6.6 Percentage of households sprayed with IRS in the last 12 months by districts, [Bhutan NHS 2023].

	Percentage o	f households IRS	s sprayed with	Number of
Background characteristics	Yes	No	Don't Know	nousenoids interviewed
District				
Chhukha	25.9	72.2	1.9	636
Chhukha (Other than P/ling Thromde)	18.6	80.9	0.5	190
Phuentsholing Thromde	29.0	68.5	2.5	446
Dagana	69.4	30.7	0.0	80
Pema Gatshel	4.1	95.9	0.0	189
Samdrup Jongkhar	57.9	41.3	0.9	477
Samdrup Jongkhar (Other than SJ Thromde)	63.8	36.2	0.0	192
Samdrup Jongkhar Thromde	48.4	49.4	2.2	285
Samtse	10.2	89.9	0.0	550
Sarpang	75.6	23.9	0.5	740
Sarpang (Other than Gelephu Thromde)	87.0	12.7	0.3	454
Gelephu Thromde	30.7	68.1	1.2	286
Zhemgang	5.1	94.9	0.0	96
Total	39.9	59.4	0.7	2,768

The IRS coverage is less than 40%. There is more than 22 percentage points drop in the IRS coverage rate as compared to 2017 Bhutan Malaria Indicators Survey (62.1%).

Enumerators were trained to verify with IRS card.

and a second sec	Š	Ž	Not	Number of	Among the I	rouseholds whose households by the	members had fever, percentage of categories of member
	6	2	Sure	interviewed	U5 children	Other Members	Number of households interviewed
District							
Chhukha	34.6	65.4	0.0	636	39.2	80.3	214
Chhukha (Other than P/ling Thromde)	26.6	73.4	0.0	190	43.2	72.3	49
Phuentsholing Thromde	38.1	61.9	0.0	446	38.0	82.7	165
Dagana	16.5	83.5	0.0	08 S	8.2	83.5	16
Pema Gatshel	27.7	72.3	0.0	189	32.1	87.3	54
Samdrup Jongkhar	27.9	71.9	0.1	477	39.5	78.0	134
Samdrup Jongkhar (Other than SJ Thromde)	23.7	76.3	0.0	192	43.8	70.6	68
Samdrup Jongkhar Thromde	34.7	64.9	0.4	285	34.8	86.1	95
Samtse	23.7	76.1	0.2	550	32.7	71.5	124
Sarpang	31.2	68.2	0.6	740	30.2	84.7	233
Sarpang (Other than Gelephu Thromde)	31.1	68.4	0.5	454	31.6	84.0	144
Gelephu Thromde	31.8	67.2	1.0	286	24.7	87.1	68
Zhemgang	28.8	71.2	0.0	96	37.9	87.0	27
Total	29.1	70.6	0.2	2,768	34.3	80.3	802

Table 2.6.7 Percentage of households whose members had fever in the past one month by districts, [Bhutan NHS 2023].



5th National Health Survey



Table 2.7.1 Percent distribution of 0-35 months children who received an eye checkup within 72 hours after birth, according to background characteristics, [Bhutan NHS 2023].

Background characteristics	Yes	No	Don't Know	Number of children
Age of mother				
15-19	55.2	40.2	4.6	21
20-24	63.1	30.9	6.0	207
25-29	66.3	26.5	7.2	558
30-34	70.9	21.4	7.7	590
35-39	67.4	26.7	5.8	337
40-44	68.1	24.8	7.2	79
45-49	94.9	5.1	0.0	14
Number of living children				
1-2	67.6	25.7	6.8	1208
3-4	67.7	24.4	7.9	522
5+	74.2	23.9	2.0	76
Residence				
Urban	66.2	26.1	7.7	743
Rural	69.0	24.6	6.4	1063
Usual Activity of Mother				
Working	67.1	24.7	8.2	724
Doing household chores	68.5	25.5	6.0	1057
Student	75.1	24.9	0.0	4
Retired	33.2	25.1	41.7	4
Doing nothing	66.2	28.5	5.3	17
Education of Mother				
None	70.1	24.4	5.5	478
Primary or less	63.9	28.2	7.9	170
Lower Secondary	73.9	20.4	5.8	159
Middle secondary	66.4	27.4	6.3	448
Higher secondary	68.2	22.4	9.4	353
Certificates/Diploma	67.1	27.5	5.4	145
Bachelor & above	55.2	31.8	13.0	53
Wealth quintile				
Lowest	67.0	27.5	5.6	255
Second	72.5	21.1	6.5	308
Middle	66.9	26.1	7.0	449
Fourth	66.6	26.2	7.2	380
Highest	67.2	25.0	7.8	414
Total	67.9	25.2	6.9	1806

5th National Health Survey

Table 2.7.2 Percent distribution of 0-35 months children who received an eye checkup within 72 hours after birth, according to background characteristics, [Bhutan NHS 2023].

Dzongkhag	Yes	Νο	Don't Know	Number of children
Bumthang	91.6	4.0	4.4	66
Chhukha	66.0	31.0	3.0	172
Chhukha (Other than P/ling Thromde)	71.4	24.2	4.5	92
Phuentsholing Thromde	60.2	38.4	1.4	80
Dagana	84.9	15.1	0.0	36
Gasa	64.7	14.4	20.9	35
Наа	58.0	31.9	10.1	42
Lhuentse	69.9	24.8	5.3	57
Monggar	65.6	31.7	2.6	88
Paro	60.6	32.0	7.3	95
Pema Gatshel	82.1	15.0	3.0	41
Punakha	55.3	40.7	4.0	69
Samdrup Jongkhar	62.1	29.9	8.0	103
Samdrup Jongkhar (Other than SJ Thromde)	66.5	24.8	8.6	54
Samdrup Jongkhar Thromde	52.1	41.3	6.6	49
Samtse	75.6	23.6	0.8	113
Sarpang	73.8	22.0	4.2	130
Sarpang (Other than Gelephu Thromde)	74.1	21.1	4.8	79
Gelephu Thromde	72.8	24.9	2.3	51
Thimphu	64.1	24.0	11.9	307
Thimphu (Other than T/phu Thromde)	76.0	15.2	8.8	84
Thimphu Thromde	61.1	26.2	12.7	223
Trashigang	57.3	30.3	12.4	120
Trashi Yangtse	56.2	36.2	7.6	62
Trongsa	49.8	31.9	18.3	78
Tsirang	83.7	11.0	5.3	57
Wangdue	77.5	16.8	5.7	87
Zhemgang	88.1	11.9	0.0	48
Total	67.9	25.2	6.9	1806



Table 2.7.3 Percent distribution of 0-59 months children who received an eye checkup excluding checkup within72 hours after birth, according to background characteristics, [Bhutan NHS 2023].

Background characteristics	Yes	Νο	Don't Know	Number of children
Age of mother				
15-19	32.6	52.5	14.9	22
20-24	33.8	64.1	2.1	278
25-29	27.7	69.9	2.5	871
30-34	34.1	65.2	0.7	998
35-39	33.8	65.5	0.8	611
40-44	22.4	75.3	2.3	191
45-49	29.6	66.0	4.4	40
Number of living children				
1-2	31.2	67.3	1.5	1980
3-4	31.2	66.9	1.8	903
5+	36.0	61.9	2.1	128
Residence				
Urban	31.9	66.8	1.3	1250
Rural	30.9	67.2	1.9	1761
Usual Activity of Mother				
Working	31.0	67.3	1.6	1257
Doing household chores	31.3	67.2	1.5	1718
Student	62.8	37.2	0.0	5
Retired	0.0	100.0	0.0	8
Doing nothing	48.4	43.8	7.7	23
Education of Mother				
None	34.1	63.8	2.0	849
Primary or less	27.8	71.2	1.1	301
Lower Secondary	26.6	69.8	3.7	252
Middle secondary	28.4	71.0	0.6	736
Higher secondary	37.9	60.1	2.0	563
Certificates/Diploma	24.9	73.6	1.4	232
Bachelor & above	28.4	71.6	0.0	78
Wealth quintile				
Lowest	35.7	64.3	0.0	428
Second	28.8	69.0	2.2	517
Middle	26.6	72.0	1.4	735
Fourth	30.3	68.7	0.9	610
Highest	37.3	59.8	2.9	721
Total	31.3	67.0	1.6	3011

Table 2.7.4 Percent distribution of 0-59 months children who received an eye checkup excluding checkup within 72 hours after birth, according to background characteristics, [Bhutan NHS 2023].

5th National Health Survey

Dzongkhag	Yes	Νο	Don't Know	Number of children
Bumthang	55.9	44.1	0.0	112
Chhukha	30.7	68.1	1.1	265
Chhukha (Other than P/ling Thromde)	27.2	72.8	0.0	146
Phuentsholing Thromde	35.7	61.5	2.8	119
Dagana	53.5	46.5	0.0	64
Gasa	27.8	72.2	0.0	58
Наа	23.4	76.6	0.0	73
Lhuentse	49.1	47.2	3.7	90
Monggar	19.4	80.6	0.0	156
Paro	25.5	74.5	0.0	159
Pema Gatshel	44.6	55.4	0.0	86
Punakha	22.9	77.1	0.0	114
Samdrup Jongkhar	28.4	71.6	0.0	178
Samdrup Jongkhar (Other than SJ Thromde)	27.7	72.3	0.0	92
Samdrup Jongkhar Thromde	29.8	70.2	0.0	86
Samtse	28.1	71.9	0.0	185
Sarpang	29.8	70.2	0.0	200
Sarpang (Other than Gelephu Thromde)	24.1	75.9	0.0	118
Gelephu Thromde	50.9	49.1	0.0	82
Thimphu	30.7	65.0	4.3	528
Thimphu (Other than T/phu Thromde)	25.3	60.9	13.8	144
Thimphu Thromde	31.9	65.9	2.2	384
Trashigang	30.4	64.7	4.9	187
Trashi Yangtse	6.8	93.2	0.0	101
Trongsa	12.5	87.5	0.0	126
Tsirang	43.7	56.3	0.0	89
Wangdue	26.7	70.5	2.9	140
Zhemgang	55.9	44.1	0.0	100
Total	31.3	67.0	1.6	3011

Table 2.7.5 Percentage of people aged 15-69 who have ever had their blood sugar measured and who have been told by a health care provider that they have raised blood sugar; among people who have been told they have raised blood sugar, the percentage told in the past 12 months they have raised blood sugar, the percentage who received eye examination, and percentage taking medication to control diabetes, by background characteristics, [Bhutan NHS 2023].

	Ever had	Ever told		Among peo	ple who have b raised blo	een told by a d od sugar, the p	octor or health ercentage wh	า care provider o were:	they have
Background characteristics	provider measured by doctor or health care provider	nave raised blood sugar by doctor or health care provider	Number of respondents	Told in the past 12 months have raised blood sugar	Ever received an eye examination after diagnosis	Currently taking medication to control blood sugar	Currently taking insulin for diabetes	Currently taking either drugs or insulin for diabetes	Number of respondents
Age Range									
15-24	16.6	0.4	1,326	40.5	60.4	25.7	25.7	25.7	œ
25-39	37.1	1.6	4,432	82.5	29.8	28.9	12.1	29.3	97
40-54	52.3	<u>б.</u> 5	3,442	75.3	65.7	55.3	22.2	57.6	214
55-69	58.3	13.3	2,054	71.9	73.2	6.9	23.9	69.2	253
Sex									
Men	34.1	3.6	4,244	73.9	41.4	28.3	13.5	29	214
Women	43.3	4.4	7,010	64.7	60.7	49.4	24.8	50.8	358
Level of Education									
None	47.2	5.0 0	5,151	77.5	54.3	52.1	20.4	53.5	320
Primary or less	43	ນ. ນ	1,323	76.7	62	43	15.1	46.8	85
Lower Secondary	29.7	2.6	686	81.4	61	43.2	19.1	43.2	29
Middle Secondary	32.9	2.7	1,504	58.4	50.6	20.1	6.1	20.1	57
Higher Secondary	25	1.3	1,443	43.7	36.2	27	23.4	27.1	30
Certificates/ Diploma	41	3.6	879	86.5	61.4	49.7	35.8	50.6	80 C
Bachelor/Master/ PhD	43.4	3.6	267	97.5	39.7	35.9	3.7	35.9	13
Usual Activity									

List of Tables

	Ever had	Ever told		Among pec	yple who have b raised blo	een told by a d od sugar, the p	octor or health ercentage wh	n care provider o were:	they have
Background characteristics	blood sugar measured by doctor or health care provider	have raised blood sugar by doctor or health care provider	Number of respondents	Told in the past 12 months have raised blood sugar	Ever received an eye examination after diagnosis	Currently taking medication to control blood sugar	Currently taking insulin for diabetes	Currently taking either drugs or insulin for diabetes	Number of respondents
Working	38.1 38.1	3.7	6,200	72.1	38.2	33.2	14	34.2	281
Doing household chores	47.5	5.4	3,889	76.3	55.5	45.9	17.7	47.4	229
Student	16.1	0.5	516	55.4	74.1	29.5	21.4	29.5	4
Retired	67.5	16.7	161	69.5	86.7	65.3	23.8	67.1	28
Doing nothing	31.4	3.4	487	44	95.3	68.6	59	68.6	30
Location									
Urban	37.1	4.4	4,198	67.5	23	33.7	14.2	34.3	240
Rural	39.3	3.7	7,056	70.7	49.8	44.2	23.9	45.5	332
Income Quintiles									
Least Income (Q1)	38.6	4	2,383	79.1	48	52.2	23.1	55	123
Lower (Q2)	37.3	З.9 С.	2,096	84.5	42	34.2	12.1	34.8	108
Middle (Q3)	36.5	3.6	2,257	84	63.3	45.4	17.7	46.7	105
Upper (Q4)	38.7	3.4	2,311	62.5	57.8	29.9	10.5	30.8	107
Highest Income (Q5)	40.6	വ	2,207	57.5	47.1	38.9	26.3	39.3	129
Age 2 categories (pr	evious)								
18-39	29.4	1.2	5,446	66.3	39.8	30.4	20.1	30.6	103
40-69	54.4	8.9	5,496	74.1	68.3	59.3	22.8	61.6	467
Total (18-69 Years)	38.5	4	10,942	69.2	50.3	40.9	21.1	41.9	570
Total (15-69 Years)	38.4	4	11,254	69.2	51.4	39.2	19.3	40.2	572



Table 2.7.6 Percentage of people aged 15-69 who have ever had their blood sugar measured and who have been told by a health care provider that they have raised blood sugar; among people who have been told they have raised blood sugar, the percentage told in the past 12 months they have raised blood sugar, the percentage who received eye examination, and percentage taking medication to control diabetes, by Dzongkhag, [Bhutan NHS 2023]

	ber of ndents	0 9 1	0 % <u>N</u> 0	0 ý h o h	ο φ ζ σ ú m	o ý Č o ú a a	ο ý Γ, ο <u>Γ</u> , α α 4	ο φ Γ, ο ΰ _α α 4 φ	0 9 10 0 10 m m 4 9 5			
	r respo	· • • • •										
771	no were: Currently taking eitheı drugs or insulin for diabetes	77.1 79.27	77.1 79.27 66.09	77.1 79.27 66.09 22.55	77.1 79.27 66.09 22.55 6.368	77.1 79.27 66.09 6.368 6.368 36.25	77.1 79.27 66.09 6.368 6.368 36.25 86.01	77.1 79.27 66.09 22.55 6.368 6.368 36.25 86.01 16.5	77.1 79.27 66.09 6.368 6.368 86.01 16.5 16.5 45.71	77.1 79.27 66.09 6.368 6.368 36.25 36.25 86.01 16.5 45.71 30.38	77.1 79.27 66.09 6.368 6.368 6.368 36.25 36.25 16.5 16.5 16.5 19.31	77.1 79.27 66.09 6.368 6.368 36.25 36.25 36.25 16.5 16.5 16.5 19.31 19.31
	percentage wh Currently taking insulin for diabetes	26.7	26.7 16.9	26.7 16.9 9.6	26.7 16.9 9.6	26.7 16.9 9.6 1.5	26.7 16.9 1.5 1.71 0.0	26.7 16.9 1.5 17.1 0.0	26.7 16.9 1.5 17.1 14.5 18.5	26.7 26.7 16.9 15 17.1 17.1 14.5 14.5 18.5 4.8	26.7 26.7 16.9 9.6 1.5 17.1 17.1 14.5 18.5 18.5 4.8 7.3	26.7 26.7 9.6 1.5 17.1 17.1 17.1 18.5 18.5 18.5 18.5 3.2 3.2
	od sugar, the p Currently taking medication to control blood sugar	0.c7	79.3 60.6	79.3 60.6 21.6	79.3 60.6 21.6 6.4	79.3 60.6 21.6 6.4 36.3	79.3 60.6 6.4 6.4 36.3 86.0	79.3 60.6 6.4 6.4 36.3 86.0	79.3 60.6 6.4 6.4 86.0 16.5 16.5	79.3 79.3 60.6 6.4 6.4 86.0 16.5 16.5 43.6 30.4	79.3 79.3 60.6 6.4 6.4 86.0 16.5 16.5 30.4 19.3	79.3 60.6 6.4 6.4 36.3 36.3 86.0 16.5 16.5 19.3 19.3
	raised bloc ver received an eye xamination after diagnosis	82.2	82.2 51.7	51.7 26.7	51.7 51.7 26.7 85.3	82.2 51.7 26.7 85.3 36.3	82.2 51.7 26.7 85.3 36.3 16.9	82.2 51.7 26.7 26.7 85.3 36.3 16.9 17.6	51.7 51.7 26.7 85.3 36.3 36.3 16.9 17.6 50.0	82.2 51.7 26.7 26.7 36.3 36.3 36.3 16.9 17.6 50.0 50.0	82.2 51.7 26.7 26.7 36.3 36.3 16.9 16.9 16.9 17.6 50.0 66.5 66.5	82.2 51.7 26.7 26.7 85.3 36.3 36.3 16.9 17.6 17.6 50.0 66.5 68.4
	ld in the Evast 12 ast 12 ed blood sugar	64.7	64.7 89.9	64.7 89.9 96.6	64.7 89.9 96.6 92.9	64.7 89.9 96.6 92.9 80.0	64.7 89.9 96.6 92.9 80.0	64.7 89.9 96.6 92.9 80.0 100.0 59.0	64.7 89.9 96.6 92.9 80.0 100.0 59.0 76.9	64.7 89.9 96.6 92.9 80.0 100.0 59.0 76.9 45.4	64.7 89.9 96.6 92.9 80.0 100.0 100.0 76.9 45.4 45.4	64.7 89.9 96.6 92.9 80.0 100.0 100.0 76.9 76.9 76.9 88.5
-	of Tol nts p rais											
	Number o responder	571	571 571	571 571 377	571 571 377 249	571 571 377 249 300	571 571 377 249 300 293	571 571 377 249 300 293 557	571 571 377 377 249 300 293 557 557 612	571 577 377 377 377 249 300 293 293 557 557 612 612	571 577 377 377 377 249 300 293 557 612 612 612 400	571 571 377 377 249 249 300 293 557 612 612 612 612 612 612
	Ever told have raised blood sugar by doctor or health care provider	9. 9. 9. 9.	9. 0. 	3.0 3.0 5.0	3.6 3.0 3.1 3.1	3.6 3.0 3.1 2.0	3.6 3.0 3.9 3.9 3.9	3.6 3.0 3.1 3.9 3.9 3.9 3.9	3.6 3.0 3.1 3.1 3.9 3.1 3.9 3.1 3.1 3.5 3.0 3.1 3.1 3.5 3.0 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1	3.6 3.0 3.1 3.1 3.3 4.5 3.9 3.7 4.5 4.8	3.6 3.0 3.1 3.1 3.1 4.5 4.5 4.5 4.5 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0	3.6 3.0 3.1 3.1 4.5 4.5 4.5 4.5
0.00	Ever nad blood sugar measured by doctor or health care provider	45.6	45.6 31.6	45.6 31.6 36.7	45.6 31.6 36.7 40.1	45.6 31.6 36.7 40.1 48.8	45.6 31.6 36.7 40.1 48.8 29.4	45.6 31.6 36.7 40.1 48.8 29.4 29.4	45.6 31.6 36.7 40.1 48.8 29.4 23.4 32.4	45.6 31.6 36.7 40.1 40.1 48.8 29.4 29.4 23.4 32.4 51.8	45.6 31.6 36.7 40.1 48.8 48.8 29.4 43.7 29.4 29.4 23.4 51.8 51.8 33.9	45.6 31.6 36.7 40.1 40.1 43.7 43.7 43.7 51.8 51.8 51.8
	Background characteristics	Chhukha (Other than P/ling Thromde)	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde Dagana	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde Jagana Sasa	Chhukha (Other than P/ling Thromde) Phuentsholing Jagana Sasa Jaa	Chhukha (Other than P/ling Thromde) Phuentsholing Jagana Sasa Jaa Haa	Chhukha (Other than P/ling Thromde) Phuentsholing Jagana Sasa Sasa Juentse huentse	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde Jagana Jasa Jasa Monggar	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde Jagana Jasa Jasa Jaro Pema Gatshel	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde Jagana Sasa Jaa Junentse Junakha Punakha	Chhukha (Other than P/ling Thromde) Phuentsholing Thromde Jagana Sasa Sasa Junentse Junakha Dunakha Samdrup Jongkhar

	Ever had	Ever told		Among ped	yple who have b raised blo	een told by a d od sugar, the p	octor or health ercentage wh	ı care provider o were:	they have
Background characteristics	blood sugar measured by doctor or health care provider	nave raised blood sugar by doctor or health care provider	Number of respondents	Told in the past 12 months have raised blood sugar	Ever received an eye examination after diagnosis	Currently taking medication to control blood sugar	Currently taking insulin for diabetes	Currently taking either drugs or insulin for diabetes	Number of respondents
Samdrup Jongkhar Thromde	51.6	6.7	281	42.2	0.19	6. 9	9.6	9.322	24
Samtse	33.9	3.9	851	72.7	62.3	67.3	37.6	68.42	48
Sarpang	43.4	7.0	804	48.9	84.1	77.8	45.0	78.7	64
Sarpang (Other than Gelephu Thromde)	41.5	6.4	522	37.4	83.3	7.7.7	54.4	78.52	45
Gelephu Thromde	45.1	5.3	282	83.5	85.7	80.6	19.3	80.56	19
Thimphu	34.1	4.7	1768	87.7	48.2	41.7	13.0	42.1	06
Thimphu (Other than T/phu Thromde)	35.3	2.3	393	52.7	62.4	40.2	18.2	44.48	14
Thimphu Thromde	32.0	4.3	1375	90.3	50.7	45.8	13.9	45.79	76
Trashiga	42.8	3.2	663	79.8	20.2	21.0	13.0	24.78	27
Trashi Y	56.6	3.4	341	49.2	16.6	16.1	7.5	16.11	12
Trongsa	19.5	3.7	332	100.0	93.0	90.7	83.6	97.63	15
Tsirang	35.4	4.9	394	49.0	68.6	48.4	22.7	54.67	29
Wangdue	34.9	3.4	506	58.7	39.7	41.7	29.4	41.66	24
Zhemgang	57.3	3.2	332	69.5	61.0	60.6	12.8	60.64	16
Total (15-69 Years)	3 8.4	4.0	11254	69.2	51.4	39.2	19.3	40.22	572





Table 3.1.1 Percentage distribution of households with time taken to reach nearest health facility using available means of transport, [Bhutan NHS 2023].

		Time ta	aken to re	each nea	rest he	alth facility		
	<30 minutes	<1 hrs	>1 to 1.5 hrs	>1.5 to 2hrs	>2 to 3 hrs	more than 3 hrs	Total	Respondent Number
	%	%	%	%	%	%	%	
Residence								
Urban	95.6	4.1	0.1	0.2	0.1	0.0	100.0	4,176
Rural	60.0	21.7	5.3	8.0	3.8	1.2	100.0	7,247
Health facility type								
Referral Hospital	93.5	4.8	0.5	0.5	0.6	0.1	100.0	1,704
60 beded hospital	80.1	15.9	1.6	1.7	0.7	0.0	100.0	850
40 bedded hospital	83.2	13.7	1.0	1.3	0.6	0.2	100.0	1,014
20 bedded hospital	75.1	15.5	2.9	3.7	2.0	0.8	100.0	1,363
10 bedded hospital	73.9	15.1	4.1	4.6	1.5	0.8	100.0	1,422
РНС	56.4	21.1	6.0	10.0	4.9	1.5	100.0	4,021
Subposts	67.4	19.1	3.4	8.0	1.5	0.6	100.0	362
ТНС	98.1	1.9	0.0	0.0	0.0	0.0	100.0	229
Others	84.5	13.7	0.0	1.2	0.6	0.0	100.0	213
Not reported	65.6	16.5	4.8	6.7	3.9	2.4	100.0	245
Health facility type (3 categories)								
Hospital	82.2	12.1	2.0	2.3	1.1	0.4	100.0	6,352
PHCs	56.5	21.2	6.0	10.0	4.9	1.3	100.0	4,015
Subposts/THC/clinics	80.9	11.6	1.9	4.5	0.9	0.3	100.0	599
Not reported	73.1	15.4	2.9	4.5	2.6	1.4	100.0	457
Income Quintile								
Lowest	53.2	24.1	5.3	11.1	4.8	1.5	100.0	2,553
Second	62.3	20.2	4.9	7.6	3.5	1.5	100.0	2,087
Middle	74.7	15.1	4.0	3.5	2.2	0.5	100.0	2,259
Fourth	86.2	9.3	1.6	1.6	1.0	0.3	100.0	2,330
Highest	89.2	7.4	1.1	1.5	0.6	0.1	100.0	2,194
Dzongkhag								
Bumthang	80.4	14.8	2.5	1.8	0.6	0.0	100.0	328



		Time ta	aken to re	each nea	rest he	alth facility					
	<30 minutes	<1 hrs	>1 to 1.5 hrs	>1.5 to 2hrs	>2 to 3 hrs	more than 3 hrs	Total	Respondent Number			
	%	%	%	%	%	%	%				
Chhukha	73.7	16.1	1.9	4.7	2.6	1.0	100.0	979			
Chhukha (excluding Thromdey)	65.0	18.0	3.0	7.9	4.4	1.7	100.0	576			
Phuentshogling Thromde	86.2	13.5	0.4	0.0	0.0	0.0	100.0	403			
Dagana	47.2	24.8	6.2	10.5	7.7	3.6	100.0	381			
Gasa	76.0	11.5	1.7	8.2	1.7	0.8	100.0	254			
Наа	78.4	13.3	2.4	4.0	0.4	1.6	100.0	307			
Lhuentse	58.8	19.0	3.8	11.6	2.6	4.2	100.0	309			
Monggar	59.3	18.7	6.9	6.6	7.3	1.2	100.0	573			
Paro	79.8	15.0	0.8	3.8	0.5	0.0	100.0	609			
Pema Gatshel	60.2	23.6	7.0	7.1	2.1	0.0	100.0	433			
Punakha	68.0	21.0	3.9	4.6	2.3	0.3	100.0	424			
Samdrup Jongkhar	70.1	15.4	1.6	7.5	3.5	1.8	100.0	715			
Samdrup Jongkhar (excluding Thromdey)	60.6	20.2	2.1	10.0	4.7	2.4	100.0	431			
Samdrup Jongkhar Thromde	98.9	1.1	0.0	0.0	0.0	0.0	100.0	284			
Samtse	62.2	20.5	4.5	8.1	3.6	1.2	100.0	882			
Sarpang	81.1	10.1	2.4	3.7	1.9	0.9	100.0	821			
Sarpang (excluding Thromdey)	77.3	12.1	2.9	4.4	2.3	1.0	100.0	535			
Gelegphu Thromde	99.5	0.0	0.0	0.0	0.0	0.5	100.0	286			
Thimphu	93.5	5.7	0.1	0.3	0.3	0.0	100.0	1,758			
Thimphu (excluding Thromdey)	76.5	19.8	0.8	1.8	1.2	0.0	100.0	375			
Thimphu Thromde	97.4	2.5	0.0	0.0	0.1	0.0	100.0	1,383			
Trashigang	56.3	18.0	12.0	8.7	4.3	0.6	100.0	683			
Trashi Yangtse	60.0	23.6	5.1	7.8	3.0	0.5	100.0	357			
Trongsa	70.8	19.9	3.5	4.1	1.4	0.4	100.0	333			
Tsirang	69.8	18.7	4.0	6.1	1.0	0.4	100.0	408			
Wangdue Phodrang	72.2	16.5	2.7	6.1	2.1	0.4	100.0	524			
Zhemgang	66.7	18.7	1.9	7.5	3.7	1.5	100.0	345			
National	72.9	15.3	3.4	5.2	2.5	0.8	100.0	11,423			

Table 3.1.2 Nearest Health Facility Percent distribution of households by type of nearest health facility by Dzongkhag, [Bhutan NHS 2023].

					Health facility	' type						-
	Referral Hospital	60 beded hospital	40 bedded hospital	20 bedded hospital	10 bedded hospital	PHC	subposts	THC	Others	Not reported	Total	Number
Residence												
Urban	37.3	12.9	10.6	13.7	13.0	2.5	0.6	6.3	2.2	0.8	100.0	4,280
Rural	4.0	4.7	9.4	7.3	12.1	52.9	4.6	0.2	1.3	3.5	100.0	7,346
Income Quintile		- 4 1 1 1 1 1 1 1 1 1		4 1 1 1 1 1 1 1 1 1 1 1								
Lowest	5.6	4.1	6.9	7.2	12.8	54.0	5.0	0.8	0.6	3.0	100.0	2,574
Second	8.7	4.9	0.6	80. 80. 80.	11.7	47.5	3.2	1.3	1.3	3.5	100.0	2,120
Middle	15.8	9.1	11.7	10.3	11.0	33.1	3.2	1.7	1.7	2.4	100.0	2,310
Fourth	22.5	10.0	10.7	11.3	14.9	20.1	2.4	3.3	3.2	1.7	100.0	2,376
Highest	28.8	10.5	11.1	10.8	11.6	17.0	1.6	5.2	1.3	2.0	100.0	2,246
Dzongkhag												
Bumthang	0.0	0.0	0.0	58.7	0.0	41.3	0.0	0.0	0.0	0.0	100.0	348
Chhukha	0.3	50.9	0.0	13.5	4.3	27.8	1.6	0.0	0.4	1.2	100.0	1,038
Chhukha (excluding Thromdey)	0.5	18.7	0.0	23.5	7.5	45.6	1.3	0.0 0	0.7	2.1	100.0	592
Phuentshogling Thromde	0.0	94.4	0.0	0.0	0.0	3.7	1.9	0.0	0.0	0.0	100.0	446
Dagana	0.0	0.0	0.0	17.4	22.3	43.8	0.0	0.0	0.0	16.6	100.0	398
Gasa	0.0	0.0	6.0	0.0	37.8	61.4	0.0	0.0	0.0	0.0	100.0	254
Haa	0.0	0.0	0.0	59.2	0.0	37.4	1.8	0.0	1.2	0.2	100.0	309
Lhuentse	0.0	0.0	0.0	22.3	0.0	7.7.7	0.0	0.0	0.0	0.0	100.0	309
Monggar	23.8	0.0	0.0	0.0	5.7	66.3	4.2	0.0	0.0	0.0	100.0	574
Paro	1.4	0.0	62.7	0.3	0.0	16.9	2.7	0.2	0.0	15.8	100.0	623

List of Tables

				-	Health facility	r type						-
	Referral Hospital	60 beded hospital	40 bedded hospital	20 bedded hospital	10 bedded hospital	РНС	subposts	THC	Others	Not reported	Total	kespondent Number
Pema Gatshel	0.0	0.0	0.0	18.7	24.6	43.6	13.1	0.0	0.0	0.0	100.0	433
Punakha	0.2	5.9	42.3	0.0	0.0	35.3	11.4	0.0	0.0	4.8	100.0	435
Samdrup Jongkhar	0.0	0.0	0.0	18.6	34.2	28.4	3.4	0.0	15.4	0.0	100.0	717
Samdrup Jongkhar (excluding Thromdey)	0.0	0.0	0.0	3.0	45.5	37.8	4.5 2	0.0	9.2	0.0	100.0	432
Samdrup Jongkhar Thromde	0.0	0.0	0.0	65.7	0.0	0.0	0.0	0.0	34.3	0.0	100.0	285
Samtse	0.0	0.1	15.3	12.3	15.2	53.6	Э. Э.	0.0	0.0	0.0	100.0	882
Sarpang	33.0	0.0	0.0	11.3	10.4	39.6	0.0	0.0	2.9	2.7	100.0	825
Sarpang (excluding Thromdey)	19.4	0.0	0.0	13.6	12.6	47.7	0.0	0.0	3.5	3.3	100.0	538
Gelegphu Thromde	69.7	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	287
Thimphu	65.1	6.3	0.0	0.0	7.2	7.8	0.0	12.9	0.6	0.0	100.0	1,817
Thimphu (excluding Thromdey)	15.4	32.5	0.0	0.0	7.2	38.6	0.0	3.1	3.1	0.0	100.0	400
Thimphu Thromde	77.0	0.0	0.0	0.0	7.3	0.4	0.0	15.3	0.0	0.0	100.0	1,417
Trashigang	0.0	0.0	5.7	6.2	31.7	53.5	1.7	0.0	1.3	0.0	100.0	683
Trashi Yangtse	0.0	0.0	0.5	27.8	21.7	45.5	4.4	0.0	0.0	0.0	100.0	360
Trongsa	0.6	0.0	0.0	28.6	28.6	35.8	6.4	0.0	0.0	0.0	100.0	336
Tsirang	0.0	0.0	48.2	0.0	8.2	39.4	3.6	0.0	0.0	0.6	100.0	408
Wangdue Phodrang	1.4	37.9	0.0	0.0	4.2	29.0	12.3	0.0	8.0	7.1	100.0	531
Zhemgang	0.0	0.0	15.5	0.0	40.2	36.6	7.4	0.0	0.3	0.0	100.0	346
National	16.2	7.7	8. 0	9.6	12.4	34.5	3.1	2.4	1.6	2.5	100.0	11,626





Table 3.1.3 Percent distribution of households by type of nearest health facility (3 category) by Dzongkhag, [Bhutan NHS 2023].

		lealth facil	ity type (3 cate	egories)		
	Hospital	PHCs	subposts/ THC/clinics	not reported	Total	Respondent Number
	%	%	%	%	%	
Residence						
Urban	87.4	2.5	7.2	2.9	100.0	4,280
Rural	37.6	52.8	4.8	4.8	100.0	7,346
Income Quintile						
Lowest	36.6	54.0	5.8	3.6	100.0	2,574
Second	43.1	47.5	4.7	4.7	100.0	2,120
Middle	58.0	33.0	5.0	4.1	100.0	2,310
Fourth	69.2	20.0	5.9	4.9	100.0	2,376
Highest	72.8	17.0	6.9	3.3	100.0	2,246
Dzongkhag						
Bumthang	58.7	41.3	0.0	0.0	100.0	348
Chhukha	69.0	27.8	1.7	1.6	100.0	1,038
Chhukha (excluding Thromdey)	50.2	45.6	1.4	2.7	100.0	592
Phuentshogling Thromde	94.4	3.7	1.9	0.0	100.0	446
Dagana	39.6	43.8	0.0	16.6	100.0	398
Gasa	38.6	61.4	0.0	0.0	100.0	254
Наа	59.2	37.4	1.8	1.5	100.0	309
Lhuentse	22.3	77.7	0.0	0.0	100.0	309
Monggar	29.5	66.3	4.2	0.0	100.0	574



		Health facil	ity type (3 cate	egories)		
	Hospital	PHCs	subposts/ THC/clinics	not reported	Total	Respondent Number
	%	%	%	%	%	
Paro	64.4	16.9	2.9	15.8	100.0	623
Pema Gatshel	43.3	43.6	13.1	0.0	100.0	433
Punakha	48.4	35.3	11.4	4.8	100.0	435
Samdrup Jongkhar	53.8	27.4	3.4	15.4	100.0	717
Samdrup Jongkhar (excluding Thromdey)	49.9	36.5	4.5	9.2	100.0	432
Samdrup Jongkhar Thromde	65.7	0.0	0.0	34.3	100.0	285
Samtse	42.9	53.6	3.5	0.0	100.0	882
Sarpang	54.7	39.6	0.0	5.6	100.0	825
Sarpang (excluding Thromdey)	45.5	47.7	0.0	6.8	100.0	538
Gelegphu Thromde	100.0	0.0	0.0	0.0	100.0	287
Thimphu	78.3	7.8	13.3	0.6	100.0	1,817
Thimphu (excluding Thromdey)	55.6	38.4	3.1	2.9	100.0	400
Thimphu Thromde	83.8	0.4	15.8	0.0	100.0	1,417
Trashigang	43.6	53.5	1.7	1.3	100.0	683
Trashi Yangtse	50.1	45.5	4.4	0.0	100.0	360
Trongsa	57.8	35.8	6.4	0.0	100.0	336
Tsirang	56.5	39.4	3.6	0.6	100.0	408
Wangdue Phodrang	43.5	29.0	12.3	15.1	100.0	531
Zhemgang	55.7	36.6	7.4	0.3	100.0	346
National	55.8	34.4	5.7	4.1	100.0	11,626

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	Reason for chosing hf: Most accessible	Reason for chosing hf:Provides better services	Reason for chosing hf:Better equipped	Reason for chosing hf:More qualified or competent care providers	Reason for chosing hf:It is friendly for People With Disability (PWD)	Reason for chosing hf:Nearest doesn't have medicine	Reason for chosing hf:Nearest facility doesn't have care providers	Reason for chosing hf:l have/know someone in that place/ facility	Reason for chosing hf:Others	Reason for chosing hf:Don't know	Respondent number
Residence											
Urban	33.6	68.9	68.1	43.3	0.0	7.5	4.3	3.8	5.6	0.0	159
Rural	46.7	52.6	54.8	39.4	3.1	15.1	6.8	4.8	7.9	0.4	607
Income Quintile											
Lowest	37.2	43.0	54.8	41.6	1.1	12.2	1.9	4.3	7.1	0.6	157
Second	43.5	51.2	50.6	43.3	3.4	15.7	7.3	5.1	10.9	0.0	170
Middle	52.3	62.4	61.1	45.1	4.3	18.0	7.6	2.6	7.0	0.7	154
Fourth	36.7	65.7	68.0	39.5	2.9	7.5	5.0	5.0	4.0	0.0	138
Highest	46.9	61.5	57.2	32.0	0.0	12.1	9.1	5.7	7.1	0.0	147
Dzongkhag											
Bumthang	54.8	100.0	100.0	54.8	0.0	0.0	0.0	0.0	0.0	0.0	7
Chhukha	49.0	55.2	45.6	16.9	6.4	9.7	10.6	0.0	0.0	0.0	33
Chhukha (excluding Thromdey)	52.7	51.9	41.5	18.2	6.9	10.4	11.4	0.0	0.0	0.0	31
Phuentshogling Thromde	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Ν
Dagana	92.2	20.0	25.5	10.1	2.4	0.0	5.2	7.1	29.4	0.0	44
Gasa	100.0	100.0	94.3	30.3	0.0	30.6	4.2	0.0	0.0	0.0	11
Haa	0.0	48.4	100.0	85.8	0.0	11.2	0.0	0.0	0.0	0.0	൭
Lhuentse	77.8	82.8	7.6	4.7	0.0	58.8	2.2	0.0	2.7	0.0	36
Monggar	82.6	67.7	88.2	44.1	0.0	32.3	8.7	0.0	8.7	0.0	თ
Paro	27.7	75.2	31.2	11.8	0.0	16.3	1.5	4.0	4.5	0.0	49
Pema Gatshel	70.2	46.6	46.6	8.5	0.0	21.7	2.8	1.7	7.2	1.9	54
Punakha	62.3	51.9	53.8	9.5		27.2	1.1	1.1	1.3		

List of Tables

Respondent number	Ŋ	വ		91	35	35		187	69	118	108	6	19	13	41	11	766
Reason for chosing hf:Don't know	0.0	0.0		0.0	0.0	0.0		0.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Reason for chosing hf:Others	0.0	0.0		3.9	0.0	0.0		7.1	12.6	4.8	8.0	0.0	12.1	25.3	9.8	0.0	7.3
Reason for chosing hf:l have/know someone in that place/ facility	0.0	0.0		0.0	23.5	23.5		4.7	4.7	4.7	4.2	0.0	0.0	0.0	11.2	0.0	4.5
Reason for chosing hf:Nearest facility doesn't have care providers	0.0	0.0		4.4	44.3	44.3		2.0	1.4	2.2	7.1	0.0	12.1	0.0	9.3	0.0	6.2
Reason for chosing hf:Nearest doesn't have medicine	0.0	0.0		0.9	32.9	32.9		7.6	15.0	4.4	20.0	0.0	4.3	38.3	5.0	0.0	13.2
Reason for chosing hf:lt is friendly for People With Disability (PWD)	0.0	0.0		8.1	16.2	16.2		0.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
Reason for chosing hf:More qualified or competent care providers	0.0	0.0		94.3	69.4	69.4		46.3	43.5	47.5	36.3	0.0	98.6	39.9	5.1	27.8	40.4
Reason for chosing hf:Better equipped	40.0	40.0		83.4	56.2	56.2		66.5	51.1	73.0	74.1	0.0	84.0	48.9	22.2	80.4	58.1
Reason for chosing hf:Provides better services	20.0	20.0		20.7	77.8	77.8		69.6	54.8	75.8	49.9	11.8	91.8	56.2	66.6	81.3	56.6
Reason for chosing hf: Most accessible	100.0	100.0		24.3	65.3	65.3		39.8	56.2	32.9	14.6	100.0	87.5	72.3	26.4	92.5	43.5
	Samdrup Jongkhar	Samdrup Jongkhar (excluding Thromdey)	Samdrup Jongkhar Thromde	Samtse	Sarpang	Sarpang (excluding Thromdey)	Gelegphu Thromde	Thimphu	Thimphu (excluding Thromdey)	Thimphu Thromde	Trashigang	Trashi Yangtse	Trongsa	Tsirang	Wangdue Phodrang	Zhemgang	National

5th National Health Survey



Table 3.1.5 Percent distribution of households by type of nearest health facility (3 category) by Dzongkhag, [Bhutan NHS 2023].

	Availed ser	vices from ou	tside Bhutan	
Background Characteristics	Yes	No	Total	Respondent Number
	%	%	%	
Residence				
Urban	3.9	96.1	100.0	4,280
Rural	2.1	97.9	100.0	7,346
Income Quintile				
Lowest	2.0	98.0	100.0	2,574
Second	1.9	98.1	100.0	2,120
Middle	2.8	97.2	100.0	2,310
Fourth	2.1	97.9	100.0	2,376
Highest	5.2	94.8	100.0	2,246
Dzongkhag				
Bumthang	2.2	97.8	100.0	348
Chhukha	2.9	97.1	100.0	1,038
Chhukha (excluding Thromdey)	1.9	98.1	100.0	592
Phuentshogling Thromde	4.2	95.8	100.0	446
Dagana	2.3	97.7	100.0	398
Gasa	0.3	99.7	100.0	254
Наа	0.6	99.4	100.0	309
Lhuentse	2.3	97.7	100.0	309
Monggar	1.8	98.2	100.0	574
Paro	4.2	95.8	100.0	623
Pema Gatshel	4.7	95.3	100.0	433
Punakha	2.3	97.7	100.0	435
Samdrup Jongkhar	2.2	97.8	100.0	717
Samdrup Jongkhar (excluding Thromdey)	2.1	97.9	100.0	432
Samdrup Jongkhar Thromde	2.6	97.4	100.0	285
Samtse	2.7	97.3	100.0	882
Sarpang	3.2	96.8	100.0	825
Sarpang (excluding Thromdey)	2.9	97.1	100.0	538
Gelegphu Thromde	5.0	95.0	100.0	287
Thimphu	4.5	95.5	100.0	1,817
Thimphu (excluding Thromdey)	2.9	97.1	100.0	400
Thimphu Thromde	4.9	95.1	100.0	1,417
Trashigang	0.5	99.5	100.0	683
Trashi Yangtse	0.6	99.4	100.0	360
Trongsa	1.8	98.2	100.0	336
Tsirang	1.8	98.2	100.0	408
Wangdue Phodrang	2.6	97.4	100.0	531
Zhemgang	0.6	99.4	100.0	346
National	2.8	97.2	100.0	11,626



Table 3.1.6 Percent distribution of households by usual place to seek health care services (nearest health facility or other), [Bhutan NHS 2023].

	usually seek	health care services		Respondent
Background Characteristics	Nearest health facility	Other health facility	Total	Number
Residence				
Urban	95.1	4.9	100.0	4,280
Rural	91.5	8.5	100.0	7,346
Income Quintile				
Lowest	93.5	6.5	100.0	2,574
Second	91.6	8.4	100.0	2,120
Middle	92.7	7.3	100.0	2,310
Fourth	93.5	6.5	100.0	2,376
Highest	92.7	7.3	100.0	2,246
Dzongkhag				
Bumthang	99.4	0.6	100.0	348
Chhukha	96.9	3.1	100.0	1,038
Chhukha (excluding Thromdey)	94.9	5.1	100.0	592
Phuentshogling Thromde	99.5	0.5	100.0	446
Dagana	87.6	12.4	100.0	398
Gasa	95.4	4.6	100.0	254
Наа	97.3	2.7	100.0	309
Lhuentse	88.3	11.7	100.0	309
Monggar	98.5	1.5	100.0	574
Paro	92.2	7.8	100.0	623
Pema Gatshel	100.0	0.0	100.0	433
Punakha	86.6	13.4	100.0	435
Samdrup Jongkhar	99.0	1.0	100.0	717
Samdrup Jongkhar (excluding Thromdey)	98.7	1.3	100.0	432
Samdrup Jongkhar Thromde	100.0	0.0	100.0	285
Samtse	89.7	10.3	100.0	882
Sarpang	95.3	4.7	100.0	825
Sarpang (excluding Thromdey)	94.3	5.7	100.0	538
Gelegphu Thromde	100.0	0.0	100.0	287
Thimphu	89.0	11.0	100.0	1,817
Thimphu (excluding Thromdey)	83.2	16.8	100.0	400
Thimphu Thromde	90.4	9.6	100.0	1,417
Trashigang	85.8	14.2	100.0	683
Trashi Yangtse	97.6	2.4	100.0	360
Trongsa	95.3	4.7	100.0	336
Tsirang	96.7	3.3	100.0	408
Wangdue Phodrang	92.6	7.4	100.0	531
Zhemgang	96.6	3.4	100.0	346
National	92.8	7.2	100.0	11,626



Table 3.1.7 Percentage of persons 15-69 years who have visited a health facility in the last 12 months and their satisfaction with the quality of the services provided by background characteristics, [Bhutan NHS 2023].

Background characteristics	Percentage who visited a health	Number of	Among those who have visited health facility in the last 12 months, the percentage who were:				
	past 12 months	respondents	Satisfied	Not	No	Number of	
Age Range				sausneu	opinion	respondents	
15-24	70.5	1.325	90.4	8.9	0.7	958	
25-39	79.3	4.433	89.2	9.7	1.1	3.665	
40-54	82.1	3,440	93.8	5.6	0.7	2,886	
55-69	85.3	2,053	94.4	5.2	0.4	1,781	
Sex	·	·	i		i		
Men	72.8	4,243	90.3	8.5	1.1	3,190	
Women	85.2	7,008	92.3	7.2	0.5	6,100	
Level of Education		•	•		•		
None	83.2	5,147	94.7	5.1	0.2	4,395	
Primary or less	78.1	1,323	94.5	5.3	0.2	1,094	
Lower Secondary	78.1	686	94.6	5.1	0.4	567	
Middle Secondary	78.8	1,504	90.6	8.5	0.9	1,234	
Higher Secondary	73.1	1,443	87.5	11.4	1.1	1,114	
Certificates/Diploma	75.9	879	82.0	15.1	2.9	685	
Bachelor/Master/PhD	71.6	267	86.6	9.6	3.8	200	
Usual Activity							
Working	76.9	6,199	90.9	8.3	0.8	5,007	
Doing household chores	86.1	3,889	93.1	6.5	0.4	3,408	
Student	74.5	516	89.2	9.6	1.2	382	
Retired	81.7	161	94.6	5.4	0.0	134	
Doing nothing	69.6	484	88.4	8.8	2.8	358	
Location							
Urban	77.3	4,198	87.7	10.8	1.5	3,408	
Rural	79.4	7,053	93.6	6.1	0.4	5,882	
Income Quintiles							
Least Income (Q1)	77.3	2,382	94.4	5.4	0.2	1,930	
Lower (Q2)	79.4	2,095	93.8	6.1	0.0	1,768	
Middle (Q3)	78.7	2,256	90.9	8.3	0.9	1,878	
Upper (Q4)	79.2	2,310	90.1	8.6	1.3	1,917	
Highest Income (Q5)	78.3	2,208	87.9	10.6	1.5	1,797	
Total (15-69 Years)	78.6	11,251	91.2	7.9	0.8	9,290	

Table 3.1.8 Percentage of persons 15-69 years who have visited a health facility in the last 12 months and their satisfaction with the quality of the services provided by Dzongkhag, [Bhutan NHS 2023].

Background characteristics	Percentage who visited a health	Number of	Among facil	those whe ity in the la percentag	o have vis ast 12 moi ge who we	sited health nths, the ere:
	facility in the respondents past 12 months		Satisfied	Not satisfied	No	Number of
Bumthang	88.7	342	92.3	7.7	0.0	310
Chhukha	76.3	1016	85.5	13.4	1.1	813
Chhukha (Other than P/ling Thromde)	81.0	572	89.3	9.8	0.9	482
Phuentsholing Thromde	70.4	444	79.9	18.6	1.5	331
Dagana	72.2	377	91.3	8.7	0.0	291
Gasa	88.9	249	90.5	9.5	0.0	226
Наа	82.9	300	94.4	5.4	0.2	255
Lhuentse	88.8	293	94.6	5.4	0.0	258
Monggar	87.3	557	97.0	3.0	0.0	497
Paro	78.4	612	85.8	13.4	0.8	506
Pema Gatshel	85.1	400	95.9	3.5	0.5	356
Punakha	83.5	419	93.3	6.7	0.0	360
Samdrup Jongkhar	77.0	697	91.2	8.1	0.7	563
Samdrup Jongkhar (Other than SJ Thromde)	75.3	416	91.6	8.3	0.2	334
Samdrup Jongkhar Thromde	81.0	281	88.6	8.9	2.5	229
Samtse	70.1	850	96.7	3.2	0.2	624
Sarpang	82.5	804	94.7	4.4	1.0	686
Sarpang (Other than Gelephu Thromde)	82.1	522	95.3	3.7	1.0	445
Gelephu Thromde	81.3	282	90.8	8.6	0.6	241
Thimphu	74.7	1768	86.7	11.4	1.9	1370
Thimphu (Other than T/phu Thromde)	75.2	393	94.8	5.2	0.0	305
Thimphu Thromde	74.1	1375	84.9	12.8	2.3	1065
Trashigaang	88.6	663	96.3	3.1	0.6	595
Trashi Yangtse	72.4	341	91.9	8.1	0.0	265
Trongsa	82.4	332	98.7	1.3	0.0	280
Tsirang	77.0	394	91.0	8.5	0.5	323
Wangdue	80.5	505	94.1	5.2	0.7	423
Zhemgang	82.1	332	91.0	7.8	1.3	289
Total	78.6	11,251	91.2	7.9	0.8	9,290



Table 3.1.9 Percentage of persons 15-69 years who have visited a health facility in the last 12 months and among them who consulted a *Drungtsho/sMenpa* for health problems by background characteristics, [Bhutan NHS 2023].

Background characteristics	Percentage who visited a health Number of		Among those who have visited health facility in the last 12 months			
	facility in the past 12 months	respondents	Percentage who consulted a <i>Drungtsho/sMenpa</i> for health problem	Number of respondents		
Age Range						
15-24	70.5	1,325	17.5	958		
25-39	79.3	4,433	22.1	3,665		
40-54	82.1	3,440	26.9	2,886		
55-69	85.3	2,053	28.5	1,781		
Sex						
Men	72.8	4,243	21.3	3,190		
Women	85.2	7,008	24.7	6,100		
Level Of Education						
None	83.2	5,147	27.9	4,395		
Primary or less	78.1	1,323	20.2	1,094		
Lower Secondary	78.1	686	20.6	567		
Middle Secondary	78.8	1,504	20	1,234		
Higher Secondary	73.1	1,443	19.8	1,114		
Certificates/Diploma	75.9	879	19.9	685		
Bachelor/Master/PhD	71.6	267	26.6	200		
Usual Activity						
Working	76.9	6,199	23.1	5,007		
Doing household chores	86.1	3,889	24.8	3,408		
Student	74.5	516	17.8	382		
Retired	81.7	161	23	134		
Doing nothing	69.6	484	21.7	358		
Location						
Urban	77.3	4,198	23.7	3,408		
Rural	79.4	7,053	22.4	5,882		
Income Quintiles						
Least Income (Q1)	77.3	2,382	23	1,930		
Lower (Q2)	79.4	2,095	22.8	1,768		
Middle (Q3)	78.7	2,256	22.3	1,878		
Upper (Q4)	79.2	2,310	23.5	1,917		
Highest Income (Q5)	78.3	2,208	22.8	1,797		
Total (15-69 Years)	78.6	11,251	22.9	9,290		



Table 3.1.10 Percentage of persons 15-69 years who have visited a health facility in the last 12 months and among them who consulted a *Drungtsho/sMenpa* for health problems by background characteristics, [Bhutan NHS 2023].

	Percentage who	Number of	Among those who have vis facility in the last 12 n	sited health 10nths
Dzongkhag	facility in the past 12 months	respondents	Percentage who consulted a <i>Drungtsho/sMenpa</i> for health problem	Number of respondents
Bumthang	70.5	1,325	25.9	310
Chhukha	79.3	4,433	10.7	813
Chhukha (Other than P/ling Thromde)	82.1	3,440	12.7	482
Phuentsholing Thromde	85.3	2,053	7.2	331
Dagana			13.0	291
Gasa	72.8	4,243	24.1	226
Наа	85.2	7,008	26.5	255
Lhuentse			14.7	258
Monggar	83.2	5,147	50.8	497
Paro	78.1	1,323	25.7	506
Pema Gatshel	78.1	686	32.9	356
Punakha	78.8	1,504	35.4	360
Samdrup Jongkhar	73.1	1,443	20.7	563
Samdrup Jongkhar (Other than SJ Thromde)	75.9	879	20.1	334
Samdrup Jongkhar Thromde	71.6	267	19.0	229
Samtse			6.3	624
Sarpang	76.9	6,199	10.4	686
Sarpang (Other than Gelephu Thromde)	86.1	3,889	9.9	445
Gelephu Thromde	74.5	516	11.6	241
Thimphu	81.7	161	28.6	1,370
Thimphu (Other than T/phu Thromde)	69.6	484	30.8	305
Thimphu Thromde	1		27.8	1,065
Trashigang	77.3	4,198	19.3	595
Trashi Yangtse	79.4	7,053	13.1	265
Trongsa			39.7	280
Tsirang	77.3	2,382	8.5	323
Wangdue	79.4	2,095	48.2	423
Zhemgang	78.7	2,256	19.8	289
Total (15-69 Years)	78.6	11,251	22.9	9,290
Upper (Q4)	79.2	2,310	23.5	1,917
Highest Income (Q5)	78.3	2,208	22.8	1,797
Total (15-69 Years)	78.6	11,251	22.9	9,290

Table 4.1.1 Percent distribution of women age 15-49 by current marital status, according to age, [Bhutan, NHS 2023].

	Number of respondents		784	892	1401	1757	1766	1415	1210	9225
Derrontado of	respondents currently in union		6.6	45.9	78.6	87.6	87.5	85.7	84.1	74.5
	Total		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Widowed		0.0	0.2	0.2	0.8	1.3	1.9	3.4	1.2
	Separated		0.2	0.7	0.8	0.4	1.0	1.0	0.7	0.7
	Divorced	OMEN	0.1	1.3	3.5	4.3	4.5	5.3	6.6	4.0
il status	Have female partner	Ň	1.1	0.3	0.2	0.2	0.1	0.2	0.1	0.2
Marita	Engaged or dating		5.2	7.9	2.9	1.3	1.1	1.0	0.7	2.4
	Living with partner		1.5	9.7	11.8	11.7	13.4	12.2	11.6	1:1
	Married		5.0	36.2	66.7	75.8	74.2	73.5	72.5	63.5
	Never married		86.9	43.7	13.9	5.4	4.4	4.9	4.5	16.9
	Age		15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total

Table 4.1.2 Median age at first marriage [Bhutan, NHS 2023].

	st marriage										
	Median age at fir		ВЦ	na	22.2	21.6	20.6	19.8	19.4	п	20.8
	Number of respondents		784	892	1401	1757	1766	1415	1210	8441	7549
	Percentage never married	WOMEN	86.9	43.7	13.9	5.4	4.4	6.4	4.5	10.4	6.5
	25		ца	ра П	73.1	74.2	77.8	79.3	77.2	ра	77.2
SU	22		na	na	48.7	53.6	60.5	65.4	70.1	na	59.2
arital stat	20		ца Ц	23.5	28.8	36.9	44.4	52.2	57.0	41.1	43.2
Ĕ	18		ца	0.0	12.9	18.8	25.9	32.4	33.7	22.7	24.3
	15		0.6	0.7	1.7	2.9	5.7	9.9	7.5	4.3	4.8
	Current age		15-19	20-24	25-29	30-34	35-39	40-44	45-49	20-49	25-49

Note: The age at first marriage is defined as the age at which the respondent began living with her first spouse/partner.

na = Not applicable due to censoring.

a = Omitted because less than 50% of the women began living with their spouse or partner for the first time before reaching the beginning of the age group.



Table 4.1.3 Median age at first marriage among women age 25-49, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Women age
Pesidence	25-49
lirban	22.0
Dural	22.0
	20.0
Dzongkhag	
Bumthang	21.5
Chhukha	20.9
Chhukha (Other than P/ling Thromde)	19.9
Phuentsholing Thromde	22.5
Dagana	19.9
Gasa	20.0
Наа	21.7
Lhuentse	19.3
Monggar	20.8
Paro	21.6
Pema Gatshel	20.5
Punakha	20.4
Samdrup Jongkhar	20.0
Samdrup Jongkhar (Other than S/J Thromde)	19.5
Samdrup Jongkhar Thromde	21.8
Samtse	20.6
Sarpang	20.1
Sarpang (Other than Gelegphu Thromde)	19.7
Gelegphu Thromde	22.2

Background characteristics	Women age
	25-49
Thimphu	22.3
Thimphu (Other than Thimphu Thromde)	21.0
Thimphu Thromde	22.5
Trashigang	18.6
Trashi Yangtse	19.5
Trongsa	20.7
Tsirang	20.0
Wangdue Phodrang	21.0
Zhemgang	19.4
Education	
None	19.0
Primary or less	19.0
Lower secondary	20.3
Middle secondary	22.1
Higher secondary	23.7
Certificate/Diploma	24.3
Bachelors & above	а
Wealth quintile	
Least Income (Q1)	19.9
Lower (Q2)	20.1
Middle (Q3)	20.8
Upper (Q4)	20.7
Highest Income (Q5)	22.2
Total	20.8

Note: The age at first marriage is defined as the age at which the respondent began living with her first spouse/partner. a = Omitted because less than 50% of the women began their relationship for the first time in that education category. Table 4.1.4 Percentage of women age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, according to current age, [Bhutan, NHS 2023].

Percentage v intercour	centage v intercour		who had se by ex	first sex act age:	ual	Percentage who never had		Median age at first sexual
15 18 20 22	18 20 22	20 22	53		25	sexual intercourse	Number of respondents	intercourse
						WOMEN		
0.6 na na	na na	na na	ла		ра	91.5	784	æ
0.6 7.7 24.7 na	<i>7.</i> 7 24.7 na	24.7 na	па	+	р Ц	45.5	892	σ
1.8 13.9 33.3 54.9	13.9 33.3 54.9	33.3 54.9	54.9		78.9	10:1	1401	21.5
2.6 17.7 39.0 58.8	17.7 39.0 58.8	39.0 58.8	58.8		79.4		1757	21.0
4.8 24.8 48.6 66.6	24.8 48.6 66.6	48.6 66.6	66.6		83.3	8.	1766	20.1
5.3 29.3 54.1 72.3	29.3 54.1 72.3	54.1 72.3	72.3		85.2	2.3	1415	19.6
5.9 32.2 60.0 78.8	32.2 60.0 78.8	60.0 78.8	78.8		89.3	1.4	1210	19:1
3.4 21.5 44.1 65.6	21.5 44.1 65.6	44.1 65.6	65.6	+	82.9	15.2	9225	
3.6 21.5 na na	21.5 na na	na na	na		р Ц		8441	σ
4.0 23.2 46.4 65.6	23.2 46.4 65.6	46.4 65.6	65.6		82.9	3.7	7549	20.3

na = Not applicable due to censoring.

a = Omitted because less than 50% of the people had sexual intercourse for the first time before reaching the beginning of the age group.



Table 4.1.5 Median age at first sexual intercourse among women age 25-49, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Women age
	25-49
Residence	
Urban	21.2
Rural	19.8
Dzongkhag	
Bumthang	21.3
Chhukha	20.6
Chhukha (Other than P/ling Thromde)	20.1
Phuentsholing Thromde	21.3
Dagana	19.6
Gasa	20.1
Наа	21.0
Lhuentse	19.4
Monggar	18.9
Paro	21.0
Pema Gatshel	20.1
Punakha	19.7
Samdrup Jongkhar	20.0
Samdrup Jongkhar (Other than S/J Thromde)	19.6
Samdrup Jongkhar Thromde	21.3
Samtse	20.3
Sarpang	19.7
Sarpang (Other than Gelegphu Thromde)	19.5
Gelegphu Thromde	21.0

Background characteristics	Women age		
	25-49		
Thimphu	21.3		
Thimphu (Other than Thimphu Thromde)	21.0		
Thimphu Thromde	21.5		
Trashigang	18.9		
Trashi Yangtse	19.6		
Trongsa	21.0		
Tsirang	19.9		
Wangdue Phodrang	20.4		
Zhemgang	19.7		
Education			
None	18.8		
Primary or less	18.9		
Lower secondary	19.9		
Middle secondary	21.8		
Higher secondary	23.3		
Certificate/Diploma	23.8		
Bachelors & above	24.4		
Wealth quintile			
Least Income (Q1)	19.6		
Lower (Q2)	19.7		
Middle (Q3)	20.3		
Upper (Q4)	20.5		
Highest Income (Q5)	21.4		
Total	20.3		

a = Omitted because less than 50% of the people had sexual intercourse for the first time before reaching the beginning of the age group.

NA = No median could be calculated for the age group.



Table 4.1.6 Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Percentage who had first sexual intercourse by exact age:			Never had	Total	Number
	Within the last 4 weeks	Within 1 year1	One or more years	sexual intercourse	lotal	of women
Age				·		
15-19	5.4	2.1	0.6	91.8	100.0	784
20-24	40.2	9.1	5.2	45.6	100.0	892
25-29	68.5	13.9	7.5	10.1	100.0	1401
30-34	76.2	11.5	9.2	3.1	100.0	1757
35-39	79.0	10.2	9.0	1.8	100.0	1766
40-44	78.3	7.0	12.4	2.3	100.0	1415
45-49	69.5	9.9	19.2	1.4	100.0	1210
Marital status						
Never married	5.0	1.8	10.0	83.2	100.0	1562
Married/engaged/living with partner2	83.2	10.9	4.4	13.0	100.0	7116
Divorced/separated/widowed	7.3	16.3	76.5	0.0	100.0	547
Residence						
Urban	62.2	10.2	9.4	18.2	100.0	3887
Rural	68.0	9.3	9.7	13.0	100.0	5338
Dzongkhag						
Bumthang	58.6	12.2	11.7	17.5	100.0	256
Chhukha	66.2	9.3	7.8	16.7	100.0	825
Chhukha (Other than P/ling Thromde)	67.3	8.5	7.2	17.0	100.0	440
Phuentsholing Thromde	64.8	10.3	8.5	16.4	100.0	385
Dagana	69.7	8.6	7.9	13.8	100.0	247
Gasa	65.0	5.5	9.9	19.5	100.0	44
Наа	68.6	4.9	12.3	14.3	100.0	138
Lhuentse	69.8	9.2	8.6	12.4	100.0	164
Monggar	63.3	13.1	10.9	12.7	100.0	480
Paro	63.7	9.5	14.9	11.9	100.0	708
Pema Gatshel	75.5	7.0	5.7	11.9	100.0	263
Punakha	61.8	11.7	10.7	15.8	100.0	292
Samdrup Jongkhar	65.8	8.0	8.3	17.9	100.0	448



Destructural shows stavistics	Percentage who had first sexual intercourse by exact age:			Never had	Total	Number
Background characteristics	Within the last 4 weeks	Within 1 year1	One or more years	sexuai intercourse	Ιοται	of women
Samdrup Jongkhar (Other than S/J Thromde)	66.1	6.2	8.6	19.0	100.0	326
Samdrup Jongkhar Thromde	64.8	12.6	7.5	15.0	100.0	122
Samtse	64.0	8.6	10.3	17.1	100.0	804
Sarpang	66.8	9.2	7.5	16.5	100.0	664
Sarpang (Other than Gelegphu Thromde)	68.2	9.8	7.4	14.6	100.0	535
Gelegphu Thromde	60.7	6.6	8.1	24.6	100.0	129
Thimphu	61.1	10.6	9.9	18.4	100.0	2046
Thimphu (Other than Thimphu Thromde)	66.3	12.7	7.1	13.9	100.0	329
Thimphu Thromde	60.0	10.2	10.5	19.3	100.0	1717
Trashigang	73.0	8.6	7.9	10.4	100.0	578
Trashi Yangtse	70.5	12.0	5.8	11.7	100.0	156
Trongsa	61.8	10.7	16.3	11.2	100.0	152
Tsirang	70.9	9.0	8.8	11.2	100.0	279
Wangdue Phodrang	71.3	9.3	8.4	11.1	100.0	407
Zhemgang	68.5	9.9	7.7	14.0	100.0	274
Education						
None	76.7	9.2	11.7	2.5	100.0	3487
Primary or less	76.7	8.5	9.8	5.1	100.0	932
Lower secondary	58.7	10.1	9.7	21.5	100.0	693
Middle secondary	63.3	10.5	7.9	18.3	100.0	1645
Higher secondary	43.5	9.7	6.8	40.0	100.0	1645
Certificate/Diploma	59.6	11.0	8.5	20.9	100.0	158
Bachelor & above	59.8	12.1	13.7	14.3	100.0	665
Wealth quintile						
Least Income (Q1)	59.9	9.7	15.3	15.1	100.0	1542
Lower (Q2)	63.2	11.0	12.5	13.3	100.0	1706
Middle (Q3)	66.7	9.9	8.3	15.2	100.0	2037
Upper (Q4)	66.9	9.0	7.2	17.0	100.0	1900
Highest Income (Q5)	69.2	9.0	6.4	15.3	100.0	2040
Total	65.5	9.7	9.6	15.2	100.0	9225

 $^{\rm 1}\,{\rm Excludes}$ women who had sexual intercourse within the last 4 weeks.

² Includes having a female partner.



Table 4.1.7 Percentage of men and women aged 20–24 years who were married or in a union before age 15 and before age 18, according to Background characteristic, [Bhutan NHS 2023].

Background characteristics	Proportion of men aged 20- 24 years who were married or in a union before age 15	Proportion of men aged 20- 24 years who were married or in a union before age 18	Number of persons	Proportion of women aged 20-24 years who were married or in a union before age 15	Proportion of women aged 20-24 years who were married or in a union before age 18	Number of persons		
Residence								
Urban	0.0	1.2	430	0.2	6.6	420		
Rural	0.0	1.6	542	1.1	11.2	483		
Wealth quintile	Wealth quintile							
Lowest	0.0	1.5	158	1.7	14.8	158		
Second	0.0	1.5	249	0.6	10.4	171		
Middle	0.0	2.2	155	0.1	6.7	216		
Fourth	0.0	1.2	214	1.1	8.9	159		
Highest	0.0	0.9	196	0.3	5.9	199		
Dzongkhag								
Bumthang	0.0	0.0	21	0.0	9.0	22		
Chhukha	0.0	0.0	87	0.0	11.0	78		
Chhukha (Other than P/ling Thromde)	0.0	0.0	36	0.0	9.3	43		
Phuentsholing Thromde	0.0	0.0	51	0.0	12.6	35		
Dagana	0.0	0.0	33	0.0	12.8	15		
Gasa	0.0	0.0	30	7.2	21.7	24		
Наа	0.0	12.1	21	0.0	10.3	19		
Lhuentse	0.0	0.0	16	3.1	22.4	26		
Monggar	0.0	5.7	40	2.3	11.0	40		
Paro	0.0	1.5	77	0.0	1.0	54		
Pema Gatshel	0.0	0.0	24	0.0	0.0	25		
Punakha	0.0	0.0	39	0.0	5.0	42		


Background characteristics	Proportion of men aged 20- 24 years who were married or in a union before age 15	Proportion of men aged 20- 24 years who were married or in a union before age 18	Number of persons	Proportion of women aged 20-24 years who were married or in a union before age 15	Proportion of women aged 20-24 years who were married or in a union before age 18	Number of persons
Samdrup Jongkhar	0.0	0.0	50	0.0	4.5	71
Samdrup Jongkhar (Other than SJ Thromde)	0.0	0.0	22	0.0	3.0	38
Samdrup Jongkhar Thromde	0.0	0.0	28	0.0	7.4	33
Samtse	0.0	1.8	82	0.0	15.0	60
Sarpang	0.0	0.0	75	1.9	4.6	63
Sarpang (Other than Gelephu Thromde)	0.0	0.0	45	3.1	5.8	26
Gelephu Thromde	0.0	0.0	30	0.0	2.5	37
Thimphu	0.0	0.3	234	0.0	5.7	197
Thimphu (Other than T/phu Thromde)	0.0	0.0	54	0.0	9.4	37
Thimphu Thromde	0.0	0.4	180	0.0	5.1	160
Trashigang	0.0	2.2	27	5.2	25.3	46
Trashi Yangtse	0.0	0.0	19	4.1	17.1	26
Trongsa	0.0	0.0	21	0.0	32.1	22
Tsirang	0.0	0.0	33	0.0	14.6	25
Wangdue	0.0	13.3	25	0.0	8.7	26
Zhemgang	0.0	6.4	18	0.0	6.8	22
Total	0.0	1.4	972	0.7	9.0	903

Table 4.2.1 Among women age 15-49 receiving antenatal care (ANC) for the most recent live birth in the 2 years preceding the survey, percentage receiving specific antenatal services from a healthcare provider, according to background characteristics, [Bhutan, NHS 2023].

	Among we perce	omen who red entage who r	ceived anten eceived sped	atal care for th ific services d	heir most recent Iuring ANC from	t live birth in the 1 a healthcare pro	last 2 years, ovider:	Number of women with ANC for their most
characteristics	Blood pressure measured	Urine sample taken	Blood sample taken	Baby's heartbeat listened for	Counseled about maternal diet	Counseled about breastfeeding	Asked about vaginal bleeding	recent live birth and/ or stillbirth in the last 2 years
			E BIRTHS					
Residence								
Urban	100.0	100.0	100.0	100.0	98.1	98.6	96.1	311
Rural	99.4	9.66	99.7	99.5	98.7	98.4	96.8	517
Education						4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
None	100.0	99.4	69.3	99.3	98.6	98.2	96.6	213
Primary or less	96.3	100.0	100.0	100.0	100.0	98.9	94.4	86
Lower Secondary	100.0	100.0	100.0	100.0	99.2	99.2	96.0	77
Middle secondary	100.0	100.0	100.0	99.4	0.66	97.4	97.1	200
Higher secondary	100.0	100.0	100.0	100.0	98.3	7.66	96.6	169
Certificates/Diploma	100.0	100.0	100.0	100.0	92.0	92.0	100.0	22
Bachelor & above	100.0	98.2	100.0	100.0	96.1	100.0	96.3	61
Wealth quintile								
Lowest	100.0	100.0	100.0	99.4	98.5	97.0	97.6	166
Second	100.0	99.2	100.0	100.0	99.4	99.5	94.6	156
Middle	98.1	100.0	99.2	99.2	98.8	98.6	96.3	176
Fourth	100.0	99.4	100.0	100.0	98.1	98.5	96.8	160
Highest	100.0	100.0	100.0	100.0	97.5	98.8	97.1	170
Dzongkhag								
Bumthang	100.0	100.0	100.0	100.0	100.0	100.0	98.0	37
Chhukha	100.0	100.0	100.0	100.0	98.0	96.3	100.0	46



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Racheround	Among wo perce	omen who red entage who re	ceived anten eceived spec	atal care for th ific services d	neir most recen uring ANC fron	t live birth in the l n a healthcare pro	last 2 years, ovider:	Number of women with ANC for their most
characteristics	Blood pressure measured	Urine sample taken	Blood sample taken	Baby's heartbeat listened for	Counseled about maternal diet	Counseled about breastfeeding	Asked about vaginal bleeding	recent live birth and/ or stillbirth in the last 2 years
Dagana	100.0	100.0	100.0	100.0	91.2	100.0	100.0	10
Gasa	100.0	100.0	100.0	100.0	100.0	100.0	100.0	16
Haa	100.0	100.0	100.0	100.0	100.0	100.0	100.0	20
Lhuentse	100.0	100.0	100.0	100.0	100.0	100.0	95.8	21
Monggar	100.0	100.0	100.0	100.0	98.7	100.0	0.06	50
Paro	98.1	100.0	100.0	100.0	100.0	97.0	100.0	54
Pema Gatshel	100.0	100.0	100.0	100.0	96.9	96.9	85.0	22
Punakha	100.0	95.1	100.0	100.0	95.2	100.0	100.0	27
Samdrup Jongkhar	100.0	100.0	100.0	100.0	93.2	91.9	95.7	47
Samtse	100.0	100.0	100.0	100.0	97.6	97.6	100.0	53
Sarpang	97.2	100.0	100.0	100.0	100.0	100.0	89.5	65
Thimphu	100.0	100.0	100.0	100.0	99.1	99.4	97.4	131
Trashigang	100.0	100.0	98.2	96.9	95.7	96.9	94.4	72
Trashi Yangtse	100.0	100.0	100.0	100.0	100.0	100.0	91.4	32
Trongsa	100.0	100.0	100.0	100.0	100.0	100.0	93.6	35
Tsirang	100.0	94.8	100.0	100.0	100.0	100.0	100.0	25
Wangdue Phodrang	100.0	100.0	100.0	100.0	100.0	100.0	100.0	41
Zhemgang	100.0	100.0	100.0	100.0	100.0	100.0	100.0	24
Total	9.66	99.7	99.8	99.7	98.5	98.5	96.5	828

Notes: The denominator for this table includes all women with a birth in the 2 years preceding the survey, whether or not they received ANC for this birth.

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visits during pregnancy for the most recent live birth, and by the timing of the first visit; and among women with ANC, median months pregnant at Table 4.2.2 Percent distribution of women age 15-49 who had a live birth in the 2 years preceding the survey by number of antenatal care (ANC) first visit, according to background characteristics, [Bhutan, NHS 2023].

			ž	umber o	f ANC v	risits			Number o	f month	s pregi	nant at	time of	f first AN	IC visit	
Background characteristics	None	-	2-3	4-7	¢	Don't know	Total	4+ ANC visits	No antenatal care	4	4-5	6-7	÷	Don't know	Total	Number of women
							LIVE BI	RTHS								
Residence																
Urban																345
Rural	1.0	0.8	2.5	50.8	37.3	7.6	100.0	88.1	1.0	45.0	9.5	2.0	2.1	40.4	100.0	566
Education																
None	1.2	0.4	3.0	50.0	35.6	9.8	100.0	85.6	1.2	44.3	7.6	3.1	0.3	43.4	100.0	239
Primary or less	0.0	0.9	5.8	54.6	31.4	7.2	100.0	86.0	0.0	39.7	6.8	0.8	5.5	47.1	100.0	94
Lower Secondary	3.4	0.0	0.5	44.2	42.5	9.4	100.0	86.7	3.4	44.3	9.0	0.0	5.1	38.3	100.0	89
Middle secondary	1.8	1.3	1.2	48.9	37.3	9.5	100.0	86.2	1.8	46.5	8.4	0.9	2.1	40.4	100.0	221
Higher secondary	1.4	0.0	3.6	51.7	39.3	4.0	100.0	91.0	1.4	52.9	9.1	1.2	6.0	34.6	100.0	180
Certificates/Diploma	0.0	1.9	0.0	61.3	31.1	5.8	100.0	92.4	0.0	61.3	7.5	.00 0.00 0.00	0.0	27.4	100.0	23
Bachelor & above	1 .8	0.0	6.3	34.2	51.5	6.2	100.0	85.6	1.8	63.8	3.2	1.5	1.6	28.1	100.0	65
Wealth quintile																
Lowest	1.9	0.0	2.2	51.4	35.1	9.4	100.0	86.5	1.9	40.4	8.5	2.3	1.4	45.5	100.0	186
Second	0.2	0.7	3.2	51.0	38.8 38.8	6.2	100.0	89.8	0.2	53.2	7.1	1.5	3.7	34.3	100.0	169
Middle	2.6	0.3	0.9	46.6	40.4	9.2	100.0	87.0	2.6	47.3	10.1	6.0	0.3	38.8 38	100.0	198
Fourth	1.3	1.4	.00 0.00 0.00	45.2	39.2	9.2	100.0	84.4	1.3	45.7	6.5	2:1	3.1	41.3	100.0	178
Highest	1:	0.5	4.7	52.4	36.2	5.1	100.0	88.6	1.1	54.0	6.7	0.9	1.4	35.8	100.0	180
Dzongkhag																
Bumthang	0.0	0.0	0.0	57.0	38.4	4.6	100.0	95.4	0.0	63.7	6.3	0.0	0.0	30.0	100.0	39
Chhukha	3.0	1.7	3.1	42.7	38.7	10.8	100.0	81.4	3.0	51.1	6.9	6.0	0.0	33.1	100.0	55



			Ž	umber o	f ANC v	/isits			Number o	f month	s pregr	nant at	time of	first AN	IC visit	
kground icteristics	None	-	2-3	4-7	☆	Don't know	Total	4+ ANC visits	No antenatal care	4 >	4-5	6-7	☆	Don't know	Total	Number of women
IJ	0.0	0.0	3.6	45.3	20.2	30.9	100.0	65.5	0.0	31.5	0.0	0.0	0.0	68.5	100.0	τ
	0.0	2.6	5.6	63.7	19.1	9.1	100.0	82.8	2.6	53.8	0.0	0.0	5.6	38.1	100.0	8
	0.0	0.0	0.0	71.3	28.7	0.0	100.0	100.0	0.0	57.3	5.4	0.0	0.0	37.3	100.0	20
tse	0.0	0.0	0.0	54.2	20.7	25.1	100.0	74.9	0.0	20.7	7.2	3.4	0.0	68.7	100.0	28
gar	0.0	0.0	2.9	44.2	48.9	3.9	100.0	93.2	0.0	57.1	6.5	1.7	5.4	29.4	100.0	52
	1.8	1.3	12.4	56.8	26.2	1.5	100.0	83.0	1.8	56.2	7.5	0.0	3.7	30.8	100.0	56
Gatshel	7.2	0.0	7.7	39.6	37.0	8.4	100.0	76.6	7.2	48.0	0.0	4.0	0.0	40.7	100.0	26
ha	0.0	0.0	2.0	54.5	20.1	23.4	100.0	74.6	0.0	30.7	7.1	2.8	6.3	53.2	100.0	33
up Jongkhar	0.0	1.3	0.0	53.5	42.6	2.7	100.0	96.0	0.0	58.6	5.0	2.0	0.0	34.5	100.0	49
U	2.8	0.0	3.3	34.9	34.9	24.2	100.0	69.8	2.8	42.1	2.5	0.0	1.5	51.1	100.0	70
D	0.0	1.4	3.1	43.2	52.3	0.0	100.0	95.5	0.0	58.1	10.3	0.0	7:1	24.5	100.0	65
nu	3.2	0.5	0.4	51.0	38.4	6.5	100.0	89.4	3.2	53.3	8.3	1.0	1.1	33.0	100.0	145
gang	0.0	0.0	0.5	41.5	54.0	4.0	100.0	95.5	0.0	36.1	18.9	3.3	0.0	41.7	100.0	75
Yangtse	0.0	0.0	0.0	68.4	31.6	0.0	100.0	100.0	0.0	39.4	2.3	0.0	3.1	55.2	100.0	32
g	1.7	2.8	0.0	41.5	46.4	7.5	100.0	87.9	1.7	55.7	0.0	0.0	7,1	35.5	100.0	30
D	0.0	0.0	5.0	55.0	36.2	3.9	100.0	91.2	0.0	44.3	4.4	5.0	0.0	46.4	100.0	26
due Phodrang	0.0	0.0	4.0	63.6	25.6	6.8	100.0	89.2	0.0	34.3	12.4	0.0	0.0	53.3	100.0	45
gang	0.0	0.0	2.6	48.9	42.5	6.0	100.0	91.4	0.0	31.7	8.9	5.8	0.0	53.7	100.0	25
	1.5	0.6	2.9	49.2	38.0	7.9	100.0	87.2	1.5	47.9	7.8	1.6	1.9	39.3	100.0	911

Table 4.2.3 Among all women age 15-49 with a live birth and in the 2 years preceding the survey, percentage receiving specific antenatal services from a healthcare provider for their most recent live birth , according to background characteristics, [Bhutan, NHS 2023].

	Percentage w	ho received sp	ecific services	during ANC fro live birth	m a healthcare	provider for the	ir most recent	Number of women with
Background characteristics	Blood pressure measured	Urine sample taken	Blood sample taken	Baby's heartbeat listened for	Counseled about maternal diet	Counseled about breastfeeding	Asked about vaginal bleeding	a live birthin the last 2 years
Residence								
Urban	100.0	100.0	100.0	100.0	98.0	98.5	96.0	312
Rural	99.4	9.66	99.7	99.5	98.7	98.4	96.8	517
Education								
None	100.0	99.4	99.3	99.3	98.6	98.2	96.6	213
Primary or less	96.3	100.0	100.0	100.0	100.0	98.9	94.4	86
Lower Secondary	100.0	100.0	100.0	100.0	99.2	99.2	96.0	77
Middle secondary	100.0	100.0	6.66	99.4	98.9	97.4	97.0	201
Higher secondary	100.0	100.0	100.0	100.0	98.3	99.7	96.6	169
Certificates/Diploma	100.0	100.0	100.0	100.0	92.0	92.0	100.0	22
Bachelor & above	100.0	98.2	100.0	100.0	96.1	100.0	96.3	61
Wealth quintile								
Lowest	100.0	100.0	100.0	99.4	98.5	97.0	97.6	166
Second	100.0	99.2	100.0	100.0	99.4	99.5	94.6	156
Middle	98.1	100.0	99.2	99.2	98.8	98.6	96.3	176
Fourth	100.0	99.4	6.66	100.0	98.1	98.5	96.8	161
Highest	100.0	100.0	100.0	100.0	97.5	98.8	97,1	170
Dzongkhag								
Bumthang	100.0	100.0	100.0	100.0	100.0	100.0	98.0	37
Chhukha	100.0	100.0	100.0	100.0	98.0	96.3	100.0	46



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	Percentage wl	ho received spo	ecific services	during ANC fro live birth	m a healthcare	provider for the	r most recent	Number of women with
Background characteristics	Blood pressure measured	Urine sample taken	Blood sample taken	Baby's heartbeat listened for	Counseled about maternal diet	Counseled about breastfeeding	Asked about vaginal bleeding	a live birthin the last 2 years
Dagana	100.0	100.0	100.0	100.0	91.2	100.0	100.0	10
Gasa	100.0	100.0	97.2	100.0	97.2	97.2	97.2	17
Haa	100.0	100.0	100.0	100.0	100.0	100.0	100.0	20
Lhuentse	100.0	100.0	100.0	100.0	100.0	100.0	95.8	21
Monggar	100.0	100.0	100.0	100.0	98.7	100.0	0.06	50
Paro	98.1	100.0	100.0	100.0	100.0	97.0	100.0	54
Pema Gatshel	100.0	100.0	100.0	100.0	96.9	96.9	85.0	22
Punakha	100.0	95.1	100.0	100.0	95.2	100.0	100.0	27
Samdrup Jongkhar	100.0	100.0	100.0	100.0	93.2	91.9	95.7	47
Samtse	100.0	100.0	100.0	100.0	97.6	97.6	100.0	53
Sarpang	97.2	100.0	100.0	100.0	100.0	100.0	89.5	65
Thimphu	100.0	100.0	100.0	100.0	99.1	99.4	97.4	131
Trashigang	100.0	100.0	98.2	96.9	95.7	96.9	94.4	72
Trashi Yangtse	100.0	100.0	100.0	100.0	100.0	100.0	91.4	32
Trongsa	100.0	100.0	100.0	100.0	100.0	100.0	93.6	35
Tsirang	100.0	94.8	100.0	100.0	100.0	100.0	100.0	25
Wangdue Phodrang	100.0	100.0	100.0	100.0	100.0	100.0	100.0	41
Zhemgang	100.0	100.0	100.0	100.0	100.0	100.0	100.0	24
Total	9.66	69.7	99.8	99.7	98.5	98.5	96.5	829
						4	4	

Notes: The denominator for this table includes all women with a birth in the 2 years preceding the survey who received ANC for this birth.



Table 4.3.1 Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution of the mother's postnatal check for the five PNC scheduled as recorded in the MCH Handbook, according to background characteristics, [Bhutan NHS 2023].

			Based	d on MCH H	Handbook		
Background characteristics	wihtin 24 hours	3 days	1-2 Weeks	3 weeks	6 weeks	No postnatal check2	Number of women
Mother's age							
<20	61.5	78.3	74.3	94.6	88.2	0.0	16.0
20–34	70.2	79.4	93.2	92.7	88.4	1.8	869
35–49	67.2	77.9	93.4	92.2	87.0	1.1	235
Mother's education							
None	71.5	80.4	90.9	89.0	81.7	0.7	272
Primary or less	72.7	81.7	94.6	94.9	90.1	1.6	103
Lower Secondary	71.1	81.4	95.2	93.3	88.3	1.4	98
Middle Secondary	68.2	77.2	92.7	94.5	90.3	1.8	284
Higher Secondary	66.3	76.2	93.2	93.6	90.5	2.5	241
Certificates/Diploma	67.7	82.5	94.9	89.9	89.1	1.6	88
Bachelor/Master/PhD	76.4	80.6	94.4	97.3	92.6	0.0	34
Location							
Urban	66.7	81.4	95.7	94.9	91.7	1.2	470
Rural	71.6	77.3	90.9	90.9	85.4	1.8	650
Income Quintiles							
Least Income (Q1)	71.6	74.7	89.3	90.5	86.4	2.7	168
Lower (Q2)	77.9	80.4	94.1	94.2	88.0	0.8	182
Middle (Q3)	64.8	79.2	90.3	90.2	87.7	2.9	279
Upper (Q4)	68.0	81.4	95.8	96.1	88.9	0.5	242
Highest Income (Q5)	68.3	78.4	94.9	92.2	89.1	1.0	249
Total	69.5	79.1	93.0	92.6	88.1	1.6	1,120



Table 4.3.2 Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution of the mother's postnatal check for the five PNC scheduled as recorded in the MCH Handbook, according to background characteristics, [Bhutan NHS 2023].

			Base	d on MC	H Handb	ook	
Dzongkhag	wihtin 24 hours	3 days	1-2 Weeks	3 weeks	6 weeks	No postnatal check2	Number of women
Bumthang	88.1	90.3	98.2	94.6	84.4	1.8	40
Chhukha	41.3	59.0	83.1	82.1	85.3	6.7	111
Chhukha (Other than P/ling Thromde)	32.2	50.8	73.7	76.7	74.7	10.4	62
Phuentsholing Thromde	52.1	68.6	94.1	88.4	97.8	2.2	49
Dagana	100.0	100.0	100.0	100.0	100.0	0.0	16
Gasa	32.2	70.9	100.0	93.7	90.7	0.0	21
Наа	17.2	61.8	90.5	89.2	66.5	3.7	27
Lhuentse	97.0	91.6	95.0	94.8	87.3	0.0	33
Monggar	92.0	92.0	88.4	91.8	82.2	0.0	54
Paro	61.9	76.6	92.0	92.1	91.1	3.2	66
Pema Gatshel	92.7	95.9	96.4	95.1	85.8	0.0	28
Punakha	39.9	67.1	76.3	80.7	70.7	8.0	42
Samdrup Jongkhar	89.3	91.4	98.4	96.7	91.9	0.0	59
Samdrup Jongkhar (Other than SJ Thromde)	89.8	91.8	97.6	95.1	88.2	0.0	30
Samdrup Jongkhar Thromde	88.2	90.5	100.0	100.0	100.0	0.0	29
Samtse	86.4	66.5	92.8	90.0	81.5	0.0	79
Sarpang	89.4	91.6	100.0	96.0	95.9	0.0	74
Sarpang (Other than Gelephu Thromde)	86.6	90.1	100.0	94.9	94.7	0.0	43
Gelephu Thromde	100.0	97.1	100.0	100.0	100.0	0.0	31
Thimphu	53.6	76.4	96.4	95.7	91.6	0.8	189
Thimphu (Other than T/phu Thromde)	49.3	63.9	94.4	97.0	92.0	1.4	50
Thimphu Thromde	54.6	79.3	96.9	95.4	91.5	0.7	139
Trashigang	90.1	92.7	93.3	95.7	89.8	0.0	81
Trashi Yangtse	85.7	92.3	100.0	97.4	92.3	0.0	39
Trongsa	57.6	76.3	95.2	93.8	98.2	0.0	48
Tsirang	67.5	84.1	88.6	93.1	100.0	0.0	28
Wangdue	62.5	69.7	89.4	92.0	75.3	2.7	55
Zhemgang	97.9	95.3	95.8	95.3	97.9	0.0	30
Total	69.5	79.1	93.0	92.6	88.1	1.6	1120



Table 4.3.3 Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution of the child's postnatal check for the five PNC scheduled as recorded in the MCH Handbook, according to background characteristics, [Bhutan NHS 2023].

			Based	d on MCH I	Handbook		
Background characteristics	wihtin 24 hours	3 days	1-2 Weeks	3 weeks	6 weeks	No postnatal check2	Number of women
Mother's age							
<20	61.5	63.7	74.3	94.6	88.8	0.0	16
20–34	70.5	78.1	92.6	92.8	88.0	1.8	869
35–49	68.4	81.4	92.3	91.6	87.0	1.1	234
Mother's education							
None	71.0	81.9	90.8	88.1	82.6	0.7	271
Primary or less	73.7	79.4	93.2	94.9	89.8	1.6	103
Lower Secondary	74.8	78.9	92.7	91.9	86.1	1.4	98
Middle Secondary	67.8	75.7	92.1	95.1	90.6	1.8	284
Higher Secondary	66.2	76.1	93.0	93.0	88.6	2.5	241
Certificates/Diploma	71.2	80.5	92.4	92.6	90.2	1.6	88
Bachelor/Master/PhD	76.4	86.3	94.4	97.3	92.6	0.0	34
Location							
Urban	67.3	81.9	94.8	94.0	90.0	1.2	469
Rural	71.9	76.0	90.3	91.5	86.1	1.8	650
Income Quintiles							
Least Income (Q1)	71.0	76.6	90.3	91.6	84.9	2.7	168
Lower (Q2)	75.8	78.0	94.0	92.5	88.0	0.8	182
Middle (Q3)	66.2	76.5	89.0	91.8	87.0	2.9	278
Upper (Q4)	69.5	81.7	94.5	93.8	87.3	0.5	242
Highest Income (Q5)	69.3	79.6	93.8	93.0	91.2	1.0	249
Total	69.9	78.6	92.3	92.6	87.8	1.6	1119



Table 4.3.4 Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution of the child's postnatal check for the five PNC scheduled as recorded in the MCH Handbook, according to zongkhag, [Bhutan NHS 2023].

			Base	d on MC	H Handb	ook	
Dzongkhag	wihtin 24 hours	3 days	1-2 Weeks	3 weeks	6 weeks	No postnatal check2	Number of women
Bumthang	88.1	90.3	94.6	94.6	86.9	1.8	40
Chhukha	42.5	59.0	80.2	82.0	84.0	6.7	110
Chhukha (Other than P/ling Thromde)	36.9	50.8	70.1	78.2	75.9	10.4	62
Phuentsholing Thromde	49.1	68.6	92.0	86.3	93.8	2.2	48
Dagana	100.0	100.0	100.0	100.0	100.0	0.0	16
Gasa	28.5	74.6	95.3	85.4	82.3	0.0	21
Наа	14.3	58.2	87.4	89.2	73.8	3.7	27
Lhuentse	97.0	88.1	94.1	91.4	87.3	0.0	33
Monggar	90.0	88.5	86.3	88.2	78.7	0.0	54
Paro	66.9	74.3	91.7	93.8	92.5	3.2	66
Pema Gatshel	92.7	100.0	96.4	95.1	82.5	0.0	28
Punakha	39.9	67.1	76.3	80.7	72.1	8.0	42
Samdrup Jongkhar	92.5	97.0	100.0	97.3	97.9	0.0	59
Samdrup Jongkhar (Other than SJ Thromde)	92.3	96.7	100.0	96.1	96.9	0.0	30
Samdrup Jongkhar Thromde	92.9	97.6	100.0	100.0	100.0	0.0	29
Samtse	84.1	64.3	93.2	90.0	80.2	0.0	79
Sarpang	87.4	92.9	98.3	96.0	95.9	0.0	74
Sarpang (Other than Gelephu Thromde)	84.7	91.8	97.8	94.9	94.7	0.0	43
Gelephu Thromde	96.9	97.1	100.0	100.0	100.0	0.0	31
Thimphu	54.6	77.0	95.4	94.3	91.1	0.8	189
Thimphu (Other than T/phu Thromde)	51.5	67.0	94.7	97.0	92.0	1.4	50
Thimphu Thromde	55.4	79.3	95.6	93.6	90.8	0.7	139
Trashigang	88.7	92.1	94.4	97.6	91.8	0.0	81
Trashi Yangtse	85.2	85.9	97.7	97.4	92.3	0.0	39
Trongsa	59.3	76.3	95.2	93.8	98.2	0.0	48
Tsirang	71.1	84.1	92.8	97.3	100.0	0.0	28
Wangdue	62.3	68.3	88.5	93.6	68.0	2.7	55
Zhemgang	97.9	92.4	95.8	95.3	97.9	0.0	30
Total	69.9	78.6	92.3	92.6	87.8	1.6	1119



Table 4.4.1 Among all live births and stillbirths in the 2 years preceding the survey, percentage delivered by a skilled provider and percentage delivered in a health facility, according to background characteristics, [Bhutan NHS 2023].

	Live births and	stillbirths in the survey	2 years preced	ling the	Percentage	
Background characteristics	Percentage delivered by a skilled provider ¹	Percentage delivered in a health facility	Percentage delivered by caesarean	Number of births	skin contact immediately after birth	Number of births
Mother's age						
<20	61.5	63.7		74.3	94.6	88.8
20–34	70.5	78.1		92.6	92.8	88.0
35–49	68.4	81.4		92.3	91.6	87.0
Mother's education						
None	71.0	81.9		90.8	88.1	82.6
Primary or less	73.7	79.4		93.2	94.9	89.8
Lower Secondary	74.8	78.9		92.7	91.9	86.1
Middle Secondary	67.8	75.7		92.1	95.1	90.6
Higher Secondary	66.2	76.1		93.0	93.0	88.6
Certificates/Diploma	71.2	80.5		92.4	92.6	90.2
Bachelor/Master/PhD	76.4	86.3		94.4	97.3	92.6
Location						
Urban	67.3	81.9		94.8	94.0	90.0
Rural	71.9	76.0		90.3	91.5	86.1
Income Quintiles						
Least Income (Q1)	71.0	76.6		90.3	91.6	84.9
Lower (Q2)	75.8	78.0		94.0	92.5	88.0
Middle (Q3)	66.2	76.5		89.0	91.8	87.0
Upper (Q4)	69.5	81.7		94.5	93.8	87.3
Highest Income (Q5)	69.3	79.6		93.8	93.0	91.2
Total	69.9	78.6		92.3	92.6	87.8

Skilled provider includes Medical Doctors and midwifes (Nurses, and Health Assistants). There were only five stillbirths in the 2 years preceding the survey.



Table 4.4.2 Among all live births and stillbirths in the 2 years preceding the survey, percentage delivered by a skilled provider and percentage delivered in a health facility, according to Dzongkhag, [Bhutan NHS 2023].

	Live births and	ling the	Percentage with skin-to-			
Background characteristics	Percentage delivered by a skilled provider ¹	Percentage delivered in a health facility	Percentage delivered by caesarean	Number of births	skin contact immediately after birth	Number of births
Bumthang	100.0	100.0	29.3	49	82.5	49
Chhukha	99.6	99.6	28.0	121	81.9	121
Chhukha (Other than P/ ling Thromde)	99.2	99.2	29.2	68	79.4	68
Phuentsholing Thromde	100.0	100.0	26.5	53	84.8	53
Dagana	100.0	97.8	58.4	20	74.1	20
Gasa	95.9	95.9	15.2	25	81.7	25
Наа	100.0	96.5	25.3	29	73.1	29
Lhuentse	100.0	100.0	33.6	40	78.1	40
Monggar	94.5	94.5	25.8	66	86.5	66
Paro	99.2	99.2	32.5	69	88.1	69
Pema Gatshel	97.7	97.7	9.1	29	93.0	29
Punakha	100.0	100.0	42.5	47	78.6	47
Samdrup Jongkhar	96.6	96.6	23.5	64	83.5	64
Samdrup Jongkhar (Other than SJ Thromde)	95.0	95.0	21.3	32	80.0	32
Samdrup Jongkhar Thromde	100.0	100.0	28.1	32	90.8	32
Samtse	100.0	98.7	38.1	86	71.0	86
Sarpang	100.0	100.0	25.7	83	89.0	83
Sarpang (Other than Gelephu Thromde)	100.0	100.0	28.3	49	87.8	49
Gelephu Thromde	100.0	100.0	16.5	34	93.4	34
Thimphu	100.0	100.0	34.9	201	80.6	201
Thimphu (Other than T/ phu Thromde)	100.0	100.0	30.3	52	78.6	52
Thimphu Thromde	100.0	100.0	35.9	149	81.0	149
Trashigang	97.9	95.0	21.1	89	75.8	89
Trashi Yangtse	100.0	100.0	13.0	41	75.6	41
Trongsa	95.3	94.0	23.7	53	76.8	53
Tsirang	91.9	91.9	19.3	29	72.1	29
Wangdue	98.1	98.1	26.4	60	87.1	60
Zhemgang	86.9	86.9	17.9	36	79.9	36
Total	98.5	98.0	29.3	1237	81.1	1237

Skilled provider includes Medical Doctors and midwifes (Nurses, and Health Assistants). There were only five stillbirths in the 2 years preceding the survey.



Table 4.4.3 Among women with a birth in the 2 years preceding the survey who delivered their most recent live birth in a health facility, percent distribution by duration of stay in the health facility following their most recent live birth, according to type of delivery, [Bhutan NHS 2023].

Type of delivery	<6 hours	6-11 hours	12-23 hours	1-2 days	3+ days	Total	Number of women
Vaginal birth	4.85	1.28	0.62	49.51	43.74	100.0	866
Caesarean section	1.62	0.9	0.34	19.41	77.74	100.0	341



Table 4.6.1 Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, [Bhutan NHS 2023].

		Any			Mode	ern me	thod		
Age	Any method	modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom
ALL WOMEN									
15-19	5.0	4.2	0.0	0.0	0.4	0.0	1.3	0.0	2.1
20-24	35.3	32.6	0.4	0.0	2.7	0.8	12.8	0.0	14.7
25-29	59.9	55.2	2.2	0.2	6.6	2.6	21.4	0.2	21.6
30-34	67.5	63.3	8.4	0.5	7.5	4.1	22.8	0.2	18.9
35-39	73.1	70.6	19.2	2.5	6.5	5.6	20.9	0.0	16.3
40-44	70.8	67.4	19.6	6.9	5.4	5.3	18.0	0.3	13.5
45-49	61.5	59.1	19.5	13.7	3.9	3.7	11.9	0.3	7.2
Total	58.7	55.6	11.2	3.5	5.3	3.6	17.3	0.2	14.6
CURRENTLY MA	RRIED OR L	IVING TOO	GETHER WOM	IEN					
15-19	54.9	43.5	0.0	0.0	0.6	0.0	18.5	0.0	22.4
20-24	68.7	63.2	0.4	0.0	4.4	1.8	26.3	0.0	27.6
25-29	70.8	65.3	2.3	0.2	8.1	3.3	25.8	0.3	25.4
30-34	73.9	69.3	9.2	0.5	8.4	4.6	25.0	0.2	20.5
35-39	79.2	76.3	20.1	2.9	6.9	6.3	23.0	0.1	17.9
40-44	78.6	74.8	20.7	7.8	6.2	5.8	20.4	0.4	15.3
45-49	68.7	65.8	21.2	15.8	4.4	3.7	13.1	0.4	8.2
Total	74.2	70.1	13.7	4.5	6.8	4.6	22.1	0.2	18.4
SEXUALLY ACTIV	/E UNMAR		EN ¹						
15-19	80.3	80.3	0.0	0.0	34.0	0.0	22.9	0.0	57.4
20-24	24.8	21.4	0.0	0.0	0.0	0.0	9.8	0.0	5.5
25+	54.9	53.1	16.0	3.8	4.0	4.3	16.0	0.0	8.9
Total	51.8	49.9	13.9	3.3	4.0	3.7	15.4	0.0	9.3



	Modern ı	method			Any	Trac	ditional metho	od	Not	Number
Female condom	Emergency contraception	SDM	LAM	Other	traditional method	Rhythm	Withdrawal	Other	currently using	of women
0.0	0.2	0.0	0.0	0.0	1.0	0.0	0.8	0.0	95.0	793
0.0	0.6	0.0	0.0	0.3	4.5	0.0	3.9	0.2	64.7	901
0.1	0.5	0.1	0.1	0.0	6.9	0.3	5.8	0.0	40.1	1406
0.3	0.5	0.2	0.2	0.2	5.2	0.4	4.5	0.0	32.5	1755
0.0	0.4	0.1	0.1	0.2	3.7	0.3	3.0	0.0	26.9	1731
0.1	0.2	0.3	0.0	0.1	4.4	0.3	3.5	0.1	29.2	1444
0.0	0.0	0.1	0.0	0.0	3.1	0.3	2.4	0.0	38.5	1213
0.1	0.4	0.1	0.1	0.1	4.4	0.3	3.6	0.0	41.3	9243
							*·			
0.0	1.0	0.0	0.0	0.0	13.4	0.0	11.3	0.0	45.1	50
0.0	1.1	0.0	0.0	0.7	9.3	0.0	8.0	0.4	31.3	427
0.1	0.5	0.1	0.2	0.0	8.1	0.3	7.0	0.0	29.2	1101
0.4	0.6	0.2	0.2	0.2	5.7	0.5	4.9	0.0	26.1	1533
0.0	0.4	0.2	0.1	0.2	4.1	0.4	3.3	0.0	20.8	1517
0.2	0.2	0.4	0.0	0.1	4.9	0.3	3.9	0.1	21.4	1243
0.0	0.0	0.2	0.0	0.0	3.7	0.3	2.8	0.0	31.3	1005
0.1	0.4	0.2	0.1	0.2	5.6	0.3	4.6	0.0	25.8	6876
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7	4
0.0	2.5	0.0	0.0	0.0	5.8	0.0	5.8	0.0	75.2	25
0.0	0.5	0.0	0.6	0.0	1.8	0.0	1.2	0.0	45.1	195
0.0	0.7	0.0	0.5	0.0	2.2	0.0	1.7	0.0	48.2	224



Table 4.6.2 Percent distribution of currently married women and sexually active unmarried women age 15-49 by contraceptive method currently used, according to background characteristics, [Bhutan NHS 2023].

Background	nd Any Modern method								
characteristics	method	modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom
		CURRENTI	Y MARRIED C	DR LIVING TO	GETHE	R WOI	MEN		
Number of living	children								
0	42.0	33.9	0.6	0.9	3.5	0.4	0.5	0.0	25.5
1-2	73.5	68.9	10.3	2.4	7.3	4.2	22.6	0.2	21.8
3-4	83.0	80.4	21.3	8.4	6.8	6.5	25.9	0.4	12.5
5+	79.0	77.7	23.8	7.4	5.8	4.1	30.4	0.0	8.3
Residence		·						·	
Urban	71.0	66.4	14.9	2.4	5.6	4.4	12.7	0.2	25.3
Rural	76.3	72.6	12.9	5.9	7.5	4.8	28.5	0.2	13.8
Usual Activity									
Working	74.2	70.2	13.7	4.2	6.6	4.3	21.1	0.2	19.5
Doing household chores	74.6	70.6	14.0	4.9	6.9	4.9	23.3	0.2	17.4
Student	62.0	47.9	0.0	0.0	8.6	0.0	18.6	0.0	20.7
Retired	73.5	61.9	18.1	0.0	12.3	0.0	0.0	0.0	28.7
Doing nothing	55.3	49.9	4.7	0.0	2.8	2.3	12.1	0.0	21.4
Education									
None	76.4	73.5	16.4	8.0	7.8	5.4	27.2	0.5	10.5
Primary or less	75.2	71.9	16.7	5.1	7.0	4.0	24.5	0.0	15.5
Lower Secondary	76.0	72.0	14.6	2.6	8.9	2.8	29.3	0.2	13.7



Modern method					Any	Trac	ditional metho	od	Not	Number
Female condom	Emergency contraception	SDM	LAM	Other	traditional method	Rhythm	Withdrawal	Other	currently using	of women
		CUR	RENTLY	MARRIE	ED OR LIVIN	G TOGET	HER WOMEN			
0.0	0.5	0.3	0.0	0.2	11.2	0.0	9.9	0.3	58.0	606
0.2	0.6	0.2	0.0	0.2	6.4	0.5	5.3	0.0	26.5	3628
0.1	0.1	0.2	0.3	0.1	3.3	0.2	2.7	0.0	17.0	2349
0.3	0.3	0.4	0.0	0.0	1.5	0.0	0.9	0.0	21.0	293
						1 1 1 1 1 1				
0.1	0.4	0.2	0.0	0.2	5.8	0.4	4.9	0.0	29.0	2738
0.1	0.5	0.2	0.1	0.2	5.4	0.3	4.5	0.1	23.7	4138
				+						
0.1	0.4	0.2	0.1	0.1	5.4	0.4	4.7	0.0	25.8	3013
0.2	0.4	0.1	0.0	0.2	5.7	0.3	4.5	0.0	25.4	3757
0.0	0.0	0.0	0.0	0.0	14.0	0.0	14.0	0.0	38.0	12
0.0	0.0	0.0	0.0	0.0	11.5	0.0	11.5	0.0	26.5	17
0.0	3.1	0.0	0.5	0.0	6.6	0.0	3.9	0.0	44.7	76
0.0	0.1	0.0	0.1	0.0	3.6	0.3	2.8	0.0	23.6	3033
0.1	0.6	0.3	0.3	0.4	4.6	0.8	3.4	0.1	24.8	792
0.0	1.3	0.5	0.2	0.0	6.1	0.3	4.3	0.0	24.0	470



Packaround	Δογ	Any			Mode	ern me	thod		
characteristics	method	modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom
Middle secondary	72.2	66.8	11.5	0.8	6.0	4.8	20.6	0.1	22.7
Higher secondary	69.3	63.4	7.5	0.7	5.3	3.6	12.1	0.0	31.6
Certificates/ Diploma	70.4	64.8	7.8	0.6	2.7	3.9	3.8	0.0	40.6
Bachelor & above	74.8	65.4	14.1	0.0	3.6	5.2	4.6	0.0	34.5
Wealth quintile									
Lowest	73.8	71.1	11.1	6.9	7.9	4.8	32.2	0.1	9.5
Second	74.3	70.8	12.8	6.0	7.8	4.6	27.0	0.4	13.1
Middle	74.0	69.1	12.5	4.0	7.1	4.2	24.0	0.4	17.0
Fourth	74.1	71.1	15.5	3.8	6.6	4.5	19.6	0.2	21.4
Highest	74.7	69.0	15.9	2.8	4.9	5.1	11.8	0.1	27.3
Total	74.2	70.1	13.7	4.5	6.8	4.6	22.1	0.2	18.4
	*·	SEX	UALLY ACTIV	E UNMARRIEI		IEN ¹		*·	
Residence									
Urban	35.7	32.1	6.6	2.6	2.7	0.8	5.7	0.0	14.8
Rural	64.3	63.6	19.6	3.8	5.0	6.0	22.8	0.0	5.1
Total	51.8	49.9	13.9	3.3	4.0	3.7	15.4	0.0	9.3

SDM = Standard days method.

LAM = Lactational amenorrhea method.

¹ Women who have had sexual intercourse within 30 days preceding the survey.



	Modern ı	method			Any	Trac	ditional metho	od	Not	Number
Female condom	Emergency contraception	SDM	LAM	Other	traditional method	Rhythm	Withdrawal	Other	currently using	of women
0.2	0.7	0.2	0.0	0.1	7.9	0.3	6.9	0.1	27.8	1207
0.2	0.5	0.1	0.0	0.6	7.9	0.4	6.9	0.0	30.7	839
0.6	0.4	0.6	0.0	0.0	7.4	0.2	6.8	0.0	29.6	425
0.5	1.4	0.2	0.0	0.0	14.3	0.6	13.4	0.0	25.2	109
				 			+			
0.0	0.3	0.2	0.2	0.0	4.1	0.0	3.4	0.0	26.2	1092
0.0	0.5	0.0	0.0	0.0	4.4	0.3	3.3	0.0	25.7	1242
0.1	0.5	0.1	0.1	0.3	6.5	0.5	5.5	0.0	26.0	1553
0.2	0.4	0.3	0.1	0.2	4.6	0.5	4.0	0.1	25.9	1422
0.3	0.5	0.3	0.1	0.2	7.5	0.4	6.2	0.1	25.3	1567
0.1	0.4	0.2	0.1	0.2	5.6	0.3	4.6	0.0	25.8	6876
			SEXU	ALLY AC			DMEN ¹			
0.0	0.7	0.0	0.0	0.0	4.2	0.0	3.0	0.0	64.3	92
0.0	0.7	0.0	1.0	0.0	0.7	0.0	0.7	0.0	35.7	132
0.0	0.7	0.0	0.5	0.0	2.2	0.0	1.7	0.0	48.2	224



Table 4.6.3 Percent distribution of currently married women and sexually active unmarried women age 15-49 by contraceptive method currently used, according to Dzongkhag, [Bhutan NHS 2023].

	Δηγ	Any			Mode	ern me	thod	od			
Dzongkhag	method	modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom		
Bumthang	72.2	69.1	10.8	1.3	4.3	4.1	26.0	0.0	21.5		
Chhukha	69.3	64.4	9.9	3.4	8.0	4.4	19.8	0.0	19.9		
Chhukha (Other than P/ ling Thromde)	78.0	73.2	10.4	5.2	7.7	4.5	31.0	0.0	19.1		
Phuentsholing Thromde	58.7	53.6	9.3	1.2	8.2	4.3	6.2	0.0	20.8		
Dagana	80.1	71.4	18.5	9.8	10.4	2.0	18.5	0.0	13.1		
Gasa	75.2	72.9	21.4	2.8	3.2	2.5	26.6	0.0	15.8		
Наа	89.0	84.1	14.6	6.2	9.5	1.6	29.9	0.0	24.4		
Lhuentse	78.7	78.7	13.0	5.1	3.4	10.0	27.2	0.5	19.5		
Monggar	81.9	76.4	15.2	1.6	6.9	14.5	35.6	0.3	8.6		
Paro	75.3	72.8	17.0	4.9	7.0	4.0	15.9	0.5	22.3		
Pema Gatshel	72.4	67.9	9.3	3.5	17.2	3.1	33.1	0.0	18.3		
Punakha	80.0	76.8	15.9	7.2	6.2	2.9	20.6	1.2	21.7		
Samdrup Jongkhar	63.4	62.6	13.7	4.4	7.0	1.4	22.7	0.0	12.2		
Samdrup Jongkhar (Other than SJ Thromde)	64.4	63.9	11.4	5.2	8.6	1.0	28.1	0.0	8.4		
Samdrup Jongkhar Thromde	61.0	59.4	19.5	2.4	2.9	2.5	9.0	0.0	21.8		
Samtse	73.2	68.7	10.6	10.1	8.6	3.6	25.7	0.1	8.8		



	Modern ı	method			Any	Trac	ditional metho	od	Not	Number
Female condom	Emergency contraception	SDM	LAM	Other	traditional method	Rhythm	Withdrawal	Other	currently using	of women
0.3	0.0	0.0	0.5	0.0	4.2	0.5	3.7	0.0	27.8	231
0.1	1.2	1.1	0.0	0.0	6.6	0.0	5.6	0.0	30.7	651
0.0	2.2	1.0	0.0	0.0	7.9	0.0	6.7	0.0	22.0	374
0.2	0.0	1.1	0.0	0.0	5.1	0.0	4.4	0.0	41.3	277
0.0	0.0	0.0	0.0	0.0	9.2	0.5	9.2	0.0	19.9	192
0.0	0.0	0.6	0.0	0.0	2.9	0.0	1.1	0.0	24.8	138
0.0	0.0	0.0	0.8	0.0	8.1	0.0	7.6	0.0	11.0	170
0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.5	0.0	21.3	178
0.0	0.4	0.0	0.0	0.0	6.8	0.0	5.4	0.0	18.1	311
0.9	1.1	0.0	0.0	1.0	3.3	0.0	2.5	0.0	24.7	354
0.0	0.0	0.0	0.0	0.0	9.0	1.3	7.2	0.0	27.6	249
0.0	0.3	0.3	0.0	0.0	6.9	0.7	6.0	0.0	20.0	249
0.3	0.0	0.0	0.0	0.2	1.7	0.0	1.0	0.0	36.6	447
0.4	0.0	0.0	0.0	0.0	1.6	0.0	0.9	0.0	35.6	253
0.0	0.0	0.0	0.0	0.5	2.1	0.0	1.2	0.0	39.0	194
0.4	0.0	0.3	0.0	0.2	4.7	0.0	4.3	0.0	26.8	521



		Any			Mode	ern me	thod		
Dzongkhag	method	modern method	Female sterilization	Male sterilization	Pill	IUD	Injectables	Implants	Male condom
Sarpang	72.9	65.3	12.8	3.7	8.7	3.9	21.2	0.2	16.2
Sarpang (Other than Gelephu Thromde)	73.8	67.0	14.2	3.8	8.9	4.1	23.2	0.2	14.7
Gelephu Thromde	68.2	56.2	5.4	3.3	7.6	2.4	11.0	0.0	24.3
Thimphu	73.0	68.4	15.2	2.5	4.5	4.7	11.9	0.5	27.3
Thimphu (Other than T/ phu Thromde)	79.1	72.2	13.2	2.9	4.8	5.4	17.4	0.4	25.9
Thimphu Thromde	71.8	67.6	15.6	2.5	4.5	4.6	10.8	0.5	27.6
Trashigang	79.1	77.0	14.7	3.9	5.5	8.5	31.0	0.0	12.7
Trashi Yangtse	72.4	71.7	11.2	4.4	5.5	8.6	25.9	0.0	15.8
Trongsa	62.3	58.6	12.9	2.6	2.3	5.6	21.0	0.0	14.1
Tsirang	77.2	72.4	13.4	5.1	3.9	1.2	28.0	0.0	19.3
Wangdue	81.1	77.3	16.0	7.3	5.6	1.1	25.0	0.0	22.0
Zhemgang	70.6	70.0	12.5	2.2	7.5	4.5	36.4	0.0	7.2
Total	74.2	70.1	13.7	4.5	6.8	4.6	22.1	0.2	18.4

SDM = Standard days method

LAM = Lactational amenorrhea method



	Modern ı	nethod			Any	Trac	od	Not	Number	
Female condom	Emergency contraception	SDM	LAM	Other	traditional method	Rhythm	Withdrawal	Other	currently using	of women
0.0	0.4	0.0	0.1	0.0	10.7	2.5	7.9	0.0	27.1	462
0.0	0.3	0.0	0.0	0.0	9.7	2.1	6.6	0.0	26.2	309
0.0	0.8	0.0	0.5	0.0	16.1	5.1	15.0	0.0	31.8	153
0.0	0.8	0.1	0.0	0.2	6.2	0.3	5.1	0.0	27.0	1136
0.0	2.3	0.4	0.0	0.0	10.0	0.0	9.6	0.0	20.9	263
0.0	0.5	0.0	0.0	0.2	5.4	0.3	4.2	0.0	28.2	873
0.0	0.0	0.0	0.7	0.0	4.1	0.0	3.7	0.0	20.9	411
0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	0.0	27.6	202
0.0	0.0	0.0	0.0	0.0	3.7	0.0	2.7	0.0	37.7	220
0.0	0.0	0.8	0.0	0.4	7.4	0.4	6.5	0.0	22.8	241
0.0	0.2	0.0	0.0	0.0	3.9	0.0	2.8	0.0	18.9	289
0.0	0.0	0.0	0.3	0.0	1.8	0.0	1.8	0.0	29.4	224
0.1	0.4	0.2	0.1	0.2	5.6	0.3	4.6	0.0	25.8	6876

Table 4.6.4 Percent distribution of currently married women and sexually active unmarried women age 15-49 by contraceptive method currently used, according to Dzongkhag, [Bhutan NHS 2023].

Background	Unmet	need for f	amily	Met n planning	ieed for fa (current)	amily y using)	Total der p	nand for anning ¹	family	Number	Percentage	Percentage of
characteristics	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	of women	of demand satisfied²	demand satisfied by modern methods ³
Age												
15-19	4.8	8.9	13.7	47.2	7.6	54.9	52.0	16.5	68.6	50	80.0	63.5
20-24	2.3	3.6	5.9	54.0	14.7	68.7	56.3	18.2	74.5	427	92.1	84.8
25-29	1.3	4.8	6.1	41.0	29.8	70.8	42.3	34.7	77.0	1101	92.0	84.8
30-34	0.4	5.8	6.1	22.5	51.3	73.9	22.9	57.1	80.0	1533	92.3	86.6
35-39	0.2	7.7	7.9	7.9	71.2	79.1	8.1 .1	78.9	87.0	1518	90.9	87.7
40-44	0.1	11.0	11.1	2.8	75.7	78.5	2.9	86.7	89.6	1244	87.6	83.3
45-49	0.0	13.2	13.2	0.8 0	67.6	68.5	0.8	80.8	81.6	1008	83.9	80.3
Residence												
Urban	0.6	8.5	9.1	19.2	51.7	71.0	19.8	60.3	80.1	2740	88.6	82.8
Rural	0.5	7.6	0.0 8	16.5	59.8 2	76.3	16.9	67.4	84.3	4141	90.5	86.1
Usual Activity												
Working	0.4	1;7	7.5	18.4	55.7	74.2	18.9	62.8	81.7	3014	90.8	85.9
Doing household chores	0.5	8.7	9.3	16.7	58.0	74.6	17.2	66.7	83.9	3759	89.0	84.1
Student	10.6	1,7	17.6	55.8	6.1	62.0	66.4	13.2	79.6	12	77.8	60.2
Retired	0.0	8.7	8.7	20.3	53.2	73.5	20.3	61.9	82.2	17	89.4	75.3
Doing nothing	1.9	5.0	6.9	21.7	31.5	53.3	23.7	36.5	60.2	78	88.6	79.9

Background	Unmet I	need for fa Ianning	amily	Met n planning	eed for fa (currently	mily / using)	Total de p	mand for	family	Number	Percentage	Percentage of
characteristics	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	of women	of demand satisfied ²	demand satisfied by modern methods³
Education												
None	0.1	10.1	10.2	7.4	68.8	76.2	7.5	78.9	86.4	3037	88.2	84.9
Primary or less	0.2	8.0	8.1	10.7	64.5	75.2	10.9	72.5	83.4	792	90.2	86.3
Lower Secondary	0.7	5.7	6.4	18.0	57.9	75.9	18.7	63.6	82.3	471	92.2	87.3
Middle secondary	1.4	9.9	7.9	26.0	46.2	72.2	27.3	52.8	80.1	1207	90.1	83.3
Higher secondary	6.0	5.2	6.1	35.4	33.9	69.3	36.3	39.1	75.4	839	91.9	84.1
Certificates/Diploma	0.5	7.0	7.5	36.4	34.0	70.4	36.9	41.0	77.9	425	90.4	83.2
Bachelor & above	0.4	1.2	1.6	38.4	36.5	74.8	38. 38. 8	37.6	76.4	109	97.9	85.6
Wealth quintile												
Lowest	0.5	9.1	9.6	13.6	60.2	73.8	14.1	69.3	83.4	1092	88.5	85.3
Second	0.5	8.5 8	0.6	14.7	59.5	74.2	15.2	68.0	83.2	1244	89.2	85.0
Middle	0.5	7.9	8.4	18.6	55.2	73.8	19.1	63.1	82.2	1555	89.8	83.9
Fourth	0.5	8.9	9.3	18.7	55.3	74.0	19.2	64.1	83.3	1423	88.8 88.8	85.3
Highest	0.6	6.0	6.7	20.5	54.2	74.7	21.1	60.3	81.4	1567	91.8	84.8
Total	0.5	8.0	8.5 8.5	17.6	56.6	74.1	18.1	64.5	82.6	6881	89.7	84.8

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.

¹ Total demand is the sum of unmet need and met need.

² Percentage of demand satisfied is met need divided by total demand.

³ Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.



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Table 4.6.5 Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, total demand for family planning, and percentage of the demand for family planning that is satisfied, according to Dzongkhags, [Bhutan NHS 2023].

:	Unmet r P	need for fi lanning	amily	Met n planning	eed for fa (currently	mily / using)	Total der p	nand for 1 Ianning ¹	amily	Number	Percentage	Percentage of
Dzongkhag	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	of women	of demand satisfied ²	demand satisfied by modern methods ³
Samtse	0.8	7.2	8.0	14.9	57.9	72.9	15.7	65.2	80.9	523	90.1	84.6
Sarpang	0.3	9.9	10.1	16.5	56.4	72.9	16.8	66.2	83.0	462	87.8	78.6
Sarpang (Other than Gelephu Thromde)	0.3	10.0	10.4	14.3	59.5	73.8	14.7	69.5	84.1	309	87.7	79.7
Gelephu Thromde	0.0	6.8 8	8.9	27.9	40.3	68.2	27.9	49.2	77.1	153	88.4	72.8
Thimphu	0.6	7,1	7.8	21.6	51.3	73.0	22.3	58.5	80.7	1137	90.4	84.6
Thimphu (Other than T/ phu Thromde)	1.5	7.2	8.7	24.5	54.6	79.1	26.1	61.7	87.8	263	90.1	82.2
Thimphu Thromde	0.5	7.1	7.6	21.0	50.7	71.7	21.5	57.8	79.3	874	90.4	85.1
Trashigang	0.0	6.7	6.7	15.0	64.2	79.1	15.0	70.9	85.8	411	92.2	89.8
Trashi Yangtse	0.0	13.3	14.2	12.6	59.8	72.4	13.5	73.1	86.6	202	83.5	82.8
Trongsa	0.0	0.8 0	9.8 0	11.6	50.7	62.3	11.6	60.4	72.0	220	86.5	81.3
Tsirang	0.0	5.3	5.3	14.7	62.5	77.2	14.7	67.8	82.5	241	93.6	87.7
Wangdue	0.0	5.2	5.2	18.5	62.7	81.1	18.5	67.8	86.3	289	94.0	89.5
Zhemgang	0.9	6.3	6.8	20.2	50.5	70.6	20.7	56.7	77.5	224	91.2	90.4
Total	0.5	8.0	8.5	17.6	56.6	74.1	18.1	64.5	82.6	6881	89.7	84.8

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.

Total demand is the sum of unmet need and met need.

² Percentage of demand satisfied is met need divided by total demand.

³ Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.

met need for family planning, total demand for family planning, and percentage of the demand for family planning that is satisfied, according to Table 4.6.6 Percentage of all women and sexually active unmarried women age 15-49 with unmet need for family planning, percentage with background characteristics, [Bhutan NHS 2023].

Background	Unmet n P	need for f lanning	amily	Met n planning	eed for fa (currently	amily y using)	Total der p	mand for lanning ¹	family	Number	Percentage of demand	Percentage of demand caticfied by
characteristics	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	women	satisfied ²	modern methods ³
					ALI	L WOME	7					
Age												
15-19	0.3	0.6	0.9	3.8 3.8	1.2	5.0	4.1	1.7	5.9	795	84.7	72.0
20-24	1:	1.9	3.0	27.2	8.0	35.2	28.3	6.6	38.2	903	92.1	85.2
25-29	1.2	4.0	5.2	35.4	24.5	59.9	36.6	28.5	65.1	1406	92.1	84.8
30-34	0.3	5.2	5.5	20.6	46.7	67.4	20.9	52.0	72.9	1758	92.4	86.7
35-39	0.1	7.0	7.1	7.4	65.7	73.0	7.5	72.7	80.2	1733	91.1	87.9
40-44	0.1	10.1	10.1	2.5	68.2	70.7	2.5	78.3	80.8	1445	87.5	83.3
45-49	0.0	11.4	11.4	0.7	60.6	61.3	0.7	72.1	72.8	1217	84.3	80.9
Residence												
Urban	0.5	6.4	6.9	15.1	38.5	53.6	15.6	44.9	60.4	3840	88.7	83.0
Rural	0.3	6.1	6.5	13.4	48.9	62.3	13.8	55.0	68.8	5417	90.6	86.3
Usual Activity												
Working	0.3	5.9	6.2	15.8	45.7	61.4	16.1	51.5	67.6	3955	90.8	86.0
Doing household chores	0.5	7.8	8.3 8.3	15.1	52.9	68.0	15.6	60.7	76.3	4286	89.1	84.3
Student	0.2	0.1	0.3	2.2	0.2	2.4	2.4	0.4	2.8	694	87.9	78.2
Retired	0.0	5.9	5.9	13.8	44.5	58.3	13.8	50.4	64.2	24	90.8	78.5

Background	Unmet r P	need for fi lanning	amily	Met n planning	eed for fa (currently	mily / using)	Total der p	nand for fa Ianning ¹	amily	Number	Percentage of demand	Percentage of
characteristics	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	women	or uernanu satisfied²	ueillailu sausheu by modern methods ³
Doing nothing	0.5	1.7	2.2	7.3	11.3	18.6	7.9	13.0	20.8	275	89.3	82.2
Education												
None	0.1	0.6	9.1	6.7	62.9	69.7	6.8	71.9	78.7	3523	88.5	85.4
Primary or less	0.2	7.1	7.2	9.9	57.4	67.4	10.1	64.5	74.6	927	90.3	86.5
Lower Secondary	0.7	4.3	5.0	13.2	41.5	54.7	13.9	45.8	59.8	694	91.6	87.0
Middle secondary	1.0	5.2	6.1	19.9	35.2	55.1	20.8	40.4	61.2	1686	0.06	83.3
Higher secondary	0.5	2.9	3.3	20.3	18.4	38.7	20.8	21.3	42.0	1624	92.1	84.3
Certificates/Diploma	0.4	4.9	5.2	27.1	24.3	51.4	27.5	29.2	56.6	642	90.7	83.5
Bachelor & above	0.3	0.8	1:	29.7	27.2	56.9	30.0	28.1	58.0	158	98.1	85.3
Wealth quintile												
Lowest	0.3	6.9	7.2	10.6	46.7	57.3	10.9	53.6	64.6	1537	88.8	85.7
Second	0.3	6.4	6.8	12.3	46.6	58.9	12.6	53.0	65.6	1737	89.7	85.7
Middle	0.4	6.3	6.7	15.0	43.3	58.3	15.4	49.6	65.0	2066	89.7	83.9
Fourth	0.3	6.8	1:7	14.9	43.2	58.1	15.2	50.0	65.2	1894	89.1	85.5
Highest	0.6	4.9	5.5	16.9	43.4	60.3	17.4	48.4	65.8	2023	91.6	84.7
Total	0.4	6.2	6.6	14.2	44.5	58.6	14.6	50.7	65.3	9257	89.9	85.0
				SEXUALL	Y ACTIVE		RIED WO	MEN4				
Age												
15-19	0.0	0.0	0.0	57.4	22.9	80.3	57.4	22.9	80.3	4	100.0	100.0



5th National Health Survey

Background	Unmet	need for fa olanning	amily	Met n planning	eed for fa (currently	ımily y using)	Total der p	nand for I Ianning ¹	family	Number	Percentage	Percentage of
characteristics	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	women	or demand satisfied ²	uennanu sausneu by modern methods ³
20-24	0.0	6.0	6.0	15.0	9.8	24.8	15.0	15.7	30.8	25	80.5	69.6
25-29	3.2	5.5	8.7	24.8	21.2	46.0	28.0	26.7	54.7	47	84.2	74.1
30-34	0.0	5.7	5.7	15.3	36.5	51.9	15.3	42.2	57.5	40	90.1	90.1
35-39	0.0	8.0	8.0	5.2	57.1	62.3	5.2	65.1	70.3	52	88.6	88.6
40-44	0.0	18.2	18.2	2.2	52.5	54.7	2.2	70.7	72.9	33	75.1	72.1
45-49	0.0	18.2	18.2	0.0	62.9	62.9	0.0	81.2	81.2	23	77.5	77.5
Residence												
Urban	1.6	12.7	14.3	14.9	20.7	35.7	16.6	33.4	50.0	92	71.3	64.2
Rural	0.0	6.6	6.6	10.1	54.2	64.3	10.1	60.7	70.9	132	90.7	89.7
Wealth quintile												
Lowest	0.0	9.4	9.4	7.5	54.1	61.6	7.5	63.5	71.0	46	86.8	86.8
Second	0.0	6.4	6.4	10.9	45.9	56.8	10.9	52.3	63.2	60	89.8	89.8
Middle	0.0	9.3	9.3	14.9	30.5	45.3	14.9	39.7	54.6	23	83.0	77.2
Fourth	0.0	5.2	5.2	12.3	38.2	50.5	12.3	43.5	55.8	33	90.6	76.5
Highest	4.6	17.6	22.2	17.1	24.1	41.1	21.6	41.7	63.3	32	64.9	64.9
Total	0.7	9.3	10.0	12.2	39.6	51.8	12.9	48.9	61.8	224	83.9	80.7

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.

¹ Total demand is the sum of unmet need and met need.

² Percentage of demand satisfied is met need divided by total demand.

³ Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), and lactational amenorrhea method (LAM), and other modern methods.

⁴ Women who have had sexual intercourse within 30 days preceding the survey

met need for family planning, total demand for family planning, and percentage of the demand for family planning that is satisfied, according to background characteristics, [Bhutan NHS 2023]. Table 4.6.7 Percentage of all women and sexually active unmarried women age 15-49 with unmet need for family planning, percentage with

Dentria	Unmet	need for f olanning	amily	Met n planning	eed for fa (currently	mily / using)	Total de P	mand for Ianning ¹	family	Number	Percentage of demand	Percentage of
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	women	satisfied ²	modern methods ³
					ALI	- WOME	7					
Bumthang	0.3	7.4	7.7	13.6	42.5	56.1	13.9	49.9	63.8	327	87.9	84.5
Chhukha	0.5	8.2	8.7	12.9	41.6	54.5	13.4	49.9	63.3	875	86.2	80.3
Chhukha (Other than P/ ling Thromde)	0.4	ວ. .ນ	5.0 1	12.6	49.6	62.3	13.0	55.1	68.1	488	91.4	85.9
Phuentsholing Thromde	0.7	11.3	12.0	13.2	32.5	45.7	13.9	43.9	57.7	387	79.2	72.8
Dagana	0.9	2.9	3. 0	13.5	52.6	66.1	14.4	55.5	69.9	240	94.6	84.5
Gasa	0.0	3.3 3.3	3.3 3.3	14.3	42.6	56.9	14.3	45.8	60.1	188	94.5	91.8
Наа	1.0	2.1	3.0	18.4	51.6	70.0	19.3	53.7	73.0	237	95.8	90.9
Lhuentse	0.8 0	3.4	4.3	16.4	47.3	63.8	17.3	50.8	68.0	233	93.7	93.7
Monggar	0.0	4.8	4.8	19.1	47.1	66.2	19.1	51.8	70.9	491	93.3	87.7
Paro	0.7	6.9	7.6	13.1	48.4	61.5	13.9	55.2	69.1	473	89.0	86.3
Pema Gatshel	0.2	6.9	7.1	9.6	50.9	60.6	9.8	57.9	67.7	297	89.4	83.9
Punakha	0.0	3. 0. 0.	3.8 3.8	15.3	45.3	60.6	15.3	49.2	64.4	352	94.0	89.9
Samdrup Jongkhar	0.6	12.8	13.4	10.3	37.7	48.1	1	50.5	61.5	603	78.2	77.2
Samdrup Jongkhar (Other than SJ Thromde)	0.6	13.3	13.9	9.8	38.1	48.0	10.4	51.4	61.8	353	77.6	76.9



Dzonakhad	d	need tor ta Ianning	amily	Met n planning	eed for fa (currently	mily y using)	Total der pl	nand for i anning ¹	family	Number	Percentage of demand	Percentage of demand satisfied by
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total	women	satisfied ²	modern methods ³
Samdrup Jongkhar Thromde	0.7	11.4	12.1	11.7	36.6	48.3	12.4	48.0	60.4	250	80.0	78.0
Samtse	0.6	5.6	6.2	11.7	45.3	57.0	12.3	50.8	63.1	676	90.2	84.8
Sarpang	0.2	7.7	7.9	13.2	43.6	56.7	13.4	51.3	64.6	646	87.8	78.9
Sarpang (Other than Gelephu Thromde)	0.2	8.0	8.2	11.6	47.9	59.5	11.9	55.9	67.7	400	87.9	79.9
Gelephu Thromde	0.0	6.4	6.4	19.5	25.7	45.2	19.5	32.1	51.6	246	87.6	73.1
Thimphu	0.5	5.2	5.6	16.8	37.9	54.8	17.3	43.1	60.4	1,615	90.7	84.9
Thimphu (Other than T/ phu Thromde)	1:2	5.4	6.6	19.8	44.0	63.8	21.0	49.4	70.4	345	90.6	82.6
Thimphu Thromde	0.3	5.1	5.4	16.3	36.8	53.1	16.6	41.9	58.5	1270	90.7	85.4
Trashigang	0.0	5.7	5.7	12.4	54.8	67.1	12.4	60.5	72.9	513	92.1	89.8
Trashi Yangtse	0.8	11.3	12.1	10.6	50.7	61.3	11.3	62.1	73.4	250	83.5	82.4
Trongsa	0.0	7.2	7.2	8.6	40.0	48.6	8.6	47.2	55.8	298	87.1	82.2
Tsirang	0.0	4.7	4.7	13.3	51.7	64.9	13.3	56.4	69.6	299	93.3	87.1
Wangdue	0.0	5.3	5.3	15.0	51.7	66.7	15.0	56.9	71.9	362	92.7	88.3
Zhemgang	0.4	5.3	5.7	17.0	39.9	56.9	17.4	45.2	62.6	282	6.06	90.1
Total	0.4	6.2	6.6	14.2	44.5	58.6	14.6	50.7	65.3	9257	6.68	85.0

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.

¹ Total demand is the sum of unmet need and met need.

² Percentage of demand satisfied is met need divided by total demand.

³ Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), and lactational amenorrhea method (LAM), and other modern methods.

⁴ Women who have had sexual intercourse within 30 days preceding the survey.



Table 4.7.1 Age-specific and total fertility rates, general fertility rate, and crude birth rate for the 3 years preceding the survey, according to residence, [Bhutan, NHS 2023].

	Resid	lence	
	Urban	Rural	Percentage who never had sexual intercourse
10-14	[x]	[X]	[x]
15-19	14.8	22.1	18.6
20-24	81.0	142.5	113.4
25-29	131.7	139.4	135.8
30-34	106.6	96.7	101.1
35-39	48.0	43.7	45.4
40-44	12.0	14.7	13.8
45-49	[3.5]	[3.8]	3.5
TFR (15-49)	2.0	2.0	2.0
GFR	74.3	76.0	75.2
CBR	20.0	16.0	18.0

Notes: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1-36 months preceding the interview. Rates for the 10-14 age group are based on retrospective data from women age 15-17.

TFR: Total fertility rate expressed per woman.

GFR: General fertility rate expressed per 1,000 women age 15-44.

CBR: Crude birth rate expressed per 1,000 population.



Table 4.7.2 Total fertility rate for the 3 years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	1.98	3.0	2.7
Rural	2.31	2.7	3.2
Dzongkhag			
Bumthang	2.08	2.7	3.0
Chhukha	2.12	3.5	2.9
Chhukha (Other than P/ling Thromde)	2.37	3.2	3.0
Phuentsholing Thromde	1.87	3.9	2.6
Dagana	2.19	2.8	3.2
Gasa	1.69	3.5	2.8
Наа	1.93	1.9	2.8
Lhuentse	2.48	0.9	3.6
Monggar	2.27	2.9	3.5
Paro	2.07	2.5	2.8
Pema Gatshel	1.74	3.7	3.1
Punakha	2.09	2.2	3.3
Samdrup Jongkhar	1.85	2.8	3.2
Samdrup Jongkhar (Other than S/J Thromde)	1.88	2.7	3.1
Samdrup Jongkhar Thromde	1.80	3.3	3.2
Samtse	2.18	1.9	3.0
Sarpang	2.30	3.2	2.9
Sarpang (Other than Gelegphu Thromde)	2.31	3.0	3.0
Gelegphu Thromde	2.63	3.9	2.7



Background characteristics	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Thimphu	1.97	3.2	2.7
Thimphu (Other than Thimphu Thromde)	2.38	6.5	3.1
Thimphu Thromde	1.89	2.5	2.6
Trashigang	2.89	2.1	3.5
Trashi Yangtse	3.04	4.3	3.4
Trongsa	2.73	4.0	2.9
Tsirang	2.46	2.3	3.0
Wangdue Phodrang	2.59	3.0	3.0
Zhemgang	1.87	2.0	3.3
Education			
None	2.19	1.7	3.2
Primary or less	2.60	3.5	3.0
Lower secondary	2.69	3.1	2.5
Middle secondary	2.65	4.3	2.3
Higher secondary	2.09	3.3	2.2
Certificate/Diploma	2.35	2.7	2.0
Bachelor & above	1.62	2.8	1.8
Wealth quintile			
Least Income (Q1)	2.10	2.0	3.2
Lower (Q2)	2.03	2.2	3.2
Middle (Q3)	2.37	3.7	3.1
Upper (Q4)	2.18	3.0	2.9
Highest Income (Q5)	2.08	2.9	2.7
Total	2.0	2.8	3.0

Note: Total fertility rates are for the period 1-36 months preceding the interview.


Table 4.7.3 Percentage of women age 15-49 currently pregnant, according to 5 years age-group, [Bhutan, NHS 2023].

Age	Percentage of women age 15-49 currently pregnant	Number of women
Age-group		
15-19	1.1	784
20-24	4.1	892
25-29	4.7	1401
30-34	2.0	1757
35-39	0.3	1766
40-44	0.1	1415
45-49	2.8	1210
Total	2.8	9225

Table 4.7.4 Age-specific fertility rates for 5-year periods preceding the survey, according to age group, [Bhutan, NHS 2023].

A .co		Number of years	preceding survey	
Age	0-4	5-9	10-14	15-19
15-19	23.3	35.6	54.0	72.4
20-24	114.3	120.8	150.2	168.4
25-29	132.0	124.4	139.7	147.7
30-34	96.2	81.8	87.2	99.9
35-39	47.5	45.9	[45.5]	
40-44	12.6	[24.8]		
45-49	[4.8]			
45-49	2.8	1210		
Total	2.8	9225		

Notes: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview. For the 0-4 year period, rates for the 10-14 age group are based on retrospective data from women age 15-19.

Table 4.7.5 Age specific and total fertility rates (TFR) for the 3-year period preceding several surveys, according to mother's age at the time of the birth, [Bhutan, NHS 2023].

Mathavia and at histh	NHS 2000	NHS 2012	Current NHS 2023
Mother's age at birth	Period 1	Period 2	Period 3
15-19	61.7	28.4	18.6
20-24	245.4	134.7	113.4
25-29	248.7	141.9	135.8
30-34	162.2	75.8	101.1
35-39	116.3	52.5	45.4
40-44	79.7	16.9	13.8
45-49	[24.2]	[4.2]	[3.5]
Total	4.7	2.3	2.0

Notes: Age-specific fertility rates are per 1,000 women. Rates for the 45-49 age group may be slightly biased due to truncation and are therefore displayed in brackets.

Table 4.7.6 Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born and mean number of living children, according to age group, [Bhutan, NHS 2023].

			Num	ber of	childre	in eve	r born					Mean number of	Mean number of
Age group	0	-	2	m	4	ß	ဖ	7	\$	lotal	Number of Women	children ever born	living children
										AII WOMEN			
15-19	96.9	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0	784	0.03	1.09
20-24	70.5	23.8	5.1	0.5	0.0	0.1	0.0	0.0	0.0	100.0	892	0.36	1.17
25-29	29.9	36.8	25.5	7.0	0.7	0.1	0.0	0.0	0.0	100.0	1401	1.12	1.50
30-34	10.3	25.0	38.5	20.0	4.5	1.4	0.2	0.0	0.0	100.0	1757	1.89	1.83
35-39	5.0	10.9	35.8	31.4	11.6	4.0	1.0	0.3	0.1	100.0	1766	2.52	2.06
40-44	5.1	7.9	26.8	32.2	18.9	6.7	1.5	0.7	0.3	100.0	1415	2.83	1.90
45-49	3.2	5.9	22.7	28.9	21.7	10.4	4.1	2.0	0.9	100.0	1210	3.24	1.73
Total	23.7	17.0	25.7	19.7	8.9	3.4	1.0	0.4	0.2	100.0	9225	1.90	1.80
								υ	URRE	VTLY MARRIED WOMI	Z		
15-19	78.3	19.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100	0.31	1.36
20-24	49.7	40.2	0.0	6.0	0.0	0.2	0.0	0.0	0.0	100.0	482	0.53	1.27
25-29	21.2	40.9	29.6	7.5	0.8	0.1	0.0	0.0	0.0	100.0	1144	1.14	1.50
30-34	6.9	25.0	40.5	21.3	4.5	1.6	0.3	0.0	0.0	100.0	1565	1.80	1.80
35-39	3.0	9.5	36.6	32.9	12.4	4.1	::	0.3	0.1	100.0	1568	2.34	2.00
40-44	2.8	6.6	26.9	34.3	19.9	7.0	1.5	0.7	0.4	100.0	1230	2.56	1.83
45-49	1.9	5.0	22.8	29.9	22.5	10.6	4.2	2.2	0.0	100.0	1027	2.86	1.67
Total	10.8	19.0	30.3	23.4	10.5	4.0	1 2	0.5	0.2	100.0	7116	1.1	1.41



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Table 4.7.7 Percent distribution of non-first births in the 5 years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, [Bhutan, NHS 2023].

Rackround characterics		Ō	nths since p	oreceding b	iirth		Total	Median number of months
	0	-	7	m	4	വ		since preceding birth
Mother's age								
15-19	100.0	0.0	0.0	0.0	0.0	0.0	100.0	13.0
20-29	9.4	8.0	20.5	23.2	17.6	21.3	100.0	84.3
30-39	3.4	5.1	11.2	13.6	14.9	51.9	100.0	83.7
40-49	1.8	1.4	6.7	8. S	12.1	74.2	100.0	127.1
Sex of preceding birth								
Male	2.1	5.9	13.8	15.2	16.3	46.6	100.0	65.6
Female	2.9	5.3	13.0	15.7	15.0	48.1	100.0	65.4
Survival of preceding birth								
Living	2.3	5.3	13.4	15.5	15.7	47.9	100.0	66.0
Dead	15.4	27.6	17.2	10.8	17.6	11.4	100.0	41.2
Birth order								
2-3	2.3	5.7	13.1	16.1	15.9	46.8	100.0	63.5
4-6	3.2	5.0	14.4	12.1	14.6	50.7	100.0	88.0
7+	6.6	8.6	32.3	8.2	10.3	34.0	100.0	45.0
Residence								
Urban	5.4	4.7	14.6	13.2	15.5	46.6	100.0	111.3
Rural	4.4	6.0	12.0	16.4	15.2	45.9	100.0	93.1
Dzongkhag								

		Mor	nths since p	oreceding b	irth		L L	Median number of months
הפראקו טעווע כוופו פרופוואורא	0	-	7	m	4	പ	10191	since preceding birth
Bumthang	2.2	6.8	7.0	13.3	21.8	48.9	100.0	68.6
Chhukha	6.5	4.0	8.0	13.9	15.4	52.1	100.0	82.0
Chhukha (Other than P/ling Thromde)	7.9	5.1	4.2	12.7	16.8	53.2	100.0	69.9
Phuentsholing Thromde	4.3	2.2	14.2	15.9	13.2	50.2	100.0	95.1
Dagana	0.0	3.0	12.9	9.8	11.9	62.4	100.0	86.8 8
Gasa	7.2	3.2	10.2	6.7	28.7	44.0	100.0	69.7
Наа	0.0	3.7	29.6	36.0	11.9	19.0	100.0	45.3
Lhuentse	4.5	4.4	9.5	16.2	10.9	54.5	100.0	70.0
Monggar	1.8	1.6	20.7	14.7	7.2	54.0	100.0	81.0
Paro	4.9	10.2	00. 00	20.9	9.7	45.5	100.0	88.4
Pema Gatshel	2.4	4.4	11.0	14.5	22.2	45.5	100.0	64.0
Punakha	14.4	1.5	10.7	15.4	26.5	31.6	100.0	52.0
Samdrup Jongkhar	9.7	6.8	16.9	16.4	12.5	37.8	100.0	61.0
Samdrup Jongkhar (Other than S/J Thromde)	13.0	6.8	16.4	16.2	10.0	37.6	100.0	56.3
Samdrup Jongkhar Thromde	1.4	6.6	17.9	16.8	18.9	38.4	100.0	67.2
Samtse	0.8	5.5	15.5	12.8	21.8	43.5	100.0	71.1
Sarpang	4.4	6.8	11.8	14.5	13.8	48.6	100.0	86.4
Sarpang (Other than Gelegphu Thromde)	4.9	7.6	11.2	14.8	14.7	46.8	100.0	59.7
Gelegphu Thromde	2.2	2.9	15.0	13.1	9.2	57.7	100.0	102.0
Thimphu	6.1	5.6	11.1	14.6	16.6	46.0	100.0	67.5
Thimphu (Other than Thimphu Thromde)	3.4	8.1	11.6	24.9	15.2	36.8	100.0	56.5
Thimphu Thromde	6.9	4.9	10.9	11.8	17.0	48.5	100.0	86.2



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		Mor	nths since I	oreceding b	irth		F	Median number of months
background characteristics	0	-	7	ĸ	4	IJ	10(3)	since preceding birth
Trashigang	4.1	5.4	13.6	15.7	10.1	51.1	100.0	78.3
Trashi Yangtse	7.4	5.0	12.0	32.6	11.8	31.2	100.0	62.2
Trongsa	1.9	7.3	19.0	9.6	18.0	44.1	100.0	68.5
Tsirang	4.0	9.2	11.7	16.3	6.6	48.9	100.0	72.2
Wangdue Phodrang	5.3	1.6	24.7	5.1	16.8	46.5	100.0	75.7
Zhemgang	0.0	6.5	16.5	18.2	16.4	42.4	100.0	72.2
Mother's education	· 							
None	1.7	3.1	10.2	10.4	14.3	60.3	100.0	101.3
Primary or less	4.6	2.0	9.4	13.0	12.0	59.0	100.0	79.5
Lower secondary	7.1	7.2	13.7	17.8	13.6	40.6	100.0	70.3
Middle secondary	5.4	4.7	17.0	19.8	16.7	36.4	100.0	70.5
Higher secondary	5.5	11.8	14.5	17.9	20.7	29.6	100.0	78.0
Certificate/Diploma	15.4	7.3	22.1	12.7	10.5	32.0	100.0	71.1
Bachelor & above	9.8	8.4	12.2	14.8	12.9	42.0	100.0	64.8
Wealth quintile								
Least Income (Q1)	4.1	3.0	12.8	15.7	15.1	49.3	100.0	121.0
Lower (Q2)	2.5	6.9	12.4	14.7	13.5	49.9	100.0	124.2
Middle (Q3)	4.9	3.9	12.5	14.0	16.3	48.5	100.0	90.4
Upper (Q4)	5.6	6.3	13.6	15.9	15.4	43.2	100.0	72.4
Highest Income (Q5)	6.0	6.6	14.0	15.5	15.7	42.2	100.0	77.0
Total	4.8	5.5	13.1	15.1	15.3	46.2	100.0	

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

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Table 4.7.8 Percentage of live births and stillbirths in the 3 years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, according to number of months since birth, and median and mean durations, [Bhutan, NHS 2023].

Months	Percentage o	of births for which t	he mother is:	Number of births ²	Number of births ²
since birth	amenorrhoeic	Abstaining	Insusceptible ¹	(un-weighted)	(weighted)
< 2	18.0	28.0	29.0	67	67
2-3	13.0	17.0	21.0	87	85
4-5	10.0	9.0	17.0	119	116
6-7	9.0	7.0	13.0	88	94
8-9	14.0	11.0	18.0	111	105
10-11	9.0	12.0	18.0	106	102
12-13	4.0	11.0	13.0	92	93
14-15	9.0	9.0	14.0	83	87
16-17	6.0	5.0	9.0	101	98
18-19	7.0	10.0	15.0	106	114
20-21	3.0	4.0	6.0	99	87
22-23	4.0	14.0	15.0	101	108
24-25	2.0	8.0	11.0	84	85
26-27	3.0	5.0	8.0	92	92
28-29	1.0	10.0	11.0	125	123
30-31	4.0	7.0	8.0	115	111
32-33	5.0	13.0	15.0	105	98
34-35	3.0	9.0	11.0	98	102
Total	6.0	10.0	13.0	1779	1766
Median	1.0	1.0	1.0	na	na
Mean	3.0	5.0	6.0	na	na

Note: Estimates are based on status at the time of the survey.

na = Not applicable.

¹ Includes live births and stillbirths for which mothers are either still amenorrhoeic or still abstaining (or both) following birth.

² Includes live birth and stillbirths.



Table 4.7.9 Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following live births and stillbirths in the 3 years preceding the survey, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility ¹
Mother's age			
15-29	1.0	1.0	1.0
30-49	1.0	1.0	1.0
Residence			
Urban	1.0	1.0	1.0
Rural	1.0	1.0	1.0
Dzongkhag			
Bumthang	1.0	1.0	1.0
Chhukha	1.0	1.0	1.0
Dagana	1.0	1.0	1.0
Gasa	2.0	2.0	2.0
Наа	1.0	1.0	1.0
Lhuentse	1.0	1.0	1.0
Monggar	1.0	1.0	1.0
Paro	2.0	2.0	2.0
Pema Gatshel	1.0	1.0	1.0
Punakha	1.0	1.0	1.0
Samdrup Jongkhar	1.0	1.0	1.0
Samtse	1.0	1.0	1.0
Sarpang	1.0	2.0	2.0
Thimphu	1.0	1.0	1.0



Background characteristics	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility ¹
Trashigang	1.0	1.0	1.0
Trashi Yangtse	1.0	1.0	1.0
Trongsa	1.0	1.0	1.0
Tsirang	1.0	1.0	1.0
Wangdue Phodrang	2.0	2.0	2.0
Zhemgang	1.0	1.0	1.0
Mother's education			
None	1.0	1.0	1.0
Primary or less	1.0	1.0	1.0
Lower secondary	1.0	1.0	1.0
Middle secondary	1.0	1.0	1.0
Higher secondary	1.0	1.0	1.0
Certificate/Diploma	1.0	1.0	1.0
Bachelor & above	1.0	1.0	1.0
Wealth quintile			
Least Income (Q1)	1.0	1.0	1.0
Lower (Q2)	1.0	1.0	1.0
Middle (Q3)	1.0	1.0	1.0
Upper (Q4)	1.0	1.0	1.0
Highest Income (Q5)	1.0	1.0	1.0
Total	1.0	1.0	1.0

Note: Medians are based on the status at the time of the survey (current status).

¹Includes live births and stillbirths for which mothers are either still amenorrhoeic or still abstaining (or both) following birth.



Age	Percentage menopausal ¹	Number of women
30-34	3.5	784
35-39	2.2	892
40-41	0.9	1401
42-43	0.8	1757
44-45	0.2	1766
46-47	0.0	1415
48-49	0.0	1210
Total	1.1	9225

Table 4.7.10 Percentage of women age 30-49 who are menopausal, according to age, [Bhutan, NHS 2023].

¹ Percentage of women who 1) are not pregnant, and 2) have had a birth in the past 5 years and are not postpartum amenorrhoeic, and 3) for whom one of the following additional conditions applies: a) whose last menstrual period occurred 6 or more months preceding the survey, or b) declared that they are in menopause or have had a hysterectomy, or c) have never menstruated

Table 4.7.11 Percentage of women age 15-49 who had a live birth by specific exact ages, percentage who have never had a live birth, and median age at first live birth, according to current age, [Bhutan, NHS 2023].

Curren <u>t</u>	Percent	age who h	nad a live	birth by e	kact age	Percentage who <u>have</u>	Number	Median age at
age	15	18	20	22	25	never had a live birth	of women	first live birth
15-19	0.0	na	na	na	na	96.6	784	а
20-24	0.4	4.1	11.0	na	na	70.4	892	a
25-29	1.0	7.8	17.9	31.9	53.9	29.9	1401	24.4
30-34	1.3	11.0	23.4	38.2	59.1	10.3	1757	23.5
35-39	2.0	14.4	30.4	47	67.6	5.0	1766	22.4
40-44	2.5	16.4	34.4	50.7	68	5.1	1415	21.9
45-49	1.6	14.3	35.8	54.7	73.6	3.2	1210	21.5
Total	1.4	11.9	26.3	44	64.1	23.7	9225	
20-49	1.2	9.1	20.3	na	na	13.0	8462	а
25-49	1.3	9.6	21.1	33.1	48.2	8.0	7559	22.8

na = Not applicable due to censoring.

a = Omitted because less than 50% of women had a birth before reaching the beginning of the age group.



Table 4.7.12 Median age at first live birth among women age 25-49, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Women age 25-49
Residence	
Urban	23.9
Rural	21.9
Dzongkhag	
Bumthang	22.8
Chhukha	23.4
Chhukha (Other than P/ling Thromde)	22.6
Phuentsholing Thromde	24.5
Dagana	21.7
Gasa	22.6
Наа	23.4
Lhuentse	21.7
Monggar	21.8
Paro	23.1
Pema Gatshel	22.9
Punakha	22.3
Samdrup Jongkhar	22.7
Samdrup Jongkhar (Other than S/J Thromde)	22.3
Samdrup Jongkhar Thromde	23.8
Samtse	22.7
Sarpang	22.1
Sarpang (Other than Gelegphu Thromde)	21.8
Gelegphu Thromde	24.1

Background characteristics	Women age 25-49
Thimphu	24.2
Thimphu (Other than Thimphu Thromde)	22.9
Thimphu Thromde	24.6
Trashigang	20.7
Trashi Yangtse	21.4
Trongsa	22.2
Tsirang	22.0
Wangdue Phodrang	22.8
Zhemgang	22.0
Education	
None	20.9
Primary or less	20.8
Lower secondary	21.7
Middle secondary	24.0
Higher secondary	а
Certificate/Diploma	а
Bachelor & above	а
Wealth quintile	
Least Income (Q1)	21.8
Lower (Q2)	22.0
Middle (Q3)	22.6
Upper (Q4)	22.9
Highest Income (Q5)	24.3
Total	22.8

a = Omitted because less than 50% of the women had a birth before reaching the beginning of the age group.



Table 4.7.13 Percentage of live births and stillbirths in the 3 years preceding the survey for which mothers are postpartum amenorrhoeic, abstaining, and insusceptible, according to number of months since birth, and median and mean durations, [Bhutan, NHS 2023].

	Percentage	Number		
Background characteristics	Have ever had a live birth	Are currently pregnant	Have ever been pregnant	of women
Age				
15	0.0	1.0	1.7	136
16	0.7	0.0	0.7	144
17	4.1	0.0	5.0	154
18	2.8	1.5	4.3	181
19	6.9	2.8	9.6	169
Residence				
Urban	2.1	0.6	5.9	372
Rural	4.0	1.6	4.5	412
Dzongkhag				
Bumthang	0.0	0.0	0.0	20
Chhukha	1.1	0.0	1.1	74
Chhukha (Other than P/ling Thromde)	1.6	0.0	1.6	51
Phuentsholing Thromde	0.0	0.0	0.0	23
Dagana	3.9	0.0	3.9	27
Gasa	6.0	7.1	13.1	5
Наа	0.0	7.6	7.6	8
Lhuentse	0.0	0.0	0.0	9
Monggar	4.9	0.0	4.9	36
Paro	0.0	0.0	0.0	36
Pema Gatshel	0.0	5.2	5.2	20
Punakha	3.2	0.0	3.2	18
Samdrup Jongkhar	0.0	0.0	0.0	45
Samdrup Jongkhar (Other than S/J Thromde)	0.0	0.0	0.0	39
Samdrup Jongkhar Thromde	0.0	0.0	0.0	6
Samtse	5.9	0.0	7.7	75
Sarpang	4.1	0.0	5.5	67



	Percentage			
Background characteristics	Have ever had a live birth	Are currently pregnant	Have ever been pregnant	of women
Sarpang (Other than Gelegphu Thromde)	5.3	1.2	5.3	45
Gelegphu Thromde	1.2	0.0	5.7	22
Thimphu	2.5	3.0	3.7	204
Thimphu (Other than Thimphu Thromde)	0.0	3.0	3.0	36
Thimphu Thromde	3.0	0.8	3.8	168
Trashigang	10.9	3.6	14.5	43
Trashi Yangtse	6.2	0.0	6.2	10
Trongsa	0.0	0.0	0.0	8
Tsirang	4.1	3.9	8.0	24
Wangdue Phodrang	2.0	7.4	9.4	26
Zhemgang	2.0	0.0	2.0	29
Education				
None	0.0	0.0	0.0	7
Primary or less	12.4	6.5	18.9	23
Lower secondary	4.4	1.9	6.3	140
Middle secondary	4.1	1.6	6.6	242
Higher secondary	0.8	0.2	1.1	353
Certificate/Diploma	44.7	0.0	44.7	5
Bachelor & above	0.0	0.0	0.0	14
Wealth quintile				
Least Income (Q1)	5.5	0.9	6.4	118
Lower (Q2)	4.1	1.4	5.5	125
Middle (Q3)	3.1	2.6	6.6	178
Upper (Q4)	1.1	0.1	1.7	193
Highest Income (Q5)	2.8	0.6	3.4	170
Total	3.1	1.1	4.5	784

¹Stillbirth, miscarriage, or abortion.



Table 4.8.1 Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, [Bhutan, NHS 2023].

Desire for skildner	Number of living children							
Desire for children	0	1	2	3	4	5	6+	15-49
WOMEN ¹								
Have another soon ²	19.9	15.3	3.8	1.4	0.4	1.8	4.5	7.3
Have another later ³	20.6	31.4	6.3	1.2	0.6	0.0	3.4	11.3
Have another, undecided when	4.4	1.3	0.8	0.1	0.3	0.0	0.0	1.0
Undecided	40.0	19.8	10.5	4.0	2.5	0.6	5.8	13.2
Want no more	7.6	29.0	70.9	81.0	85.6	81.8	76.4	59.0
Sterilized ⁴	0.5	1.3	6.1	10.6	9.5	12.1	7.3	5.9
Declared infecund	7.0	1.9	1.6	1.6	1.1	3.8	2.7	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	681	1342	2133	1522	548	167	723	7116

¹ The number of living children includes a woman's current pregnancy.

² Wants next birth within 2 years.

³ Wants to delay next birth for 2 or more years.

⁴ Includes both female and male sterilization.

⁵ The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).



Table 4.8.2 Percentage of currently married women age 15-49 who want no more children by number of living children, according to background characteristics, [Bhutan, NHS 2023].

	Number of living children ¹								
Background characteristics	0	1	2	3	4	5	6+	15-49	
Residence									
Urban	8.6	29.0	68.9	74.8	77.4	72.8	55.9	53.2	
Rural	7.3	28.3	65.5	70.8	70.6	70.1	68.9	57.3	
Education									
None	7.4	37.0	68.5	72.0	72.4	67.7	69.0	65.8	
Primary or less	20.3	33.4	66.4	68.4	72.3	78.2	64.8	62.0	
Lower secondary	0.0	26.2	68.4	78.9	78.8	74.6	52.4	57.6	
Middle secondary	6.1	24.4	66.6	76.7	70.4	88.4	57.9	49.3	
Higher secondary	9.2	25.7	66.8	67.5	67.9	100.0	35.9	36.2	
Certificate/Diploma	3.9	7.1	64.9	83.1	0.0	-	0.0	34.2	
Bachelor & above	7.7	35.7	60.4	70.0	83.9	-	58.0	38.2	
Wealth quintile							·		
Least Income (Q1)	9.6	36.4	64.5	73.3	77.7	64.1	74.1	60.5	
Lower (Q2)	5.8	28.3	70.2	75.3	63.7	76.0	68.7	57.5	
Middle (Q3)	9.9	24.2	69.7	68.3	77.2	66.9	67.1	54.6	
Upper (Q4)	10.2	27.5	65.1	67.1	71.1	82.8	59.1	53.8	
Highest Income (Q5)	5.3	29.8	65.3	77.7	71.3	67.2	54.6	53.3	
Total	8.0	28.6	67.0	72.3	72.5	70.8	65.6	55.6	

Note: Women who have been sterilized or whose husband has been sterilized are considered to want no more children.

- Not computed, insufficient number of cases to report the percentage of women who want no more children.

¹ The number of living children includes a woman's current pregnancy.



Table 4.8.3 Percent distribution of women age 15-49 by ideal number of children and mean ideal number of children for all people and for currently married people, according to the number of living children, [Bhutan, NHS 2023].

	Number of living children							Total	
ideal number of children	0	1	2	3	4	5	6+	Total	
WOMEN ¹									
0	25.0	11.2	13.5	14.7	14.6	17.7	14.3	16.2	
1	7.6	15.8	5.0	2.5	0.3	0.0	1.8	6.3	
2	47.3	47.9	49.9	25.6	23.2	11.5	22.4	39.7	
3	12.5	20.4	21.7	44.6	28.4	34.4	33.0	25.2	
4	1.0	2.4	6.7	6.3	25.3	8.3	14.8	6.6	
5	0.4	0.4	1.4	2.9	2.6	19.8	6.9	2.2	
6+	0.0	0.1	0.2	1.1	2.3	4.8	3.6	0.8	
Non-numeric response	6.3	1.7	1.6	2.3	3.3	3.5	3.2	3.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of women									
Mean ideal number of children for: ²									
All women	1.6	1.9	2.1	2.4	2.7	3.0	2.7	2.1	
Number of women	2096	1544	2331	1652	613	188	799	9224	
Currently married women	2.0	1.9	2.1	2.4	2.7	3.1	2.7	2.3	
Number of currently married women	681	1342	2133	1522	548	167	723	7116	

Note: Women who have been sterilized or whose husband has been sterilized are considered to want no more children.

- Not computed, insufficient number of cases to report the percentage of women who want no more children.

¹ The number of living children includes a woman's current pregnancy.



Table 4.8.4 Mean ideal number of children for all women age 15-49, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Mean	Number of women ¹
Age		
15-19	1.3	706
20-24	1.7	859
25-29	2.0	1363
30-34	2.1	1718
35-39	2.2	1729
40-44	2.3	1379
45-49	2.5	1172
Residence		
Urban	2.1	3757
Rural	2.2	5168
Dzongkhag		
Bumthang	2.0	254
Chhukha	2.2	795
Chhukha (Other than P/ling Thromde)	2.2	412
Phuentsholing Thromde	2.2	383
Dagana	2.2	245
Gasa	2.2	42
Наа	2.3	136
Lhuentse	2.2	161
Monggar	2.7	472
Paro	1.9	680
Pema Gatshel	1.9	261
Punakha	1.5	283
Samdrup Jongkhar	1.9	385
Samdrup Jongkhar (Other than S/J Thromde)	2.0	276
Samdrup Jongkhar Thromde	1.9	109
Samtse	2.1	782

Background characteristics	Mean	Number of women ¹
Sarpang	2.0	654
Sarpang (Other than Gelegphu Thromde)	2.1	528
Gelegphu Thromde	1.6	126
Thimphu	2.1	1983
Thimphu (Other than Thimphu Thromde)	1.9	310
Thimphu Thromde	2.1	1674
Trashigang	2.2	565
Trashi Yangtse	2.3	152
Trongsa	2.3	152
Tsirang	2.2	261
Wangdue Phodrang	1.9	388
Zhemgang	2.2	274
Education		
None	2.4	3370
Primary or less	2.2	911
Lower secondary	1.9	661
Middle secondary	2.0	1590
Higher secondary	1.8	1585
Certificate/Diploma	2.1	156
Bachelor & above	1.9	651
Wealth quintile		
Least Income (Q1)	2.2	1495
Lower (Q2)	2.2	1647
Middle (Q3)	2.1	1973
Upper (Q4)	2.1	1829
Highest Income (Q5)	2.1	1981
Total	2.1	8925

¹Number of women who gave a numeric response.



Table 5.1.1 Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage who received specific vaccines by the appropriate age, [Bhutan NHS 2023].

	Children age 12-23 months:	Children age 24-35 months:				
Vaccine	Vaccinated at any time before the survey according to:	Vaccinated at any time before the survey according to:				
	Vaccination card ¹	Vaccination card ¹				
BCG	100.0	100.0				
HepB (birth dose)⁵	98.1	98.1				
ORAL POLIO VACCINE (OPV)						
0 (birth dose)	97.8	97.8				
1	100.0	100.0				
2	100.0	100.0				
3	100.0	100.0				
INACTIVATED POLIO VACCINE - (IF	PV)					
1	99.4	98.3				
2	93.3	68.3				
DPT-HepB-Hib						
1	100.0	100.0				
2	100.0	100.0				
3	100.0	100.0				
DTP 24 months	na	93.0				
Pneumococcal						
1	95.4	93.5				
2	99.9	99.7				
3	97.7	97.6				
MEASLES MUMPS & RUBELLA						
1	99.4	100.0				
2	na	95.2				
VITAMIN A (MOST RECENT)	96.4	96.7				
All basic vaccinations ⁶	99.4	100.0				
All age appropriate vaccinations ⁷	89.0	82.6				
No vaccinations	0.0	0.0				
Number of children	590	552				

na = Not applicable

BCG = Bacille Calmette-Guérin

DPT = Diphtheria-pertussis-tetanus

HepB = Hepatitis B

Hib = Haemophilus influenzae type b

¹ Vaccination card, booklet or other home-based record.

² Received by age 12 months.

³ For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.

⁴ Received by age 12 months for all vaccines except MMR 2, which should be received by age 24 months.

⁵ For children whose vaccination information is based on the mother's report, children reported to have received hepatitis B (birth dose) received the vaccine within 24 hours after birth. For children whose vaccination information is based on the written record of vaccination, children are considered to have received hepatitis B (birth dose) if this vaccine is recorded on their card, regardless of when the dose was administered.
⁶ BCG, three doses of DTP-Hep B-Hib, three doses of oral polio vaccine (excluding polio vaccine given at birth), and MMR1.

⁷ For children 12-23 months: BCG, hepatitis B (birth dose), three doses of pentavalent (DTP-Hep B-Hib), FOUR doses of oral polio vaccine, THREE doses of pneumococcal vaccine, and MMR1. For children 24-35 months, all of these plus MMR2.



Table 5.2.1 Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, [Bhutan, NHS 2023].

Neonatal mortality	Postneonatal	Infant	Child	Under-5 mortality
(NN)	mortality (PNN) ¹	mortality	mortality	
6.9	8.3	15.2	4.3	19.5

¹ Computed as the difference between the infant and neonatal mortality rates.

Table 5.2.2 Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 5-year period preceding the survey, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality	Child mortality	Under-5 mortality
Male	8.9	11.5	20.5	3.8	24.2
Female	4.8	4.9	9.6	4.9	14.5
Urban	5.0	7.9	12.9	1.0	13.7
Rural	8.3	8.6	16.9	6.7	23.5
Total	6.9	8.3	15.2	4.3	19.5

¹ Computed as the difference between the infant and neonatal mortality rates.



Table 5.2.3 Neonatal, postneonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, according to additional characteristics, [Bhutan, NHS 2023].

Characteristics	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality	Child mortality	Under-5 mortality
Mother's age at birth					
<20	8.1	8.0	16.2	1.6	17.8
20-29	4.5	8.8	13.2	1.8	15.0
30-39	7.2	13.8	21.1	5.5	26.5
40-49	5.9	0.0	5.9	28.7	34.4
Birth order					
1	3.3	8.2	11.6	1.0	12.4
2-3	5.6	10.3	15.9	3.4	19.2
4-6	12.0	13.4	25.4	10.4	35.6
7+	0.0	35.9	35.9	0.0	35.9
Previous birth interval ²	*				
<2 years	3.9	12.7	16.5	5.9	22.4
2 years	13.4	18.5	31.9	1.9	33.7
3 years	3.1	1.0	3.9	2.6	6.5
4+ years	5.4	10.4	15.8	5.7	21.4
Dzongkhag					
Bumthang	0.0	21.4	21.4	0.0	21.4
Chhukha	5.7	3.1	8.8	0.0	8.8
Chhukha (Other than P/ling Thromde)	8.4	4.7	13.1	0.0	13.2
Phuentsholing Thromde	12.2	0.0	12.2	0.0	12.2
Dagana	12.2	0.0	12.2	0.0	12.2
Gasa	0.0	7.7	7.7	0.0	7.7
Наа	10.6	7.9	18.6	10.4	28.7
Lhuentse	11.1	6.3	17.4	9.9	27.1
Monggar	0.0	30.6	30.6	2.5	32.9
Paro	2.0	2.6	4.7	0.0	4.7
Pema Gatshel	6.3	6.8	13.0	0.0	13.0
Punakha	0.0	5.0	5.0	5.0	10.0
Samdrup Jongkhar	10.8	8.1	18.8	2.8	21.5



Characteristics	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality	Child mortality	Under-5 mortality
Samdrup Jongkhar (Other than S/J Thromde)	13.2	9.5	22.7	2.0	24.7
Samdrup Jongkhar Thromde	4.2	4.3	8.5	4.8	13.2
Samtse	6.6	15.8	22.4	12.1	34.3
Sarpang	2.1	7.7	9.7	4.9	14.6
Sarpang (Other than Gelegphu Thromde)	6.6	15.8	22.4	12.1	34.3
Gelegphu Thromde	0.0	7.3	7.3	5.8	13.0
Thimphu	2.6	11.5	14.1	1.4	15.5
Thimphu (Other than Thimphu Thromde)	0.0	7.3	7.3	5.8	13.0
Thimphu Thromde	12.0	9.3	21.3	0.0	21.3
Trashigang	5.7	11.8	17.4	6.6	23.9
Trashi Yangtse	0.0	5.8	5.8	7.3	13.0
Trongsa	3.9	17.9	21.8	0.0	21.8
Tsirang	37.6	16.7	54.3	11.6	65.2
Wangdue Phodrang	0.0	1.7	1.7	0.0	1.7
Zhemgang	22.4	3.9	26.3	0.0	26.3
Education					
None	7.7	14.0	21.7	4.4	26.0
Primary or less	7.3	5.4	12.7	5.7	18.4
Lower secondary	5.7	4.4	10.1	1.9	12.0
Middle secondary	4.3	11.1	15.4	2.0	17.3
Higher secondary	3.7	10.7	14.4	2.6	16.9
Certificate/Diploma	0.0	0.0	0.0	0.0	0.0
Bachelor & above	1.1	3.1	4.2	0.0	4.2
Wealth quintile					
Least Income (Q1)	9.2	11.6	20.7	7.6	28.2
Lower (Q2)	4.4	6.2	10.6	2.8	13.4
Middle (Q3)	6.3	11.3	17.6	1.8	19.3
Upper (Q4)	5.0	13.8	18.8	3.9	22.6
Highest Income (Q5)	4.0	8.0	12.0	1.9	13.9

¹ Computed as the difference between the infant and neonatal mortality rates.
² Excludes first-order births.

stillbirths to early neonatal deaths for the 5-year period preceding the survey, according to background characteristics, [Bhutan, NHS 2023]. Table 5.2.4 Number of stillbirths, number of early neonatal deaths, stillbirth rate, early neonatal rate, perinatal mortality rate, and the ratio of

Background characteristics	Number of stillbirths ¹	Number of early neonatal deaths ²	Number of perinantal deaths	Stillbirth rate ³	Early neonatal rate ⁴	Perinatal mortality rate ⁵	Number of pregnancies of 7+ months duration
Mother's age at birth							
<20	~	0	~	10.9	0.0	10.9	92
20-29	m	4	7	1.8	2.4	4.2	1682
30-39	0	7	7	0.0	5.8	5.8 2.8	1208
40-49	0	0	o	0:0	0.0	0.0	96
Residence							
Urban	~	2	m	0.8	1.5	2.3	1292
Rural	m	ര	12	1.7	5.0	6.7	1785
Education							
None	0	9	g	0.0	6.9	6.9	874
Primary or less	~	ĸ	4	3.2	9.7	12.9	310
Lower secondary	~	0	-	3.9	0.0	3.9	259
Middle secondary	~	-	7	1.3	1.3	2.7	752
Higher secondary	_	-	7	1.8	1.8	3.6	556
Certificates/diploma	0	0	0	0:0	0.0	0.0	79
Bachelor & above	0	o	o	0:0	0.0	0.0	248
Wealth quintile							
Least income (Q1)	2	വ	7	4.6	11.4	15.9	439
Lower (Q2)	0	2	7	0.0	3.8	3.8	527
Middle (Q3)	2	7	4	2.7	2.7	5.3	751
Upper (Q4)	0	o	o	0.0	0.0	0.0	646
Highest income (Q5)	0	7	7	0.0	2.8	2.8	715
Total	4	1	15	1.3	3.6	4.9	3077

Stillbirths are fetal deaths in pregnancies lasting 7 or more months.

-

2

Early neonatal deaths are deaths at age 0-6 days among live-born children.

Stillbirth rate: the number of stillbirths divided by the number of pregnancies of 7 or more months' duration, expressed per 1,000. Early neonatal rate: the number of early neonatal deaths divided by the number of live births, expressed per 1,000.

4

Perinatal mortality rate: the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of 7 or more months' duration, expressed per 1,000. ß



Table 5.3.1 Percentage of live births in the 2 years preceding the survey that have a reported birth weight, and among live births in the 2 years preceding the survey with a reported birth weight, percentage less than 2.5 kg, according to background characteristics, [Bhutan NHS 2023].

	Percentage of births	Number	Among births with a report	ted birth weight ¹
Background characteristics	that have a reported birth weight ¹	of births	Percentage less than 2.5 kg	Number of births
Mother's age				
<20	100.0	20	2.5	20
20–34	98.9	945	5.9	932
35–49	97.4	272	10.9	264
Mother's education				•
None	97.1	310	12.7	300
Primary or less	96.2	116	6.6	112
Lower Secondary	98.7	109	5.7	107
Middle Secondary	99.6	310	5.4	309
Higher Secondary	99.9	256	3.9	254
Certificates/Diploma	98.7	98	5.0	96
Bachelor/Master/PhD	100.0	38	4.0	38
Location		*		•
Urban	99.1	515	4.9	509
Rural	98.2	722	8.4	707
Income Quintiles				
Least Income (Q1)	97.1	186	7.1	179
Lower (Q2)	99.2	208	6.4	205
Middle (Q3)	98.6	303	6.7	299
Upper (Q4)	98.6	266	6.6	263
Highest Income (Q5)	99.1	274	7.7	270
Total	98.6	1237	6.9	1216

¹ Based on either a written record or the mother's recall.



Table 5.3.2 Percentage of live births in the 2 years preceding the survey that have a reported birth weight, and among live births in the 2 years preceding the survey with a reported birth weight, percentage less than 2.5 kg, according to Dzongkhag, [Bhutan NHS 2023].

	Percentage of births	Number	Among births with a report	ed birth weight ¹
Background characteristics	that have a reported birth weight ¹	of births	Percentage less than 2.5 kg	Number of births
Bumthang	100.0	49	7.3	49
Chhukha	97.8	121	6.7	118
Chhukha (Other than P/ling Thromde)	99.2	68	7.3	67
Phuentsholing Thromde	96.0	53	5.9	51
Dagana	97.8	20	18.5	19
Gasa	100.0	25	33.8	25
Наа	97.5	29	3.6	28
Lhuentse	100.0	40	2.7	39
Monggar	98.5	66	6.1	64
Paro	99.2	69	6.3	68
Pema Gatshel	100.0	29	0.0	29
Punakha	100.0	47	16.3	47
Samdrup Jongkhar	100.0	64	5.7	64
Samdrup Jongkhar (Other than SJ Thromde)	100.0	32	7.0	32
Samdrup Jongkhar Thromde	100.0	32	3.0	32
Samtse	100.0	86	4.6	86
Sarpang	98.5	83	7.3	82
Sarpang (Other than Gelephu Thromde)	98.1	49	6.4	48
Gelephu Thromde	100.0	34	10.5	34
Thimphu	98.9	201	6.7	197
Thimphu (Other than T/phu Thromde)	100.0	52	11.3	52
Thimphu Thromde	98.6	149	5.7	145
Trashigang	95.7	89	8.7	86
Trashi Yangtse	100.0	41	10.5	41
Trongsa	98.6	53	3.6	52
Tsirang	95.5	29	7.8	28
Wangdue	98.1	60	4.0	59
Zhemgang	97.6	36	8.5	35
Total	98.6	1,237	6.9	1,216

¹ Based on either a written record or the mother's recall.



Table 5.4.1 Percentage of children born in the last 2 years who were ever breastfed, percentage who were put to the breast within 1 hour of birth, and percentage who were exclusively breastfed for the first 2 days after birth, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Percentage ever breastfed	Percentage who started breastfeeding within 1 hour of birth	Percentage who started breastfeeding within 1 day of birth ¹	Number of last- born children
Sex			·	
Male	98.2	81.4	92.0	577
Female	97.9	82.3	92.8	558
Place of delivery	**			
Health facility	98.0	82.1	92.6	1,114
At home	100.0	60.9	76.5	15
Other	100.0	79.8	91.1	6
Type of delivery				
Vaginal birth	97.7	69.8	88.7	318
Caesarean section	98.2	86.8	93.9	817
Residence				
Urban	97.7	81.7	91.7	477
Rural	98.3	81.9	93.0	658
Mother's education				
None	97.9	86.4	94.5	275
Primary or less	97.4	77.2	87.8	100
Lower Secondary	98.8	91.0	96.9	97
Middle secondary	98.8	80.7	92.2	295
Higher secondary	96.3	75.5	89.1	245
Certificates/Diploma	100.0	83.6	92.9	35
Bachelor & above	100.0	84.4	96.1	88
Wealth quintile				
Lowest	95.6	84.2	91.4	171
Second	98.4	75.1	93.1	192
Middle	98.4	82.5	92.6	276
Fourth	98.2	82.2	92.9	246
Highest	99.0	84.4	91.8	250
Total	98.0	81.8	92.4	1,135

Note: Table is based on children born in the 2 years preceding the survey regardless of whether the children are living or dead at the time of interview.

Table 5.4.2 Among youngest children age 0-5 months living with their mother, percentage exclusively breastfeeding and percentage receiving mixed milk feeding; and among all children age 12-23 months, percentage currently breastfeeding; and among all children age 0-23 months, percentage using a bottle with a nipple, according to background characteristics, [Bhutan, NHS 2023].

Background characteristics	Percentage exclusively breast-feeding	Percentage receiving mixed milk feeding ¹	Number of children	Percentage currently breastfeeding ²	Number of children	Percentage using a bottle with a nipple	Number of children
Age in months							
0-1	84.1	5.6	49	ла	na	0.0	49
2-3	79.6	6.0	8 8	ทล	na	1.6	ŝ
4-5	55.4	11.4	109	ทล	na	2.1	109
6-11	ла	вц	ц	na	na	0.5	144
12-15	na	na	ца	92.9	267	0.0	168
16-19	na	na	ца	81.3	308	0.7	267
20-23	na	na	ца	86.7	575	1.3	308
Sex							
Male	70.1	0 .0	131	87.7	296	0.8	577
Female	68.5	6.7	110	85.6	279	0.9	558
Residence							
Urban	68.0	9.6	87	85.3	250	1.5	477
Rural	70.2	7.7	154	87.8	325	0.4	658

Background characteristics	Percentage exclusively breast-feeding	Percentage receiving mixed milk feeding ¹	Number of children	Percentage currently breastfeeding ²	Number of children	Percentage using a bottle with a nipple	Number of children
Mother's education							
None	67.8	0. 0.	63	92.8	148	0.5	275
Primary or less	78.6	3.0	22	83.8 83.8	52	0.0	100
Lower Secondary	53.2	23.3	24	84.2	52	0.0	97
Middle secondary	68.4	4.5	73	0.0 8	130	0.4	295
Higher secondary	73.0	4.2	40	85.3	126	3.0	245
Certificates/Diploma	63.5	36.5	7	83.0	15	0.0	35
Bachelor & above	93.5	6.5	12	87.3	52	0.0	80
Wealth quintile							
Lowest	72.2	4.2	43	86.0	õ	1.6	171
Second	82.8	3.5	41	80.9	102	0.7	192
Middle	59.2	11.9	23	89.1	147	0.6	276
Fourth	58.1	12.6	55	0.08	122	0.7	246
Highest	78.8	8.6	49	86.5	123	1.0	250
Total	69.4	8.4	241	86.7	575	0.9	1,135
Note: Breastfeeding status refers to a "2	24-hour" period (yesterday during	the day or at night).					

a = Not applicable.
¹ Received breast milk and infant formula and/or animal milk. Excludes yogurt drinks because they are generally not fed as a substitute for breast milk. Excludes soy and nut milks.
² Corresponds to IYCF indicator 'Continued breastfeeding.

^{5&}lt;sup>th</sup> National Health Survey

Table 5.4.3 Percent distribution of youngest children age 0-5 months living with their mother, by feeding category, according to age in months, [Bhutan, NHS 2023].

Age in months	Breast milk only (exclusively breastfed)	Breast milk and plain water only	Breast milk and non-milk liquids ¹	Breast milk and animal milk and/or infant formula ²	Breast milk and solid, semi-solid, or soft foods3	Not breastfed	Total	Number of youngest children 0-5 months living with their mother
0-1	84.1	9.5	0.0	5.6	O.8	0.0	100.0	49
2-3	79.6	8.4	0.0	6.0	1.3	4.7	100.0	83
4-5	55.4	18.8	2.8	11.4	5.8	5.8	100.0	109
0-5	69.4	13.4	1.3	8.4	3.3	4.2	100.0	241

Note: Breastreeding status refers to a "24-hour" period (yesterday during the day or at night). The categories of breast milk only, breast milk and plain water only, breast milk and hon-milk liquids, breast milk and solid, semi-solid, or soft foods, and not breastfed are hierarchical and mutually exclusive. When combined with children whose feeding category is classified as unknown due to "don't know" responses, the percentages in each row add to 100%.

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Children fed breast milk plus non-milk liquids (e.g., juice, herbal tea, sweetened water, flavored water, etc.). Children in this category may have also been fed plain water.

² Children fed breast milk plus animal milk, and/or infant formula, and/or animal milk-based yogurt drinks. Children in this category may have also been fed non-milk liquids and/or plain water. ³ Children fed breast milk plus solid, semi-solid or soft food from any food group. This may include grains, meat, eggs, fruits, vegetables, etc. Children in this category may have also been fed plain

water, non-milk liquids and/or animal milk/infant formula/animal milk-based yogurt drinks.

Table 5.4.4 Percentage of youngest children under age 2 living with their mother by type of liquids consumed in the day or night preceding the interview, according to age and breastfeeding status, [Bhutan, NHS 2023].

Number of youngest	children under age 2 living with their mother		49	77	100	131	160	257	275	226	291	532	1,049	1128
ier liquids	Sweetened		0.0	0.0	0.0	24.7	13.3	27.3	23.6	0.0	18.1	25.3	22.9	22.7
oth	Any		0.0	0.0	0.8	7.9	9.5	0.0 8	10.4	0.4	8.7	9.7	9.4	7.4
Clear broth	or clear soup		0.0	0.0	0.0	19.7	37.2	63.0	64.2	0.0	28.9	63.6	40.5	40.5
coffee, or bal drinks	Sweetened		0.0	0.0	79.4	78.9	68.8	65.1	69.1	0.0	79.1	66.8	69.1	69.1
Tea, herl	Any	REN	0.8 0	0.0	1.4	20.2	35.5	51.0	57.5	0.8	28.4	54.4	35.8	35.8
Sodas, malt drinks. sports	drinks, or energy drinks	EEDING CHILD	0.0	0.0	0.0	0.9	2.5	6.0	15.5	0.0	1.7	10.9	6.1	6.1
Fruit juice or fruit-	flavored drinks	BREASTF	0.8	0.0	5.1	36.3	75.3	87.1	92.3	2.4	57.0	89.8	62.1	62.1
rt drinks	Sweet/ flavored		64.5	49.3	45.7	47.5	47.7	87.1	92.3	54.1	46.8	47.7	62.1	62.1
Yogu	Any		0.0	0.0	0.0	6.7	12.9	28.5	41.0	0.0	10.0	35	25.3	25.3
nal milk	Sweet/ flavored		56.4	60.4	34.7	37.8	31.4	44.3	39.1	0.0	10.0	35.0	25.3	25.3
Anii	Any		0.0	2.9	5.9	12.4	19.7	34.5	43.6	3.6	16.3	39.2	25.3	25.3
Infant	formula		97.6	98.4	93.6	97.5	96.9	0.86	99.1	96.0	97.2	98.6	97.7	97.7
Plain	water		10.3	10.0	37.2	74.2	96.0	95.7	93.5	22.2	85.8	94.5	76.6	76.6
Age in	months		0-1	2-3	4-5	6-8	9-11	12-17	18-23	0-5	6-11	12-23	6-23	Total



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Table 5.5.1 Among children under age 5, percentage who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey; and among children with symptoms of ARI in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, according to background characteristics, [Bhutan NHS 2023].

	Among childre age 5:	n under	Among children	under age 5 with sympto	oms of ARI:
Background characteristics	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom advice or treatment was sought ²	Percentage for whom advice or treatment was sought the same or next day ²	Number of children
Age in months					
<6	0.8	242	62.9	0.0	2
6-11	2.9	322	70.0	13.9	10
12-23	3.3	602	70.8	35.1	24
24-35	1.2	655	45.5	45.5	7
36-47	2.8	620	78.9	33.7	16
48-59	3.4	642	51.9	48.5	17
Sex					
Male	2.2	1,599	73.2	36.8	34
Female	2.9	1,484	57.8	35.7	42
Residence					
Urban	2.6	1,268	69.3	42.7	30
Rural	2.5	1,815	60.9	30.9	46
Mother's education					
None	2.6	885	62.4	31.5	23



	Among childre age 5:	n under	Among children	under age 5 with sympto	oms of ARI:
Background characteristics	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom advice or treatment was sought ²	Percentage for whom advice or treatment was sought the same or next day ²	Number of children
Primary or less	4.1	309	52.2	19.2	14
Lower Secondary	1.4	261	90.3	90.3	3
Middle secondary	2.2	745	67.6	29.3	15
Higher secondary	2.1	569	61.8	50.7	11
Certificates/Diploma	5.6	77	66.5	50.0	6
Bachelor & above	2.5	237	79.7	36.3	4
Wealth quintile	•		•		

Wealth quintile

Lowest	1.8	438	27.1	20.0	9
Second	1.8	534	86.2	41.5	10
Middle	3.1	755	66.3	43.3	20
Fourth	2.5	629	44.4	14.9	15
Highest	3.0	727	81.6	47.7	22
Total	2.5	3,083	64.7	36.2	76

¹ Symptoms of ARI include short, rapid breathing which was chest-related and/or difficult breathing which was chest-related.

² Includes advice or treatment from the following sources: [PUBLIC SECTOR, PRIVATE MEDICAL SECTOR, NGO MEDICAL SECTOR, SHOP, MARKET, AND ITINERANT DRUG SELLER]. Excludes advice or treatment from a traditional practitioner [ADD ANY SURVEY-SPECIFIC NON-MEDI-CAL CATEGORY SUCH AS FRIENDS/RELATIVES OR CHURCH].

³ Includes stove/cookers using electricity, LPG/natural gas/biogas, solar, and alcohol/ethanol [LIST ANY ADDITIONAL CATEGORIES OF CLEAN FUELS AND TECHNOLOGIES INCLUDED IN THE SURVEY QUESTIONNAIRE].

⁴ Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung/waste, processed biomass (pellets) or woodchips, garbage/plastic, and sawdust [LIST ANY ADDITIONAL CATEGORIES OF SOLID FUELS INCLUDED IN THE SURVEY QUESTIONNAIRE].



Table 5.5.2 Among children under age 5, percentage who had symptoms of acute respiratory infection (ARI) in the 2 weeks preceding the survey; and among children with symptoms of ARI in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, by Dzongkhag, [Bhutan, NHS 2023].

	Among children under age 5:		Among children under age 5 with symptoms of ARI:			
Dzongkhag	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom advice or treatment was sought ²	Percentage for whom advice or treatment was sought the same or next day ²	Number of children	
Bumthang	2.2	121	73.4	38.3	3	
Chhukha	3.4	271	75.7	40.7	4	
Phuentshogling Thromde	3.2	120	68.5	29.7	3	
Dagana	2.8	62	75.4	0.0	2	
Gasa	2.0	58	0.0	0.0	1	
Наа	1.8	78	100.0	32.0	2	
Lhuentse	1.0	93	0.0	0.0	1	
Monggar	0.4	170	0.0	0.0	1	
Paro	1.4	158	50.0	0.0	2	
Pema Gatshel	3.1	89	54.3	27.2	3	
Punakha	0.7	115	100.0	0.0	1	
Samdrup Jongkhar	4.3	179	36.5	0.0	5	
Samdrup Jongkhar Thromde	1.3	81	0.0	0.0	1	
Samtse	8.1	188	59.0	16.2	14	
Sarpang	5.9	212	72.9	59.3	7	
Gelegphu Thromde	5.7	82	100.0	100.0	3	
Thimphu	1.8	143	60.9	28.0	3	
Thimphu Thromde	1.4	387	68.7	85.7	5	
Trashigang	0.3	193	100.0	100.0	1	
Trashi Yangtse	2.2	106	45.6	45.6	2	
Trongsa	2.7	129	66.4	0.0	3	
Tsirang	3.1	93	100.0	33.5	3	
Wangdue Phodrang	1.1	137	70.1	0.0	2	
Zhemgang	3.5	101	77.6	77.6	4	
Total	2.5	3,083	64.7	36.2	76	

¹ Symptoms of ARI include short, rapid breathing which was chest-related and/or difficult breathing which was chest-related.

² Includes advice or treatment from the following sources: [PUBLIC SECTOR, PRIVATE MEDICAL SECTOR, NGO MEDICAL SECTOR, SHOP, MARKET, AND ITINERANT DRUG SELLER]. Excludes advice or treatment from a traditional practitioner [ADD ANY SURVEY-SPECIFIC NON-MEDI-CAL CATEGORY SUCH AS FRIENDS/RELATIVES OR CHURCH].

³ Includes stove/cookers using electricity, LPG/natural gas/biogas, solar, and alcohol/ethanol [LIST ANY ADDITIONAL CATEGORIES OF CLEAN FUELS AND TECHNOLOGIES INCLUDED IN THE SURVEY QUESTIONNAIRE].

⁴ Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung/waste, processed biomass (pellets) or woodchips, garbage/plastic, and sawdust [LIST ANY ADDITIONAL CATEGORIES OF SOLID FUELS INCLUDED IN THE SURVEY QUESTIONNAIRE].

Table 5.5.3 Percentage of children under age 5 with symptoms of ARI in the 2 weeks preceding the survey for whom advice or treatment was sought from specific sources; and among children under age 5 with symptoms of ARI in the 2 weeks preceding the survey for whom advice or treatment was sought, percentage for whom advice or treatment was sought from specific sources, [Bhutan NHS 2023].

	Percentage for whom advice or treatment was sought from each source:				
Source	Among children with symptoms of ARI ¹	Among children with symptoms of ARI for whon advice or treatment was sought ¹			
Health Facilities	89.8	98.8			
Pharmacy or Medical shop	0.0	0.0			
Villlage Health Worker (VHW)	1.1	1.2			
Drungtsho/Menpa	0.0	0.0			
Local Healers	4.6	0.0			
Spiritual (Lama)	4.5	0.0			
Other	0.0	0.0			
Total	8.0	0.0			
Number of children	690	50			

Note: Advice or treatment for children with symptoms of ARI may have been sought from more than one source.

CHW = Community health worker.

NGO = Non-governmental organization.

¹ Symptoms of ARI include short, rapid breathing which was chest-related and/or difficult breathing which was chest-related.



Table 5.5.4 Among children under age 5, percentage who had a fever in the 2 weeks preceding the survey; and among children with fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage for whom advice or treatment was sought the same or next day following the onset of fever, and percentage who received antibiotics as treatment, according to background characteristics, [Bhutan NHS 2023].

	Among children under age 5:		Among children under age 5 with symptoms of ARI:			
Background characteristics	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought ¹	Percentage for whom advice or treatment was sought the same or next day ¹	Number of children with fever	
Age in months						
<6	20.2	242	49.3	29.3	51	
6-11	34.7	322	57.3	34.1	117	
12-23	43.0	602	62.8	33.0	255	
24-35	35.2	655	64.8	35.5	228	
36-47	37.4	620	64.6	32.9	228	
48-59	37.0	642	55.6	29.5	226	
Sex						
Male	38.1	1,599	60.2	32.5	592	
Female	34.6	1,484	61.9	32.9	513	
Residence						
Urban	38.4	1268	54.9	28.1	482	
Rural	34.8	1,815	66.0	36.6	623	



	Among children under age 5:		Among children under age 5 with symptoms of ARI:			
Background characteristics	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought ¹	Percentage for whom advice or treatment was sought the same or next day ¹	Number of children with fever	
Mother's education						
None	33.1	885	63.2	34.1	283	
Primary or less	39.2	309	54.5	32.4	121	
Lower Secondary	38.9	261	64.8	28.3	98	
Middle secondary	36.5	745	62.6	34.8	277	
Higher secondary	40.6	569	56.6	31.0	219	
Certificates/Diploma	36.8	77	71.4	49.1	30	
Bachelor & above	31.7	237	60.7	25.7	77	
Wealth quintile						
Lowest	27.5	438	58.3	35.0	122	
Second	36.6	534	64.5	37.9	196	
Middle	39.4	755	62.1	29.6	286	
Fourth	37.3	629	60.9	35.7	233	
Highest	37.5	727	58.4	28.8	268	
Total	36.4	3,083	60.9	32.7	1,105	

Includes advice or treatment from the following sources: [PUBLIC SECTOR, PRIVATE MEDICAL SECTOR, NGO MEDICAL SECTOR, SHOP, MARKET, AND ITINERANT DRUG SELLER]. Excludes advice or treatment from a traditional practitioner [ADD ANY SURVEY-SPECIFIC NON-MEDI-CAL CATEGORY SUCH AS FRIENDS/RELATIVES OR CHURCH].

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Table 5.5.5 Among children under age 5, percentage who had a fever in the 2 weeks preceding the survey; and among children with fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage for whom advice or treatment was sought the same or next day following the onset of fever, and percentage who received antibiotics as treatment by Dzongkhag, Bhutan, NHS 2023]

	Among children under age 5:		Among children under age 5 with symptoms of ARI:		
Dzongkhag	Percentage with symptoms of ARI ¹	Number of children	Percentage for whom advice or treatment was sought ²	Percentage for whom advice or treatment was sought the same or next day ²	Number of children
Bumthang	36.0	121	62.7	28.8	45
Chhukha	37.5	271	61.3	30.8	98
Phuentshogling Thromde	32.7	120	33.8	20.5	40
Dagana	49.8	62	70.1	34.7	29
Gasa	45.6	58	64.0	45.3	24
Наа	46.2	78	46.8	29.2	35
Lhuentse	49.6	93	57.8	39.6	47
Monggar	26.2	170	36.3	17.7	45
Paro	39.0	158	63.3	28.5	64
Pema Gatshel	23.8	89	93.3	56.6	21
Punakha	39.0	115	57.0	24.6	46
Samdrup Jongkhar	41.9	179	69.5	48.5	68
Samdrup Jongkhar Thromde	42.1	81	66.3	46.1	32
Samtse	44.5	188	66.4	29.0	84
Sarpang	41.2	130	77.6	48.0	87
Gelegphu Thromde	44.8	82	74.4	71.9	33
Thimphu	36.8	530	51.8	38.5	52
Thimphu Thromde	37.3	387	47.9	21.1	144
Trashigang	38.7	193	61.0	47.3	71
Trashi Yangtse	23.0	106	46.6	34.1	24
Trongsa	24.2	129	48.6	25.0	28
Tsirang	37.6	93	67.4	33.3	35
Wangdue Phodrang	24.3	137	73.2	28.2	35
Zhemgang	22.4	101	73.9	51.4	23
Total	36.4	3,083	60.9	32.7	1,105



Table 5.5.6 Percentage of children under age 5 who had Diarrhoea in the 2 weeks preceding the survey; and among children with Diarrhoea in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, according to background characteristics, [Bhutan NHS 2023].

		Number of children	Among children under age 5 with Diarrhoea:			
Background characteristics	Percentage with Diarrhoea		Percentage for whom advice or treatment was sought ¹	Number of children with Diarrhoea		
Age in months						
<6	15.3	242	18.2	37		
6-11	20.2	322	43.2	73		
12-23	25.4	602	56.1	148		
24-35	18.4	655	57.0	111		
36-47	13.4	620	51.7	83		
48-59	13.8	642	61.9	86		
Sex						
Male	18.6	1,603	52.0	301		
Female	16.8	1,487	53.3	238		
Residence						
Urban	19.7	1,268	50.6	251		
Rural	16.3	1,822	54.3	288		
Mother's education						
None	15.6	889	59.4	134		
Primary or less	17.8	310	52.6	54		
Lower Secondary	20.8	262	49.5	55		
Middle secondary	18.2	746	52.1	135		
Higher secondary	20.2	569	51.9	110		
Certificates/Diploma	23.7	77	34.5	18		
Bachelor & above	13.2	237	44.4	33		
Wealth quintile						
Lowest	13.9	440	49.6	62		
Second	18.3	535	51.3	95		
Middle	16.8	756	58.4	123		
Fourth	20.7	630	51.8	136		
Highest	18.0	729	50.2	123		
Total	17.7	3,090	52.6	539		

¹ 1 Includes advice or treatment from the following sources: [PUBLIC SECTOR, PRIVATE MEDICAL SECTOR, NGO MEDICAL SECTOR, SHOP, MARKET, AND ITINERANT DRUG SELLER]. Excludes advice or treatment from a traditional practitioner [ADD ANY SURVEY-SPECIFIC NON-MEDI-CAL CATEGORY SUCH AS FRIENDS/RELATIVES OR CHURCH].

² See Table 16.1 for definition of categories.

³ See Table 16.6 for definition of categories.


Table 5.5.7 Percentage of children under age 5 who had Diarrhoea in the 2 weeks preceding the survey; and among children with Diarrhoea in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, by Dzongkhag, [Bhutan, NHS 2023].

	Percentage	Number	Among children under age 5 v	vith symptoms of ARI:
Dzongkhag	with Diarrhoea	of children	Percentage for whom advice or treatment was sought ¹	Number of children with Diarrhoea
Bumthang	12.6	121	59.8	15
Chhukha	16.3	271	51.1	43
Phuentshogling Thromde	16.3	120	52.6	20
Dagana	25.2	62	46.0	16
Gasa	21.3	59	40.3	10
Наа	29.5	79	33.0	23
Lhuentse	13.9	94	39.7	13
Monggar	10.0	170	27.3	17
Paro	21.5	158	53.2	36
Pema Gatshel	10.2	89	65.1	8
Punakha	22.0	116	52.1	25
Samdrup Jongkhar	16.2	179	68.0	30
Samdrup Jongkhar Thromde	18.5	81	62.7	15
Samtse	22.4	189	61.6	41
Sarpang	17.3	213	84.0	40
Gelegphu Thromde	20.0	82	85.9	17
Thimphu	16.7	143	48.6	24
Thimphu Thromde	20.9	387	51.5	86
Trashigang	15.0	193	36.1	29
Trashi Yangtse	10.5	106	55.0	11
Trongsa	10.9	129	46.6	13
Tsirang	18.6	93	43.6	18
Wangdue Phodrang	16.8	137	44.8	24
Zhemgang	16.8	102	48.6	17
Total	17.7	3,090	52.6	539

Table 5.5.8 Percent distribution of children under age 5 who had Diarrhoea in the 2 weeks preceding the survey by amount of liquids and food given compared with normal practice, according to background characteristics, [Bhutan NHS 2023].

what less less 1.5 4.7 12.7 14.4 28.9 17.8 26.9 11.7
1.5 12.7 28.9 26.9
29.5 45.2 28.7 38.7
) 6.9) 12.6) 24.5) 17.8
100.0 0.0 0.0 0.0 0.0 0.0
9 0.0 .2 1.0 .1
12.1 0.2 19.3 2.1
12.8
-+
22.7



		Am	ount of li	quids gi	ven					Amoun	: of food	given				Number of
Background characteristics	More	Same as usual	Some- what less	Much less	None	Don't know	Total	More	Same as usual	Some- what less	Much less	None	Never gave food	Don"t know	Total	children with Diarrhoea
Mother's education																
None	33.4	35.2	15.0	12.1	6.0	3.4	100.0	20.0	26.5	33.0	14.5	0.0	4.2	1.7	100.0	134
Primary or less	34.9	40.6	7:1	13.2	4.1	0.0	100.0	23.4	35.7	24.9	6.3	2.6	7.2	0.0	100.0	54
Lower Secondary	39.3	34.0	15.5	8.9	0.6	. <u>1</u> .	100.0	12.0	36.9	19.6	18.8	4.0	00. 00	0.0	100.0	55
Middle secondary	32.8	37.8	10.7	17.1	6.0	0.0	100.0	17.4	35.5	25.2	13.6	0.5	7.3	0.5	100.0	135
Higher secondary	41.4	34.8	12.8	9.9	:	0.0	100.0	21.8	37.1	21.1	14.9	1.0	4.0	0.0	100.0	110
Certificates/Diploma	44.0	23.6	11.7	18.1	2.6	0.0	100.0	14.4	40.7	7.6	26.4	0.0	11.0	0.0	100.0	0
Bachelor & above	60.1	22.9	2.5	14.5	0.0	0.0	100.0	17.6	43.4	24.0	12.2	0.0	2.8	0.0	100.0	33
Wealth quintile																
Lowest	36.4	29.8	18.6	13.5	0.0	1.6	100.0	14.4	28.7	34.3	15.3	0.0	7.2	0.0	100.0	62
Second	31.9	43.3	11.0	13.3	0.0	0.6	100.0	14.5	35.5	22.4	17.4	1.5	8.7	0.0	100.0	95
Middle	39.3	33.6	1.11	14.1	1.8	0.0	100.0	15.3	39.1	25.2	15.2	2.3	2.9	0.0	100.0	123
Fourth	36.0	35.7	13.1	11.3	2.4	1.5	100.0	24.8	29.9	22.3	12.5	0.9	7.9	1.7	100.0	136
Highest	42.3	32.1	8.7	13.4	6.0	2.6	100.0	21.8	36.4	25.3	12.0	0.0	3.9	0.5	100.0	123
Total	37.6	35.1	11.9	13.1	1:2	1.2	100.0	18.9	34.4	25.0	14.2	1.0	5.9	0.5	100.0	539

Note: It is recommended that children should be given more liquids to drink during Diarrhoea and food should not be reduced.

¹ Breastfeeding status is captured for children age 0-35 months only.

Table 5.5.9 Percent distribution of children under age 5 who had Diarrhoea in the 2 weeks preceding the survey by amount of liquids and food given compared with normal practice, according toDzongkhag, [Bhutan, NHS 2023].

		Am	ount of li	quids gi	ven					Amount	of food	given				Number of
Dzongkhag	More	Same as usual	Some- what less	Much less	None	Don't know	Total	More	Same as usual	Some- what less	Much less	None	Never gave food	Don't know	Total	children with Diarrhoea
Bumthang	36.6	26.6	5.6	25.2	6.0	0.0	100	12.1	17.9	20.3	43.7	0.0	6.0	0.0	100	15
Chhukha	44.3	22.2	5.4	28.1	0.0	0.0	100	29.4	22.7	23.2	17.1	0.0	7.6	0.0	100	23
Phuentshogling Thromde	13.3	48.0	3.7	32.3	0.0	2.8	100	13.4	29.6	5.4	40.9	0.0	10.7	0.0	100	20
Dagana	66.2	20.4	0.0	13.4	0.0	0.0	100	34.3	34.7	11.2	13.4	0.0	6.5	0.0	100	16
Gasa	34.2	55.6	0.0	0.0	10.2	0.0	100	20:1	60.1	19.8	0.0	0.0	0.0	0.0	100	10
Haa	25.5	31.0	16.5	27.0	0.0	0.0	100	9.2	37.0	36.8	17.0	0.0	0.0	0.0	100	23
Lhuentse	62.7	7.9	21.7	7.7	0.0	0.0	100	24.1	24.1	23.3	14.4	0.0	14.1	0.0	100	13
Monggar	59.7	40.3	0.0	0.0	0.0	0.0	100	25.7	28.6	27.3	7.9	0.0	10.4	0.0	100	17
Paro	39.4	36.5	7.5	16.6	0.0	0.0	100	10.0	38.3	23.9	20.9	2.9	4.1	0.0	100	36
Pema Gatshel	29.4	45.5	17.6	7.5	0.0	0.0	100	29.4	45.5	17.6	7.5	0.0	0.0	0.0	100	œ
Punakha	45.3	30.3	8.2	16.1	0.0	0.0	100	8.5	42.2	22.4	20.6	3.3	3.0	0.0	100	25
Samdrup Jongkhar	20.2	25.4	14.9	20.8	0.0	18.7	100	5.9	21.7	28.3	33.5	0.0	0.0	10.6	100	15
Samdrup Jongkhar Thromde	51.1	22.0	4.9	8.2	13.8	0.0	100	13.7	46.0	11.8	15.0	0.0	13.5	0.0	100	15
Samtse	22.9	23.5	36.9	10.5	4.4	1.8	100	12.6	34.8	36.6	11.4	2.8	1.8	0.0	100	41
Sarpang	43.4	36.0	2.6	18.1	0.0	0.0	100	29.8	25.1	24.1	4.1	0.0	12.1	4.8	100	23
Gelegphu Thromde	29.0	63.4	7.6	0.0	0.0	0.0	100	5.5	75.0	19.5	0.0	0.0	0.0	0.0	100	17
Thimphu	44.3	46.7	5.9	3.1	0.0	0.0	100	31.2	35.8	22.2	4.3	0.0	9.9	0.0	100	24
Thimphu Thromde	38.4	29.4	15.8	12.0	2.1	2.3	100	25.2	31.0	28.8	8.3	1.1	5.6	0.0	100	86
Trashigang	19.9	49.2	11.4	19.4	0.0	0.0	100	2.1	42.9	28.4	20.5	0.0	6.2	0.0	100	29
Trashi Yangtse	8.6	54.1	26.9	10.5	0.0	0.0	100	0.0	46.8	35.5	17.8	0.0	0.0	0.0	100	11
Trongsa	64.5	35.5	0.0	0.0	0.0	0.0	100	26.6	65.0	8.5	0.0	0.0	0.0	0.0	100	13
Tsirang	60.8	32.0	7.2	0.0	0.0	0.0	100	27.4	24.2	25.7	10.3	0.0	12.4	0.0	100	6
Wangdue Phodrang	35.2	54.7	6.1	4.0	0.0	0.0	100	13.8	37.1	18.0	18.7	2.8	9.7	0.0	100	24
Zhemgang	44.6	55.4	0.0	0.0	0.0	0.0	100	34.8	37.7	22.8	0.0	0.0	4.7	0.0	100	17
Total	37.6	35.1	11.9	13.1	1.2	1.2	100	18.9	34.4	25	14.2	~	5.9	0.5	100	539



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Table 5.5.10 Among children under age 5 who had Diarrhoea in the 2 weeks preceding the survey, percentage given fluid from an ORS packet or pre-packaged ORS fluid, zinc, ORS and zinc, ORS and continued feeding, ORS, zinc, and continued feeding, ORS or increased fluids, recommended homemade fluids (RHF), oral rehydration therapy (ORT), ORT and continued feeding, and other treatments; and percentage given no treatment, according to background characteristics, [Bhutan NHS 2023].

	Percen	tage of	childre	en with Diar	rhoea who v	vere giv	en:		Numbor
Background characteristics	Fluid from ORS packet or pre-	Zinc	ORS and	ORS or	ORT (ORS, RHF. or	O treat	ther ments	Percentage given no	of children
	packaged ORS fluid	2	zinc	fluids	increased fluids)	Anti- biotic	Anti- motility	treatment	with Diarrhoea
Age in months				·)			
<6	2.0	3.7	0	33.4	33.4	0.0	0.0	81.8	37
6-11	31.0	32.8	20.2	49.7	49.7	0.0	0.0	56.8	73
12-23	56.2	50.0	36.8	69.1	69.1	3.6	0.0	43.9	148
24-35	64.4	38.1	34.0	75.5	75.5	5.5	0.9	43.0	111
36-47	53.7	43.6	32.4	70.7	70.7	6.3	0.0	48.3	83
48-59	63.3	56.6	47.9	73.3	73.3	18.7	0.0	38.1	86
Sex									
Male	52.4	42.6	31.4	66.3	66.3	6.1	0.0	48.0	301
Female	52.1	42.4	34.9	67.4	67.4	6.3	0.4	46.7	238
Residence									
Urban	51.0	41.4	30.3	63.8	63.8	5.9	0.4	49.4	251
Rural	53.4	43.4	35.3	69.5	69.5	6.4	0.0	45.7	288
Mother's educatio	n								
None	57.7	45.5	36.1	68.4	68.4	7.2	0.0	40.6	134
Primary or less	55.9	49.0	42.7	67.5	67.5	7.6	0.0	47.4	54
Lower Secondary	42.2	46.4	32.4	58.5	58.5	4.1	0.0	50.5	55
Middle secondary	52.2	37.2	30.9	65.7	65.7	6.5	0.7	47.9	135
Higher secondary	50.7	43.0	29.2	68.5	68.5	4.4	0.0	48.1	110
Certificates/ Diploma	24.3	33.4	21.5	56.6	56.6	16.0	0.0	65.5	18
Bachelor & above	61.3	38.4	33.0	77.4	77.4	2.7	0.0	55.6	33
Wealth quintile									
Lowest	49.6	40.9	33.4	67.7	67.7	7.5	0.0	50.4	62
Second	55.0	46.0	39.7	66.1	66.1	6.4	0.0	48.7	95
Middle	62.6	43.4	32.7	69.9	69.9	3.0	0.0	41.6	123
Fourth	45.6	39.8	30.3	61.5	61.5	10.4	0.0	48.2	136
Highest	48.2	42.5	31.0	69.3	69.3	4.3	0.8	49.8	123
Total	52.3	42.5	33.0	66.8	66.8	6.2	0.2	47.4	539

ORS = Oral rehydration salts

1 Continued feeding includes children who were given more, same as usual, or somewhat less food during the Diarrhoea episode.

Table 5.5.11 Among children under age 5 who had Diarrhoea in the 2 weeks preceding the survey, percentage given fluid from an ORS packet or pre-packaged ORS fluid, zinc, ORS and zinc, ORS and continued feeding, ORS, zinc, and continued feeding, ORS or increased fluids, recommended homemade fluids (RHF), oral rehydration therapy (ORT), ORT and continued feeding, and other treatments; and percentage given no treatment, according to Dzongkhag, [Bhutan, NHS 2023].

	Percen	tage of	childre	en with Diar	rhoea who v	vere giv	en:		Number
Dzongkhag	Fluid from ORS packet	Zinc	ORS and	ORS or	ORT (ORS, RHE or	O treat	ther ments	Percentage given no	of children
	packaged ORS fluid		zinc	fluids	increased fluids)	Anti- biotic	Anti- motility	treatment	with Diarrhoea
Bumthang	46.2	59.7	40.0	40.0	64.2	5.6	0.0	40.2	15
Chhukha	45.9	40.8	24.0	24.0	56.4	2.5	0.0	48.9	43
Phuentshogling Thromde	36.4	30.2	19.8	19.8	44.0	5.4	0.0	47.4	20
Dagana	42.8	24.1	15.6	15.6	76.4	0.0	0.0	54.0	16
Gasa	40.3	14.1	14.1	14.1	40.3	0.0	0.0	59.7	10
Наа	55.6	54.8	45.6	45.6	71.8	0.0	0.0	67.0	23
Lhuentse	31.1	45.9	23.3	23.3	78.3	8.6	0.0	60.3	13
Monggar	50.4	39.6	32.3	32.3	67.0	5.4	0.0	72.7	17
Paro	67.3	45.9	43.2	43.2	80.0	4.0	0.0	46.8	36
Pema Gatshel	50.9	50.9	50.9	50.9	68.2	0.0	0.0	34.9	8
Punakha	42.5	46.3	31.5	31.5	69.2	6.9	0.0	47.9	25
Samdrup Jongkhar	56.2	52.9	38.3	38.3	75.8	11.2	0.0	32.0	30
Samdrup Jongkhar Thromde	57.2	45.3	31.5	31.5	75.7	6.9	0.0	37.3	15
Samtse	64.5	64.5	53.7	53.7	68.5	28.0	0.0	38.4	41
Sarpang	71.4	35.5	33.7	33.7	84.6	0.0	0.0	16.0	40
Gelegphu Thromde	70.5	44.8	37.2	37.2	73.6	0.0	0.0	14.1	17
Thimphu	50.4	41.9	31.1	31.1	65.1	6.9	0.8	49.0	110
Thimphu Thromde	52.6	42.5	31.8	31.8	65.4	8.3	0.9	48.5	86
Trashigang	34.0	22.8	17.7	17.7	37.5	2.1	0.0	63.9	29
Trashi Yangtse	55.0	74.7	55.0	55.0	55.0	0.0	0.0	45.0	11
Trongsa	38.5	20.9	13.1	13.1	64.5	0.0	0.0	53.4	13
Tsirang	38.7	28.9	17.9	17.9	60.8	0.0	0.0	56.4	18
Wangdue Phodrang	47.8	40.9	35.8	35.8	64.8	0.0	0.0	55.2	24
Zhemgang	50.3	17.9	10.6	10.6	64.2	0.0	0.0	51.4	17
Total	52.3	42.5	33.0	33.0	66.8	6.2	0.2	47.4	539



Table 6.1.1 Percentage of households with poor and borderline FCS , [Bhutan NHS 2023].

			FCS	
		Poor	Boderline	Acceptable
	National	0.3%	3.7%	96.0%
A	Urban	0.04%	0.9%	38.8%
Area	Rural	0.3%	2.8%	57.2%
	Income qu	intile		
	Lowest	0.1%	1.3%	17.8%
	Second	0.04%	0.8%	17.4%
Income quintile	Middle	0.1%	0.6%	19.5%
	Fourth	0.02%	0.7%	20.8%
 	Highest	0.02%	0.3%	20.5%

Table 6.1.2 Percentage of households with poor and borderline FCS, [Bhutan NHS 2023].

		Yes
National		5.07%
A	Urban	2.18%
Area	Rural	2.68%
	Lowest	1.50%
	Second	1.02%
Income auintile	Middle	0.85%
-1	Fourth	0.88%
	Highest	0.61%
· 	Bumthang	0.06%
· 	Chhukha	0.32%
	Phuentshogling Thromde	0.31%
	Dagana	0.03%
	Gasa	0.01%
	Наа	0.01%
	Lhuentse	0.08%
	Monggar	0.07%
 	Paro	0.73%
	Pema Gatshel	0.21%
	Punakha	0.15%
	Samdrup Jongkhar	0.06%
Dzongkhag	Samdrup Jongkhar Thromde	0.01%
	Samtse	0.05%
	Sarpang	0.21%
	Gelegphu Thromde	0.02%
	Thimphu	0.08%
	Thimphu Thromde	1.44%
	Trashigangng	0.51%
	Trashi Yangtseangtse	0.03%
	Trongsa	0.02%
	Tsirang	0.01%
	Wangdue Phodrang	0.43%
	Zhemgang	0.16%

Table 6.1.3 Household dietary diversity by area, [Bhutan NHS 2023].

		Ar	ea			Income quintile		
	National	Urban	Rural	Lowest	Second	Middle	Fourth	Highest
Cereals & Grains	6.7	6.7	6.8	6.6	6.8	6.8	6.7	6.8
Roots & Tubers	3.7	3.7	3.7	00 10 10	ю. Ю	3.9	3.7	3.4
Pulses/Legumes/Nuts	2.4	2.5	2.3	2.4	2.3	2.3	2.3	2.6
Milk & other Dairy Products	5.2	5.2	5.2	4.8	5.1	5.0	5.3	5.6
Flesh meat	1.4	1.5	с. Г	1.2		1.3	1.4	1.7
Organ meat	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2
Fish/shellfish	0.8	0.8	0.8 0	6.0	0.8	O.8	0.8	0.7
Eggs	2.7	3.2	2.4	2.2	2.3	2.6	2.9	3.5
Orange vegetables	1.4	1.8	1.1	1.1	с. Г	1.3	1.5	1.7
Green Leafy vegetables	2.6	3.3	2.2	5.0	2.2	2.6	2.8	3.3
Fruits	2.5	3.3	2.1	1.8	2.0	2.4	2.7	3.6
Orange fruits	1.9	2.2	1.7	1.6	1.7	1.8	2.0	2.5
Oil/Fat/Butter	6.7	6.7	6.6	6.5	6.7	6.7	6.7	6.7
Sugar/Sweet	4.0	4.0	4.0	3.5	ю. Ю	4.1	4.2	4.3
Condiments/Spices	5.4	5.4	5.5	5.2	5.4	5.5	5.5	5.6

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Table 6.2.1 Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weightfor-height, and weight-for-age, according to background characteristics, [Bhutan NHS 2023].

		Height-f	or-age ¹			Weight-fo	or-height			Weight-	for-age	
Background characteristics	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children
Age in months												
0-11	7.10	13.30	-0.30	529	2.1	5.9	0.3	529	2.3	8.5 8.5	-0.1	534
12-23	5.70	19.00	-1.10	567	. <u>.</u>	4.8	0.2	562	1.7	7.7	-0.3	574
24-35	4.90	20.30	-1.10	601	1.4	5.3	0.1	595	2.0	9.7	-0.5	604
36-47	5.20	18.90	-1.00	563	1.9	4.2	0.0	559	2.0	7.5	-0.6	565
48-59	4.60	17.70	-1.00	558 5	1.5	5.3	0.0	5 5 8	2.3	6.6	-0.6	567
Sex												
Male	5.20	18.50	-0.90	1458	1.4	4.9	0.2	1448	2.1	9.0 8	-0.4	1471
Female	5.80	17.20	-0.90	1360	1.8	5.4	0.1	1355	2.0	8.7	-0.5	1373
Mother's education	• 1 1 1 1 1 1 1 1 1						 			4 		
None	7.80	23.50	-1.10	770	2.2	6.7	0.0	761	2.7	11.5	-0.6	774
Primary or less	4.50	12.30	-0.80	282	2.1	4.5	0.0	278	2.6	с. 8	-0.4	286
Lower Secondary	6.60	18.90	-0.90	239	0.7	1,7	0.1	240	1.8	9.2	-0.4	244
Middle Secondary	4.50	15.10	-0.90	708	1.6	5.2	0.1	704	:	0.0 8	-0.4	602

		Height-1	for-age ¹			Weight-f	or-height			Weight-	for-age	
Background characteristics	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children
Higher Secondary	3.90	17.20	-0.80	527	1:	2.8	0.2	529	1.6	6.1	-0.3	536
Certificates/Diploma	5.60	15.20	-0.80	220	1:1	4.1	0.3	219	3.2	7.8	-0.2	223
Bachelor/Master/PhD	2.50	18.80	-0.80	72	2.6	2.6	-0.1	72	2.6	6.3	-0.5	72
Residence												
Urban	6.50	18.00	-0.90	1175	1.9	5.1	0.1	1167	2.0	8.5	-0.4	1180
Rural	4.80	17.90	-0.90	1643	1.5	5.1	0.1	1636	2.1	8.7	-0.4	1664
Income quintile												
Least Income (Q1)	6.50	21.10	-1.00	535	2.4	7.2	0.1	532	2.8	11.9	-0.5	541
Lower (Q2)	6.00	19.20	-0.90	627	2.3	6.9	0.2	629	2.3	00 00	-0.4	636
Middle (Q3)	4.60	16.10	-0.90	510	. <u>.</u>	3.3	0.1	509	1.6	7.4	-0.5	515
Upper (Q4)	5.00	16.20	0.90	578	1.8	4.4	0.1	566	1.5	7.5	-0.4	584
Highest Income (Q5)	5.10	16.90	-0.90	568	0.3	3.5	0.2	567	2.0	7.7	-0.4	568
Total	5.50	17.90	06.0-	2818	1.6	5.1	0.1	2803	2.1	8.7	-0.4	2844
Note: Each of the indices	is expresse	d in standa	rd deviatio	n units (SD)	from the m	edian of th€	e WHO Chil	d Growth Si	tandards.			

¹ Recumbent length is measured for children under age 2; standing height is measured for all other children. ² Includes children who are below –3 SD from the WHO Child Growth Standards population median.

Table 6.2.2 Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: heightfor-age, weight-for-height, and weight-for-age, according to Dzongkhag, [Bhutan NHS 2023].

		Height-	for-age ¹			Weight-f	or-height			Weight	-for-age	
Dzongkhag	Percent-	Percent-	Mean	Number	Percent-	Percent-	Mean	Number	Percent-	Percent-	Mean	Number
	below -3 SD	below -2 SD ²	Z-score (SD)	of children	below -3 SD	below -2 SD ²	Z-score (SD)	of children	below -3 SD	below -2 SD ²	Z-score (SD)	of children
Bumthang	5.3	18.3	-0.9	110	1.6	7.6	0.1	109	1:0	5.2	-0.5	109
Chhukha	4.5	13.2	-0.7	247	1.0	4.5	0.3	251	1.9	6.1	-0.2	251
Chhukha (Other than P/ling Thromde)	4.4	15.2	8.O-	135 1	5	5.1	0.2	138	2.7	8.2	-0.3	137
Phuentsholing Thromde	4.6	11.0	-0.6	112	0.0	9.0	0.3	113	6.0	9.0 Ю.	-0.1	114
Dagana	9.2	21.2	-1.0	57	4.9	11.3	-0.2	56	<u></u> .5 .5	9.8 8	-0.7	57
Gasa	1.8	8.2	-0.9	57	1.5	1.5	0.6	58	1.7	3.0	-0.2	58
Haa H	1.5	11.3	-0.8	70	0.0	3.9	0.0	80	0.0	5.4	-0.4	70
Lhuentse	4.0	18.4	-0.8	71	1.4	5.4	0.4	73	2.6	10.7	-0.3	75
Monggar	4.8	18.6	-0.8	143	0.0	2.4	0.5	142	1.9	5.5	-0.2	145
Paro	7.1 2.1	25.8	-1.2	143	0.0	3.6	0.3	140	8. 100 100	10.5	-0.5	147
Pema Gatshel	5.9	22.2	-1.1	80	0.0	4.9	0.3	80	0.8 0	9.3	-0.4	81
Punakha	Э.1	7.2	-0.5	105	0.7	2.4	0.0	104	1.8	8.2	-0.3	108
Samdrup Jongkhar	ю Ю	18.6	-0.9	159	2.0	5.1	-0.1	160	1.2	10.1	-0.6	159
Samdrup Jongkhar (Other than SJ Thromde)	с С	20.4	-1.0	8 8	6.1	5.5	0.0	84	1.7	11.3	-0.6	о Ю
Samdrup Jongkhar Thromde	00 10 10	14.4	-0.5	74	2.2	4.3	-0.1	76	0.0	7.4	-0.4	74
Samtse	4.1	15.4	-0.8	179	4.0	9.2	-0.2	179	3.0	10.1	-0.6	180

		Height-	for-age ¹			Weight-f	or-height			Weight	-for-age	
Dzongkhag	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children	Percent- below -3 SD	Percent- below -2 SD ²	Mean Z-score (SD)	Number of children
Sarpang	8. 8. 10.	11.4	-0.6	194	2.4	8.0 0.8	-0.2	193	2.9	8.4	-0.5	197
Sarpang (Other than Gelephu Thromde)	2.3	11.5	-0.6	112	2.5	8.7	-0.2	11	2.4	8.4	-0.5	114
Gelephu Thromde	6. 9	11.0	-0.6	82	2.0	9.5	-0.2	82	4.7	8.5	-0.5	83
Thimphu	7.5	20.8	-1:1	491	1.9	<u></u> .5 .5	0.1	486	2.4	9.9	-0.5	493
Thimphu (Other than T/phu Thromde)	2.0	15.2	-0.8	136	1.4	3.6	-0.1	137	1.9	9.5	-0.5	137
Thimphu Thromde	ත. ග	22.2	-1.2	355	2.0	3.5 .5	0.2	349	2.5	10.0	-0.5	356
Trashigang	3.6	16.9	-0.8	183	0.9	4.5	0.1	178	1.5	8.1 2.1	-0.4	183
Trashi Yangtse	3.2	15.6	-0.9	95	0.0	1.8	0.4	95	1.0	7.9	-0.3	95
Trongsa	с. Ю	20.5	-0.9	120	2.0	5.8	0.4	117	1.9	8.9 0.0	-0.2	120
Tsirang	5.5	17.6	-1.2	00 00	1.1	6.2	-0.1	00 00	1.1	12.6	-0.8	80
Wangdue	6.0	14.5	-0.7	133	0.7	5.6	0.2	133	0.6	7.8	-0.2	133
Zhemgang	7.2	26.9	-1.1	93	3.0	5.5	0.3	63	0.5	5.3	-0.3	95
Total	5.5	17.9	-0.9	2,818	1.6	5.1	0.1	2803	2.1	8.7	-0.4	2844
Noto: Each of the indices		d in ctanda			from tho m	, dt fo acibo						

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.

¹ Recumbent length is measured for children under age 2; standing height is measured for all other children. ² Includes children who are below –3 SD from the WHO Child Growth Standards population median.

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Table 6.3.1 Percentage of children 6-59 months classified as having anemia, according to background characteristics, [Bhutan NHS 2023].

Barbara			Anemia	status by hem	loglobin level				Number of
characteristics	Any anemia (<11.0 g/dl)	95% CI	Mild anemia (10.0-10.9 g/dl)	95% CI	Moderate anemia (7.0-9.9 g/dl)	95% CI	Severe anemia (<7.0 g/dl)	95% CI	children age 6-59 months
Sex									
Male	42.7	[38.2,47.3]	21.3	[17.8,25.3]	20.3	[16.8,24.3]	1.1	[0.5,2.7]	407.0
Female	46.7	[42.3,51.2]	24.7	[21.0,28.8]	21.8	[18.4,25.6]	0.3	[0.1,1.3]	431.0
Residence									
Urban	38.0	[32.9,43.5]	20.0	[15.8,25.1]	17.6	[13.7,22.2]	0.4	[0.1,2.1]	302.0
Rural	48.4	[44.5,52.2]	24.6	[21.4,28.1]	22.9	[19.8,26.3]	0.9	[0.4,2.0]	536.0
Total	44.7	[41.6,47.9]	23.0	[20.4,25.8]	21.0	[18.6,23.7]	0.7	[0.3,1.5]	838.0

Notes: Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using WHO recommendations used in NNS 2015 for comparison. Hemoglobin in grams per deciliter (g/dl). Table 6.3.2 Percentage of adolescent girls 10-19 years classified as having anemia, according to background characteristics, [Bhutan NHS 2023].

			An	emia status by	hemoglobin level				Number of
characteristics	Any anemia (<11.0 g/dl)	95% CI	Mild anemia (10.0-10.9 g/dl)	95% CI	Moderate anemia (7.0-9.9 g/dl)	95% CI	Severe anemia (<7.0 g/dl)	95% CI	children age 6-59 months
Residence									
Urban	34.3	[29.2,39.8]	17.2	[13.1,22.2]	15.4	[12.0,19.7]	1.6	[0.6,4.1]	297
Rural	37.9	[33.9,42.2]	22.3	[18.8,26.2]	14.5	[11.9,17.6]	1.1	[0.6,2.2]	466
Total	36.5 3	[33.3,39.9]	20.3	[17.6,23.3]	14.9	[12.7,17.3]	. .	[0.8,2.3]	763

Notes: Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using WHO recommendations used in NNS 2015 for comparison. Hemoglobin in grams per deciliter (g/dl). Table 6.3.3 Percentage of non-pregnant females 15-49 years classified as having anemia, according to background characteristics, [Bhutan NHS 2023].

Backaround			An	emia status by	hemoglobin level				Number of
characteristics	Any anemia (<11.0 g/dl)	95% CI	Mild anemia (10.0-10.9 g/dl)	95% CI	Moderate anemia (7.0-9.9 g/dl)	95% CI	Severe anemia (<7.0 g/dl)	95% CI	children age 6-59 months
Residence									
Urban	43.7	[38.2,49.3]	22.4	[18.0,27.4]	18.5	[14.5,23.3]	2.8	[1.5,5.2]	299
Rural	39.4	[35.7,43.2]	18.9	[16.1,22.0]	18.8	[16.0,21.9]	1.7	[1.0,3.1]	541
Total	40.9	[37.8,44.0]	20:1	[17.7,22.7]	18.7	[16.3,21.3]	2:1	[1.4,3.2]	840
	4				4		•	4	

Notes: Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using WHO recommendations used in NNS 2015 for comparison. Hemoglobin in grams per deciliter (g/dl). Table 6.3.4 Percentage of pregnant females 15-49 years classified as having anemia, according to background characteristics, [Bhutan NHS 2023].

Backatoniad			An	emia status by	r hemoglobin level				Number of
characteristics	Any anemia (<11.0 g/dl)	95% CI	Mild anemia (10.0-10.9 g/dl)	95% CI	Moderate anemia (7.0-9.9 g/dl)	95% CI	Severe anemia (<7.0 g/dl)	95% CI	children age 6-59 months
Residence									
Urban	31.6	[23.5,41.1]	16.2	[9.9,25.4]	15.4	[10.0,23.0]	ο		97
Rural	34.3	[26.8,42.8]	17.5	[12.2,24.6]	16.7	[10.8,24.8]	0.1	[0.0,0.8]	146
Total	33.3	[27.5,39.5]	1	[12.7,22.4]	16.2	[11.9,21.7]	0.1	[0.0,0.5]	243

Notes: Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using WHO recommendations used in NNS 2015 for comparison. Hemoglobin in grams per deciliter (g/dl).

5th National Health Survey



Table 6.4.1 The percentage of adolescents and women of reproductive age with micronutrients deficiencies,* [Bhutan NHS 2023].

			Anemia sta	tus by hen	noglobin lev	/el			
Target Group	Folate (<5 ng/ mL)	Calcium (<8.5 mg/dL)	Vitamin B12 (<200 pg/ mL)	Ferritin (<30ng/ mL)	Vitamin D (<30 ng/ mL)	Vitamin A (<0.7 µmol/L)	Vitamin B1 (<2.5 μg/ dL)	Vitamin B2 (<10 µg/ dL)	Respondent Number
Adolesce	ents (10-19	years)							
Female	31.6	11.3	25.9	56.3	96.3	0.0	2.1	10.6	268
Male	29.6	13.0	28.5	36.1	92.5	0.3	2.6	8.5	480
Both	30.3	12.4	27.6	43.4	93.9	0.2	2.4	9.3	748
Women (15-49 years)	45.2	24.0	32.7	59.8	90.5	0.4	3.3	8.4	942

*As per the cutoff value of each micronutrient

Table 6.4.2 The mean and standard deviation of micronutrients among adolescents and women of reproductive age,[Bhutan NHS 2023].

		А	nemia statu	s by hemo	oglobin level				
Target Group	Folate (ng/mL)	Calcium (mg/dL)	Vitamin B12 (pg/ mL)	Ferritin (ng/mL)	Vitamin D (ng/mL)	Vitamin A (µmol/L)	Vitamin B1 (µg/ dL)	Vitamin B2 (µg/dL)	Respondent Number
Adolescent	s (10-19 yea	rs)							
Female	9.4 (6.4)	9.0 (1.1)	447.7 (345.1)	36.0 (36.0)	13.8 (9.4)	2.1 (0.7)	5.1 (1.6)	21.6 (11.0)	268
Male	9.3 (6.0)	9.0 (1.3)	449.0 (364.4)	53.0 (53.9)	16.6 (9.8)	2.1 (0.7)	5.5 (2.1)	21.7 (10.2)	480
Both	9.3 (6.1)	9.0 (1.2)	448.5 (357.3)	46.9 (48.9)	15.6 (9.8)	2.1 (0.7)	5.4 (1.9)	21.7 (10.5)	748
Women (15-49 years)	6.9 (5.1)	8.8 (1.1)	323.7 (238.1)	38.8 (55.7)	16.4 (11.1)	2.3 (0.8)	5.1 (1.8)	22.2 (10.3)	942

Table 6.4.3 The percentage of adolescents and women of reproductive age by vitamin D risk categories, [Bhutan NHS 2023].

Target Group	Normal (≥30 ng/mL)	Insufficiency (20-29 ng/mL)	Deficiency (10-19 ng/mL)	Severe Deficiency (≤9 ng/mL)	Respondent Number
Adolescents (10-1	9 years)				
Female	3.7	16.1	42.8	37.4	268
Male	7.5	29.2	35.0	28.3	480
Both	6.1	24.5	37.8	31.6	748
Women (15-49 years)	9.5	24.6	34.0	31.9	942

Table 7.1.1 Percentage of people age 15-69 who are life abstainers, former drinkers and current drinkers by background characteristics, [Bhutan NHS 2023].

	Never	Former drinkers	Current drinkers	Consumed	alcohol in p	bast 12 months	Current drinker	
Background characteristics	consumed alcohol (Life- time abstainers)	(not consumed alcohol in past 12 months)	(consumed alcohol in the past 12 month)	Daily or almost daily	1 - 4 days/ week	1-3 days/ months or < than a month	(consumed alcohol in past 30 days)	of Persons
Age Range								
15-24	60.5	6.9	32.7	1.3	8.4	22.9	25.2	1,326
25-39	44.1	9.5	46.4	4.6	15.2	26.7	39.9	4,432
40-54	44.9	14.0	41.1	7.4	15.7	17.9	36.6	3,443
55-69	47.2	18.8	34.0	9.8	11.8	12.4	31.4	2,054
Sex								
Men	42.2	11.5	46.3	7.6	17.2	21.5	41.6	4,244
Women	56.1	10.7	33.3	2.3	8.7	22.2	26.3	7,011
Level of Education								
None	48.6	15.2	36.1	7.3	14.0	14.8	32.7	5,152
Primary or less	42.5	12.5	45.0	6.9	17.5	20.6	39.0	1,323
Lower Secondary	60.8	8.1	31.1	3.9	11.1	16.0	26.2	686
Middle Secondary	54.0	0. 0	37.2	4.2	11.1	21.9	31.4	1,504
Higher Secondary	52.7	7.9	39.4	2.3	9.9	27.1	31.9	1,443
Certificates/ Diploma	36.0	7.4	56.6	3.3	15.9	37.4	47.4	879
Bachelor/Master/ PhD	34.2	8.7	57.1	4.2	15.1	37.9	46.2	267
Usual Activity								
Working	43.0	11.0	46.0	6.2	16.3	23.6	40.3	6,200



	Never	Former drinkers	Current drinkers	Consumed	alcohol in p	ast 12 months	Current drinker	
Background characteristics	consumed alcohol (Life- time abstainers)	(not consumed alcohol in past 12 months)	(consumed alcohol in the past 12 month)	Daily or almost daily	1 - 4 days/ week	1-3 days/ months or < than a month	(consumed alcohol in past 30 days)	of Persons
Doing household chores	53.0 23	11.9	34.5	4.2	10.5	19.8	28.8	3,890
Student	70.6		21.3	0.4	4.7	16.2	14.8	516
Retired	36.5	16.4	47.1	10.7	17.9	18.6	44.2	161
Doing nothing	51.5	12.7	35.9	5.0	7.4	23.2	30.2	487
Location								
Urban	47.4	8. S	43.8	3.7	12.7	27.4	36.8	4,198
Rural	49.6	12.7	37.8	6.0	13.6	18.1	32.9	7,057
Income Quintiles								
Least Income (Q1)	50.8	11.2	38.0	8.3	13.7	15.9	34.7	2,383
Lower (Q2)	50.4	12.0	37.5	5.3	13.8	18.3	32.7	2,097
Middle (Q3)	47.7	11.6	40.7	5.4	13.3	22.0	34.9	2,257
Upper (Q4)	49.1	11.2	39.6	3.2	13.2	23.2	32.9	2,311
Highest Income (Q5)	45.7	9.5	44.7	3.7	12.3	28.8	37.0	2,207
Age 2 categories (pre	vious)							
18-39	48.6	8.2	43.2	3.4	13.2	26.6	36.1	5,446
40-69	45.7	15.7	38.6	8.2	14.4	15.9	34.8	5,497
Total (18-69 Years)	47.5			5.2	13.6	22.7	35.6	10,943
Total 15-69	48.7	11.1	40.2	5.1	13.2	21.8	34.5	11,255

1 who have never consumed alcohol; ² persons who ever drank alcoholic beverages but have not done so in the past 12 months; ³ includes both the lifetime abstainers and former drinkers.

Table 7.1.2 Percentage of people age 15-69 who are life abstainers, former drinkers and current drinkers by Dzongkhags, [Bhutan NHS 2023].

	Never	Former drinkers	Current drinkes	Consum	ned alcol mont	nol in past 12 hs	Current drinker	Number
Dzongkhag	consumed alcohol (Life- time abstainers)	(not consumed alcohol in past 12 months)	(consumed alcohol in the past 12 month)	Daily or almost daily	1 - 4 days/ week	1-3 days/ months or < than a month	(consumed alcohol in past 30 days)	of Persons
Bumthang	58.0	12.0	30.0	1.8	7.0	21.1	21.8	342
Chhukha	52.6	9.6	37.8	3.2	13.9	20.7	30.7	1,016
Chhukha (Other than P/ling Thromde)	43.7	14.1	42.2	2.7	14.4	25.0	29.8	572
Phuentsholing Thromde	62.4	3.6	34.1	3.7	13.4	17.0	32.6	444
Dagana	52.9	11.8	35.3	5.0	8.9	21.3	31.3	377
Gasa	56.0	14.8	29.2	3.6	11.8	13.8	23.8	249
Haa	55.7	10.1	34.2	5.2	7.1	21.9	27.9	300
Lhuentse	36.2	6.6	53.9	13.4	17.6	22.9	50.6	293
Monggar	59.5	8.4	32.0	4.7	11.7	15.6	28.7	557
Paro	48.7	8.4	42.9	3.5 3.5	10.9	28.5	34.3	612
Pema Gatshel	24.1	22.1	53.7	9.1	21.0	23.6	45.8	400
Punakha	39.5	15.8	44.7	6.9	15.8	21.6	41.0	421
Samdrup Jongkhar	40.4	25.3	34.3	5.4	16.2	12.8	30.0	697
Samdrup Jongkhar (Other than SJ Thromde)	40.7	26.7	32.6	5.1	17.6	6.6	29.3	416



	Never	Former drinkers	Current drinkes	Consun	ned alcoh montl	iol in past 12 1s	Current drinker	Number
Dzongkhag	consumed alcohol (Life- time abstainers)	(not consumed alcohol in past 12 months)	(consumed alcohol in the past 12 month)	Daily or almost daily	1 - 4 days/ week	1-3 days/ months or < than a month	(consumed alcohol in past 30 days)	of Persons
Samdrup Jongkhar Thromde	42.4	19.7	38.0	4.1	10.7	23.1	30.3	281
Samtse	58.1	6.8	35.1	6.7	13.4	14.9	32.5	851
Sarpang	52.8	9.2	37.9	4.8	11.7	21.5	33.2	804
Sarpang (Other than Gelephu Thromde)	52.5	8.4	39.0	4.7	12.2	22.1	34.2	522
Gelephu Thromde	55.7	10.6	33.7	2.9	8.4	22.4	28.4	282
Thimphu	41.7	10.8	47.5	4.3	13.5	29.7	39.8	1,768
Thimphu (Other than T/phu Thromde)	33.4	21.3	45.3	5.7	11.1	28.6	35.1	393 3
Thimphu Thromde	43.3	8.2	48.5	3.9	14.1	30.6	41.1	1,375
Trashigang	47.8	15.2	37.0	6.2	16.7	14.0	33.9	663
Trashi Yangtse	37.2	18.0	44.7	8.5 8	17.5	18.7	40.0	341
Trongsa	56.1	4.6	39.3	4.3	15.8	19.2	34.5	332
Tsirang	47.2	12.2	40.7	3.6	14.7	22.4	34.9	394
Wangdue	68.8	5.3	25.9	3.1	8.6	14.0	22.0	506
Zhemgang	46.7	10.2	43.1	12.8	11.4	18.9	36.2	332
Total 15-69	48.7	11.1	40.2	5.1	13.2	21.8	34.5	11,255

1 who have never consumed alcohol; ² persons who ever drank alcoholic beverages but have not done so in the past 12 months; ³ includes both the lifetime abstainers and former drinkers.



Table 7.1.3 Percentage of population aged 15-69 years who engaged in heavy episodic drinking (drank 6 or more standard drinks in a single occasion) in the past 30 days, by Dzongkhag, [Bhutan NHS 2023].

	In total p	opulation	Among current drinke	ers in the last 30 days
Dzongknag	All (%)	N	All (%)	N
Bumthang	5.6	342	25.7	68
Chhukha	10.6	997	36.5	275
Chhukha (Other than P/ling Thromde)	11.9	567	40.4	158
Phuentsholing Thromde	9.3	430	31.7	117
Dagana	8.3	360	30.1	103
Gasa	16.3	249	68.4	59
Наа	8.2	296	31.1	71
Lhuentse	34.1	293	67.3	145
Monggar	12.8	556	44.4	148
Paro	12.3	597	37.8	170
Pema Gatshel	8.5	399	18.6	185
Punakha	14.8	406	38.3	145
Samdrup Jongkhar	16.4	693	55.1	203
Samdrup Jongkhar (Other than SJ Thromde)	16.9	415	57.9	124
Samdrup Jongkhar Thromde	14.5	278	48.5	79
Samtse	9.2	846	28.5	256
Sarpang	11.7	800	35.8	235
Sarpang (Other than Gelephu Thromde)	12.1	519	36.0	159
Gelephu Thromde	9.2	281	32.6	76
Thimphu	16.9	1,741	43.1	655
Thimphu (Other than T/phu Thromde)	17.0	391	48.4	138
Thimphu Thromde	16.8	1,350	41.7	517
Trashigangng	17.1	660	50.7	210
Trashi Yangtseangse	16.6	341	41.6	129
Trongsa	17.2	332	49.7	107
Tsirang	12.8	391	37.2	128
Wangdue	6.8	496	33.8	89
Zhemgang	14.1	295	48.9	85
Total 15-69	13.3	11,090	39.8	3,466



Table 7.1.4 Percentage of population aged 15-69 years who engaged in heavy episodic drinking (drank 6 or more standard drinks in a single occasion) in the past 30 days, by background characteristics, [Bhutan NHS 2023].

Background charactoristics	In total p	opulation	Among current drink	ers in the last 30 days
	All (%)	Ν	All (%)	N
Age Range				
15-24	8.4	1,316	33.9	293
25-39	15.5	4,367	40.0	1,476
40-54	15.2	3,382	43.2	1,116
55-69	12.5	2,025	41.0	581
Sex				
Men	18.4	4,156	45.4	1,666
Women	7.6	6,934	29.7	1,800
Level of Education				
None	13.5	5,077	42.6	1,499
Primary or less	16.0	1,292	43.3	429
Lower Secondary	8.8	678	34.5	188
Middle Secondary	11.9	1,490	38.8	436
Higher Secondary	11.0	1,425	35.4	427
Certificates/Diploma	17.4	864	37.5	368
Bachelor/Master/PhD	19.9	263	43.9	119
Usual Activity				
Working	16.5	6,095	42.1	2,140
Doing household chores	10.0	3,839	36.1	1,054
Student	4.4	516	29.9	66
Retired	20.6	160	46.7	68
Doing nothing	8.9	479	30.2	138
Location				
Urban	13.6	4,134	37.9	1,365
Rural	13.1	6,956	41.2	2,101
Income Quintiles				
Least Income (Q1)	14.6	2,335	43.8	728
Lower (Q2)	12.9	2,071	40.6	643
Middle (Q3)	11.9	2,228	35.2	689
Upper (Q4)	12.9	2,276	40.6	668
Highest Income (Q5)	14.3	2,180	39.3	738
Age 2 categories (previous)				
18-39	13.4	5,372	38.4	1,741
40-69	14.3	5,407	42.5	1,697
Total (18-69 Years)	14.3	10,779	39.7	3,438
Total 15-69	13.3	11,090	39.8	3,466

5th National Health Survey

Table 7.1.5 Percentage of people aged 15-69 who reported consuming various types of alcohol in the past 7 days by background characteristics, [Bhutan NHS 2023].

Background characteristics	Beer	Wine	Spirit (Whiskey, vodka, gin)	Ara/ Shingchang	Other home brewed**	Number of Persons
None	51.4	3.1	10.3	44.0	21.4	1,117
Primary or less	58.0	3.9	15.6	31.8	12.4	311
Lower Secondary	50.5	8.6	14.4	23.9	11.4	123
Middle Secondary	57.3	9.4	22.2	27.0	12.4	238
Higher Secondary	61.2	9.7	18.4	15.9	8.1	210
Certificates/Diploma	62.9	13.6	23.5	13.9	7.4	196
Bachelor/Master/PhD	61.4	8.0	15.1	15.4	2.1	70
Usual Activity						
Working	58.3	5.8	18.1	28.6	12.8	1,429
Doing household chores	53.7	10.6	6.5	37.0	20.2	669
Student	48.6	5.1	16.3	15.1	9.1	31
Retired	47.2	4.1	24.4	34.4	13.3	50
Doing nothing	40.5	4.0	15.3	38.9	12.2	86
Location						
Urban	60.5	12.5	22.4	18.8	8.1	765
Rural	53.5	3.0	11.6	37.7	18.0	1,500
Income Quintiles						
Least Income (Q1)	50.0	3.0	13.1	46.9	24.5	567
Lower (Q2)	51.9	4.0	15.5	36.2	17.4	461
Middle (Q3)	52.3	8.1	16.1	28.1	10.1	427
Upper (Q4)	65.9	9.0	16.9	20.4	11.1	402
Highest Income (Q5)	60.8	9.2	17.0	19.6	7.1	408
Age 2 categories (previous)						
18-39	60.4	8.7	16.5	23.5	12.2	993
40-69	51.3	3.6	14.6	40.1	17.4	1,256
Total (18-69 Years)	56.5	6.7	15.9	29.9	14.2	2,249
Total 15-69	56.2	6.6	15.7	30.5	14.2	2,265
Lower (Q2)	51.9	4.0	15.5	36.2	17.4	461
Middle (Q3)	52.3	8.1	16.1	28.1	10.1	427
Upper (Q4)	65.9	9.0	16.9	20.4	11.1	402
Highest Income (Q5)	60.8	9.2	17.0	19.6	7.1	408
Age 2 categories (previous)						
18-39	60.4	8.7	16.5	23.5	12.2	993
40-69	51.3	3.6	14.6	40.1	17.4	1,256
Total (18-69 Years)	56.5	6.7	15.9	29.9	14.2	2,249
Total 15-69	56.2	6.6	15.7	30.5	14.2	2,265

*Ara is a traditional alcoholic beverage brewed from rice or maize, whose production is legal for self-consumption ** Other homebrewed alcohol includes (Tongba, Changkoe, Bangchang).



Table 7.1.6 Percentage of people who reported their households brewing alcohol at home, and purpose of brewing by Dzongkhag, [Bhutan NHS 2023].

	Brew		Purpose of I	prewing among hoi	those who me	o brew	alcohol at	
Dzongkhag	alcohol at home	N	For religious purpose	Self- consumption	Baby Shower	for sale	for other purpose	N
Bumthang	44.3	348	91.9	60.4	37.3	2.9	24.3	152
Chhukha	11.7	1,038	71.9	56.2	0.0	3.8	14.1	123
Chhukha (Other than P/ ling Thromde)	16.6	592	74.7	58.3	0.0	4.6	17.2	100
Phuentsholing Thromde	4.9	446	59.0	46.6	0.0	0.0	0.0	23
Dagana	29.7	398	61.8	68.3	3.2	7.9	29.3	110
Gasa	24.4	254	81.8	48.6	1.7	2.9	1.8	61
Наа	50.9	309	94.3	11.1	1.7	2.2	1.8	169
Lhuentse	62.5	309	53.5	51.8	7.4	3.6	51.0	197
Monggar	65.9	574	85.7	51.5	27.9	6.3	20.2	383
Paro	19.6	623	81.2	22.7	4.3	5.3	6.9	111
Pema Gatshel	39.7	433	77.2	49.0	5.8	8.1	37.3	186
Punakha	44.3	435	79.2	38.0	1.8	7.3	15.6	189
Samdrup Jongkhar	23.4	717	65.6	68.6	1.5	6.5	6.7	148
Samdrup Jongkhar (Other than SJ Thromde)	30.2	432	66.2	68.8	1.6	6.5	6.5	140
Samdrup Jongkhar Thromde	3.0	285	45.5	63.3	0.0	7.3	12.4	8
Samtse	21.6	882	62.6	82.3	2.8	9.1	2.2	187
Sarpang	16.8	824	64.8	59.2	4.8	20.7	7.2	109
Sarpang (Other than Gelephu Thromde)	19.8	537	64.3	60.1	4.9	20.9	7.3	103
Gelephu Thromde	2.1	287	86.1	14.7	0.0	13.9	0.0	6
Thimphu	12.1	1,815	36.5	56.8	28.1	5.0	5.3	215
Thimphu (Other than T/ phu Thromde)	20.3	400	51.2	48.7	21.6	6.3	8.2	79
Thimphu Thromde	10.1	1,415	29.4	60.7	31.2	4.4	4.0	136
Trashigang	73.3	683	88.1	39.9	30.3	10.5	22.4	475
Trashi Yangtse	58.4	360	70.4	71.0	4.8	6.0	18.6	214
Trongsa	43.2	336	96.5	75.4	7.4	11.1	7.8	139
Tsirang	19.7	408	43.6	74.7	10.3	23.9	7.9	76
Wangdue	31.3	531	69.9	36.6	1.8	6.7	27.7	171
Zhemgang	62.3	346	94.9	54.1	2.9	19.8	9.1	235
Total	30.7	11,623	75.0	51.8	13.9	8.8	17.2	3,650



Table 7.2.1 Percentage of people age 15-69 who currently use any tobacco product, any smoked, smokeless tobaco product by background characteristics, [Bhutan NHS 2023].

Background characteristics	Currently use any tobacco product	Currently smoke any tobacco product	Currently use any smokeless tobacco product	Current use both smoking and smokess tobacco product	Number of Persons
Age Range					
15-24	29.2	21.7	13.1	5.6	1325
25-39	35.2	17.8	22.5	5.1	4433
40-54	29.4	6.4	25.3	2.3	3440
55-69	27.6	4.5	24.6	1.5	2053
Sex					
Men	42.7	21.6	27.9	6.7	4239
Women	18.5	6.1	13.5	1.1	7012
Level of Education					
None	27.4	5.1	24.0	1.7	5147
Primary or less	38.4	12.8	31.0	5.4	1323
Lower Secondary	28.5	13.6	19.5	4.5	686
Middle Secondary	34.2	20.6	19.0	5.5	1504
Higher Secondary	31.3	22.3	14.9	5.9	1443
Certificates/Diploma	34.4	22.3	16.5	4.5	879
Bachelor/Master/PhD	32.4	20.4	17.6	5.6	267
Usual Activity					
Working	37.2	17.7	25.0	5.5	6199
Doing household chores	22.6	6.8	17.1	1.3	3889
Student	17.3	10.4	9.0	2.1	516
Retired	40.3	9.9	31.5	1.1	161
Doing nothing	32.1	21.1	17.3	6.3	484
Location					
Urban	32.4	19.0	18.4	5.0	4198
Rural	30.7	11.2	23.0	3.5	7053
Income Quintiles					
Least Income (Q1)	33.4	10.6	26.9	4.0	2382
Lower (Q2)	31.8	13.1	22.7	4.0	2095
Middle (Q3)	31.7	14.2	22.1	4.5	2256
Upper (Q4)	31.3	15.7	19.4	3.8	2310
Highest Income (Q5)	29.0	17.6	15.5	4.1	2208
Age 2 categories (previous)					
18-39	34.3	20.6	19.4	5.7	5447
40-69	28.8	5.8	25.1	2.0	5493
Total (18-69 Years)	32.3	15.2	21.5	4.4	10940
Total (15-69 Years)	31.4	14.4	21.1	4.1	11251



Table 7.2.2 Percentage of people age 15-69 who currently use any tobacco product, any smoked, smokeless tobaccoproduct by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Currently use any tobacco product	Currently smoke any tobacco product	Currently use any smokeless tobacco product	Current use both smoking and smokess tobacco product	Number of Persons
Bumthang	22.3	7.0	19.0	3.7	342
Chhukha	34.9	18.2	19.2	2.5	1016
Chhukha (Other than P/ling Thromde)	34.2	14.4	22.6	2.9	572
Phuentsholing Thromde	36.7	24.1	14.7	2.2	444
Dagana	48.8	10.9	42.2	4.4	377
Gasa	30.5	13.6	22.3	5.3	249
Наа	29.3	12.4	19.6	2.6	300
Lhuentse	14.9	4.8	11.2	1.1	293
Monggar	19.3	4.2	15.8	0.6	557
Paro	32.5	18.0	22.4	7.9	612
Pema Gatshel	11.9	4.7	8.7	1.5	400
Punakha	35.3	16.2	22.2	3.1	419
Samdrup Jongkhar	23.9	6.5	19.6	2.2	697
Samdrup Jongkhar (Other than SJ Thromde)	23.3	5.0	20.0	1.7	416
Samdrup Jongkhar Thromde	25.3	12.6	16.8	4.1	281
Samtse	46.0	14.9	35.9	4.8	850
Sarpang	33.3	13.9	24.1	4.7	804
Sarpang (Other than Gelephu Thromde)	34.2	13.7	25.1	4.7	522
Gelephu Thromde	32.6	18.9	20.0	6.2	282
Thimphu	35.8	21.3	19.9	5.5	1768
Thimphu (Other than T/phu Thromde)	34.0	19.6	18.9	4.4	393
Thimphu Thromde	36.7	22.7	19.9	5.9	1375
Trashigangng	14.3	5.7	11.0	2.4	663
Trashi Yangtseangtse	9.2	3.3	6.9	1.0	341
Trongsa	31.2	9.8	24.8	3.4	332
Tsirang	38.5	16.1	28.1	5.8	394
Wangdue	24.9	9.9	17.9	2.8	505
Zhemgang	22.9	14.0	11.1	2.2	332
Total (15-69 Years)	31.4	14.4	21.1	4.1	11251

Table 7.2.3 Percentage of people age 15-69y who currently use any tobacco product, any smoked, smokeless tobacco product by background characteristics, [Bhutan NHS 2023].

			Am	ong all pe	ople			Among	current s	mokers	Among	former sn	nokers
Background characteristics	Current toba	y smoke acco	Fomerly tob	/ smoke acco	Never	, F	Number		Non-	Number		Non-	Number
	Daily	Non- daily	Daily	Non- daily	tobacco		Person		daily	Person		daily	Person
Age Range													
15-24	12.6	9.1	4.0	8.4	65.9	100.0	1325	59.1	40.9	238	29.3	70.7	261
25-39	12.6	5.2	8.6	8.6 8.6	65.0	100.0	4433	69.6	30.4	568	44.2	55.8	794
40-54	4.4	2.1	8.2	6.4	78.9	100.0	3440	65.7	34.3	160	52.4	47.6	490
55-69	2.9	1.6	14.1	8.5	72.9	100.0	2053	65.1	34.9	75	59.6	40.4	439
Sex													
Men	14.3	7.3	11.4	10.1	56.9	100.0	4239	66.2	33.8	700	48.2	51.8	1174
Women	3.9	2.2	4.3	5.7	83.9	100.0	7012	64.7	35.3	341	39.7	60.3	810
Level of Education													
None	3.6	1.5	8.7	6.1	80.1	100.0	5147	70.1	29.9	183	53.7	46.3	712
Primary or less	8.5	4.4	10.0	9.2	67.9	100.0	1323	64.8	35.2	110	49.5	50.5	268



Among all people Am	Among all people Am	nong all people Am	sople Am	Am	Am	Am	buo	current s	mokers	Among	j former si	nokers
rently smoke Fomerly smoke tobacco tobacco Never Numb smoked Total of	Fomerly smoke tobacco Never Numb smoked Total of	y smoke acco Never Numb smoked Total of	Never Numb smoked Total of	Numb Total of	Numb	<u> </u>	Daily	Non- daily	Number of	Daily	Non- dailv	Nun
iily Non- Daily Non- tobacco Pe daily daily daily	Daily Non- tobacco Pe daily	Non- tobacco Pe daily	tobacco		ዳ	rson		(IIIII)	Person		A line	Person
.6 5.0 6.7 7.9 71.8 100.0	6.7 7.9 71.8 100.0	7.9 71.8 100.0	71.8 100.0	100.0	-	686	65.6	34.4	67	40.0	60.0	121
.5 7.2 6.2 7.5 65.7 100.0 1	6.2 7.5 65.7 100.0 1	7.5 65.7 100.0 1	65.7 100.0 1	100.0	-	504	63.3	36.7	221	38.2	61.8	281
.2 8.1 7.3 9.0 61.4 100.0	7.3 9.0 61.4 100.0	9.0 61.4 100.0	61.4 100.0	100.0	、	1443	63.3	36.7	252	38.2	61.8	316
5.1 7.2 9.7 11.2 56.9 100.0	9.7 11.2 56.9 100.0	11.2 56.9 100.0	56.9 100.0	100.0		879	65.8	34.2	170	43.7	56.3	225
.9 8.5 6.3 11.8 61.5 100.0	6.3 11.8 61.5 100.0	11.8 61.5 100.0	61.5 100.0	100.0		267	62.5	37.5	e e e	26.4	73.6	61
.9 5.8 9.8 8.3 64.2 100.0	9.8 8.3 64.2 100.0	8.3 64.2 100.0	64.2 100.0	100.0		6199	66.8	33.2	740	47.6	52.4	1251
.3 2.5 6.5 6.5 80.3 100.0	6.5 6.5 80.3 100.0	6.5 80.3 100.0	80.3 100.0	100.0		3889	63.9	36.1	177	46.4	53.6	509
.3 5.1 2.6 8.6 78.4 100.0	2.6 8.6 78.4 100.0	8.6 78.4 100.0	78.4 100.0	100.0		516	51.3	48.7	42	20.5	79.5	74
.0 3.8 12.7 12.2 65.2 100.0	12.7 12.2 65.2 100.0	12.2 65.2 100.0	65.2 100.0	100.0		161	57.3	42.7	0	45.2	54.8	44
3.7 7.3 5.8 10.9 62.2 100.0	5.8 10.9 62.2 100.0	10.9 62.2 100.0	62.2 100.0	100.0		484	69.5	30.5	72	30.1	6.69	106
7 6.3 7.8 8.5 64.7 100.0	7.8 8.5 64.7 100.0	8.5 64.7 100.0	64.7 100.0	100.0		4198	65.1	34.9	554	41.2	58.8	808

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Background characteristicsCurrently smoke tobaccoFomerly tobaccoCharacteristicsDailyNon- dailyDailyRural7.24.08.3Rural7.24.08.3Rural7.43.17.5Income Quintiles7.43.17.5Least Income (Q1)7.43.17.5Lower (Q2)8.34.87.3Middle (Q3)9.64.69.0Upper (Q4)10.05.78.2Highest Income (Q5)11.36.38.2Highest Income (Q5)13.47.27.318-3913.47.27.340-693.83.81.910.3	Amon	g all people		Amone	g current s	mokers	Among	former sr	nokers
Daily Non- daily Daily Mon- laily Daily Rural 7.2 4.0 8.3 Income Quinties 7.2 4.0 8.3 Income Quinties 7.4 3.1 7.5 Income Cuinties 8.3 4.8 7.3 Middle (Q3) 9.6 4.6 9.0 Upper (Q4) 10.0 5.7 8.2 Highest Income (Q5) 11.3 6.3 8.2 18-39 13.4 7.2 7.3 40-69 3.8 1.9 10.3	Currently smoke Fomerly s tobacco tobacc	moke Never	MUN Vote F	ber	-uoN	Number		Non-	Number
Rural 7.2 4.0 8.3 Income Quintiles 7.4 3.1 7.5 Least Income (Q1) 7.4 3.1 7.5 Lower (Q2) 8.3 4.8 7.3 Middle (Q3) 9.6 4.6 9.0 Upper (Q4) 10.0 5.7 8.2 Highest Income (Q5) 11.3 6.3 8.2 Age 2 categories (previous) 13.4 7.2 7.3 40-69 3.8 3.8 1.9 10.3	Daily Non- Daily D	lon- tobacco aily	Pers	on	daily	Person		daily	Person
Income Quintiles 7.4 3.1 7.5 Least Income (Q1) 7.4 3.1 7.5 Lower (Q2) 8.3 4.8 7.3 Niddle (Q3) 9.6 4.6 9.0 Widdle (Q3) 9.6 4.6 9.0 Upper (Q4) 10.0 5.7 8.2 Highest Income (Q5) 11.3 6.3 8.2 Age 2 categories (previous) 13.4 7.2 7.3 40-69 3.8 3.8 1.9 10.3	7.2 4.0 8.3	7.7 72.8	100.0 705	66.0	34.0	487	47.1	52.9	1176
Least Income (Q1) 7.4 3.1 7.5 Lower (Q2) 8.3 4.8 7.3 Middle (Q3) 9.6 4.6 9.0 Widdle (Q3) 9.6 4.6 9.0 Upper (Q4) 10.0 5.7 8.2 Highest Income (Q5) 11.3 6.3 8.2 Age 2 categories (previous) 13.4 7.2 7.3 40-69 3.8 3.8 1.9 10.3									
Lower (Q2) 8.3 4.8 7.3 Middle (Q3) 9.6 4.6 9.0 Upper (Q4) 10.0 5.7 8.2 Highest Income (Q5) 11.3 6.3 8.2 Age 2 categories (previous) 13.4 7.2 7.3 40-69 3.8 3.8 1.9 10.3	7.4 3.1 7.5	7.4 74.5	100.0 238	82 67.5	32.5	152	46.4	53.6	381
Middle (Q3)9.64.69.0Upper (Q4)10.05.78.2Highest Income (Q5)11.36.38.2Age 2 categories (previous)13.47.27.318-3913.47.27.340-693.81.910.3	8.3 4.8 7.3	7.8 71.8	100.0 205	5 63.3	36.7	154	43.1	56.9	344
Upper (Q4) 10.0 5.7 8.2 Highest Income (Q5) 11.3 6.3 8.2 Age 2 categories (previous) 13.4 7.2 7.3 18-39 13.4 7.2 7.3 40-69 3.8 1.9 10.3	9.6 4.6 9.0	8.0 68.9	100.0 225	66 69.4	30.6	222	47.4	52.6	405
Highest Income (Q5) 11.3 6.3 8.2 Age 2 categories (previous) 13.4 7.2 7.3 18-39 13.4 7.2 7.3 40-69 3.8 1.9 10.3	10.0 5.7 8.2	8.6 67.5	100.0 231	0 64.5	35.5	238	42.2	57.8	415
Age 2 categories (previous) 13.4 7.2 7.3 18-39 13.4 7.2 7.3 40-69 3.8 1.9 10.3	11.3 6.3 8.2	8.3 65.8	100.0 220	63.3	36.7	275	43.8	56.2	439
18-39 13.4 7.2 7.3 40-69 3.8 1.9 10.3	(snc								
40-69 3.8 1.9 10.3	13.4 7.2 7.3	8.6 63.5	100.0 544	17 65.7	34.3	775	39.9	60.1	1015
	3.8 1.9 10.3	7.2 76.8	100.0 545	3 65.5	34.5	235	54.9	45.1	929
Total (18-69 Years) 9.9 5.3 8.4	9.9 5.3 8.4	8.1 68.3	100.0	40 65.6	34.4	1010	45.4	54.6	1944
Total (15-69 Years) 9.4 4.9 8.1	9.4 4.9 8.1	8.0 69.5	100.0 112	51 65.5	34.5	1041	44.5	55.5	1984



Table 7.2.4 Percentage of people age 15-69y who currently use any tobacco product, any smoked, smokeless tobacco product by background characteristics, [Bhutan NHS 2023].

			An	ong all pe	sople			Among	current si	mokers	Among	former sr	nokers
Dzongkhag	Currently toba	y smoke Icco	Fomerly tob	y smoke acco	Never	ļ	Number		Non-	Number	Č	Non-	Number
	Daily	Non- daily	Daily	Non- daily	smoked tobacco		Person		daily	Person	Daily	daily	Person
Bumthang	4.8	2.2	8.4	6.2	78.4	100.0	342	72.8	27.2	5	46.5	53.5	õ
Chhukha	13.5	4.7	8.9 9	7.1	67.9	100.0	1016	72.0	28.0	141	41.9	58.1	165
Chhukha (Other than P/ ling Thromde)	10.6	ю. Ю.	8.6 6	8.4	68.5	100.0	572	71.6	28.4	ឧរ	40.0	60.0	107
Phuentsholing Thromde	18.1	6.0	4.5	6.2	65.2	100.0	444	70.9	29.1	86	42.7	57.3	200
Dagana	5.1 .1	5.8 2.8	8.7	13.4	67.0	100.0	377	53.6	46.4	е С	32.6	67.4	101
Gasa	12.4	1.2	14.6	4.3	67.5	100.0	249	91.7	с. 8	26	71.6	28.4	40
Haa	5.6	.8 9	13.5	10.3	63.9	100.0	300	53.0	47.0	24	47.4	52.6	75
Lhuentse	0. 0. 0.	1.0	с. З	<u>ວ</u> .ວ	81.4	100.0	293	57.2	42.8	ത	62.2	37.8	6 8
Monggar	1.9	2.3	1.6	5.5	88.7	100.0	557	38.6	61.4	6	28.5	71.5	30 3
Paro	12.7	5.3	14.8	8.6	58.6	100.0	612	74.9	25.1	74	58.7	41.3	148
Pema Gatshel	2.5	2.2	7.2	6.7	81.4	100.0	400	69.1	30.9	5	47.0	53.0	51
Punakha	0. 0	6.3	12.8	10.1	61.0	100.0	419	68.4	31.6	42	51.4	48.6	97
Samdrup Jongkhar	2.8	3.7	4.1	10.7	78.6	100.0	697	38.4	61.6	6£	21.8	78.2	116
Samdrup Jongkhar (Other than SJ Thromde)	1.6	3.3	3.7	10.0	81.3	100.0	416	30.6	69.4	4	22.3	<i>T.T</i>	69

			Am	ong all p	eople			Among	current s	mokers	Among	l former sr	nokers
Dzongkhag	Currently toba	/ smoke cco	Fomerly tob	y smoke acco	Never	ļ	Number		Non-	Number		Non-	Number
	Daily	Non- daily	Daily	Non- daily	tobacco	01	Person		daily	Person	Daily	daily	Person
Samdrup Jongkhar Thromde	6.9	5.6	4.4	12.9	70.2	100.0	281	49.4	50.6	25	20.0	80.0	47
Samtse	9.1	5.7	7.6	6.7	70.8	100.0	850	62.1	37.9	92	45.5	54.5	151
Sarpang	9.7	4.2	10.9	10.8	64.4	100.0	804	66.7	33.3	94	50.2	49.8	194
Sarpang (Other than Gelephu Thromde)	10.2	3.5	10.5	11.0	64.7	100.0	522	69.6	30.4	22 2	49.0	51.0	125
Gelephu Thromde	10.9	0.0 8	9.7	9.8	61.6	100.0	282	54.1	45.9	6£	50.9	49.1	69
Thimphu	14.4	6.9	8.6	9.1	61.0	100.0	1768	67.2	32.8	274	41.4	58.6	384
Thimphu (Other than T/ phu Thromde)	12.5	7.0	7.9	9.7	62.8	100.0	393	69.3	30.7	48	37.2	62.8	84
Thimphu Thromde	15.7	7.1	8.4	9.1	59.8	100.0	1375	67.4	32.6	226	41.3	58.7	300
Trashigangng	3.2	2.5	4.3	4.6	85.4	100.0	663	65.9	34.1	22	43.7	56.3	63
Trashi Yangtseangtse	1.1	2.2	11.1	6.2	79.3	100.0	341	42.8	57.2	7	55.8	44.2	54
Trongsa	5.1	4.7	6.2	3.2	80.7	100.0	332	56.6	43.4	25	49.3	50.7	35
Tsirang	11.8	4.3	10.6	11.8	61.4	100.0	394	72.5	27.5	44	42.4	57.6	108
Wangdue	6.2	3.7	7.0	3.4	79.7	100.0	505	55.8	44.2	34	58.3	41.7	60
Zhemgang	6.6	7.4	1.4	4.1	80.5	100.0	332	48.5	51.5	24	29.7	70.3	26
Total (15-69 Years)	9.4	4.9	8.1	8.0	69.5	100.0	11251	65.5	34.5	1041	44.5	55.5	1984



Table 7.2.5 Percentage of people age 15-69 who currently use different smoking tobacco products by background characteristics, [Bhutan NHS 2023].

		Amo	ong all peop	ole			Amon	g current sm	okers	
Background characteristics	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person
Age Range										
15-24	19.8	6.4	3.5	4.4	1325	91.2	29.3	16.1	20.2	238
25-39	15.9	4.5	2.5	3.0	4433	89.5	25.3	14.2	16.9	568
40-54	5.2	2.2	1.0	0.9	3440	81.3	33.5	16.2	14.2	160
55-69	2.3	2.6	0.7	0.7	2053	51.4	57.8	16.7	15.5	75
Sex										
Men	19.1	9.9	3.2	3.9	4239	88.4	30.4	15.0	17.9	700
Women	5.2	1.4	1.0	1.0	7012	85.2	23.0	16.1	17.2	341
Level of Education										
None	4.0	2.6	1.3	1:	5147	78.0	50.0	24.5	21.1	183
Primary or less	10.6	6.0	2.2	2.2	1323	82.3	46.6	17.2	16.9	110
Lower Secondary	12.3	4.4	3.0	3.9	686	90.5	32.8	22.0	28.7	67
Middle Secondary	18.4	6.5	2.6	3.8	1504	89.2	31.6	12.8	18.6	221
Higher Secondary	20.3	4.2	2.7	3.8	1443	91.2	18.9	12.1	16.8	252
Certificates/Diploma	20.1	4.0	3.3	3.1	879	90.1	17.8	14.6	14.0	170
Bachelor/Master/PhD	17.4	2.3	1.9	1.5	267	85.6	11.2	9.1	7.4	38
Usual Activity										
Working	15.7	5.0	2.7	3.1	6199	88.8 88.8	28.1	15.1	17.8	740

		Am	ong all peop	ole			Amon	g current sm	okers	
Background characteristics	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person
Doing household chores	5.6	2.2	1:1	1.0	3889	83.0	33.1	15.6	14.8	177
Student	8.9	2.8	1.4	2.6	516	85.4	27.2	13.4	25.4	42
Retired	5.8	1.3	0.0	0.0	161	58.4	12.8	0.0	0.0	0
Doing nothing	19.0	6.9	4.1	3.6	484	90.4	32.7	19.3	17.3	72
Location										
Urban	16.9	4.0	3.2	3.8	4198	88.6	21.0	16.6	20.1	554
Rural	9.7	4.3	1.5	1.7	7053	86.7	37.9	13.7	15.1	487
Income Quintiles										
Least Income (Q1)	8.7	4.0	1.7	1.7	2382	82.0	38.2	16.1	16.3	152
Lower (Q2)	10.9	5.5	1.7	2.3	2095	83.6	42.0	12.9	17.4	154
Middle (Q3)	13.0	4.3	2.7	2.9	2256	91.9	30.7	18.8	20.5	222
Upper (Q4)	14.2	3.4	2.1	3.1	2310	90.5	21.6	13.4	19.5	238
Highest Income (Q5)	15.4	3.7	2.7	2.6	2208	87.6	21.1	15.2	15.0	275
Age 2 categories (previous)										
18-39	18.6	5.5	3.0	3.6	5447	90.3	26.5	14.7	17.4	775
40-69	4.2	2.3	0.9	0.8	5493	73.2	40.1	16.3	14.5	235
Total (18-69 Years)	13.4	4.3	2.3	2.6	10940	88.0	28.5	15.0	17.1	1010
Total (15-69 Years)	12.6	4.2	2.2	2.5	11251	87.7	28.9	15.2	17.7	1041



Table 7.2.6 Percentage of people age 15-69 who currently use different smoking tobacco products by Dzongkhag, [Bhutan NHS 2023].

		Ame	ong all peop	ole			Amon	g current sm	okers	
Dzongkhag	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person
Bumthang	5.2	0.6	1.5	1.0	342	74.2	8.6	21.3	14.6	12
Chhukha	14.6	2.2	0.4	6.0	1016	80.4	12.4	2.4	5.0	141
Chhukha (Other than P/ ling Thromde)	11.9	2.5	6.0	1.0	572	82.2	17.5	5.9	7,1	55
Phuentsholing Thromde	19.4	1.9	0.0	6.0	444	80.4	7.9	0.0	3.5	86
Dagana	0.0	2.6	0.8	3.0	377	82.8	23.7	7.3	27.8	33
Gasa	13.1	3.1	1.6	1.1	249	96.3	22.6	11.7	8.3	26
Наа	8.6	<u>.</u> ;	0.6	1.9	300	69.6	10.6	4.9	15.4	24
Lhuentse	4.8	1:	1.1	1:1	293	100.0	22.4	22.4	22.4	თ
Monggar	4.2	1.8	1.3	. <u>.</u>	557	100.0	42.6	30.8	30.8	<u>0</u>
Paro	16.0	5.3	3.0	2.7	612	89.1	29.2	16.4	15.0	74
Pema Gatshel	ю Ю	2.5	0.5	0.0	400	80.5	54.2	10.1	0.0	12
Punakha	16.1	5.2	0.5	0.5	419	99.5	32.3	2.9	2.9	42
Samdrup Jongkhar	6.2	3.1	2.1	2.2	697	95.5	47.6	32.1	33.7	39
Samdrup Jongkhar (Other than SJ Thromde)	4.9	3.4	2.2	2.2	416	98.7	68.0	43.7	43.7	14

		Ame	ong all peop	le			Amon	g current sm	okers	
Dzongkhag	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person	Cigarette (manufactured or hand-rolled)	Bidis	cigars, cheroots, cigarillos	vape or e-cigarettes	Number of person
Samdrup Jongkhar Thromde	11.4	2.3	1.8	2.2	281	91.1	18.7	14.3	17.3	25
Samtse	12.5	5.2	1.7	1.7	850	84.3	35.2	11.6	11.6	92
Sarpang	10.8	6.0	1.4	1.8	804	77.5	43.3	10.1	12.9	94
Sarpang (Other than Gelephu Thromde)	10.2	7.0	1.7	2.0	522	74.5	51.0	12.5	14.4	55
Gelephu Thromde	17.2	2.8	0.6	1.7	282	91.3	14.8	3.1	0.6	30 3
Thimphu	19.7	5.9	4.8	5.5	1768	92.4	27.9	22.6	26.0	274
Thimphu (Other than T/ phu Thromde)	17.8	5.6	2.8	2.8	393	91.2	28.6	14.1	14.1	48
Thimphu Thromde	21.1	6.3	5.5	6.4	1375	93.0	27.6	24.1	28.2	226
Trashigangng	4.9	2.0	2.0	1.9	663	86.4	34.5	35.0	32.5	22
Trashi Yangtseangtse	2.4	1.9	1.9	1.9	341	72.0	56.7	56.7	56.7	٢
Trongsa	9.4	3.2	2.8	3.2	332	95.6	32.8	28.9	32.8	25
Tsirang	15.0	7.4	1.5	2.7	394	93.0	45.6	9.6	16.9	44
Wangdue	7.9	1.0	0.8	1:	505	79.9	10.5	8.5	11.5	34
Zhemgang	11.1	4.1	0.0	0.4	332	79.3	29.6	0.0	3.0	24
Total (15-69 Years)	12.6	4.2	2.2	2.5	11251	87.7	28.9	15.2	7.71	1041



Table 7.2.7 Percentage of people age 15-69 who current use any smokeless tobacco product by background characteristics, [Bhutan NHS 2023].

		Amo	ong all people			Among curren	ntly smokeless	tobacco user
Background characteristics	Currently us	e smokeless tobacco	Former	Never used	Number of			Number of
	Daily	Non-Daily	smokeless tobacco users	smokeless tobacco	persons	Ually	Non-daily	persons
Age Range								
15-24	с. Ю.	4.8	5.1 .1	81.8	1325	63.7	36.3	149
25-39	17.1	5.4	6.5	71.1	4433	76.2	23.8	795
40-54	20.4	4.9	6.6	64.7	3440	80.5	19.5	747
55-69	19.5	5.1	14.8	60.6	2053	79.3	20.7	473
Sex								
Men	22.8	5.1	9.8	62.3	4239	81.8	18.2	1191
Women	8.4	5.1	5.9	80.6	7012	62.4	37.6	973
Level of Education								
None	18.9	5.1	10.5	65.4	5147	78.7	21.3	1110
Primary or less	24.7	6.3	9.5	59.6	1323	79.7	20.3	346
Lower Secondary	14.9	4.6	0.9	74.5	686	76.4	23.6	124
Middle Secondary	14.2	4.9	6.0	75.0	1504	74.4	25.6	226
Higher Secondary	1.1	3.8	6.3	78.8	1443	74.3	25.7	197
Certificates/Diploma	9.3	7.3	5.9	77.5	879	56.0	44.0	120
Bachelor/Master/PhD	14.9	2.7	5.5	76.9	267	84.5	15.5	41
Usual Activity								
Working	19.8	5.2	0.6	66.0	6199	79.3	20.7	1367

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		Amo	ng all people			Among curre	ntly smokeless	tobacco user
Background characteristics	Currently us	se smokeless tobacco	Former	Never used	Number of		Non doily	Number of
	Daily	Non-Daily	tobacco users	tobacco	persons	Udiiy		persons
Doing household chores	12.2	4.8	7.3	75.6	3889	71.6	28.4	625
Student	4.3	4.8	3.8	87.1	516	47.0	53.0	6°
Retired	20.6	11.0	10.2	58.2	161	65.2	34.8	49
Doing nothing	13.1	4.2	7.8	74.9	484	75.6	24.4	84
Location								
Urban	13.0	5.4	7,1	74.6	4198	70.7	29.3	682
Rural	18.1	4.9	8.6	68.4	7053	78.8	21.2	1482
Income Quintiles								
Least Income (Q1)	22.2	4.7	8.4	64.7	2382	82.6	17.4	570
Lower (Q2)	17.7	5.0	10.0	67.3	2095	77.8	22.2	441
Middle (Q3)	16.3	5.7	7.5	70.5	2256	74.0	26.0	452
Upper (Q4)	13.8	5.6	7.3	73.4	2310	71.0	29.0	409
Highest Income (Q5)	11.2	4.3	7.2	77.3	2208	72.4	27.6	292
Age 2 categories (previous)								
18-39	14.3	5.1	6.3	74.3	5447	74.0	26.0	920
40-69	20.1	5.0	11.6	63.3	5493	80.1	19.9	1220
Total (18-69 Years)	16.4	5.1	8.2	70.3	10940	76.4	23.6	2140
Total (15-69 Years)	16.1	5.1	8.0	70.9	11251	76.0	24.0	2164

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Table 7.2.8 Percentage of people age 15-69 who current use any smokeless tobacco product by Dzongkhag, [Bhutan NHS 2023].

		Among	g all people			Among curren	itly smokeless	tobacco user
Dzongkhag	Currently use sm	okeless tobacco	Former	Never used	Number			Number of
	Daily	Non-daily	sinokeless tobacco users	tobacco	persons	Daily		persons
Bumthang	15.7	3.3	6.9	74.1	342	82.7	17.3	57
Chhukha	17.3	1.9	7.4	73.4	1016	90.2	9.8	183
Chhukha (Other than P/ling Thromde)	22.1	0.5	8.3	69.1	572	97.6	2.4	133
Phuentsholing Thromde	11.2	3.6	6.2	79.1	444	75.7	24.3	20
Dagana	26.9	15.3	9.6	48.1	377	63.7	36.3	158
Gasa	19.2	3.1	7.0	70.8	249	86.2	13.8	42
Haa	19.0	0.6	8.1	72.3	300	97.2	2.8	23
Lhuentse	с. С	2.9	۲۲	81.6	293	74.2	25.8	27
Monggar	6.4	10.9	4.1	80.1	557	31.2	68.8	76
Paro	17.5	4.9	11.1	66.5	612	78.1	21.9	118
Pema Gatshel	6.7	2.0	6.1	85.2	400	77.2	22.8	26
Punakha	20.8	1.4	11.7	66.1	419	93.6	6.4	84
Samdrup Jongkhar	10.4	9.2	5.5	74.9	697	53.0	47.0	126
Samdrup Jongkhar (Other than SJ Thromde)	ю. 0	10.7	5.8	74.2	416	46.3	53.7	84

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		Among	g all people			Among curre	ntly smokeless	tobacco user
Dzongkhag	Currently use sr	nokeless tobacco	Former	Never used	Number			Number of
	Daily	Non-daily	tobacco users	tobacco	persons	Zally		persons
Samdrup Jongkhar Thromde	13.0	ю. Ю	3.6	79.6	281	77.4	22.6	42
Samtse	30.9	5.0	7.4	56.7	850	86.0	14.0	312
Sarpang	19.9	4.2	8.7	67.2	804	82.7	17.3	169
Sarpang (Other than Gelephu Thromde)	21.0	4.2	9.2	65.7	522	83.4	16.6	123
Gelephu Thromde	15.5	4.5	4.3	75.7	282	77.6	22.4	46
Thimphu	13.0	6.9	9.2	70.9	1768	65.2	34.8	337
Thimphu (Other than T/phu Thromde)	12.9	0.9	11.4	69.8	393	68.2	31.8	74
Thimphu Thromde	12.9	7,1	8.5	71.6	1375	64.7	35.3	263
Trashigangng	8.6	2.5	7.4	81.6	663	77.5	22.5	71
Trashi Yangtseangtse	5.6	1.4	11.5	81.6	341	80.3	19.7	25
Trongsa	12.2	12.6	8. 8.	68.4	332	49.1	50.9	80
Tsirang	24.5	3.7	12.1	59.7	394	87.0	13.0	101
Wangdue	16.4	1.5	4.5	<i>T.T.</i>	505	91.7	ß. S	84
Zhemgang	11.0	0.1	4.0	84.9	332	0.66	1.0	35
Total (15-69 Years)	16.1	5.1	8.0	70.9	11251	76.0	24.0	2164





Table 7.2.9 Mean age at initiation of smoking among people age 15-69y who currently smoke by background
characteristics, [Bhutan NHS 2023].

Background characteristics	Mean age at initiation of smoking	Median age at initiation of smoking	Number of Persons
Age Range			
15-24	15.9	16.0	238
25-39	19.2	20.0	568
40-54	21.5	20.0	160
55-69	18.5	16.0	75
Sex			
Men	17.9	18.0	700
Women	19.5	20.0	341
Level of Education			
None	18.7	18.0	183
Primary or less	17.1	17.0	110
Lower Secondary	16.2	16.0	67
Middle Secondary	18.0	18.0	221
Higher Secondary	17.8	18.0	252
Certificates/Diploma	20.0	20.0	170
Bachelor/Master/PhD	20.1	18.0	38
Usual Activity			
Working	18.4	18.0	740
Doing household chores	19.6	19.0	177
Student	15.4	16.0	42
Retired	20.1	18.0	10
Doing nothing	17.0	17.0	72
Location			
Urban	18.2	18.0	554
Rural	18.2	18.0	487
Income Quintiles			
Least Income (Q1)	17.6	18.0	152
Lower (Q2)	18.0	18.0	154
Middle (Q3)	17.9	18.0	222
Upper (Q4)	17.9	18.0	238
Highest Income (Q5)	19.2	19.0	275
Age 2 categories (previous)			
18-39	17.9	18.0	775
40-69	20.7	18.0	235
Total (18-69 Years)	18.2	18.0	1010
Total (15-69 Years)	18.2	18.0	1041



Table 7.2.10 Mean age at initiation of smoking among people age 15-69y who currently smoke by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Mean age at initiation of smoking	Median age at initiation of smoking	Number of Persons
Bumthang	17.6	18.0	12
Chhukha	17.7	18.0	141
Chhukha (Other than P/ling Thromde)	18.3	18.0	55
Phuentsholing Thromde	17.5	18.0	86
Dagana	18.7	19.0	33
Gasa	17.5	18.0	26
Наа	18.0	19.0	24
Lhuentse	22.3	21.0	9
Monggar	17.3	20.0	13
Paro	18.0	18.0	74
Pema Gatshel	16.9	17.0	12
Punakha	17.6	17.0	42
Samdrup Jongkhar	16.6	18.0	39
Samdrup Jongkhar (Other than SJ Thromde)	13.7	14.0	14
Samdrup Jongkhar Thromde	20.6	20.0	25
Samtse	19.0	18.0	92
Sarpang	18.5	18.0	94
Sarpang (Other than Gelephu Thromde)	18.9	18.0	55
Gelephu Thromde	18.1	17.0	39
Thimphu	18.2	18.0	274
Thimphu (Other than T/phu Thromde)	18.1	18.0	48
Thimphu Thromde	18.3	18.0	226
Trashigangng	17.2	18.0	22
Trashi Yangtseangtse	21.7	20.0	7
Trongsa	20.0	20.0	25
Tsirang	18.9	17.0	44
Wangdue	17.5	18.0	34
Zhemgang	17.3	17.0	24
Total (15-69 Years)	18.2	18.0	1041



Table 7.2.11 Percentage of current smokers age 15-69y who tried to stop smoking and who were advised to quit smoking in the past 12 months, respectively by background characteristics, [Bhutan NHS 2023].

Background characteristics	Tried to stop smoking	Number of Persons	Advised to quit smoking	Number of Persons
Age Range				
15-24	60.9	238	15.8	213
25-39	68.5	568	19.4	525
40-54	62.5	160	31.6	151
55-69	57.5	75	42.4	72
Sex				
Men	64.9	700	20.1	642
Women	63.5	341	21.5	319
Level of Education				
None	66.6	183	28.7	175
Primary or less	63.3	110	20.2	100
Lower Secondary	72.6	67	15.1	59
Middle Secondary	65.5	221	20.1	198
Higher Secondary	62.1	252	16.2	232
Certificates/Diploma	62.4	170	22.6	161
Bachelor/Master/PhD	71.0	38	26.2	36
Usual Activity				
Working	66.3	740	19.5	682
Doing household chores	66.7	177	23.9	163
Student	70.9	42	24.0	39
Retired	66.5	10	32.3	10
Doing nothing	42.9	72	19.0	67
Location				
Urban	64.1	554	19.6	523
Rural	65.2	487	21.4	438
Income Quintiles				
Least Income (Q1)	64.2	152	20.5	138
Lower (Q2)	65.3	154	20.4	139
Middle (Q3)	62.8	222	19.3	209
Upper (Q4)	66.1	238	18.4	218
Highest Income (Q5)	64.5	275	23.0	257
Age 2 categories (previous)				
18-39	64.7	775	17.2	710
40-69	61.1	235	34.6	223
Total (18-69 Years)	63.7	1010	19.4	933
Total (15-69 Years)	64.6	1041	20.4	961



Table 7.2.12 Percentage of current smokers age 15-69y who tried to stop smoking and who were advised to quit smoking in the past 12 months, espectively by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Tried to stop smoking	Number of Persons	Advised to quit smoking	Number of Persons
Bumthang	78.0	12	29.1	12
Chhukha	61.6	141	18.5	133
Chhukha (Other than P/ling Thromde)	58.5	55	21.3	49
Phuentsholing Thromde	64.0	86	15.5	84
Dagana	64.9	33	25.8	29
Gasa	74.5	26	30.9	23
Наа	63.2	24	17.8	22
Lhuentse	86.2	9	39.0	7
Monggar	52.2	13	10.8	13
Paro	61.2	74	11.2	63
Pema Gatshel	63.6	12	57.8	12
Punakha	75.2	42	17.8	40
Samdrup Jongkhar	69.4	39	6.0	36
Samdrup Jongkhar (Other than SJ Thromde)	62.0	14	0.0	14
Samdrup Jongkhar Thromde	75.0	25	14.7	22
Samtse	65.0	92	21.9	90
Sarpang	53.5	94	29.8	89
Sarpang (Other than Gelephu Thromde)	50.0	55	30.8	52
Gelephu Thromde	63.1	39	25.6	37
Thimphu	65.0	274	19.8	246
Thimphu (Other than T/phu Thromde)	67.7	48	19.5	40
Thimphu Thromde	65.0	226	19.6	206
Trashigangng	64.8	22	11.0	21
Trashi Yangtseangtse	60.6	7	9.4	6
Trongsa	55.6	25	13.6	23
Tsirang	69.7	44	24.8	42
Wangdue	73.4	34	25.2	33
Zhemgang	74.0	24	31.1	21
Total (15-69 Years)	64.6	1041	20.4	961



Table 7.2.13 Percentage of people age 15-69 years who were exposed to secondhand smoke at home or workplace in the past 30 days by background characteristics, [Bhutan NHS 2023].

Background characteristics	Someone smoked in home in their presence	Someone Smoked In Closed Area Where You Work	Number of persons
Age Range			
15-24	22.9	56.3	1325
25-39	20.9	56.7	4433
40-54	12.1	45.5	3440
55-69	12.5	34.8	2053
Sex			
Men	18.5	54.1	4239
Women	17.9	47.8	7012
Level of Education			
None	13.0	38.4	5147
Primary or less	17.5	48.4	1323
Lower Secondary	18.3	52.6	686
Middle Secondary	23.5	60.7	1504
Higher Secondary	23.0	61.6	1443
Certificates/Diploma	19.6	60.4	879
Bachelor/Master/PhD	19.2	61.2	267
Usual Activity			
Working	19.6	54.9	6199
Doing household chores	17.0	44.6	3889
Student	15.8	46.9	516
Retired	12.4	44.5	161
Doing nothing	14.8	50.9	484
Location			
Urban	20.8	65.5	4198
Rural	16.5	41.6	7053
Income Quintiles			
Least Income (Q1)	17.0	38.3	2382
Lower (Q2)	19.1	44.5	2095
Middle (Q3)	19.3	52.9	2256
Upper (Q4)	18.1	57.5	2310
Highest Income (Q5)	17.6	60.3	2208
Age 2 categories (previous)			
18-39	22.5	57.6	5447
40-69	12.2	41.8	5493
Total (18-69 Years)	18.8	51.8	10940
Total (15-69 Years)	18.2	51.2	11251



Table 7.2.14 Percentage of people age 15-69 years who were exposed to secondhand smoke at home or workplace in the past 30 days by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Someone smoked in home in their presence	Someone Smoked In Closed Area Where You Work	Number of Persons
Bumthang	10.9	64.6	342
Chhukha	13.3	59.1	1016
Chhukha (Other than P/ling Thromde)	12.7	43.2	572
Phuentsholing Thromde	15.1	79.5	444
Dagana	19.3	42.0	377
Gasa	25.4	51.4	249
Наа	14.8	54.1	300
Lhuentse	12.0	30.8	293
Monggar	4.7	26.3	557
Paro	25.8	62.0	612
Pema Gatshel	5.2	35.2	400
Punakha	21.9	64.2	419
Samdrup Jongkhar	16.5	36.8	697
Samdrup Jongkhar (Other than SJ Thromde)	15.4	34.2	416
Samdrup Jongkhar Thromde	22.3	49.5	281
Samtse	23.3	38.2	850
Sarpang	20.1	51.9	804
Sarpang (Other than Gelephu Thromde)	20.0	50.4	522
Gelephu Thromde	24.9	64.9	282
Thimphu	23.4	65.4	1768
Thimphu (Other than T/phu Thromde)	21.9	57.0	393
Thimphu Thromde	24.7	67.9	1375
Trashigangng	9.4	25.8	663
Trashi Yangtseangtse	4.5	13.4	341
Trongsa	15.4	41.8	332
Tsirang	19.8	58.0	394
Wangdue	16.3	49.7	505
Zhemgang	12.8	62.1	332
Total (15-69 Years)	18.2	51.2	11251

Table 7.3.1 Percentage of people aged 15-69 yrs who currently use any areca nut and its products by background characteristics, [Bhutan NHS 2023].

			Among al	l people			Among cu	irrent areca nut products	and/or its
Background characteristics	Currently use areca	Currently u and/or its	se areca nut s products	Fomerly used areca	Never used	Number			Number of
	nut and or its products	Daily	Non-Daily	nut and/or its products	areca nut/ its products	of persons	Daily	Non-daily	persons
Age Range									
15-24	54.7	17.9	36.8	9.4	35.9	1325	32.7	67.3	698.0
25-39	64.5	28.1	36.3	11.1	24.5	4433	43.6	56.4	2796
40-54	61.8	32.4	29.3	13.3	25.0	3440	52.5	47.5	2112
55-69	51.1	29.7	21.4	19.6	29.3	2053	58.1	41.9	1050
Sex									
Men	60.7	28.6	32.0	13.0	26.3	4239	47.2	52.8	2520
Women	58.6	24.8	33.8	11.5	29.9	7012	42.3	57.7	4136
Level Of Education									
None	59.6	28.8	30.9	13.7	26.7	5147	48.2	51.8	3020
Primary or less	65.6	32.8	32.8	12.9	21.6	1323	50.0	50.0	843
Lower Secondary	59.6	26.1	33.5	9.6	30.7	686	43.8	56.2	426
Middle Secondary	60.3	25.4	34.9	9.8	29.8	1504	42.1	57.9	904
Higher Secondary	57.9	23.2	34.8	10.5	31.6	1443	40.0	60.0	823
Certificates/Diploma	55.9	23.3	32.6	15.2	28.9	879	41.6	58.4	484
Bachelor/Master/PhD	58.2	24.6	33.6	14.9	26.9	267	42.3	57.7	155
Usual Activity									

			Among a	ll people			Among cı	irrent areca nut products	and/or its
Background characteristics	Currently use areca	Currently u and/or its	se areca nut s products	Fomerly used areca	Never used	Number			Number of
	nut and or its products	Daily	Non-Daily	nut and/or its products	areca nut/ its products	of persons	Daily	Non-daily	persons
Working	63.5	30.8	32.7	12.1	24.4	6199	48.5	51.5	3849
Doing household chores	59.1	24.9	34.2	12.6	28.3	3889	42.2	57.8	2242
Student	44.9	11.4	33.6	11.8	43.2	516	25.3	74.7	225
Retired	53.9	30.3	23.6	14.5	31.7	161	56.2	43.8	87
Doing nothing	50.0	20.0	30.0	13.4	36.6	484	39.9	60.1	252
Location									
Urban	57.7	27.7	30.1	11.5	30.8	4198	47.9	52.1	2433
Rural	61.1	26.3	34.8	12.8	26.1	7053	43.1	56.9	4223
Income Quintiles									
Least Income (Q1)	60.2	27.0	33.2	12.2	27.6	2382	44.8	55.2	1408
Lower (Q2)	58.6	25.1	33.5	13.9	27.5	2095	42.9	57.1	1211
Middle (Q3)	60.2	26.8	33.4	12.2	27.6	2256	44.5	55.5	1347
Upper (Q4)	61.7	27.6	34.1	10.6	27.7	2310	44.8	55.2	1413
Highest Income (Q5)	57.7	27.4	30.3	12.9	29.4	2208	47.5	52.5	1277
Age 2 categories (previous)									
8-39	62.2	25.2	37.0	10.2	27.6	5447	40.9	59.1	3366
40-69	58.1	31.5	26.6	15.5	26.5	5493	54.2	45.8	3162
Total (18-69 Years)	60.7	27.5	33.2	12.1	27.2	10940	45.3	54.7	6528
Total (15-69 Years)	59.7	26.9	32.9	12.3	28.0	11251	45.0	55.0	6656



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			Among al	l people			Among cu	irrent areca nut products	and/or its
Background characteristics	Currently use areca	Currently nut and/or	r use areca its products	Fomerly used areca	Never used	Number			Number of
	nut and or its products	Daily	Non-Daily	nut and/or its products	areca nut/ its products	of persons	Daily	Non-daily	persons
Bumthang	51.1	37.8	13.3	13.7	35.1	342	73.9	26.1	171
Chhukha	60.7	38.5	22.2	8.7	30.6	1016	63.5	36.5	618
Chhukha (Other than P/ling Thromde)	64.4	38.3 38.3	26.1	12.8	22.9	572	59.5	40.5	377
Phuentsholing Thromde	56.9	38.2	18.8	3.7	39.4	444	67.0	33.0	241
Dagana	62.1	13.9	48.1	12.3	25.6	377	22.4	77.6	216
Gasa	52.5	38.3	14.2	13.9	33.6	249	73.0	27.0	123
Haa	68.1	41.4	26.7	11.4	20.5	300	60.8	39.2	211
Lhuentse	48.2	10.6	37.6	9.2	42.6	293	22.0	78.0	139
Monggar	53.0	8.6 8	44.4	6.1	40.9	557	16.2	83.8	274
Paro	66.8	42.8	24.0	15.4	17.9	612	64.1	35.9	410
Pema Gatshel	61.0	20.1	40.9	16.0	23.0	400	32.9	67.1	254
Punakha	71.6	36.4	35.1	12.9	15.6	419	50.9	49.1	308
Samdrup Jongkhar	65.3	14.9	50.4	9.5	25.2	697	22.8	77.2	449
Samdrup Jongkhar (Other than SJ Thromde)	67.2	14.5	52.8	8.6	24.2	416	21.5	78.5	285

Table 7.3.2 Percentage of people aged 15-69 yrs who currently use any areca nut and its products by Dzongkhag, [Bhutan NHS 2023].

List of Tables

			Among a	ll people			Among cu	urrent areca nut products	and/or its
Background characteristics	Currently use areca	Currently nut and/or	/ use areca its products	Fomerly used areca	Never used	Number			Number of
	nut and or its products	Daily	Non-Daily	nut and/or its products	areca nut/ its products	of persons	Daily	Non-daily	persons
Samdrup Jongkhar Thromde	60.3	14.4	45.9	11.3	28.3	281	23.9	76.1	164
Samtse	61.4	23.5	37.9	10.0	28.6	850	38.3 38.3	61.7	514
Sarpang	52.5	23.8	28.7	17.2	30.3	804	45.3	54.7	415
Sarpang (Other than Gelephu Thromde)	54.7	24.4	30.2	17.5	27.8	522	44.7	55.3	281
Gelephu Thromde	44.9	18.6	26.3	14.5	40.5	282	41.4	58.6	134
Thimphu	56.0	27.7	28.4	13.9	30.0	1768	49.4	50.6	1021
Thimphu (Other than T/phu Thromde)	56.9	25.5	31.4	14.2	28.9	393	44.8	55.2	243
Thimphu Thromde	56.2	27.6	28.6	13.5	30.4	1375	49.1	50.9	778
Trashigangng	60.7	23.7	36.9	13.1	26.2	663 6	39.1	60.9	403
Trashi Yangtseangtse	53.4	8.6	44.8	18.6	28.0	341	16.0	84.0	181
Trongsa	64.3	21.1	43.1	7.6	28.2	332	32.9	67.1	205
Tsirang	59.2	23.5	35.6	18.2	22.6	394	39.8	60.2	204
Wangdue	71.0	48.0	23.0	5.6	23.4	505	67.7	32.3	364
Zhemgang	55.5	12.9	42.6	11.2	33.3	332	23.3	76.7	176
Total (15-69 Years)	59.7	26.9	32.9	12.3	28.0	11251	45.0	55.0	6656



5th National Health Survey



Table 7.4.1 Mean number of servings of fruit and vegetable intake per day of people aged 15-69 years, bybackground characteristics

Background	Mean s inta	ervings of fruit ke per day:	Mean servi intak	ngs of vegetable te per day:	Mean serv vegetable	rings of fruit and intake per day*:
characteristics	Mean	Number of respondents(N)	Mean	Number of respondents(N)	Mean	Number of respondents(N)
Age						
15-24	1.5	1327	3.7	1334	5.2	1334
25-39	1.6	4416	3.6	4432	5.2	4434
40-54	1.6	3431	3.6	3442	5.3	3444
55-69	1.6	2052	4	2059	5.6	2061
Sex						
Men	1.4	4099	3.8	4097	5.2	4099
Women	1.8	7174	3.6	7170	5.3	7174
Residence						
Rural	1.7	4211	3.8	4208	5.4	4211
Urban	1.5	7062	3.6	7059	5.1	7062
Education						
None	1.6	5152	3.6	5148	5.2	5152
Primary or less	1.2	1326	3.5	1325	4.7	1326
Lower Secondary	1.3	689	3.7	689	5	689
Middle secondary	1.5	1503	3.5	1503	5	1503
Higher secondary	1.8	1447	3.7	1446	5.5	1447
Certificates/Diploma	1.9	889	4.5	889	6.4	889
Bachelor & above	1.4	266	3.6	266	5	266
Expenditure quintile						
Lowest	1.1	3025	3.3	3024	4.4	3025
Second	1.5	1499	3.8	1497	5.3	1499
Middle	1.3	2245	3.7	2244	5	2245
Fourth	2	2262	4	2262	6	2262
Highest	1.9	2242	3.8	2240	5.7	2242
Total (15-69)	1.6	11273	3.7	11267	5.3	11273

Table 7.4.2 Percentage of people aged 15-69 years who reported inadequate consumption of fruits and vegetables by background characteristics, [Bhutan NHS 2023].

		Total			Men			Women	
Background characteristics	<5 servings/ day	>= 5 servings/day	Number of respondents (N)	<5 servings/ day	>= 5 servings/day	Number of respondents (N)	<5 servings/ day	> =5 servings/ day	Number of respondents (N)
Age									
15-24	76.3	23.7	1334	75.8	24.3	522.0	76.8	23.2	812
25-39	73.3	26.7	4434	75.0	25.0	1441.0	71.3	28.7	2993
40-54	73.5	26.5	3444	72.6	27.4	1277.0	74.4	25.6	2167
55-69	77.8	22.3	2061	77.8	22.3	859.0	77.8	22.2	1202
Sex									
Women	75	25.1	4154	N/A	N/A	N/A	N/A	N/A	N/A
Men	74.3	25.7	7215	N/A	N/A	N/A	N/A	N/A	N/A
Residence									
Rural	72.2	27.8	4235	72.6	27.4	1563	7.17	28.3	2672
Urban	76.5	23.5	7134	76.8	23.2	2591	76.2	23.8	4543
Education									
None	75.8	24.2	5227	76.2	23.8	1505	75.5	24.5	3722



		Total			Men			Women	
Background characteristics	<5 servings/ day	>= 5 servings/day	Number of respondents (N)	<5 servings/ day	>= 5 servings/day	Number of respondents (N)	<5 servings/ day	> =5 servings/ day	Number of respondents (N)
Primary or less	76.9	23.1	1337	<i>L.</i> / <i>T</i>	22.3	672	75.2	24.8	665
Lower Secondary	76.6	23.4	692	78.1	21.9	272	74.8	25.2	420
Middle secondary	75.0	25.0	1506	76.4	23.6	493	73.7	26.3	1013
Higher secondary	73.2	26.8	1448	72.7	27.3	574	73.8	26.2	874
Certificates/Diploma	70.8	29.2	891	71.1	29.0	486	70.3	29.7	405
Bachelor & above	69.0	31.0	266	69.9	30.1	151	66.6	33.4	115
Expenditure quintile									
Lowest	78.7	21.3	3058	78.2	21.8	1188	79.3	20.7	1870
Second	75.9	24.1	1509	75.7	24.4	534	76.2	23.8	975
Middle	77.6	22.4	2260	78.1	21.9	775	17.1	22.9	1485
Fourth	71.9	28.2	2276	71.7	28.3	813	72.0	28.0	1463
Highest	69.7	30.3	2266	71.6	28.4	844	67.5	32.5	1422
Total (15-69)	74.6	25.4	11273	75.0	25.1	4099	74.3	25.7	7174





Table 7.4.3 Percent of adults aged 15-69 who are non-vegetarian, lacto-vegetarian, ovo-vegetarian, lactoovovegetarian, vegan , according to background characteristics, [Bhutan NHS 2023].

		Perce	nt of adults wh	o are:		
Background characteristics	Non- vegetartian	Lacto- vegetarian*	Ovo- vegetarian*	Lacto-ovo- vegetarian*	Vegan*	Number of respondents
Age						
15-24	85.9	4.3	2.7	5.9	1.2	1335
25-39	90.4	3.0	2.3	3.0	1.3	4435
40-54	88.3	4.5	2.8	3.3	1.1	3444
55-69	88.2	4.0	3.0	3.5	1.3	2061
Sex						
Women	90.8	3.0	2.4	3.0	0.9	4155
Men	86.4	5.0	3.0	4.1	1.5	7215
Residence						
Rural	86.4	4.4	3.4	4.7	1.1	4235
Urban	90.1	3.7	2.2	2.8	1.2	7135
Education						
None	89.2	4.1	2.6	3.0	1.1	5227
Primary or less	88.6	5.0	2.8	2.3	1.2	1338
Lower Secondary	87.5	4.2	2.6	4.3	1.4	692
Middle secondary	89.6	3.9	2.3	3.1	1.0	1506
Higher secondary	88.7	2.8	2.0	5.3	1.2	1448
Certificates/Diploma	85.6	2.9	4.7	5.1	1.7	891
Bachelor & above	87.2	3.5	2.2	5.5	1.6	266
Expenditure quintile						
Lowest	88.9	4.3	2.4	3.3	1.2	3058
Second	89.3	3.6	2.9	2.8	1.3	1509
Middle	88.1	3.8	3.6	3.3	1.3	2260
Fourth	88.9	4.0	2.3	3.5	1.2	2276
Highest	88.3	3.9	2.4	4.4	1.0	2267
Total (15-69)	88.7	4.0	2.7	3.5	1.2	11370

*'Non-vegetarian': a person who consumes animal products; 'Lacto-vegetarian': a person who consumes no animal products except for dairy, 'ovo-vegetarian': a person who consumes no animal products except for eggs; 'Lacto-ovo vegetarian: a person who consumes no animal products except for dairy and eggs; 'vegan': a person who consumes no animal products



Table 7.5.1 Mean daily salt intake among the population aged 15-69 years based on spot urine samples by background characteristics, [Bhutan NHS 2023].

Background characteristics	Mean (g/day)	95% CI	Total respondents
Sex			
Men	9.4	[9.2,9.5]	660
Women	7.4	[7.3,7.5]	930
Location			
Urban	8.6	[8.4,8.8]	538
Rural	8.4	[8.2,8.5]	1052
Age 2 categories (previous)			
18-39	8.4	[8.3,8.6]	662
40-69	8.6	[8.4,8.7]	893
Total (18-69 Years)	8.5	[8.4,8.6]	1555
Total 15-69	8.5	[8.3,8.6]	1590

Table 7.5.2 Percent distribution of people aged 15-69 years who often they add salt or salty sauces to food while eating, often they eat processed food high in salt, by background characteristics, [Bhutan NHS 2023].

	Perc	ent who a	idd salt to foo	d while ea	ating	Total	Percer	nt who ea	t processed f	ood high i	n salt	Total
background characteristics	Always	Often	Sometimes	Rarely	Never	Number	Always	Often	Sometimes	Rarely	Never	Number
Age Range												
15-24	12.5	7.3	40.3	11.3	28.6	1,324	7.8	10.3	58.3	12.7	10.9	1,325
25-39	13.3	5.7	36.5	11.9	32.6	4,431	5.6	<u>6.</u> 6	53.7	17.1	17	4,430
40-54	12.9	4.2	е С	14.4	35.5	3,439	3.1 .1	4.2	44.7	21.8	26.2	3,438
55-69	10.9	4	28.4	14.9	41.8	2,050	2.8	3.6	36.1	23.5	34	2,053
Sex												
Men	11.9	5.2	34.9	13.2	34.7	4,240	4.5	5.9	49.3	19	21.4	4,240
Women	13.7	5.8	36.3	12.2	32	7,004	5.9	7.3	51.8	16.8	18.1	7,006
Level of Education												
None	12.5	4.2	31.6	13.9	37.8	5,143	3.4	3.9	43.8	21.1	27.8	5,145
Primary or less	14.1	4.6	34.8	13.1	33.4	1,323	4.9	4.6	50.8	18.1	21.5	1,321
Lower Secondary	11.5	6.1	38.9 38	9.1	34.5	686	6.3	6.6	56.1	15.3	15.7	686
Middle Secondary	12.5	5.8	39	10.2	32.5	1,503	6.3	6.4	57.2	13.6	16.6	1,504
Higher Secondary	12.8	6.7	40.1	13.1	27.3	1,442	6.9	10.7	56	14.2	12.2	1,443
Certificates/Diploma	12.1	7,1	34.9	14.1	31.9	879	4.7	9.3	48.7	22.5	14.8	879
Bachelor/Master/PhD	15.6	9.3	32.1	13	30	267	9.3	10.1	48.3	18.2	4	267
Usual Activity												
Working	12.9	വ	34	12.8	35.2	6,196	5.1	9	49.8	18	21.2	6,198



	Perc	ent who a	dd salt to foo	d while ea	ating	Total	Percer	nt who ea	t processed f	ood high i	n salt	Total
	Always	Often	Sometimes	Rarely	Never	Number	Always	Often	Sometimes	Rarely	Never	Number
Doing household chores	11.9	6.1	36.5	13.4	32.1	3,887	4.5	9	49.5	19.6	20.4	3,888
Student	13.1	٢	40.9	10.3	28.6	515	۲Ż	9.5	61.2	12.6	9.6	516
Retired	8.5	3.4	32.3	10.6	45.1	161	3.6	3.8	34.4	18.2	40.1	161
Doing nothing	14.5	9	39.3	13.4	26.8	484	6.7	10.5	47.6	18.9	16.3	482
Location												
Urban	14.3	6.2	36.2	12.1	31.2	4,196	5.6	8.4	51.4	17.2	17.3	4,195
Rural	11.7	ы	35.2	13.1	35	7,048	4.9	5.3	49.8	18.4	21.5	7,051
Income Quintiles												
Least Income (Q1)	11.1	5.5	33.4	12.5	37.5	2,380	3.3	6.1	44.4	18.8	27.4	2,381
Lower (Q2)	13.6	5.2	34.4	13	33.8	2,093	4.3	5.7	50.3	17.8	21.8	2,095
Middle (Q3)	12.2	5.9	36.9	12.5	32.6	2,255	5.3	5.5	23	18.1	18.1	2,255
Upper (Q4)	12.9	5.4	37.5	12.7	31.6	2,309	6.1	7.7	53.2	15.9	17.1	2,309
Highest Income (Q5)	13.8	5.6	35.3	13	32.3	2,207	6.5	7.5	50.8	19.3	15.9	2,206
Age 2 categories (previous	\$)											
18-39	13.3	6.3	38.2	12	30.3	5,445	6.4	8.1	55	15.9	14.6	5,444
40-69	12.2	4.1	31.4	14.5	37.7	5,489	ო	4	41.7	22.4	28.9	5,491
Total (18-69 Years)	12.9	5.5	35.7	12.9	33	10,934	5.2	6.6	50.1	18.3	19.9	10,935
Total (15-69)	12.7	5.5	35.6	12.7	33.4	11,244	5.2	6.5	50.5	8	19.9	11,246

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Table 7.5.3 Percent distribution of people aged 15-69 years who often they add salt or salty sauces to food while eating, and who often they eat processed food high in salt, by Dzongkhags, [Bhutan NHS 2023].

Background	Per	cent who	add salt to foo	d while eat	ting	Total	Perce	ent who eat	: processed foo	d high in	salt	Total
characteristics	Always	Often	Sometimes	Rarely	Never	Number	Always	Often	Sometimes	Rarely	Never	Number
Bumthang	33.7	8.5	28.6	1.9	27.2	342	15	9	36.7	13.5	28.8	1,766
Chhukha	10.2	<u>з</u> .9	38.4	13.4	34	1,016	1.9	5.3	57.4	19.6	15.8	1,016
Chhukha (Other than P/ ling Thromde)	17.5	4.7	26.9	17.1	33.6	572	1.6	7.9	55.2	21	14.3	572
Phuentsholing Thromde	1.6	3.5	52.2	8.6	34.1	444	2.3	2.8	61.1	17.5	16.3	444
Dagana	7.8	3.3	29.8	17.3	41.8	374	ω	2.7	44	18.1	27.2	377
Gasa	4.4	15.9	23.8	10.2	45.7	249	0.6	15.6	51.2	17.7	14.9	249
Haa	5.4	1.7	47.6	4.1	41.3	300	7.8	5.9	60.4	16.5	9.4	300
Lhuentse	23.4	5.8	36	1:1	23.8	293	5.4	6.3	46.5	29.6	12.1	293
Monggar	24.5	5.6	29.3	15	25.7	557	2.3	5.5	43	21.9	27.3	556
Paro	15.5	6	34.8	12.8	28	611	ო	10.5	51.6	18.8	16.1	612
Pema Gatshel	6.4	1.7	37.3	24.1	30.5	400	1.6	4.6	62.6	19.2	12	400
Punakha	5.2	8.9	40.4	15.7	29.9	418	15.2	6.7	51.5	18.8	7.8	419
Samdrup Jongkhar	17.5	10.1	38.6	11.3	22.5	697	3.4	13.6	47.4	22.5	13.1	697
Samdrup Jongkhar (Other than SJ Thromde)	17.2	11.8	40.6	11.3	19.1	416	2.8	16.1	48.1	21.4	11.6	416



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Background	Pel	rcent who	add salt to foo	d while eat	ing	Total	Perce	ent who eat	processed foo	d high in	salt	Total
characteristics	Always	Often	Sometimes	Rarely	Never	Number	Always	Often	Sometimes	Rarely	Never	Number
Samdrup Jongkhar Thromde	17.4	5.7	32.5	6. 3.3	35.1	281	5.7	7.9	47.5	22.4	16.5	281
Samtse	2.5	6.3	41.2	10.7	39.3	850	4.4	4.7	41.6	17.7	31.5	850
Sarpang	р	<u>а</u> .5	35.7	19.8	38.9 38	804	5.8 .8	4.8	43.8	24.9	20.8	804
Sarpang (Other than Gelephu Thromde)	2.2	8. M	36	18	40	522	5.3	4.9	43.6	26.2	20	522
Gelephu Thromde	1.7	ო	36.8	24.3	34.2	282	10.4	5.4	49.9	15.9	18.3	282
Thimphu	15	Q	36.7	13.5	28.8	1,766	6.7	7.7	48.8	18.6	18.2	1,765
Thimphu (Other than T/ phu Thromde)	5.3	2.4	54.4	17.7	20:1	393	12.6	2.5	57.3	13.2	14.4	868 8
Thimphu Thromde	17.1	6.8	33.4	12.6	30.1	1,373	5.9	თ	47.8	19.2	18.1	1,372
Trashigang	5.4	1:	29.4	ی 30 8	58.3	663	3.4	2.7	56	8.7	29.3	663
Trashi Yangtse	3.9	0.5	35.1	5.7	54.8	341	ю	3.6	47.8	16.1	29.6	341
Trongsa	<i>T.</i> 7	2.1	42.6	11.4	36.2	332	2.4	3.3	50	16.3	28.1	332
Tsirang	16.5	8.2	32	14.4	28.9	394	7.4	7.2	52.4	12.8	20.2	394
Wangdue	45.8	0.8	24:1	5.1	24.1	505	5.2	വ	58.6	8.7	22.5	504
Zhemgang	2.3	7.4	33.5	16.1	40.6	332	4.8	9.5	41.9	24.8	19	332
Total (15-69)	12.7	5.5	35.6	12.7	33.4	11,244	5.2	6.5	50.5	8	19.9	11,246



Table 7.5.4 Percent distribution of people aged 15-69 years by their perception about how much salt or salty sauce they think they consume, by background characteristics, [Bhutan NHS 2023].

	How r	nuch salt or s	salty sauce they	think they co	nsume	Total
Background characteristics	Far too	Too much	Just the	Too little	Far too little	Number
	much		right amount			
Age Range						
15-24	0.9	14.0	69.8	12.2	3.1	1,309
25-39	1.3	12.5	66.1	16.5	3.7	4,388
40-54	0.8	10.6	64.1	21.3	3.2	3,403
55-69	0.6	6.3	62.2	27.1	3.8	2,022
Sex						,
Men	1.0	11.2	66.0	17.7	4.1	4,188
Women	1.0	12.0	66.0	18.2	2.7	6,934
Level of Education						
None	0.7	9.3	64.0	22.8	3.2	5,076
Primary or less	1.0	10.7	67.3	17.6	3.5	1,312
Lower Secondary	1.4	12.2	66.4	17.2	2.8	678
Middle Secondary	0.8	13.2	67.9	14.8	3.3	1,495
Higher Secondary	1.4	13.6	67.3	13.4	4.2	1,427
Certificates/Diploma	1.4	13.1	65.0	16.3	4.2	869
Bachelor/Master/PhD	0.7	14.5	68.5	15.0	1.3	264
Usual Activity		+			+ ! !	
Working	1.1	12.0	65.1	18.3	3.5	6,131
Doing household chores	0.9	11.3	66.7	18.4	2.7	3,837
Student	0.3	12.3	73.4	11.1	2.8	513
Retired	1.7	8.5	46.5	36.9	6.4	160
Doing nothing	1.3	9.0	64.7	18.7	6.3	480
Location						
Urban	1.3	12.0	64.4	18.0	4.3	4.121
Rural	0.8	11.3	67.1	17.9	2.9	, 7.001
Income Quintiles						-,
Least Income (Q1)	1.6	9.6	66.1	19.2	3.6	2.358
Lower (Q2)	0.4	11.3	677	177	29	2 071
Middle (Q3)	0.9	121	661	17.8	32	2 231
Upper ($\Omega 4$)	13	10.8	64.9	19.2	37	2,201
Highest Income (O5)	0.7	1/1 1	65.6	15.2	3.7	2,202
Age 2 categories (providus)	0.7	, 177.1	03.0	13.0		∠,100
18-29	13	12.2	670	15 0	35	5 3 8 7
10-59 10-69	 ∩ 7	د.د _ا ۵1	0.0 62 A	1J.U 72 0	э.э эл	5,307 5 195
Total (19 69 Vaara)	U./ 44	ت. 14 7	03.4 6E 7	دع.ع 10 م).4)) E	0,420 10 910
	1.1	11./ 44 C	1.00	10.U	3.5 2 F	10,612
iotai (15-09)	1.0	11.0	00.0	17.9	5.5	11,122



Table 7.5.5 Percent distribution of people aged 15-69 years by their perception about how much salt or salty sauce they think they consume, by Dzongkhag, [Bhutan NHS 2023].

	How	much salt or sa	alty sauce they	think they con	sume	Total
Background characteristics	Far too much	Too much	Just the right amount	Too little	Far too little	Number
Bumthang	0.5	11.3	71.2	14.8	2.1	339
Chhukha	0.6	15.8	62.5	18.8	2.2	1,012
Chhukha (Other than P/ ling Thromde)	0.2	16.6	68.8	13.9	0.5	572
Phuentsholing Thromde	1.2	15.9	54.8	23.8	4.3	440
Dagana	0.0	10.2	75.1	14.7	0.0	376
Gasa	3.4	11.3	71.3	12.7	1.3	246
Наа	2.8	20.2	66.5	10.3	0.2	299
Lhuentse	1.3	9.9	72.9	15.7	0.2	290
Monggar	1.6	12.4	60.1	24.6	1.2	557
Paro	0.9	13.6	71.0	10.2	4.4	591
Pema Gatshel	0.1	12.4	69.0	18.4	0.2	400
Punakha	0.0	14.6	65.7	18.2	1.4	419
Samdrup Jongkhar	0.5	10.1	57.1	22.9	9.4	647
Samdrup Jongkhar (Other than SJ Thromde)	0.7	10.8	56.0	22.7	9.7	389
Samdrup Jongkhar Thromde	0.0	9.4	60.9	21.0	8.8	258
Samtse	1.5	9.0	55.6	24.6	9.2	842
Sarpang	0.5	6.6	68.9	17.8	6.1	801
Sarpang (Other than Gelephu Thromde)	0.5	7.1	69.7	15.9	6.7	519
Gelephu Thromde	0.0	5.2	66.6	24.3	3.9	282
Thimphu	1.8	11.5	65.4	17.4	3.9	1,745
Thimphu (Other than T/ phu Thromde)	1.6	11.3	68.1	16.3	2.8	393
Thimphu Thromde	1.9	11.8	65.3	16.9	4.1	1,352
Trashigang	0.3	10.2	71.1	18.2	0.3	657
Trashi Yangtse	0.0	6.3	73.3	19.1	1.3	340
Trongsa	0.0	10.3	65.2	24.2	0.2	332
Tsirang	2.0	12.0	73.2	11.4	1.5	393
Wangdue	0.3	9.3	69.1	20.5	0.8	504
Zhemgang	0.2	16.6	64.0	18.8	0.4	332
Total (15-69)	1.0	11.6	66.0	17.9	3.5	11,122



Table 7.5.6 Percent distribution of people aged 15-69 years by their perception of how often their household drinks salted tea, by background characteristics, [Bhutan NHS 2023].

		low often thei	r household dı	rinks salted tea	a	Total
Background characteristics	Always	Often	Sometimes	Rarely	Never	Number
Age Range						
15-24	5.2	3.3	41.5	17.5	32.6	1,324
25-39	5.8	3.9	35.5	21.4	33.3	4,428
40-54	8.8	3.9	33.7	21.1	32.4	3,439
55-69	10.4	3.5	30.2	19.5	36.4	2,050
Sex						
Men	7.3	3.9	35.7	21.2	31.9	4,239
Women	6.6	3.4	36.1	19.0	35.0	7,002
None	10.2	3.5	32.2	18.5	35.5	5,143
Primary or less	8.8	3.6	35.0	20.0	32.6	1,322
Lower Secondary	6.0	2.8	40.5	17.6	33.2	685
Middle Secondarv	5.0	3.5	40.5	16.6	34.4	1.504
Higher Secondary	4.0	3.6	40.1	20.2	32.1	1.442
Certificates/Diploma	4.6	5.1	33.5	31.1	25.6	879
Bachelor/Master/PhD	1.5	4.6	27.5	27.3	39.1	265
Usual Activity						
Working	7.0	3.6	35.9	20.1	33.4	6,195
Doing household chores	7.8	3.4	34.7	20.1	33.9	3,886
Student	3.6	4.3	42.2	18.5	31.4	515
Retired	9.5	5.9	31.7	17.1	35.7	161
Doing nothing	7.8	3.8	31.4	24.5	32.4	483
Location		 				
Urban	4.2	3.8	36.7	22.6	32.7	4,192
Rural	8.8	3.6	35.3	18.5	33.7	7,049
Income Quintiles		 				
Least Income (Q1)	10.6	3.8	32.4	18.5	34.6	2,377
Lower (Q2)	9.0	3.4	38.4	16.9	32.2	2,095
Middle (Q3)	5.8	3.2	37.0	18.8	35.2	2,256
Upper (Q4)	5.6	3.4	36.8	21.6	32.6	2,308
Highest Income (Q5)	4.4	4.6	34.8	24.2	32.0	2,205
Age 2 categories (previous)						
18-39	5.8	3.5	37.6	20.2	32.9	5,442
40-69	9.4	3.7	32.5	20.5	33.8	5,489
Total (18-69 Years)	7.1	3.6	35.7	20.4	33.2	10,931
Total (15-69)	7.0	3.7	35.9	20.1	33.3	11,241



Table 7.5.7 Percent distribution of people aged 15-69 years by their perception of how often their household drink salted tea, by Dzongkhag, [Bhutan NHS 2023].

	Но	w often the	ir household drir	iks salted t	ea	Total
Background characteristics	Always	Often	Sometimes	Rarely	Never	Number
Bumthang	7.0	1.8	59.2	6.8	25.2	342
Chhukha	5.3	3.4	36.7	16.7	37.9	1016
Chhukha (Other than P/ling Thromde)	9.5	5.4	37.2	14.6	33.3	572
Phuentsholing Thromde	0.1	1.1	37.5	18.9	42.4	444
Dagana	10.3	2.4	21.3	10.9	55.2	377
Gasa	35.6	9.6	29.6	8.3	16.9	249
Наа	5.0	1.1	36.4	25.4	32.0	298
Lhuentse	9.2	6.7	38.2	26.9	19.1	292
Monggar	3.3	1.7	37.5	26.1	31.4	556
Paro	8.8	7.1	36.8	25.0	22.4	612
Pema Gatshel	0.3	2.5	27.9	30.7	38.5	400
Punakha	12.9	4.7	28.7	20.0	33.8	419
Samdrup Jongkhar	5.0	2.8	43.5	27.3	21.4	696
Samdrup Jongkhar (Other than SJ Thromde)	5.6	2.9	45.7	27.3	18.5	416
Samdrup Jongkhar Thromde	2.8	2.6	37.6	26.5	30.5	280
Samtse	11.4	4.6	30.3	11.5	42.2	850
Sarpang	3.7	2.0	28.6	21.2	44.5	802
Sarpang (Other than Gelephu Thromde)	4.0	2.2	29.9	21.4	42.5	522
Gelephu Thromde	1.5	1.1	22.5	21.7	53.2	280
Thimphu	5.7	4.6	35.9	23.7	30.0	1767
Thimphu (Other than T/phu Thromde)	4.0	1.6	34.7	19.7	40.0	393
Thimphu Thromde	6.0	5.1	36.2	24.5	28.2	1374
Trashigang	5.7	1.7	41.1	15.2	36.3	663
Trashi Yangtse	0.7	3.1	45.3	18.5	32.4	340
Trongsa	7.1	2.7	47.7	15.8	26.8	331
Tsirang	8.9	2.4	31.1	15.7	42.0	394
Wangdue	17.0	5.3	43.2	9.1	25.4	505
Zhemgang	1.8	1.4	37.7	33.7	25.3	332
Total (15-69)	7.0	3.7	35.9	20.1	33.3	11241

Table 7.6.1 Average and median time (minutes per day) spent on vigorous- and moderate-intensity physical activity amongst adults (15-69 years), according to background characteristics, [Bhutan NHS 2023].

Background	Percent	t who add while ea	l salt to food ting		otal	Modera activity	te intensi / (minute:	ty phys s per da	sical ay)	Total	Total phy of mode (m	sical activ erate- inte inutes per	rity in m nsity ac r day) **	inutes tivity	Total
characteristics	Averade	Median	Interquarti range	ile	ŝ	Average	Median	Interq ran	uartile Ige	2	Average	Median	Interq. ran	uartile Ige	respondents (N)
	,		p25 p7	2		,		p25	p75		>		p25	p75	
Age Range															
15-24	71.2	2.9	0.0 51.	4	326	112.8	60.0	20.0	137.1	1326	253.3	102.9	31.4	291.4	1326
25-39	93.6	0.0	0.0 54.	ω. 4	1432	117.7	62.1	22.1	154.3	4432	302.1	107.6	34.0	334.3	4432
40-54	107.3	0.0	0.0 128	3.6 3	3443	136.5	77.1	25.7	180.0	3443	350.1	145.7	40.0	499.7	3443
55-69	82.6	0.0	0.0 60.	<u>0</u>	054	121.0	68.6	19.3	160.7	2054	285.0	120.0	30.0	377.1	2054
Sex															
Men	123.2	25.7	0.0 180	0.0	1289	129.3	71.4	21.4	179.3	4289	373.1	188.6	57.1	574.3	4289
Women	52.3	0.0	0.0 17.	7 Ľ	052	112.4	61.4	21.4	154.3	7052	216.1	0.06	30.0	290.7	7052
Level Of Education															
None	121.8	0.0	0.0 154	1.3 5	1223	138.8	1.77	25.0	184.3	5223	380.4	145.7	37.1	540.0	5223
Primary or less	125.6	0.0	0.0 154	t.3 1	332	141.0	79.3	25.7	180.0	1332	391.7	171.4	42.9	518.6	1332
Lower Secondary	9.77	0.0	0.0 34.	ω.	687	113.8	60.0	21.4	145.7	687	270.2	102.9	30.0	300.0	687
Middle Secondary	68.6	0.0	0.0 32	1 1	506	107.7	57.9	21.4	132.9	1506	241.9	85.7	28.6	250.0	1506
Higher Secondary	65.5	0.0	0.0 34.	ώ L	443	108.7	57.1	20.0	128.6	1443	239.4	0.06	30.0	240.0	1443
Certificates/ Diploma	36.6	0.0	0.0 34.	ņ	881	91.4	51.4	20.0	120.0	881	160.5	85.7	32.9	188.6	881
Bachelor/ Master/PhD	41.8	0.0	0.0 34.	ŵ.	267	109.3	60.0	19.3	130.0	267	188.9	96.9	30.0	250.0	267
Usual Activity															
Working	110.9	0.0	0.0 137	7.1 6	5231	130.5	70.0	21.4	180.0	6231	351.7	146.4	38.6	501.4	6231



Background	Percent	t who add while ea	l salt to i ting	food	Total	Modera activit	ite intens y (minute	ty phys s per dá	ical ay)	Total	Total phy of mode (m	sical activ erate- inte inutes per	vity in m nsity ac r day) **	iinutes :tivity	Total -
characteristics	Averane	Median	Interquiran	uartile Ige	ŝ	Averade	Median	Interquert	uartile qe	2	Averade	Median	Interq	uartile Ige	respondents (N)
			p25	, р75				p25	p75				p25	, р75	
Doing household chores	63.2	0.0	0.0	17.1	3926	119.1	68.6	25.7	157.1	3926	243.7	98.6	30.0	291.4	3926
Student	49.7	12.9	0.0	50.0	516	95.2	51.4	17.1	128.6	516	190.0	0.66	34.3	254.3	516
Retired	70.7	0.0	0.0	25.7	167	107.8	60.0	19.3	128.6	167	222.8	87.1	21.4	240.0	167
Doing nothing	67.0	0.0	0.0	25.7	498	86.7	42.9	10.0	114.0	498	217.9	67.1	20.0	197.1	498
Location															
Urban	44.4	0.0	0.0	169.7	4218	99.5	79.3	19.3	184.7	4218	186.3	168.6	45.7	540.0	4218
Rural	120.5	0.0	0.0	17.1	7123	136.1	51.4	25.7	120.0	7123	375.7	74.3	25.7	183.6	7123
Income Quintiles															
Least Income (Q1)	129.8	0.0	0.0	205.7	2430	141.9	75.0	19.3	190.7	2430	398.3	180.0	38.6	630.0	2430
Lower (Q2)	121.1	0.0	0.0	171.4	2114	134.3	80.0	28.3	188.6	2114	375.1	171.4	47.1	540.0	2114
Middle (Q3)	86.3	0.0	0.0	68.6	2265	122.2	64.3	21.4	165.0	2265	292.4	120.0	30.0	378.0	2265
Upper (Q4)	67.4	0.0	0.0	34.3	2319	105.5	60.0	20.0	135.7	2319	240.4	0.06	30.0	250.0	2319
Highest Income (Q5)	53.9	0.0	0.0	25.7	2213	107.6	60.0	21.4	131.4	2213	213.3	0.06	30.0	222.9	2213
Age 2 categories (p	revious)														
18-39	86.8	0.0	0.0	51.4	5446	117.8	60.0	21.4	150.0	5446	289.1	107.1	32.9	325.7	5446
40-69	98.7	0.0	0.0	111.4	5497	131.1	72.9	22.9	180.0	5497	327.4	130.0	34.3	462.9	5497
Total (18-69 Years)	91.2	0.0	0.0	۲7.	10943	122.6	68.6	21.4	162.9	10943	303.1	120.0	34.3	385.7	10943
Total (15-69 Years)	90.06	0.0	0.0	75.0	11341	121.4	67.7	21.4	162.9	11341	299.4	120.0	34.3	377.1	11341

*MET(Metabolic equivalent of task): for vigorous activity 1 minute equate to 8 units of MET; for moderate activity 1 minute equate to 4 units of MET. **Minutes spent on vigorous-intensitiy activities per day are multiplied by 2, to derive equivalent minutes of moderate-intensity activities, which is then summed up to derive total physical activity in minutes of moderate-intensity activity per day.

Table 7.6.2 Average and median time (minutes per day) spent on vigorous- and moderate-intensity physical activity amongst adults (15-69 years), according to Dzongkhag, [Bhutan NHS 2023].

Total	respondent (N)		343	1018	574	444	378	249	303	306	560	617	407	423	698	417	281
ninutes tivity	uartile Ige	p75	335.7	222.9	320.0	124.3	522.9	520.0	624.3	819.0	831.4	450.0	311.4	355.7	420.0	477.1	180.0
/ity in m nsity ac r day) **	Interq rar	p25	45.7	25.7	34.3	21.4	45.0	47.0	90.06	57.1	60.0	42.9	74.3	21.4	34.3	42.4	21.4
sical activ rate- inte nutes pe	Median		117.9	17.1	114.9	45.7	180.0	180.0	270.0	168.6	257.1	137.9	150.0	84.9	138.6	205.7	70.7
Total phys of mode (mi	Averade	'n	296.0	227.3	275.0	171.9	384.4	375.3	375.1	465.3	468.1	356.3	256.9	291.4	307.9	347.7	163.3
Total	2		343	1018	574	444	378	249	303	306	560	617	407	423	698	417	281
iical ay)	uartile Ige	p75	140.0	120.0	145.7	75.0	210.0	185.7	187.7	128.6	197.1	180.4	214.3	120.4	214.3	235.7	140.7
ity phys s per dá	Interq ran	p25	30.0	21.4	23.6	17.1	20.0	20.0	47.1	34.3	30.0	23.6	47.1	15.7	21.4	25.7	15.0
ite intens y (minute	Median		66.4	42.9	57.1	34.3	77.1	60.0	0.06	85.7	81.4	81.4	115.7	51.4	82.9	0.66	60.0
Modera activit	Average	'n	127.2	84.5	104.5	60.4	143.4	145.8	135.9	109.5	151.4	142.1	144.0	94.8	149.7	158.6	112.3
Total	2		343	1018	574	444	378	249	303	306	560	617	407	423	698	417	281
pooj	uartile ge	p75	60.0	25.7	60.0	8.6	145.7	188.6	240.0	360.0	342.9	102.9	34.3	120.0	60.0	102.9	0.0
salt to f ting	Interqu ran	p25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
who add while eat	Median		0.0	0.0	0.0	0.0	4.3	21.4	60.0	8.6	34.3	0.0	0.0	0.0	0.0	0.0	0.0
Percent	Average	0	80.2	71.1	84.9	55.1	119.6	116.5	121.6	186.9	161.2	107.0	57.9	100.8	78.1	93.6	24.8
:	Dzongkhag		Bumthang	Chhukha	Chhukha (Other than P/ ling Thromde)	Phuentsholing Thromde	Dagana	Gasa	Наа	Lhuentse	Monggar	Paro	Pema Gatshel	Punakha	Samdrup Jongkhar	Samdrup Jongkhar (Other than SJ Thromde)	Samdrup Jongkhar



:	Percent	: who add while eat	salt to ting	food	Total	Modera activit	ate intens ty (minute	ity phy s per d	sical ay)	Total	Total phy of mode (mi	sical activ rate- inte inutes per	/ity in m nsity ac r day) **	iinutes :tivity	Total
Dzongkhag	Average	Median	Interq ran	luartile nge	2	Average	Median	Interq rai	uartile 1ge	2	Average	Median	Interq ran	uartile Ige	respondents (N)
			p25	p75				p25	p75				p25	p75	
Samtse	114.7	2.9	0.0	150.0	857	149.1	17.1	25.7	214.3	857	376.5	210.0	60.0	570.0	857
Sarpang	67.3	0.0	0.0	34.3	813	109.5	60.0	20.0	150.0	813	244.0	0.66	30.0	291.4	813
Sarpang (Other than Gelephu Thromde)	9.77	0.0	0.0	54.3	529	112.2	60.0	21.4	154.3	529	269.2	102.9	31.4	334.3	529
Gelephu Thromde	22.9	0.0	0.0	0.0	284	94.5	51.4	17.1	126.3	284	138.2	60.0	20.0	154.3	284
Thimphu	46.0	0.0	0.0	17.1	1784	106.1	55.7	15.0	128.6	1784	195.0	72.9	20.0	196.7	1784
Thimphu (Other than T/phu Thromde)	71.5	0.0	0.0	30.0	397	142.5	81.4	25.7	188.6	397	283.4	102.9	34.3	402.9	397
Thimphu Thromde	41.3	0.0	0.0	17.1	1387	98.7	51.4	12.9	120.0	1387	177.9	64.3	17.1	171.4	1387
Trashigang	90.3	0.0	0.0	60.0	668	128.9	66.4	5.7	188.6	668	301.4	0.66	12.9	367.1	668
Trashi Yangtse	85.1	0.0	0.0	51.4	341	178.7	143.6	60.0	219.0	341	343.5	167.6	77.1	360.6	341
Trongsa	181.6	25.7	0.0	420.0	333	119.6	60.0	25.7	128.6	333	487.2	180.0	55.7	0.066	333
Tsirang	92.6	0.0	0.0	102.9	396	90.6	68.6	22.9	134.3	396	280.5	131.4	45.0	312.9	396
Wangdue	95.4	0.0	0.0	102.9	515	106.5	52.9	12.9	130.0	515	297.5	120.0	28.6	390.0	515
Zhemgang	172.5	51.4	0.0	308.6	332	140.4	0.66	32.9	214.3	332	487.4	300.0	0.06	758.6	332
Total	90.0	0.0	0.0	60.0	11341	121.4	67.7	21.4	162.9	11341	299.4	120.0	34.3	377.1	11341
*	*********	*			*****				*****		*********			******	

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*MET(Metabolic equivalent of task): for vigorous activity 1 minute equate to 8 units of MET; for moderate activity 1 minute equate to 4 units of MET. **Minutes spent on vigorous-intensitiy activities per day are multiplied by 2, to derive equivalent minutes of moderate-intensity activities, which is then summed up to derive total physical activity in minutes of moderate-intensity activity per day.

List of Tables



Table 7.6.3 Percent of men and women (15-69 years) not meeting physical activity recommendations*, according to background characteristics, [Bhutan NHS 2023].

Background	Percent a WHO p recon	dults not meeting hysical activity nmendations:	Percent we WHO p recon	omen not meeting hysical activity nmendations:	Percent m WHO ph recomr	en not meeting ysical activity nendations:
	Percent	Total respondents (N)	Percent	Total women (N)	Percent	Total men (N)
Age Range						
15-24	21.6	1,232	27.8	762	15.4	470
25-39	16.7	4,131	21.1	2,779	13.0	1,352
40-54	16.1	3,275	17.4	2,062	14.9	1,213
55-69	20.9	1,965	23.7	1,101	18.6	864
Level of Education						
None	16.4	4,896	18.8	3,399	13.2	1,497
Primary or less	15.5	1,243	18.9	632	13.8	611
Lower Secondary	25.3	650	29.1	404	21.7	246
Middle Secondary	21.4	1,421	26.3	967	16.3	454
Higher Secondary	19.2	1,339	25.8	824	13.6	515
Certificates/Diploma	17.3	806	20.9	366	15.6	440
Bachelor/Master/PhD	16.6	247	22.3	111	14.0	136
Usual Activity						
Working	15.8	5,766	20.6	2,877	13.4	2,889
Doing household chores	19.3	3,748	20.3	3,311	13.9	437
Student	27.9	472	38.7	272	18.8	200
Retired	23.9	152	19.7	36	24.9	116
Doing nothing	21.8	464	24.9	208	20.2	256
Location						
Urban	22.0	3,959	26.7	2,526	17.9	1,433
Rural	15.8	6,644	19.3	4,178	12.6	2,466
Income Quintiles						
Least Income (Q1)	17.8	2,248	21.7	1,418	14.2	830
Lower (Q2)	15.1	1,972	19.0	1,247	11.9	725
Middle (Q3)	18.6	2,132	21.3	1,374	15.9	758
Upper (Q4)	20.7	2,183	26.8	1,415	15.2	768
Highest Income (Q5)	18.5	2,068	21.8	1,250	16.0	818
Age 2 categories (previo	ous)					
18-39	16.7	5,073	21.6	3,374	12.4	1,699
40-69	17.8	5,240	19.6	3,163	16.2	2,077
Total (18-69 Years)	17.1	10,313	20.9	6,537	13.8	3,776
Total (15-69 Years)	18.3	10.603	22.3	6.704	14.7	3.899

*WHO physical activity recommendations per age group: [15-17 years] At least 60 minutes of moderate- to vigorousintensity physical activity daily; [18-64] At least 600 METs (metabolic equivalent of tasks) of physical activity throughout the week or 150 minutes of moderate-intensity physical activity per week or 75 minutes of vigorous-intensity physical activity per week; [65 years and above] same as age group 18-64 years. (For complete recommendation, please refer to Global recommendation on physical activity for health, 2010).



Table 7.6.4 Percent of men and women (15-69 years) not meeting physical activity recommendations* according to Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Percent adults not me recom	eting WHO physical activity mendations:
5	Percent	Total respondents (N)
Bumthang	9.0	318
Chhukha	19.5	1,011
Chhukha (Other than P/ling Thromde)	15.5	570
Phuentsholing Thromde	23.7	441
Dagana	17.7	358
Gasa	12.3	228
Наа	4.6	288
Lhuentse	12.3	277
Monggar	12.3	496
Paro	13.8	560
Pema Gatshel	16.5	392
Punakha	21.5	375
Samdrup Jongkhar	20.2	681
Samdrup Jongkhar (Other than SJ Thromde)	19.4	412
Samdrup Jongkhar Thromde	24.0	269
Samtse	12.0	833
Sarpang	20.8	775
Sarpang (Other than Gelephu Thromde)	18.8	501
Gelephu Thromde	28.5	274
Thimphu	24.0	1,640
Thimphu (Other than T/phu Thromde)	19.7	372
Thimphu Thromde	24.6	1268
Trashigang	26.7	605
Trashi Yangtse	11.2	272
Trongsa	11.2	318
Tsirang	17.8	379
Wangdue	22.3	492
Zhemgang	10.3	305
Total	18.3	10603

*WHO physical activity recommendations per age group: [15-17 years] At least 60 minutes of moderate- to vigorousintensity physical activity daily; [18-64] At least 600 METs (metabolic equivalent of tasks) of physical activity throughout the week or 150 minutes of moderate-intensity physical activity per week or 75 minutes of vigorous-intensity physical activity per week; [65 years and above] same as age group 18-64 years. (For complete recommendation, please refer to Global recommendation on physical activity for health, 2010).



Table 7.6.5 Proportional share of total physical activity from work, travel and recreational activities amongst adults (15-69) who participate in some level of physical activity, according to background characteristics,* [Bhutan NHS 2023].

Pockaround	Average per	cent contribution to overa	all physical activty from:	Total	Total
characteristics	Work	Travel from and to places	Recreational activities:	(%)	respondents (N)
Age Range					
15-24	49.6	21.6	28.8	100.0	1138
25-39	59.3	20.2	20.5	100.0	3812
40-54	67.4	19.8	12.8	100.0	2995
55-69	69.1	21.8	9.1	100.0	1748
Sex					
Men	55.6	19.2	25.1	100.0	3591
Women	65.3	22.2	12.5	100.0	6102
Level of Education					
None	73.6	17.4	9.0	100.0	4454
Primary or less	69.6	18.3	12.1	100.0	1160
Lower Secondary	55.9	24.8	19.2	100.0	589
Middle Secondary	53.5	22.5	24.0	100.0	1308
Higher Secondary	49.7	22.5	27.8	100.0	1222
Certificates/Diploma	38.0	23.5	38.5	100.0	735
Bachelor/Master/PhD	45.3	27.5	27.2	100.0	224
Usual Activity					
Working	61.0	20.1	18.9	100.0	5262
Doing household chores	68.7	20.1	11.2	100.0	3469
Student	39.4	21.8	38.8	100.0	442
Retired	53.1	27.9	19.0	100.0	127
Doing nothing	47.4	25.7	26.8	100.0	393
Location					
Urban	48.5	26.4	25.1	100.0	3561
Rural	67.7	16.9	15.4	100.0	6132
Income Quintiles					
Least Income (Q1)	71.2	16.7	12.1	100.0	2042
Lower (Q2)	66.8	18.3	14.9	100.0	1830
Middle (Q3)	62.1	21.0	16.8	100.0	1946
Upper (Q4)	54.0	23.1	23.0	100.0	2000
Highest Income (Q5)	48.5	23.4	28.0	100.0	1875
Age 2 categories (previous)				
18-39	56.4	20.5	23.1	100.0	4680
40-69	68.0	20.5	11.5	100.0	4743
Total (18-69 Years)	60.6	20.5	18.9	100.0	9423
Total (15-69 Years)	60.1	20.6	19.2	100.0	9693

*proportion calculation based on amount of METs per activity among total amount of METs of total physical activity ** Adults who reported no participation in any type of physical activities were excluded. Table 7.7.1 Mean population BMI and percentage of adults aged 15-69 years who had normal BMI, were underweight, overweight or obese by

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				Percent who's	weight status is*:		
Background characteristics	Mean BMI* (kg/m2)	95% CI	Normal (BMI 18.5-24.9)	Underweight (BMI<=18.4)	Overweight (BMI 25.0-29.9)	Obese (BMI >= 30.0)	Number of respondents
Age Range							
15-24	22.5	[22.3,22.7]	72.8	8.6	14.2	4.4	1,281
25-39	25.4	[25.3,25.6]	45.8	3.1	37.6	13.5	4,266
40-54	26.3	[26.2,26.5]	37.2	1.7	43.5	17.5	3,377
55-69	25.8	[25.6,26.0]	44.5	2.2	37.9	15.5	2,018
Sex							
Men	24.4	[24.2,24.5]	53.3	4.5	33.6	8.6	4,180
Women	25.7	[25.5,25.8]	46.6	3.4	33.1	16.9	6,762
Level Of Education							
None	25.9	[25.8,26.0]	42.4	7	39	16.5	5,027
Primary or less	25.4	[25.1,25.7]	46.8	2.3	37.4	13.5	1,287
Lower Secondary	24.7	[24.3,25.1]	53.7	വ	29.4	11.9	674
Middle Secondary	24.5	[24.2,24.8]	56.6	4.9	27.3	11.2	1,451
Higher Secondary	23.6	[23.3,23.9]	60.6	٢	24.7	7.6	1,387
Certificates/Diploma	24.8	[24.5,25.2]	48	5.3	37.5	9.1	856
Bachelor/Master/PhD	24.7	[24.2,25.3]	54	2.8	32	11.2	259
Usual Activity							
Working	25.1	[25.0,25.2]	48.4	3.5	36.3	11.8	6,046
Doing household chores	26	[25.9,26.2]	41.4	2.7	37.7	18.2	3,753

				Percent who's	weight status is*:		-
Background characteristics	(kg/m2) (kg/m2)	95% CI	Normal (BMI 18.5-24.9)	Underweight (BMI<=18.4)	Overweight (BMI 25.0-29.9)	Obese (BMI >= 30.0)	Number of respondents
Student	22.2	[21.8,22.7]	79	8.4	8.6	4	510
Retired	26.1	[25.5,26.7]	40.1	6.0	47.8	11.2	157
Doing nothing	23.6	[23.1,24.1]	61.1	œ	22.3	8.6	475
Location							
Urban	25.1	[24.9,25.3]	48.6	4.6	33.1	13.7	4,082
Rural	24.9	[24.8,25.0]	51.3	3.6	33.5	11.7	6,860
Income Quintiles							
Least Income (Q1)	24.5	[24.3,24.7]	55.5	4.2	30.7	9.5	2,341
Lower (Q2)	24.8	[24.5,25.0]	52.7	4.3	30.7	12.4	2,047
Middle (Q3)	25.1	[24.9,25.3]	50.6	3.5	33.2	12.7	2,175
Upper (Q4)	25.2	[24.9,25.4]	47.2	4.3	34.4	14	2,235
Highest Income (Q5)	25.3	[25.1,25.6]	45.8	3.7	37	13.5	2,144
Age 2 categories (previous)							
18-39	24.4	[24.2,24.5]	54.9	5.5	29.4	10.2	5,238
40-69	26.2	[26.0,26.3]	39.8	1.9	41.6	16.8	5,395
Total (18-69 Years)	25	[24.9,25.1]	49.4	4.2	33.8	12.6	10,633
Total 15-69	25	[24.9,25.1]	50.2	4	33.3	12.5	10,942

* underweight BMI<18.5; overweight BMI >=25.0-29.9; obese BMI>=30.0. For people aged 15-18, BMI classification is based on age: underweight BMI<-2SD, overweight BMI >=1-2SD, obese BMI>=2SD (https://www.who.int/growthref/who2007_bmi_for_age/en/)

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Table 7.7.2 Mean population BMI and percentage of adults aged 15-69 years who had normal BMI, were underweight, overweight or obese by Dzongkhag, [Bhutan, NHS 2023].

				Percent who's	weight status is*:		
Background characteristics	Mean BMI* (kg/m2)	95% CI	Normal (BMI 18.5-24.9)	Underweight (BMI<=18.4)	Overweight (BMI 25.0-29.9)	Obese (BMI >= 30.0)	Number of respondents
Bumthang	24.6	[24.1,25.1]	59.2	4.8	24.9	11.2	335
Chhukha	25.3	[24.9,25.6]	46.2	4.1	35.1	14.7	663
Chhukha (Other than P/ling Thromde)	25.4	[24.9,25.9]	43.9	3.5	ю С	14.7	562
Phuentsholing Thromde	25	[24.5,25.5]	49.1	5.1	31.4	14.4	431
Dagana	24.6	[24.1,25.1]	52	3.9	35	9.1	370
Gasa	24.1	[23.6,24.6]	58.8	6.2	29.1	Q	242
Наа	24.4	[23.8,25.1]	46.2	7.8	37.6	8.5	293
Lhuentse	25.9	[25.4,26.4]	45	2.2	38.7	14.1	287
Monggar	25.1	[24.6,25.6]	49.3	3.1	34.8	12.8	541
Paro	24.7	[24.2,25.1]	53.1	4.1	32.5	10.3	593
Pema Gatshel	25.1	[24.5,25.6]	54.8	1.8	30.4	13.1	395
Punakha	24.9	[24.4,25.3]	55.4	2.2	28.8	13.7	412
Samdrup Jongkhar	25.2	[24.8,25.6]	49.7	1.3	34.5	14.4	676
Samdrup Jongkhar (Other than SJ Thromde)	24.8	[24.4,25.3]	53.4	1.3	31.6	13.7	404
Samdrup Jongkhar Thromde	25.9	[25.3,26.6]	42.6	1.5	39.7	16.1	272

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				Percent who's	weight status is*:		-
Background characteristics	(kg/m2)	95% CI	Normal (BMI 18.5-24.9)	Underweight (BMI<=18.4)	Overweight (BMI 25.0-29.9)	Obese (BMI >= 30.0)	Number of respondents
Samtse	24.4	[24.0,24.7]	53.6	Q	31.2	9.2	833
Sarpang	25.5	[25.1,25.9]	47	3.6	34.7	14.7	777
Sarpang (Other than Gelephu Thromde)	25.6	[25:1,26:1]	47.7	2.9	34.9	14.5	503
Gelephu Thromde	24.5	[23.9,25.2]	51	7.3	29.3	12.4	274
Thimphu	24.9	[24.6,25.2]	48.2	5.4	33.4	13	1,710
Thimphu (Other than T/phu Thromde)	24.7	[24.1,25.2]	53.9	5.3	28.8	12	373
Thimphu Thromde	24.8	[24.5,25.1]	48.4	5.7	33.6	12.3	1,337
Trashigangng	25.4	[25.0,25.7]	49.4	2.2	35.4	13	643
Trashi Yangtseangtse	25.6	[25.1,26.1]	45.2	2.3	39.7	12.8	326
Trongsa	26.2	[25.8,26.6]	41.7	0.6	30	18.7	322
Tsirang	25.3	[24.8,25.8]	45.9	2.9	38.1	13.1	383
Wangdue	25.1	[24.6,25.6]	50.3	ო	33.4	13.3	485
Zhemgang	25.3	[24.7,25.9]	51.9	2.6	30.7	14.7	326
Total 15-69	25.0	[24.9,25.1]	50.2	4.0	33.3	12.5	10942
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* underweight BMI<18.5; overweight BMI >=25.0-29.9; obese BMI>=30.0. For people aged 15-18, BMI classification is based on age: underweight BMI<-2SD, overweight BMI >=1-2SD, obese BMI>=2SD (https://www.who.int/growthref/who2007_bmi_for_age/en/)

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Table 7.8.1 Percentage of 15-69 years people who have ever had their blood pressure measured, told they had raised blood pressure, prescribed medication to control blood pressure, and percentage taking medication to control blood pressure, by background characteristics, [Bhutan NHS 2023].

	Ever had blood	Ever told have raised		Among people who care provider the pei	have been told by a doc y have raised blood pre: centage who were:	tor or health ssure, the
background characteristics	pressure measured by doctor or health care provide	biood pressure by doctor or health care provider	number of respondents	Told in the past 12 months have raised blood pressure	Currently taking medication to control blood pressure (In the past 2 weeks	Number of respondents
Age Range						
15-24	54.2	4.6	1326	70.7	27.2	70
25-39	80.1	13.3	4433	77.6	24.4	620
40-54	85.6	26.3	3443	71.5	48.8	686
55-69	89.0	37.2	2054	69.7	69.3	768
Sex						
Men	72.3	15.4	4241	73.3	32.0	812
Women	80.7	19.4	7015	73.6	41.2	1585
Level Of Education						
None	84.5	24.9	5152	74.5	50.3	1405
Primary or less	78.1	21.6	1323	69.3	36.0	325
Lower Secondary	67.9	14.0	686	61.6	43.0	117
Middle Secondary	69.2	10.1	1504	0.97	36.6	192
Higher Secondary	65.2	8.2	1443	77.7	20.3	153
Certificates/Diploma	81.5	16.8	879	77.1	21.5	158
Bachelor/Master/PhD	81.3	15.8	267	50.8	19.9	46
Usual Activity						

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	Ever had blood	Ever told have raised		Among people who care provider the pe	have been told by a doo sy have raised blood pre rcentage who were:	tor or health ssure, the
characteristics	pressure measured by doctor or health care provide	doctor or health care provider	respondents	Told in the past 12 months have raised blood pressure	Currently taking medication to control blood pressure (In the past 2 weeks	Number of respondents
Working	77.3	17.2	6200	73.5	31.5	1238
Doing household chores	85.6	22.2	3890	7.77	47.5	973
Student	46.6	5.1	516	63.8	39.7	31
Retired	93.1	31.2	161	75.6	71.2	54
Doing nothing	69.2	14.1	487	71.2	24.8	100
Location						
Urban	74.4	15.6	4199	78.4	33.3	820
Rural	77.4	18.4	7057	70.1	38.9	1577
Income Quintiles						
Least Income (Q1)	77.5	19.4	2383	72.8	39.4	545
Lower (Q2)	73.6	18.6	2097	76.3	44.8	513
Middle (Q3)	74.8	17.4	2257	69.9	33.9	484
Upper (Q4)	77.2	15.4	2311	74.2	30.0	430
Highest Income (Q5)	77.7	16.1	2208	74.6	37.6	425
Age 2 categories (previous	(
18-39	71.5	6.6	5447	76.7	21.9	671
40-69	86.8	30.1	5497	70.9	56.0	1707
Total (18-69 Years)	۲۲۲	17.3	10944	74.6	34.4	2378
Total (15-69 Years)	76.2	17.3	11256	73.5	36.6	2397

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Table 7.8.2 Percentage of 15-69 years old people who have ever had their blood pressure measured, told they had raised blood pressure, prescribed medication to control blood pressure, by Dzongkhag, [Bhutan NHS 2023].

	Ever had blood pressure	Ever told have raised blood		Among people who care provider the pei	have been told by a doc y have raised blood pre rcentage who were:	tor or health ssure, the
Background characteristics	measured by doctor or health care provide	pressure by doctor or health care provider	respondents	Told in the past 12 months have raised blood pressure	Currently taking medication to control blood pressure (In the past 2 weeks	Number of respondents
Bumthang	89.4	15.9	342	91.2	48.6	66
Chhukha	80.9	17.0	1016	66.5	44.3	191
Chhukha (Other than P/ling Thromde)	84.5	19.9	572	51.5	53.1	134
Phuentsholing Thromde	75.3	10.8	444	86.6	29.7	57
Dagana	77.0	17.3	377	89.3 8	57.0	89
Gasa	85.6	17.3	249	0.69	40.1	56
Haa	82.5	12.6	300	66.9	31.6	54
Lhuentse	80.4	26.2	293	98.6	66.1	80
Monggar	84.5	18.5	557	85.8	59.3	118
Paro	71.0	19.9	612	61.9	21.2	148
Pema Gatshel	83.6	20.9	400	87.1	36.1	102
Punakha	83.6	13.8	421	62.1	51.8	76
Samdrup Jongkhar	78.6	15.0	697	65.1	33.7	129
Samdrup Jongkhar (Other than SJ Thromde)	76.6	13.2	416	49.7	30.2	72
Samdrup Jongkhar Thromde	80.5	16.5	281	94.0	36.8	57
Samtse	69.3	18.5	851	70.3	28.6	187

	Ever had blood pressure	Ever told have raised blood		Among people who care provider the pe	have been told by a doo sy have raised blood pre rcentage who were:	tor or health ssure, the
Background characteristics	measured by doctor or health care provide	pressure by doctor or health care provider	respondents	Told in the past 12 months have raised blood pressure	Currently taking medication to control blood pressure (In the past 2 weeks	Number of respondents
Sarpang	79.3	20:1	804	78.6	45.7	179
Sarpang (Other than Gelephu Thromde)	77.0	18.9	522	79.1	41.4	123
Gelephu Thromde	83.3	17.1	282	79.1	45.3	56
Thimphu	71.9	17.2	1769	75.2	30.1	347
Thimphu (Other than T/phu Thromde)	84.9	13.9	393	56.9	42.1	69
Thimphu Thromde	68.1	16.2	1376	78.2	25.7	278
Trashigang	80.9	17.8	663	75.1	49.3	143
Trashi Yangtse	84.7	20.8	341	77.5	23.8	86
Trongsa	9.77	17.5	332	73.9	22.2	64
Tsirang	76.4	19.8	394	50.5	36.6	103
Wangdue	63.9	16.8	506	63.6	31.7	108
Zhemgang	85.2	15.8	332	85.4	39.4	71
Total	76.2	17.3	11256	73.5	36.6	2397



Table 7.8.3 Percentage of people 15-69 years old who had raised BP at the time of survey or on BP medications and who were aware of their diagnosis, on treatment or have their BP controlled or uncontrolled wiht medications, by background characteristics, [Bhutan NHS 2023].

		Jo vodeni N		Amo	ng those with raised BP		
characteristics	rievalence of raised BP ¹	respondents	Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Age Range							
15-24	10.2	1324	77.9	10.9	7.4	3.9	131
25-39	24.0	4433	65.8	19.0	8.6	6.6	970
40-54	46.5	3440	52.9	19.0	18.8	9.3	1578
55-69	57.6	2052	41.3	13.8	26.7	18.2	1170
Sex							
Men	32.5	4238	68.6	16.6	9.7	5.1	1588
Women	27.7	7011	55.5	16.1	16.9	11.6	2261
Level of Education							
None	41.4	5147	52.4	16.4	19.2	12.0	2228
Primary or less	37.8	1323	62.9	17.0	12.6	7.5	527
Lower Secondary	26.4	686	57.9	20.7	10.2	11.2	209
Middle Secondary	22.2	1504	72.3	11.4	9.5	6.7	349
Higher Secondary	15.3	1442	76.1	14.9	7.2	1.8	235
Certificates/Diploma	27.9	879	64.0	22.2	8.5	5.3	233
Bachelor/Master/PhD	24.0	266	61.8	16.4	14.3	7.4	67
Usual Activity							
Working	31.8	6199	64.2	18.1	12.0	5.7	2089

				Amo	ng those with raised BP^1		
background characteristics	rrevalence of raised BP ¹	respondents	Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Doing household chores	33.6	3888	53.8	16.5	16.1	13.7	1438
Student	11.2	516	73.4	9.2	10.1	7.2	61
Retired	49.2	160	48.5	0 [.] 0	28.3	13.3	80
Doing nothing	26.7	484	71.1	13.0	10.6	5.3	180
Location							
Urban	27.8	4198	65.6	15.2	11.8	7.4	1298
Rural	31.9	7051	60.5	17.1	13.8	8.5	2551
Income Quintiles							
Least Income (Q1)	34.3	2382	59.8	15.5	15.0	9.7	942
Lower (Q2)	31.8	2095	60.4	16.9	13.4	9.3	781
Middle (Q3)	28.0	2256	60.6	17.9	12.0	9.5	711
Upper (Q4)	29.2	2310	67.4	15.3	11.9	5.4	731
Highest Income (Q5)	28.4	2206	63.5	16.2	13.2	7.2	684
Age 2 categories (previous	()						
18-39	18.5	5446	71.6	16.4	7.5	4.6	1062
40-69	50.4	5492	48.9	17.2	21.5	12.4	2748
Total (18-69 Years)	30.1	10938	63.3	16.7	12.6	7.4	3810
Total (15-69 Years)	30.3	11249	62.6	16.3	13.0	8.1	3849

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Table 7.8.4 Percentage of people 15-69 years old who had raised BP at the time of survey or on BP medications and who were aware of their diagnosis, on treatment or have their BP controlled or uncontrolled wiht medications, by Dzongkhag, [Bhutan NHS 2023].

				Among	those with raised	BPi	
Background characteristics	Prevalence of raised BP ¹	respondents	Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Bumthang	25.2	342	63.5	6.2	19.3	11.0	96
Chhukha	31.4	1016	61.1	15.0	16.5	7.4	332
Chhukha (Other than P/ling Thromde)	35.2	572	54.3	15.8	19.9	10.0	219
Phuentsholing Thromde	23.5	444	73.4	13.3	6.6	С. С.	113
Dagana	26.7	376	53.6	13.7	15.2	17.6	126
Gasa	27.7	249	64.3	14.8	11.3	9.6	77
Haa	24.5	300	64.8	18.8	12.8	3.6	92
Lhuentse	41.6	293	50.3	13.5	24.1	12.1	125
Monggar	33.0	557	54.2	14.7	23.4	7.7	209
Paro	30.4	612	67.6	16.5	9.5	6.4	201
Pema Gatshel	31.4	400	48.9	27.3	15.1	œ œ	152
Punakha	22.3	418	56.9	12.9	12.6	17.6	115
Samdrup Jongkhar	29.0	697	68.4	11.5	15.3	4.8	208
Samdrup Jongkhar (Other than SJ Thromde)	27.9	416	74.9	6.7	11.6	ö.	139

		Almonto de		Among	those with raised I	BP	
Background characteristics	of raised BP ¹	respondents	Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Samdrup Jongkhar Thromde	23.1	281	50.6	16.9	25.2	7.4	69
Samtse	33.5	850	60.4	21.3	8. 8.	9.4	327
Sarpang	37.7	804	58.6	15.6	17.0	0. 00	309
Sarpang (Other than Gelephu Thromde)	36.7	522	60.1	17.9	14.6	7.4	219
Gelephu Thromde	27.3	282	59.1	6.3	20.0	11.6	06
Thimphu	31.5	1768	67.5	16.2	8.7	7.6	584
Thimphu (Other than T/phu Thromde)	27.3	393	68.8	16.7	7.6	6.9	121
Thimphu Thromde	30.3	1375	69.1	16.0	7.9	0.7	463
Trashigang	30.7	663	57.9	15.1	20.3	Ö.	244
Trashi Yangtse	28.0	341	43.7	34.3	10.2	11.8	116
Trongsa	28.4	332	70.9	14.4	4.8	6.0	105
Tsirang	34.5	394	61.8	17.2	13.8	7.2	161
Wangdue	23.6	505	55.4	20.6	14.7	6. 9.3	142
Zhemgang	32.2	332	69.4	11.8	14.8	4.1	128
Total	30.3	11249	62.6	16.3	13.0	8.1	3849

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Table 7.8.5 Percentage of people 15-69 years old who have been ever told to have raised blood pressure and who sought care from a traditional healer or currently using a traditional/herbal remedy , by background characteristics, [Bhutan NHS 2023].

Background		For raised BP	
characteristics	ever seen a local healer	currently taking a herbal remedy	Number of respondents
Age Range			
15-24	1.7	7.6	70
25-39	3.1	4.2	620
40-54	3.2	6.0	939
55-69	5.4	8.5	768
Sex			
Men	2.8	7.5	812
Women	3.4	4.5	1585
Level Of Education			
None	4.7	5.6	1405
Primary or less	2.8	3.0	325
Lower Secondary	1.4	4.9	117
Middle Secondary	2.0	14.2	192
Higher Secondary	2.2	3.8	153
Certificates/Diploma	2.5	6.2	158
Bachelor/Master/PhD	1.4	1.4	46
Usual Activity			
Working	2.8	5.4	1238
Doing household chores	3.8	9.7	973
Student	4.0	2.5	31
Retired	0.0	3.4	54
Doing nothing	1.7	2.6	100
Location			
Urban	3.2	7.0	820
Rural	3.0	5.3	1577
Income Quintiles			
Least Income (Q1)	3.1	6.4	545
Lower (Q2)	3.9	9.5	513
Middle (Q3)	1.7	3.1	484
Upper (Q4)	4.0	7.3	430
Highest Income (Q5)	2.7	4.3	425
Age 2 categories (previous	5)		
18-39	2.3	6.0	671
40-69	3.9	6.8	1707
Total (18-69 Years)	2.9	6.3	2378
Total (15-69 Years)	3.1	6.0	2397



Table 7.8.6 Percentage of people 15-69 years old who have been ever told to have raised blood pressure and who sought care from a traditional healer or currently using a traditional/herbal remedy , by Dzongkhag, [Bhutan NHS 2023].

		For raised BP	
Background characteristics	ever seen a local healer	currently taking a herbal remedy	Number of respondents
Bumthang	1.2	2.4	66
Chhukha	2.3	13.0	191
Chhukha (Other than P/ling Thromde)	3.0	6.9	134
Phuentsholing Thromde	1.1	23.0	57
Dagana	1.2	34.5	89
Gasa	6.7	1.6	56
Наа	4.8	3.4	54
Lhuentse	3.4	3.4	80
Monggar	7.8	6.2	118
Paro	4.0	6.8	148
Pema Gatshel	1.1	2.8	102
Punakha	4.6	9.8	76
Samdrup Jongkhar	0.8	4.3	129
Samdrup Jongkhar (Other than SJ Thromde)	0.5	5.4	72
Samdrup Jongkhar Thromde	1.1	0.5	57
Samtse	1.6	2.3	187
Sarpang	3.3	1.7	179
Sarpang (Other than Gelephu Thromde)	2.7	1.9	123
Gelephu Thromde	4.4	0.3	56
Thimphu	3.3	5.2	347
Thimphu (Other than T/phu Thromde)	0.5	1.0	69
Thimphu Thromde	3.5	5.5	278
Trashigang	4.0	5.6	143
Trashi Yangtse	0.4	1.6	86
Trongsa	3.2	5.1	64
Tsirang	8.3	4.5	103
Wangdue	1.0	5.5	108
Zhemgang	0.5	1.8	71
Total	3.1	6.0	2397

Table 7.9.1 Percentage of people aged 15-69 years old who have ever had their blood sugar measured and who have been told by a health care provid month:

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	Ever had	Ever told		Among people	e who have been blood s	told by a doctor sugar, the percer	or health ca ntage who w	ire provider they rere:	have raised
Background characteristics	blood sugar measured by doctor or health care provider	have raised blood sugar by doctor or health care provider	Number of respondents	Told in the past 12 months have raised blood sugar	Ever received an eye examination after diagnosis	Currently taking medication to control blood sugar	Currently taking insulin for diabetes	Currently taking either drugs or insulin for diabetes	Number of respondents
Age Range									
15-24	16.6	0.4	1,326	40.5	60.4	25.7	25.7	25.7	Ø
25-39	37.1	1.6	4,432	82.5	29.8	28.9	12.1	29.3	97
40-54	52.3	6.5	3,442	75.3	65.7	55.3	22.2	57.6	214
55-69	58.3	13.3	2,054	71.9	73.2	6.9	23.9	69.2	253
Sex									
Men	34.1	3.6	4,244	73.9	41.4	28.3	13.5	29.0	214
Women	43.3	4.4	7,010	64.7	60.7	49.4	24.8	50.8	358
Level of Education	on								
None	47.2	5.9	5,151	77.5	54.3	52.1	20.4	53.5	320
Primary or less	43.0	5.5	1,323	76.7	62.0	43.0	15.1	46.8	85
Lower Secondary	29.7	2.6	686	81.4	61.0	43.2	19.1	43.2	29
Middle Secondary	32.9	2.7	1,504	58.4	50.6	20.1	6.1	20.1	57
Higher Secondary	25.0	1.3	1,443	43.7	36.2	27.0	23.4	27.1	30
Certificates/ Diploma	41.0	3.6	879	86.5	61.4	49.7	35.8	50.6	38
Bachelor/ Master/PhD	43.4	3.6	267	97.5	39.7	35.9	3.7	35.9	ΰ

	Ever had	Ever told		Among peopl	e who have been blood	told by a doctor sugar, the percer	or health ca ntage who w	are provider they vere:	have raised
Background characteristics	blood sugar measured by doctor or health care provider	nave raised blood sugar by doctor or health care provider	Number of respondents	Told in the past 12 months have raised blood sugar	Ever received an eye examination after diagnosis	Currently taking medication to control blood sugar	Currently taking insulin for diabetes	Currently taking either drugs or insulin for diabetes	Number of respondents
Usual Activity									
Working	38.1	3.7	6,200	72.1	38.2	33.2	14.0	34.2	281
Doing household chores	47.5	5.4	3,889 3,	76.3	55.5	45.9	17.7	47.4	229
Student	16.1	0.5	516	55.4	74.1	29.5	21.4	29.5	4
Retired	67.5	16.7	161	69.5	86.7	65.3	23.8	67.1	28
Doing nothing	31.4	3.4	487	44.0	95.3	68.6	59.0	68.6	30
Location									
Urban	37.1	4.4	4,198	67.5	53.0	33.7	14.2	34.3	240
Rural	39.3	3.7	7,056	70.7	49.8	44.2	23.9	45.5	332
Income Quintile	Ň								
Least Income (Q1)	38.6	4.0	2,383	79.1	48.0	52.2	23.1	55.0	123
Lower (Q2)	37.3	9.9	2,096	84.5	42.0	34.2	12.1	34.8	108
Middle (Q3)	36.5	3.6	2,257	84.0	63.3	45.4	17.7	46.7	105
Upper (Q4)	38.7	3.4	2,311	62.5	57.8	29.9	10.5	30.8	107
Highest Income (Q5)	40.6	5.0	2,207	57.5	47.1	38.9	26.3	39.3	129
Age 2 categorie	s (previous)								
18-39	29.4	1:2	5,446	66.3	39.8	30.4	20.1	30.6	103
40-69	54.4	8.9	5,496	74.1	68.3	59.3	22.8	61.6	467
Total (18-69 Years)	38.5	4.0	10,942	69.2	50.3	40.9	21.1	41.9	570
Total (15-69 Years)	38.4	4.0	11,254	69.2	51.4	39.2	19.3	40.2	572

5th National Health Survey

Table 7.9.2 Percentage of people aged 15-69 years old who have ever had their blood sugar measured and who have been told by a health care months they have raised blood sugar, the percentage who received eye examination, and percentage taking medication to control diabetes, by Dzongkhag, [Bhutan NHS 2023]. provider that they have raised blood sugar; among people who have been told they have raised blood sugar, the percentage told in the past 12

have raised	Number of respondents	10	46	27	6	25	ω	œ	14	26	31	23	15	41	17
e provider they rre:	Currently taking either drugs or insulin for diabetes	29.01	77.1	79.27	66.09	22.55	6.368	36.25	86.01	16.5	45.71	30.38	19.31	6. 6	12.28
tor or health car centage who we	Currently taking insulin for diabetes	29.0	30.4	26.7	16.9	9.6	1.5	17.1	0.0	14.5	18.5	4.8	7.3	3.2	2.6
en told by a doct d sugar, the perv	Currently taking medication to control blood sugar	20.9	75.0	79.3	60.6	21.6	6.4	36.3	86.0	16.5	43.6	30.4	19.3	0.0	12.3
le who have bee bloo	Ever received an eye examination after diagnosis	88.4	74.1	82.2	51.7	26.7	85.3	36.3	16.9	17.6	50.0	66.5	19.8	68.4	56.0
Among peop	Told in the past 12 months have raised blood sugar	76.1	76.2	64.7	89.9	9.96	92.9	80.0	100.0	59.0	76.9	45.4	95.7	68.5	98.3
	Number of respondents	342	1,015	571	444	377	249	300	293	557	612	400	421	697	416
Ever told	nave raised blood sugar by doctor or health care provider	2.9	3.9	3.6	З.О	5.0	3.1	2.0	3.9	4.5	3.7	4.8	2.6	4.5	2.9
Ever had	blood sugar measured by doctor or health care provider	46.1	40.3	45.6	31.6	36.7	40.1	48.8	29.4	43.7	32.4	51.8	33.9	51.8	49.3
	Dzongkhag	Bumthang	Chhukha	Chhukha (Other than P/ ling Thromde)	Phuentsholing Thromde	Dagana	Gasa	Haa	Lhuentse	Monggar	Paro	Pema Gatshel	Punakha	Samdrup Jongkhar	Samdrup Jongkhar (Other than SJ Thromde)

	Ever had	Ever told		Among peop	le who have be bloo	en told by a doct d sugar, the pere	tor or health car centage who we	e provider they sre:	have raised
Dzongkhag	blood sugar measured by doctor or health care provider	nave raised blood sugar by doctor or health care provider	Number of respondents	Told in the past 12 months have raised blood sugar	Ever received an eye examination after diagnosis	Currently taking medication to control blood sugar	Currently taking insulin for diabetes	Currently taking either drugs or insulin for diabetes	Number of respondents
Samdrup Jongkhar Thromde	51.6	7.9	281	42.2	0.19	6.3 8.0	б. Ю	9.322	24
Samtse	33.9	3.9	851	72.7	62.3	67.3	37.6	68.42	48
Sarpang	43.4	7.0	804	48.9	84.1	77.8	45.0	78.7	64
Sarpang (Other than Gelephu Thromde)	41.5	6.4	522	37.4	83.3	7.77	54.4	78.52	45
Gelephu Thromde	45.1	<u>5</u> .3	282	83.5 83.5	85.7	80.6	19.3	80.56	19
Thimphu	34.1	4.7	1,768	87.7	48.2	41.7	13.0	42.1	06
Thimphu (Other than T/ phu Thromde)	35.3	2.3	393	52.7	62.4	40.2	18.2	44.48	14
Thimphu Thromde	32.0	4.3	1,375	90.3	50.7	45.8	13.9	45.79	76
Trashigang	42.8	3.2	663	79.8	20.2	21.0	13.0	24.78	27
Trashi Yangtse	56.6	3.4	341	49.2	16.6	16.1	7.5	16.11	12
Trongsa	19.5	3.7	332	100.0	93.0	90.7	83.6	97.63	15
Tsirang	35.4	4.9	394	49.0	68.6	48.4	22.7	54.67	29
Wangdue	34.9	3.4	506	58.7	39.7	41.7	29.4	41.66	24
Zhemgang	57.3	3.2	332	69.5	61.0	60.6	12.8	60.64	16
Total (15-69 Years)	38.4	4.0	11,254	69.2	51.4	39.2	19.3	40.22	572



Table 7.9.3 Percentage of people aged 15-69 years who had raised Blood sugar at the time of the survey or were on Blood sugar medications as they were aware of their diagnosis, on treatment or have their Blood sugar controlled or uncontrolled with medications, by background characteristics, [Bhutan NHS 2023].

				Among thos	e with raised Blood s	sugar levels ¹	
Background characteristics	rievalence of raised Blood sugar ¹	Number of respondents	Not aware of diagnosis	Aware of diagnosis but not treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Sex							
Men	6.0 [4.1,8.7]	597	71.6	1.1	14.3	13.1	47
Women	5.2 [3.9,6.9]	866	45.6	1.5	12.6	40.2	51
Location							
Urban	6.5 [4:1,10.3]	484	49.7	0.5	18.6	31.2	o M
Rural	5.1 [3.7,6.9]	979	66.4	1.9	හ. ර	21.9	20
Age 2 categories (p	revious)						
18-39	2.9 [1.6,5.1]	616	77.6	0.0	4.4	18.0	8
40-69	11.0 [8.2,14.8]	812	27.7	3.6	29.3	39.5	08
Total (18-69 Years)	5.8 [4.4,7.7]	1,428	59.4	1.3	13.5	25.8	86
Total (15-69 Years)	5.6 [4.3,7.3]	1,463	59.4	1.3	13.5	25.8	80

Table 7.9.4 Percentage of people 15-69 years old who have been ever told to have raised blood pressure and who sought care from a traditional healer or currently using a traditional/herbal remedy, by background characteristics, [Bhutan NHS 2023].

Background		For raised Blood sugar	
characteristics	ever seen a local healer	currently taking a herbal remedy	Number of respondents
Age Range			
15-24	0.0	0.0	8
25-39	14.0	1.5	97
40-54	3.6	3.7	214
55-69	6.8	10.0	253
Sex			
Men	12.4	2.4	214
Women	2.3	3.0	358
Level Of Education			
None	9.6	5.8	320
Primary or less	1.6	5.0	85
Lower Secondary	2.8	7.9	29
Middle Secondary	1.4	0.0	57
Higher Secondary	1.5	0.5	30
Certificates/Diploma	10.8	0.0	38
Bachelor/Master/PhD	52.7	0.0	13
Usual Activity			
Working	10.9	1.7	281
Doing household chores	3.7	6.1	229
Student	0.0	0.0	4
Retired	0.0	3.7	28
Doing nothing	2.2	2.5	30
Location			
Urban	5.6	1.6	240
Rural	8.7	3.7	332
Income Quintiles			
Least Income (Q1)	22.7	3.1	123
Lower (Q2)	4.6	8.2	108
Middle (Q3)	3.2	3.5	105
Upper (Q4)	12.3	1.9	107
Highest Income (Q5)	1.0	0.7	129
Age 2 categories (previous	5)		
18-39	8.6	0.9	103
40-69	4.7	5.9	467
Total (18-69 Years)	7.2	2.7	570
Total (15-69 Years)	7.2	2.7	572



Table 7.9.5 Percentage of people aged 15-69 years old who have been ever told to have raised blood sugar and who sought care from a traditional healer or currently using a traditional/herbal remedy, by Dzongkhag, [Bhutan NHS 2023].

		For raised Blood suga	r
Dzongkhag	ever seen a local healer	currently taking a herbal remedy	Number of respondents
Bumthang	0.0	0.0	10
Chhukha	24.6	0.9	46
Chhukha (Other than P/ling Thromde)	26.7	0.8	27
Phuentsholing Thromde	0.0	1.6	19
Dagana	0.0	4.3	25
Gasa	4.9	0.0	8
Наа	4.1	0.0	8
Lhuentse	0.0	0.0	14
Monggar	12.1	1.8	26
Paro	19.4	2.6	31
Pema Gatshel	0.0	3.5	23
Punakha	1.3	1.3	15
Samdrup Jongkhar	1.1	2.2	41
Samdrup Jongkhar (Other than SJ Thromde)	2.6	2.8	17
Samdrup Jongkhar Thromde	0.1	1.8	24
Samtse	12.1	11.8	48
Sarpang	2.1	2.0	64
Sarpang (Other than Gelephu Thromde)	2.7	1.7	45
Gelephu Thromde	0.0	2.8	19
Thimphu	0.7	0.4	90
Thimphu (Other than T/phu Thromde)	0.0	0.0	14
Thimphu Thromde	0.8	0.5	76
Trashigang	49.9	5.6	27
Trashi Yangtse	0.0	0.0	12
Trongsa	1.1	8.7	15
Tsirang	0.9	11.7	29
Wangdue	6.8	5.4	24
Zhemgang	0.0	0.0	16
Total (15-69 Years)	7.2	2.7	572

Table 7.10.1 Percentage of people aged 15-69 years old who have ever had their blood cholesterol measured and who have been told by a health care provider that they have raised blood cholesterol; among people who have been told they have raised blood cholesterol, the percentage told in the past 12 months they have raised blood cholesterol, and percentage taking medication to control cholesterol, by background characteristics, [Bhutan NHS 2023].

	Ever had blood		Ever told have raised		Among t	hose who have bee have raised blood c	in told by a do holesterol, th	octor or health care le percentage who	provider they were:
Background characteristics	cholesterol measured by a doctor or health care provider	Number of respondents	blood cholesterol by doctor or health care provider	Number of respondents	told in the past 12 months	taken medication to control blood cholesterol in the past 12 weeks	ever seen a local healer for raised cholesterol	currently taking any herbal or traditional remedy for your raised cholesterol	Number of respondents
Age Range									
15-24	6.1	1,325	13.5	õ	82.4	41.3	6.7	0	12
25-39	15.3	4,433	14.7	674	76.1	20.8	с. С	2	97
40-54	23	3,439	26.4	754	76.4	29.9	5.2	4.6	201
55-69	27.1	2,053	24.7	528	76.4	55.2	4.3	4.3	139
Sex									
Men	15.9	4,243	17.7	760	7.77	30.7	7;1	2.9	143
Women	16.9	7,007	19.4	1,284	77.8	34	2.3	1.9	306
Level Of Education									
None	18.2	5,146	20.4	948	73.7	30.8	6.4	3.3	225
Primary or less	19.4	1,323	15.2	285	70.9	36	4.9	6.6	61
Lower Secondary	15.8	686	20.4	127	61.2	31.4	17	0	27
Middle Secondary	14	1,504	14.1	241	91.7	26.6	2.2	1.8	20
Higher Secondary	10.2	1,443	19.2	174	81.6	37	ο	0.8	31
Certificates/ Diploma	21.6	879	23.4	206	78.5	32.3	4.3	3.5	49
Bachelor/Master/ PhD	19.7	267	5.7	62	94.6	18.4	0	0	Q



	Ever had blood		Ever told have raised		Among ti	10se who have bee 1ave raised blood c	n told by a dd holesterol, th	octor or health care le percentage who	provider they were:
Background characteristics	cholesterol measured by a doctor or health care provider	Number of respondents	blood cholesterol by doctor or health care provider	Number of respondents	told in the past 12 months	taken medication to control blood cholesterol in the past 12 weeks	ever seen a local healer for raised cholesterol	currently taking any herbal or traditional remedy for your raised cholesterol	Number of respondents
Usual Activity									
Working	16.3	6,199	19.4	1,093	78.7	26.5	4.5	3.5	225
Doing household chores	19.1	3,88 3,88 3,	17.8	764	66.8	32	1.9	2.4	184
Student	8.1	516	17.8	43	82.8	53.6	10.6	0	œ
Retired	41.3	161	20:1	67	75.7	49.1	0	0	16
Doing nothing	13.3	484	14.2	77	97.8	27	2.4	0	16
Location									
Urban	17.2	4,198	22.4	823	79.2	31.2	2.4	1.5	215
Rural	15.9	7,052	15.4	1,221	76.1	33.6	7.3	3.4	234
Income Quintiles									
Least Income (Q1)	13.9	2,382	15.3	345	56.6	32.4	5.9	3.2	59
Lower (Q2)	14.6	2,094	16.4	359	79.6	43.9	5.4	2.1	80
Middle (Q3)	16	2,256	19.2	401	70.2	31.8	9.7	ю Ю	94
Upper (Q4)	16.4	2,310	17.2	446	88.9	29	1.6	2.8	66
Highest Income (Q5)	20.6	2,208	21.9	493	82.6	30.8	2.8	1.2	117
Age 2 categories (pr	revious)								
18-39	11.6	5,447	14.3	738	75.5	25.5	7	1.2	105
40-69	24.4	5,492	25.9	1,282	76.4	38.7	4.9	4.5	340
Total (18-69 Years)	16.3	10,939	18.5	2,020	75.8	30.3	3.1	2.4	445
Total (15-69 Years)	16.4	11,250	18.5	2,044	<i>T.T.</i>	32.4	4.7	2.4	449

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the percentage told in the past 12 months they have raised blood cholesterol, and percentage taking medication to control cholesterol, by by a health care provider that they have raised blood cholesterol; among people who have been told they have raised blood cholesterol, Table 7.10.2 Percentage of people aged 15-69 years old who have ever had their blood cholesterol measured and who have been told Dzongkhag, [Bhutan NHS 2023].

	Ever had blood		Ever told have raised		Among t	hose who have bee have raised blood c	n told by a do holesterol, th	octor or health care ie percentage who i	provider they were:
Background characteristics	cholesterol measured by a doctor or health care provider	Number of respondents	blood cholesterol by doctor or health care provider	Number of respondents	told in the past 12 months	taken medication to control blood cholesterol in the past 12 weeks	ever seen a local healer for raised cholesterol	currently taking any herbal or traditional remedy for your raised cholesterol	Number of respondents
Bumthang	10.5	342	41.6	45	95.0	10.5	37.2	0.0	17
Chhukha	15.4	1,015	15.2	170	76.7	38.9	3.6	0.0	23
Chhukha (Other than P/ling Thromde)	16.2	571	20.0	108	91.1	50.6	6.5	0.0	16
Phuentsholing Thromde	12.9	444	9.7	62	69.4	23.1	0.0	0.0	7
Dagana	19.0	377	5.1	00 00	100.0	54.7	0.0	0.0	Ø
Gasa	8.6	249	28.1	29	100.0	38.8 38.8	23.2	10.4	œ
Haa	14.8	300	13.4	23	43.7	15.9	17.3	0.0	0
Lhuentse	12.8	293	59.5	42	95.2	89.6	0.0	0.0	4
Monggar	25.3	557	25.2	157	90.2	5.7	2.8	2.8	52
Paro	14.1	612	24.5	63	76.0	25.0	1.2	1.0	28
Pema Gatshel	19.0	400	7.7	72	100.0	11.5	0.0	0.0	11
Punakha	15.7	419	25.4	67	51.0	43.1	11.3	2.2	4
Samdrup Jongkhar	16.2	697	6.8	118	94.6	12.3	0.0	8.2	19
Samdrup Jongkhar (Other than SJ Thromde)	16.2	416	2.3	74	79.7	19.6	0.0	0.0	വ



	Ever had blood		Ever told have raised		Among t	hose who have bee have raised blood o	en told by a d cholesterol, th	octor or health care ne percentage who	provider they vere:
Background characteristics	cholesterol measured by a doctor or health care provider	Number of respondents	blood cholesterol by doctor or health care provider	Number of respondents	told in the past 12 months	taken medication to control blood cholesterol in the past 12 weeks	ever seen a local healer for raised cholesterol	currently taking any herbal or traditional remedy for your raised cholesterol	Number of respondents
Samdrup Jongkhar Thromde	13.6	281	22.4	44	100.0	13.9	0.0	9.5	14
Samtse	11.7	850	11.0	121	70.2	60.6	11.0	7.5	22
Sarpang	24.4	804	17.5	206	76.3	37.8	0.0	1.9	45
Sarpang (Other than Gelephu Thromde)	23.5	522	18.2	127	83.4	37.8	0.0	1.6	30
Gelephu Thromde	23.3	282	14.5	79	51.4	68.4	0.0	0.0	ប
Thimphu	20.5	1,768	21.9	410	72.3	32.3	1.5	2.3	11
Thimphu (Other than T/phu Thromde)	24.2	393	8.1	106	82.0	43.7	0.0	0.0	16
Thimphu Thromde	18.5	1,375	25.7	304	71.8	28.8	1.7	2.6	95
Trashigang	9.7	663	14.2	71	67.2	32.3	15.4	9.1	4
Trashi Yangtse	11.0	341	5.0	40	89.1	74.6	0.0	<u>6</u> .6	D
Trongsa	4.0	332	22.5	15	94.9	0.0	0.0	94.9	7
Tsirang	20.1	394	23.0	112	57.3	21.0	4.7	3.6	31
Wangdue	10.3	505	14.7	57	100.0	22.1	5.4	0.0	6
Zhemgang	18.8	332	4.5	78	21.5	19.2	0.0	0.0	9
Total (15-69 Years)	16.4	11,250	18.5	2,044	<i>T.</i> 77	32.4	4.7	2.4	449



medications as they were aware of their diagnosis, on treatment or have their blood cholesterol controlled or uncontrolled with medications, by Table 7.10.3 Percentage of people aged 15-69 years who had raised blood cholesterol at the time of the survey or were on blood cholesterol background characteristics, [Bhutan NHS 2023].

Background	Prevalence of raised	Number of		Among those with raise	d blood cholesterol le	vels, percentage ¹	
characteristics	Blood cholesterol	respondents	Not aware of diagnosis	Aware of diagnosis but not on treatment	On treatment but not controlled	On treatment and controlled	Number of respondents
Sex							
Men	21.5	595	89.9	2.2	0.7	7.2	135
Women	20.2	837	91.2	2.7	1.1	5.0	183
Location							
Urban	19.6	469	89.7	1.6	0.5	8.3	94
Rural	21.6	963	91.0	2.9	1.2	4.9	224
Age 2 categories (p	irevious)						
18-39	15.2	599	93.9	с <u>;</u>	0.0	4.8	06
40-69	29.5	798	82.5	4.4	2.5	10.6	220
Total (18-69 Years)	20.5	1,397	89.7	2.4	6.0	6.9	310
Total (15-69 Years)	20.9	1,432	90.5	2.4	6.0	6.1	318



Table 7.11.1 Percentage of people aged 15-69 years who reported ever having a heart attack or chest pain from heart disease or stroke, currently taking aspirin and statin, by background characteristics, [Bhutan NHS 2023].

Background characteristics	Ever having a heart from heart disc	attack or chest pain ease or stroke	Currently ta	king aspirin	Currently ta	aking statin	Number of
	Percent	95 % CI	Percent	95 % CI	Percent	95 % CI	respondents
Age Range							
15-24	4.0	[3.0,5.4]	0.8	[0.5,1.5]	0.5	[0.3,1.1]	1,325
25-39	4:1	[3.5,4.9]	0.8	[0.6,1.2]	0.7	[0.5,0.9]	4,433
40-54	4.7	[4.0,5.5]	0.7	[0.5,1.1]	2.1	[1.5,2.9]	3,439
55-69	5.0	[4.8,7.1]	2.3	[1.7,3.2]	4.2	[3.3,5.3]	2,053
Sex							
Men	ю. Ю.	[3.3,4.6]	0.9	[0.6,1.2]	1.1	[0.8,1.6]	4,243
Women	5.1	[4.5,5.8]	1.1	[0.9,1.4]	1.7	[1.4,2.1]	7,007
Level Of Education							
None	5.1	[4.4,5.9]	1.1	[0.8,1.4]	2.0	[1.6,2.4]	5,146
Primary or less	3.9	[3.0,5.2]	0.5	[0.3,1.0]	1.0	[0.6,1.7]	1,323
Lower Secondary	5.7	[4.0,8.2]	1.6	[0.9,2.9]	1.7	[1.0,2.9]	686
Middle Secondary	3.6	[2.7,4.8]	1.0	[0.6,1.7]	0.8	[0.5,1.3]	1,504
Higher Secondary	4.9	[3.7,6.5]	1.0	[0.6,1.7]	1.1	[0.7,1.7]	1,443
Certificates/Diploma	3.1	[1.9,5.0]	1:1	[0.5,2.2]	1.7	[0.8,3.7]	879
Bachelor/Master/PhD	6.1	[0.9,3.8]	0.4	[0.1,1.7]	0.9	[0.3,2.6]	267

Background characteristics	Ever having a heart from heart dis	attack or chest pain ease or stroke	Currently ta	king aspirin	Currently ta	aking statin	Number of
	Percent	95 % CI	Percent	95 % CI	Percent	95 % CI	respondents
Usual Activity							
Working	8. 6	[3.3,4.5]	0.7	[0.5,1.0]	1:1	[0.8,1.4]	6,199
Doing household chores	5.7	[4.9,6.6]	1.3	[1.0,1.8]	2.0	[1.6,2.6]	3,888
Student	8. K	[2.4,6.1]	1.0	[0.4,2.1]	1.1	[0.4,2.5]	516
Retired	6.7	[3.3,13.0]	4.3	[1.7,10.4]	5.4	[2.5,11.2]	161
Doing nothing	5.7	[3.8,8.7]	1.4	[0.7,3.1]	1.9	[1.2,3.1]	484
Location							
Urban	4.8	[3.9,5.7]	1.1	[0.8,1.5]	1.7	[1.3,2.3]	4,198
Rural	4.3	[3.7,4.9]	0.9	[0.7,1.2]	1.2	[1.0,1.5]	7,052
Income Quintiles							
Least Income (Q1)	5.5	[4.4,6.9]	0.7	[0.4,1.3]	1.4	[1.0,2.0]	2,382
Lower (Q2)	4.5	[3.5,5.7]	1.1	[0.7,1.7]	1.3	[0.9,1.9]	2,094
Middle (Q3)	4.9	[4.0,6.0]	1.1	[0.7,1.5]	1.5	[1:1,2:1]	2,256
Upper (Q4)	3.6	[2.8,4.7]	0.7	[0.4,1.2]	6.0	[0.6,1.4]	2,310
Highest Income (Q5)	3.9	[3:1,5.0]	1.3	[0.9,2.0]	2.0	[1.3,3.1]	2,208
Age 2 categories (previous)							
18-39	4.1	[3.4,4.8]	0.9	[0.6,1.2]	0.6	[0.4,0.9]	5,447
40-69	5.1	[4.5,5.8]	1.3	[1.0,1.6]	2.8	[2.3,3.5]	5,492
Total (18-69 Years)	4.4	[3.9,5.0]	1.0	[0.8,1.2]	1.4	[1.2,1.7]	10,939
Total (15-69)	4.5	[4.0,5.0]	1.0	[0.8,1.2]	1.4	[1.2,1.7]	11,250

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Table 7.11.2 Percentage of people aged 15-69 years who reported ever having a heart attack or chest pain from heart disease or stroke, by Dzongkhag, [Bhutan NHS 2023].

		For raised Blood sugar	
Dzongkhag	ever seen a local healer	currently taking a herbal remedy	Number of respondents
Bumthang	7.4	[4.7,11.4]	342
Chhukha	1.3	[0.7,2.5]	1015
Chhukha (Other than P/ling Thromde)	1.2	[0.6,2.5]	571
Phuentsholing Thromde	1.4	[0.5,4.1]	444
Dagana	5.0	[3.0,8.4]	377
Gasa	8.5	[5.6,12.6]	249
Наа	5.3	[2.3,12.1]	300
Lhuentse	7.4	[5.1,10.6]	293
Monggar	7.0	[4.8,10.2]	557
Paro	5.4	[3.6,8.0]	612
Pema Gatshel	5.0	[2.6,9.6]	400
Punakha	8.2	[5.6,11.8]	419
Samdrup Jongkhar	1.6	[0.9,3.0]	697
Samdrup Jongkhar (Other than SJ Thromde)	1.3	[0.5,3.0]	416
Samdrup Jongkhar Thromde	2.6	[1.2,5.4]	281
Samtse	4.4	[2.9,6.5]	850
Sarpang	2.8	[1.6,4.8]	804
Sarpang (Other than Gelephu Thromde)	2.5	[1.2,5.1]	522
Gelephu Thromde	3.8	[1.8,7.8]	282
Thimphu	5.0	[3.9,6.6]	1768
Thimphu (Other than T/phu Thromde)	1.3	[0.6,3.0]	393
Thimphu Thromde	5.8	[4.3,7.6]	1375
Trashigang	5.0	[3.4,7.2]	663
Trashi Yangtse	10.4	[7.2,14.7]	341
Trongsa	2.1	[0.9,4.8]	332
Tsirang	5.5	[3.4,8.6]	394
Wangdue	2.7	[1.7,4.5]	505
Zhemgang	0.3	[0.1,1.1]	332
Total (15-69)	4.5	[4.0,5.0]	11,250



Table 7.11.3 Percentage of people aged 15-69 years who had raised Blood sugar at the time of the survey or were on Blood sugar medications as they were aware of their diagnosis, on treatment or have their Blood sugar controlled or uncontrolled with medications, by background characteristics, [Bhutan NHS 2023].

Background characteristics	Percent population with 10-year risk levels of >=30%:	95% CI	Number of respondents (N)
Age			
40-54	4.9	[3.1,7.6]	443
55-69	6.2	[3.8,10.1]	312
Sex			
Men	5.0	[2.9,8.4]	324
Women	5.7	[3.8,8.6]	431
Residence			
Urban	4.9	[2.3,10.1]	178
Rural	5.5	[3.8,7.9]	577
Total (40-69)	5.3	[3.8,7.4]	755

Table 7.11.4 Percentage of people aged 15-69 years who have visited a doctor or health worker in the past 12 months and received lifestyle advice on behavioural risk factors for non-communicable diseases by background characteristics, [Bhutan NHS 2023].

			Percent who repor	ted receivi	ng lifestyle advid	ce to:		
Background characteristics	quit using tobacco or don't start	reduce salt in your diet	eat at least five servings of fruit and/or vegetables each day	reduce fat in your diet	start or do more physical activity	maintain a healthy body weight or lose weight	reduce sugar beverages in your diet	Number of respondents
Age Range								
15-24	24.6	26.7	45.4	27.4	34.3	28.1	20.9	787
25-39	32.3	45.6	51.2	43.8	44.3	40.3	31.5	3,069
40-54	34.2	64.0	63.1	58.1	53.0	48.6	39.6	2,471
55-69	36.5	71.2	65.9	59.8	52.2	44.4	47.5	1,531
Sex								
Men	33.2	46.4	52.8	43.2	44.2	38.4	32.9	2,696
Women	29.3	51.1	56.5	47.5	45.8	41.5	32.9	5,162
Level Of Education								
None	34.9	64.3	62.7	55.2	46.6	43.1	38.7	3,750
Primary or less	37.9	59.6	61.6	52.1	49.8	43.0	39.9	928
Lower Secondary	33.8	47.6	56.4	44.3	47.4	40.1	29.5	468
Middle Secondary	30.6	38.0	52.5	38.5	43.5	39.7	30.9	1,018
Higher Secondary	23.9	29.4	43.1	32.1	38.1	32.0	22.6	939
Certificates/Diploma	26.3	38.6	43.5	40.8	46.7	40.6	29.9	585
Bachelor/Master/PhD	27.5	36.7	45.1	38.1	46.3	35.4	31.2	169

			Percent who repo	rted receivi	ng lifestyle advic	:e to:		
Background characteristics	quit using tobacco or don't start	reduce salt in your diet	eat at least five servings of fruit and/or vegetables each day	reduce fat in your diet	start or do more physical activity	maintain a healthy body weight or lose weight	reduce sugar beverages in your diet	Number of respondents
Usual Activity								
Working	34.0	50.5	54.9	46.4	45.6	40.7	34.3	4,224
Doing household chores	30.2	53.8	58.5	50.5	47.3	42.2	34.7	2,904
Student	22.9	27.7	45.1	28.1	37.2	31.4	21.1	314
Retired	37.6	67.9	59.3	60.0	61.2	51.2	53.8	111
Doing nothing	23.9	38.1	48.1	37.5	37.4	32.3	27.2	304
Location								
Urban	28.2	42.2	50.4	42.8	47.3	40.1	32.0	2,838
Rural	33.4	52.6	57.1	46.8	43.4	39.6	33.4	5,020
Income Quintiles								
Least Income (Q1)	31.1	53.1	58.3	46.5	43.7	37.7	32.4	1,630
Lower (Q2)	32.6	50.2	57.0	45.1	41.9	37.9	33.4	1,471
Middle (Q3)	33.1	50.9	55.2	45.9	45.2	41.0	34.1	1,592
Upper (Q4)	32.4	46.6	53.0	44.7	45.9	41.8	32.3	1,662
Highest Income (Q5)	27.9	43.5	50.1	44.1	47,1	40.0	32.5	1,503
Age 2 categories (previous)								
18-39	29.0	38.0	48.5	37.1	40.0	34.8	27.2	3,669
40-69	35.0	66.5	64:1	58.7	52.7	47.1	42.4	4,002
Total (18-69 Years)	31.2	48.4	54.2	45.0	44.7	39.3	32.8	7,671
Total (15-69)	31.4	48.6	54.5	45.2	44.9	39.8	32.9	7,858

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Table 7.11.5 Percentage of people aged 15-69 years who have visited a doctor or health worker in the past 12 months and received lifestyle advice on behavioural risk factors for non-communicable diseases by Dzongkhag, [Bhutan NHS 2023].

			Percent who repor	ted receivi	ng lifestyle advic	:e to:		
Background characteristics	quit using tobacco or don't start	reduce salt in your diet	eat at least five servings of fruit and/or vegetables each day	reduce fat in your diet	start or do more physical activity	maintain a healthy body weight or lose weight	reduce sugar beverages in your diet	Number of respondents
Bumthang	49.2	59.6	74.5	56.8	63.9	59.8	55.6	301
Chhukha	46.9	62.5	65.8 6	63.3	62.0	56.5	47.9	716
Chhukha (Other than P/ ling Thromde)	40.7	58.8	60.1	58.6	54.2	48.2	36.2	464
Phuentsholing Thromde	56.9	65.9	74.0	69.4	73.8	70.2	66.7	252
Dagana	27.1	42.5	47.6	38.4	41.2	41.3	32.3	218
Gasa	29.2	66.8	52.4	57.3	45.6	40.6	25.3	168
Haa	46.6	47.9	60.1	45.8	43.9	24.7	37.4	226
Lhuentse	63.2	80.5	77.8	81.8 8	79.5	78.3	73.8	230
Monggar	4.4	47.9	43.2	47.2	35.0	35.2	14.9	324
Paro	28.9	45.6	48.7	38.5	41.0	33.2	26.7	390
Pema Gatshel	37.7	54.2	65.3	52.7	47.2	51.1	38.8	315
Punakha	47.8	51.8	65.2	44.8	38.3	26.0	33.8	358
Samdrup Jongkhar	21.4	42.3	57.6	39.1	39.0	38.5	24.8	437
Samdrup Jongkhar (Other than SJ Thromde)	20.3	39.6	56.3	35.0	31.6	31.5	20.0	243

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			Percent who repor	ted receivin	ng lifestyle advic	e to:		
Background characteristics	quit using tobacco or don't start	reduce salt in your diet	eat at least five servings of fruit and/or vegetables each day	reduce fat in your diet	start or do more physical activity	maintain a healthy body weight or lose weight	reduce sugar beverages in your diet	Number of respondents
Samdrup Jongkhar Thromde	22.6	42.5	56.8	43.2	54.9	55.0	34.0	194
Samtse	11.3	36.0	40.0	30.1	27.3	28.3	13.3	590
Sarpang	31.5	51.4	52.1	45.4	46.9	38.5	41.8	491
Sarpang (Other than Gelephu Thromde)	31.7	50.9	51.4	44.9	46.2	38.3	41.9	321
Gelephu Thromde	28.0	45.0	50.2	41.6	47.1	35.0	33.1	170
Thimphu	25.5	38.8 38.8	47.5	38.3 38	42.5	34.5	26.7	1,149
Thimphu (Other than T/ phu Thromde)	36.6	48.6	58.9 .0	42.4	45.7	37.2	30.9	285
Thimphu Thromde	22.2	34.7	43.4	35.8	40.4	32.8	24.3	864
Trashigang	40.3	63.6	63.6	55.5	53.5	46.7	46.5	573
Trashi Yangtse	46.1	53.5	59.4	43.8	43.1	44.9	32.9	272
Trongsa	21.3	44.6	43.2	39.3	37.1	24.9	20.5	243
Tsirang	27.0	47.8	51.0	45.2	44.0	41.7	31.5	281
Wangdue	36.1	46.5	60.4	48.9	39.6	33.9	24.6	326
Zhemgang	37.7	60.8	65.1	50.8	56.8	54.4	48.7	250
Total (15-69)	31.4	48.6	54.5	45.2	44.9	39.8 8	32.9	7,858

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Table 7.12.1 Percentage of women aged 30-65 years who were ever screened for cervical cancer, [Bhutan NHS, 2023]

	Ever te	ested for cervical	cancer		
	Yes	No	Don't know	Total	Number of Women
	%	%	%	%	
Area					
Urban	84.2	15.2	0.6	100.0	2,970
Rural	88.6	11.3	0.1	100.0	5,744
Women Education					
None	87.9	11.8	0.2	100.0	5,527
Primary or less	87.4	12.4	0.2	100.0	913
Lower Secondary	90.7	8.7	0.6	100.0	415
Middle secondary	87.5	12.1	0.4	100.0	870
Higher secondary	80.2	19.6	0.2	100.0	501
Certificates/Diploma	87.1	12.9	0.0	100.0	99
Bachelor & above	79.2	19.6	1.3	100.0	389
Woman Income Quintiles					
Least Income (Q1)	85.0	14.7	0.3	100.0	1,935
Lower (Q2)	88.3	11.5	0.2	100.0	1,810
Middle (Q3)	87.6	12.3	0.2	100.0	1,776
Upper (Q4)	87.1	12.2	0.7	100.0	1,511
Highest Income (Q5)	87.6	12.1	0.3	100.0	1,682
Dzongkhag					
Bumthang	94.4	5.3	0.3	100.0	304
Chhukha	77.4	21.9	0.7	100.0	726
Phuentshogling Thromde	71.0	29.0	0.0	100.0	277



	Ever te	sted for cervical	cancer		
	Yes	No	Don't know	Total	Number of Women
	%	%	%	%	
Dagana	90.4	9.6	0.0	100.0	273
Gasa	98.9	1.1	0.0	100.0	161
Наа	88.1	11.9	0.0	100.0	237
Lhuentse	96.1	3.9	0.0	100.0	253
Monggar	95.3	4.7	0.0	100.0	492
Paro	86.0	13.6	0.4	100.0	417
Pema Gatshel	96.9	3.1	0.0	100.0	315
Punakha	89.8	10.2	0.0	100.0	355
Samdrup Jongkhar	86.3	13.4	0.3	100.0	537
Samdrup Jongkhar Thromde	78.5	20.5	1.1	100.0	196
Samtse	81.9	18.1	0.0	100.0	698
Sarpang	91.1	8.9	0.0	100.0	630
Gelegphu Thromde	83.4	16.6	0.0	100.0	187
Thimphu	83.5	15.5	1.0	100.0	1,242
Thimphu Thromde	83.6	15.2	1.2	100.0	975
Trashigang	82.5	17.3	0.2	100.0	564
Trashi Yangtse	91.6	8.4	0.0	100.0	257
Trongsa	93.5	6.5	0.0	100.0	264
Tsirang	89.4	10.6	0.0	100.0	337
Wangdue Phodrang	91.1	8.9	0.0	100.0	384
Zhemgang	91.3	8.4	0.3	100.0	268
Total	87.1	12.6	0.3	100.0	8,714



Table 7.12.2 Percentage of women aged 30-65 years who were ever screened for cervical cancer by period of their most recent screening, [Bhtuan NHS, 2023]

		Most r	ecent testec	l for cervical ca	ancer		
	Less than 1 year ago	1-2 years ago	3-5 years ago	More than 5 years ago	Don't know	Total	Number of Women
	%	%	%	%	%	%	
Area							
Urban	56.7	27.8	8.5	6.4	0.5	100.0	2,510
Rural	60.0	30.2	6.3	3.1	0.3	100.0	5,133
Women Education							
None	59.0	30.0	6.4	4.1	0.4	100.0	4,899
Primary or less	61.4	27.8	5.4	5.2	0.2	100.0	804
Lower Secondary	60.4	26.8	7.2	5.4	0.2	100.0	377
Middle secondary	59.5	27.1	8.8	4.7	0.0	100.0	767
Higher secondary	51.6	33.7	11.5	2.8	0.4	100.0	399
Certificates/Diploma	56.2	36.2	5.8	1.8	0.0	100.0	86
Bachelor & above	57.8	25.7	11.5	4.0	0.9	100.0	311
Woman Income Quintiles							
Least Income (Q1)	57.3	31.1	7.0	4.3	0.3	100.0	1,666
Lower (Q2)	60.2	30.6	5.6	3.3	0.2	100.0	1,611
Middle (Q3)	60.3	27.8	7.4	3.8	0.7	100.0	1,564
Upper (Q4)	61.5	26.8	7.0	4.5	0.3	100.0	1,322
Highest Income (Q5)	55.8	30.2	8.3	5.4	0.4	100.0	1,480
Dzongkhag							
Bumthang	45.8	42.2	10.5	1.4	0.0	100.0	286
Chhukha	55.1	24.7	12.2	7.5	0.5	100.0	564
Phuentshogling Thromde	50.6	26.3	15.7	7.4	0.0	100.0	198
Dagana	78.0	15.7	3.9	1.7	0.6	100.0	245



		Most r	ecent testec	l for cervical ca	ncer		
	Less than 1 year ago	1-2 years ago	3-5 years ago	More than 5 years ago	Don't know	Total	Number of Women
	%	%	%	%	%	%	
Gasa	56.4	39.8	3.8	0.0	0.0	100.0	160
Наа	41.0	43.4	13.3	1.4	0.9	100.0	205
Lhuentse	54.6	41.0	3.3	0.8	0.4	100.0	243
Monggar	67.5	26.2	3.2	3.1	0.0	100.0	469
Paro	64.5	19.4	10.7	4.7	0.7	100.0	360
Pema Gatshel	33.1	60.3	4.8	1.9	0.0	100.0	302
Punakha	49.3	38.7	8.3	3.7	0.0	100.0	318
Samdrup Jongkhar	65.0	22.8	7.8	3.5	1.0	100.0	459
Samdrup Jongkhar Thromde	72.4	13.3	7.2	6.3	0.9	100.0	153
Samtse	70.3	21.4	3.1	4.6	0.7	100.0	573
Sarpang	77.1	12.9	5.9	4.1	0.0	100.0	565
Gelegphu Thromde	62.2	18.2	9.0	10.5	0.0	100.0	155
Thimphu	52.7	29.6	9.2	7.9	0.5	100.0	1,034
Thimphu Thromde	50.0	30.9	9.7	8.8	0.6	100.0	813
Trashigang	41.5	50.8	5.6	2.0	0.2	100.0	477
Trashi Yangtse	49.7	42.1	6.2	2.1	0.0	100.0	233
Trongsa	46.7	42.3	7.1	3.4	0.6	100.0	247
Tsirang	70.8	19.4	6.3	3.2	0.3	100.0	300
Wangdue Phodrang	55.0	39.4	3.7	1.7	0.2	100.0	354
Zhemgang	70.3	17.3	8.5	3.5	0.3	100.0	249
Total	58.9	29.4	7.1	4.2	0.4	100.0	7,643



Table 7.12.3 Percentage of women aged 40-65 years who were ever screened for breast cancer, [Bhutan NHS 2023].

	Exami	ned breasts for c	ancer		
	Yes	No	Don't know	Total	Number of Women
	%	%	%	%	
Area					
Urban	54.8	44.9	0.3	100.0	1,482
Rural	54.4	45.1	0.5	100.0	3,746
Women Education Level					
None	53.2	46.3	0.5	100.0	4,044
Primary or less	56.5	43.4	0.1	100.0	518
Lower Secondary	53.9	45.9	0.3	100.0	205
Middle secondary	65.3	33.9	0.8	100.0	251
Higher secondary	55.4	44.6	0.0	100.0	81
Certificates/Diploma	73.0	27.0	0.0	100.0	30
Bachelor & above	65.2	33.9	1.0	100.0	99
Woman Income quintiles					
Least Income (Q1)	52.5	46.9	0.6	100.0	1,409
Lower (Q2)	52.8	46.7	0.5	100.0	1,160
Middle (Q3)	55.4	44.4	0.2	100.0	977
Upper (Q4)	55.9	43.1	1.0	100.0	811
Highest Income (Q5)	57.5	42.4	0.1	100.0	871
Dzongkhag					
Bumthang	87.5	12.5	0.0	100.0	171
Chhukha	49.4	48.7	1.9	100.0	380
Phuentshogling Thromde	32.8	67.2	0.0	100.0	110



	Examined breasts for cancer				
	Yes	No	Don't know	Total	Number of Women
	%	%	%	%	
Dagana	68.7	31.3	0.0	100.0	186
Gasa	89.4	10.6	0.0	100.0	102
Наа	20.5	78.9	0.6	100.0	146
Lhuentse	47.5	52.5	0.0	100.0	165
Monggar	44.8	54.9	0.4	100.0	318
Paro	61.0	39.0	0.0	100.0	234
Pema Gatshel	62.3	37.7	0.0	100.0	214
Punakha	58.3	41.7	0.0	100.0	230
Samdrup Jongkhar	38.8	59.6	1.6	100.0	315
Samdrup Jongkhar Thromde	49.4	47.8	2.8	100.0	92
Samtse	40.8	59.2	0.0	100.0	454
Sarpang	59.6	40.1	0.2	100.0	389
Gelegphu Thromde	58.8	41.2	0.0	100.0	102
Thimphu	55.2	44.3	0.6	100.0	641
Thimphu Thromde	53.8	46.0	0.3	100.0	497
Trashigang	58.4	41.3	0.3	100.0	362
Trashi Yangtse	35.0	65.0	0.0	100.0	146
Trongsa	43.4	55.9	0.7	100.0	161
Tsirang	54.7	43.6	1.7	100.0	226
Wangdue Phodrang	68.1	31.2	0.7	100.0	224
Zhemgang	66.2	33.8	0.0	100.0	164
Total	54.5	45.0	0.5	100.0	5,228


Table 8.1.1 Percentage of individuals aged 15-69 years diagnosed with a mental health disorder themselves or within their family members, by background characteristics, according to the National Health. [Bhutan NHS 2023].

Background characteristics	Themselves ¹	Number of respondents	Family Members ²	Number of respondents
Age Range				
15-24	2.9	1,325	4.0	1,321
25-39	2.8	4,430	4.9	4,424
40-54	3.0	3,440	4.7	3,431
55-69	2.3	2,051	4.3	2,049
Sex				
Men	2.1	4,241	4.2	4,229
Women	3.6	7,005	5.0	6,996
Level of Education				
None	2.9	5,145	4.4	5,133
Primary or less	3.8	1,323	5.6	1,320
Lower Secondary	3.8	686	5.5	685
Middle Secondary	2.0	1,502	4.2	1,502
Higher Secondary	2.3	1,443	3.7	1,440
Certificates/Diploma	3.0	879	5.2	877
Bachelor/Master/PhD	2.5	267	5.3	267
Usual Activity				
Working	2.5	6,197	4.6	6,183
Doing household chores	3.3	3,887	4.5	3,885
Student	2.3	516	4.0	514
Retired	4.4	161	5.0	160
Doing nothing	4.1	484	4.7	482
Location				
Urban	2.8	4,195	4.5	4,190
Rural	2.9	7,051	4.6	7,035
Income Quintiles				
Least Income (Q1)	2.7	2,379	5.7	2,378
Lower (Q2)	2.9	2,095	4.3	2,088
Middle (Q3)	2.4	2,256	3.5	2,255
Upper (Q4)	3.4	2,309	4.4	2,305
Highest Income (Q5)	2.7	2,207	4.8	2,199
Total 15-69	2.8	11,246	4.6	11,225

¹ Four individuals refused.

 $^{\rm 2}$ 11 individuals refused and 14 said Don't know.



Table 8.1.2 Percentage of individuals aged 15-69 years diagnosed with a mental health disorder themselves or within their family members, by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Themselves ¹	Number of respondents	Family Members ²	Number of respondents
Bumthang	2.0	342	5.1	342
Chhukha	2.2	1,016	3.6	1,015
Chhukha (Other than P/ling Thromde)	1.2	572	3.6	572
Phuentsholing Thromde	3.5	444	3.6	443
Dagana	1.9	377	2.4	376
Gasa	3.0	249	2.3	249
Наа	1.9	300	4.5	300
Lhuentse	2.0	293	3.7	293
Monggar	4.0	557	6.6	556
Paro	3.8	611	4.1	610
Pema Gatshel	2.5	400	3.3	399
Punakha	4.2	419	8.8	419
Samdrup Jongkhar	1.8	695	3.3	695
Samdrup Jongkhar (Other than SJ Thromde)	1.3	415	2.5	415
Samdrup Jongkhar Thromde	3.1	280	5.0	280
Samtse	2.4	850	6.4	803
Sarpang	3.1	804	4.6	6,183
Sarpang (Other than Gelephu Thromde)	3.7	522	6.4	521
Gelephu Thromde	1.7	282	6.2	282
Thimphu	2.7	1,766	4.2	1,762
Thimphu (Other than T/phu Thromde)	3.9	393	3.9	392
Thimphu Thromde	2.3	1,373	4.3	1,370
Trashigang	3.7	663	3.3	662
Trashi Yangtse	2.4	341	5.4	337
Trongsa	4.1	332	5.2	331
Tsirang	2.1	394	3.4	392
Wangdue	3.5	505	4.8	504
Zhemgang	2.7	332	4.6	332
Total 15-69	2.8	11,246	4.6	11,225

¹ Four individuals refused

 $^{2}\,\textsc{11}$ individuals refused and 14 said Don't know.



Table 8.1.3 Among individuals aged 15-69 years who have ever been diagnosed with any mental disorders, the percentage by diagnosis and their experience of discrimination or social isolation, [Bhutan NHS 2023].

Background		Diag	nosis		Percentage who face	Number of
characteristics	Depression	Anxiety	Psychosis	Others	discrimination or social isolation	respondents
Total (15-69 years)	56.8	34.8	10.5	5.9		341

*Multiple response so % will not add to 100

Table 8.1.4 Percentage of individuals aged 15-69 years who felt supported by family members when they faced challenges or difficulties, by background characteristics, [Bhutan NHS 2023].

Background characteristics	Always	Often	Sometimes	Rarely	Never	Number of respondents
Age Range						
15-24	86.2	4.7	6.3	1.4	1.3	1,325
25-39	80.9	6.0	7.9	2.1	3.0	4,432
40-54	76.6	6.9	10.2	2.4	3.9	3,440
55-69	78.8	7.1	8.0	2.4	3.7	2,052
Sex						
Men	81.8	6.3	7.2	1.8	2.9	4,241
Women	79.9	5.8	9.0	2.3	2.9	7,008
Level of Education						
None	76.3	6.9	9.8	2.9	4.2	5,147
Primary or less	78.3	6.7	9.3	1.5	4.2	1,322
Lower Secondary	80.3	4.7	9.7	2.2	3.1	686
Middle Secondary	81.8	6.4	8.6	1.6	1.7	1,504
Higher Secondary	87.0	4.3	5.7	1.8	1.2	1,443
Certificates/Diploma	85.9	6.4	3.7	1.4	2.6	879
Bachelor/Master/PhD	87.6	5.5	6.3	0.5	0.2	267
Usual Activity						
Working	80.2	6.0	8.3	2.0	3.4	6,198
Doing household chores	78.7	6.5	9.8	2.4	2.6	3,889
Student	89.0	5.5	3.3	1.4	0.8	516
Retired	84.3	2.9	5.8	3.0	3.9	161
Doing nothing	83.7	6.3	6.1	1.5	2.4	484
Location						
Urban	80.2	6.7	8.0	2.2	2.9	4,197
Rural	81.4	5.6	8.1	2.0	2.9	7,052
Income Quintiles						
Least Income (Q1)	78.3	5.9	9.9	2.5	3.3	2,382
Lower (Q2)	78.8	6.6	9.4	1.8	3.4	2,095
Middle (Q3)	80.2	6.2	8.5	2.4	2.7	2,256
Upper (Q4)	82.3	6.3	7.3	1.5	2.6	2,310
Highest Income (Q5)	84.3	5.3	5.7	2.0	2.7	2,206
Total 15-69	80.9	6.0	8.1	2.1	2.9	11,249



Table 8.1.5 Percentage of individuals aged 15-69 years who felt supported by family members when they faced challenges or difficulties, by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Always	Often	Sometimes	Rarely	Never	Number of respondents
Bumthang	89.9	0.7	7.8	0.7	0.8	342
Chhukha	80.9	11.4	4.4	1.4	1.9	1,016
Chhukha (Other than P/ling Thromde)	89.2	5.2	2.8	0.9	2.0	572
Phuentsholing Thromde	71.7	18.4	6.2	2.0	1.7	444
Dagana	85.6	7.1	3.5	1.8	2.0	377
Gasa	85.1	1.7	11.0	1.3	0.9	249
Haa	94.0	1.6	3.8	0.2	0.4	299
Lhuentse	91.3	4.4	3.6	0.3	0.4	293
Monggar	75.3	7.5	14.9	1.5	0.8	557
Paro	83.7	2.6	8.6	1.8	3.3	612
Pema Gatshel	68.9	15.8	11.0	3.0	1.4	400
Punakha	85.7	2.7	7.3	1.7	2.6	419
Samdrup Jongkhar	80.7	8.4	6.8	1.5	2.6	697
Samdrup Jongkhar (Other than SJ Thromde)	80.3	9.9	6.2	1.5	2.1	416
Samdrup Jongkhar Thromde	84.5	1.9	8.0	1.2	4.4	281
Samtse	86.8	6.1	5.7	0.6	0.9	850
Sarpang	86.4	6.1	3.4	2.0	2.0	804
Sarpang (Other than Gelephu Thromde)	85.9	6.5	3.4	1.9	2.4	522
Gelephu Thromde	88.3	5.6	3.6	2.2	0.3	282
Thimphu	79.2	5.6	8.2	3.0	4.1	1,767
Thimphu (Other than T/phu Thromde)	84.3	2.7	5.0	3.8	4.1	393
Thimphu Thromde	78.5	6.0	8.8	2.8	3.9	1,374
Trashiga	66.3	4.1	15.1	5.7	8.7	663
Trashi Y	44.2	6.4	25.9	5.7	17.8	341
Trongsa	82.9	11.7	1.1	0.6	3.7	332
Tsirang	80.7	2.7	13.5	1.1	2.1	394
Wangdue	79.3	5.1	12.3	1.3	2.1	505
Zhemgang	89.6	4.8	3.5	1.4	0.7	332
Total 15-69	80.9	6.0	8.1	2.1	2.9	11,249

Table 8.1.6 Percentage of individuals aged 15-69 years who talked to while experiencing serious emotional distress, by background characteristics, [Bhutan NHS 2023].

Background characteristics	Professional clinician	Friends	Family member	Religious personal	Support group	Teachers	No one	Other	Number of respondents
Age Range									
15-24	11.8	37.7	75.0	3.4	1.2	1.7	7.3	0.1	1,325
25-39	17.8	25.9	81.8 8	5.2	1.3	0.4	6.6	0.1	4,432
40-54	19.7	19.0	81.0	5.1	÷	0.4	8.5 8	0.1	3,440
55-69	17.7	13.1	83.8 83.8	5.5	Ö.3	0.1	8.6 8.6	0.1	2,053
Sex	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			4 1 1 1 1 1 1 1 1 1 1 1 1 1	4 	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 1 1 1 1 1 1 1 1 1 1 1	
Men	16.7	25.8	79.7	5.0	÷	0.8	 8	0.0	4,242
Women	16.9	25.2	80.8	4.5	1.0	0.5	6.6	0.1	7,008
Level of Education									
None	19.0	17.3	81.9	5.5	0.6	0.1	6 [.] 3	0.1	5,147
Primary or less	17.5	19.3	80.9	4.6	6.0	0.3	9.4	0.0	1,323
Lower Secondary	14.3	29.6	77.9	4.3	1.3	1.0	7.5	0.0	686
Middle Secondary	14.5	25.9	81.0	4.2	6.0	1.4	6.0	0.1	1,504
Higher Secondary	13.3	34.9	78.2	8. 8. 10.	1.8	0.7	6.6	0.2	1,443
Certificates/Diploma	19.4	38.3	177.	5.6	1.6	1.5	4.0	0.0	879
Bachelor/Master/PhD	19.3	33.2	82.5	4.6	. <u>1</u> . 8	0.0	а.1 	0.0	267

Background characteristics	Professional clinician	Friends	Family member	Religious personal	Support group	Teachers	No one	Other	Number of respondents
Usual Activity									
Working	18.7	24.6	80.9	5.2	1.2	0.4	7.6	0.1	6,199
Doing household chores	15.9	19.9	82.0	4.5	0.9	0.2	7.6	0.0	3,889
Student	0 [.] 0	43.7	75.4	3. 8	0.9	3.7	5.4	0.4	516
Retired	22.0	6.6	82.8	3.0	0.0	0.0	8.6	0.0	161
Doing nothing	11.5	33.1	73.3	3.3	1.5	0.9	9.1	0.1	484
Location									
Urban	18.3	28.6	77.9	4.2	1.5	0.6	6.4	0.1	4,197
Rural	15.8	23.5	81.8	5.2	0.8	0.7	8.2	0.1	7,053
Income Quintiles									
Least Income (Q1)	16.6	20.9	7.67	5.7	0.7	0.6	10.0	0.1	2,382
Lower (Q2)	17.2	22.9	81.1	4.5	0.8	0.2	8.5	0.1	2,095
Middle (Q3)	15.7	26.5	81.7	5.2	:	0.8	6.9	0.1	2,256
Upper (Q4)	17.6	28.6	77.6	4.0	1.2	0.7	6.9	0.1	2,310
Highest Income (Q5)	16.8	27.8	81.3	4.5	1.6	6.0	5.5	0.0	2,207
Total 15-69	16.8	25.5	80.2	4.8	1:1	0.7	7.5	0:1	11,250



Table 8.1.7 The percentage of individuals aged 15-69 years who talked to while experiencing serious emotional distress, by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Professional clinician	Friends	Family member	Religious personal	Support group	Teachers	No one	Other	Number of respondents
Bumthang	30.9	11.4	91.8	4.2	1.7	0.0	0.0	0.0	342
Chhukha	18.8	32.8	79.8	5.9	0.8	:	6.9	0.2	1,016
Chhukha (Other than P/ling Thromde)	12.9	39.4	83.7	9.8	0.3	1.2	7.0	0.0	572
Phuentsholing Thromde	25.0	26.5	75.2	1:1	1.4	1.0	6.8	0.4	444
Dagana	3.0	20.7	79.5	0.4	0.3	0.0	8.0	0.0	377
Gasa	40.0	21.6	81.3	6.4	0.5	0.8	11.4	0.0	249
Haa	69.0	29.7	83.5	23.2	0.6	2.0	1.6	0.0	300
Lhuentse	57.4	39.7	72.6	28.6	6.0	0.2	0.4	0.4	293
Monggar	40.1	36.0	79.2	8. 80	0.6	0.6	2.4	0.0	557
Paro	15.0	23.8	80.4	6.4	0.8	0.7	7.3	0.2	612
Pema Gatshel	13.1	17.8	71.6	1.5	0.0	0.3	15.3	0.0	400
Punakha	0.4	13.7	88.1	0.3	5.1	0.4	5.9	0.2	419
Samdrup Jongkhar	1.3	36.2	82.0	2.0	0.6	0.8	9.6	0.0	697
Samdrup Jongkhar (Other than SJ Thromde)	1.0	39.6	80.3	1.9	0.4	1.0	10.7	0.0	416
Samdrup Jongkhar Thromde	2.2	29.7	85.7	1.7	1.3	0.5	5.4	0.0	281
Samtse	6.3	24.7	81.6	0.4	0.0	0.5	9.8	0.0	850
Sarpang	5.7	18.0	86.4	0.9	0.3	1:	4.6	0.1	804
Sarpang (Other than Gelephu Thromde)	5.8	18.1	85.9	0.9	0.2	1.2	4.7	0.1	522
Gelephu Thromde	3.4	22.8	85.6	0.9	1.1	1.2	4.2	0.0	282
Thimphu	15.7	27.7	75.5	4.9	1.7	0.5	8.3	0.2	1,767
Thimphu (Other than T/phu Thromde)	1.8	24.9	74.4	0.4	0.3	0.6	15.0	0.0	393
Thimphu Thromde	18.3	29.1	75.8	5.7	2.0	0.5	6.9	0.2	1,374
Trashigang	28.3	13.8	80.4	10.1	0.4	0.5	0.6	0.0	663
Trashi Yangtse	31.1	20.0	75.8	22.5	3.0	2.7	15.3	0.0	341
Trongsa	28.3	16.8	82.3	0.6	0.0	0.0	8.0	0.0	332
Tsirang	19.8	38.8	90.6	0.7	6.0	0.7	4.8	0.0	394
Wangdue	11.1	17.4	83.2	0.4	0.0	0.0	4.6	0.0	505
Zhemgang	16.9	24.7	73.9	2.6	2.1	1.2	14.5	0.2	332
Total 15-69	16.8	25.5	80.2	4.8	1.1	0.7	7.5	0.1	11,250



Table 8.1.8 The percentage of individuals aged 15-69 years who engaged in self-harming behaviours, whose close family ever died from suicide, who ever attempted suicide, and who seriously considered attempting suicide in the past 12 months, by background characteristics, [Bhutan NHS 2023].

Background characteristics	Who engaged in self-harming behaviors in the past month	Whose close family ever died from suicide	Who ever attempted suicide	Seriously considered attempting suicide in the past 12 months	Number of respondents
Age Range					
15-24	3.4	2.9	2.2	0.6	1,324
25-39	2.3	2.4	2.0	0.9	4,432
40-54	1.2	1.9	0.7	0.3	3,440
55-69	1.1	1.4	0.6	0.3	2,053
Sex	*				
Men	2.2	2.4	1.2	0.4	4,241
Women	2.0	2.2	2.0	0.8	7,008
Level of Education	*				
None	1.9	1.8	1.2	0.5	5,147
Primary or less	4.2	2.3	2.4	1.2	1,323
Lower Secondary	1.7	3.4	2.9	1.0	686
Middle Secondary	2.1	3.1	1.8	0.6	1,504
Higher Secondary	2.0	1.7	1.6	0.6	1,443
Certificates/Diploma	1.2	2.6	0.7	0.2	878
Bachelor/Master/PhD	2.5	3.9	0.9	0.5	267



Background characteristics	Who engaged in self-harming behaviors in the past month	Whose close family ever died from suicide	Who ever attempted suicide	Seriously considered attempting suicide in the past 12 months	Number of respondents
Usual Activity					
Working	2.4	2.5	1.4	0.6	6,199
Doing household chores	1.5	1.9	1.9	0.7	3,889
Student	2.8	1.3	1.9	0.5	515
Retired	0.0	2.5	0.4	0.8	161
Doing nothing	2.5	3.2	1.5	0.1	484
Location					
Urban	2.4	2.4	2.0	0.7	4,197
Rural	2.0	2.2	1.3	0.5	7,052
Income Quintiles					
Least Income (Q1)	2.1	2.2	1.5	0.8	2,382
Lower (Q2)	2.6	2.5	2.2	0.8	2,095
Middle (Q3)	2.0	2.9	1.5	0.7	2,256
Upper (Q4)	2.7	2.3	1.7	0.7	2,310
Highest Income (Q5)	1.4	1.6	0.9	0.1	2,206
Total 15-69	2.1	2.3	1.6	0.6	11,249



Table 8.1.9 The percentage of individuals aged 15-69 years who engaged in self-harming behaviours, whose close family ever died from suicide, who ever attempted suicide, and who seriously considered attempting suicide in the past 12 months, by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Who engaged in self-harming behaviors in the past month	Whose close family ever died from suicide	Who ever attempted suicide	Seriously considered attempting suicide in the past 12 months	Number of respondents
Bumthang	0.2	2.1	1.6	0.5	342
Chhukha	2.6	3.2	1.3	0.8	1,016
Chhukha (Other than P/ ling Thromde)	0.7	2.8	1.0	0.7	572
Phuentsholing Thromde	5.0	3.9	1.7	1.1	444
Dagana	0.5	2.5	0.5	0.0	377
Gasa	2.7	1.9	0.8	1.0	249
Наа	0.8	0.8	1.0	0.9	300
Lhuentse	0.2	1.8	0.5	0.3	293
Monggar	0.7	1.7	1.0	0.4	557
Paro	3.5	2.4	1.8	1.0	612
Pema Gatshel	0.1	1.3	0.2	0.0	400
Punakha	2.9	2.1	3.9	0.5	419
Samdrup Jongkhar	0.5	2.0	1.6	0.3	697
Samdrup Jongkhar (Other than SJ Thromde)	0.4	1.9	1.3	0.0	416
Samdrup Jongkhar Thromde	1.1	2.5	2.8	1.2	281
Samtse	0.6	3.4	1.2	0.6	850
Sarpang	1.3	2.9	0.9	0.3	804
Sarpang (Other than Gelephu Thromde)	1.7	2.7	0.8	0.3	522
Gelephu Thromde	0.0	4.2	1.4	0.3	282
Thimphu	2.4	2.0	1.8	0.6	1,767
Thimphu (Other than T/ phu Thromde)	0.9	2.1	1.2	0.0	393
Thimphu Thromde	2.8	2.0	2.0	0.7	1,374
Trashigang	8.0	0.6	1.4	0.8	663
Trashi Yangtse	0.8	1.5	1.0	0.4	341
Trongsa	2.9	3.2	2.3	1.1	332
Tsirang	1.3	2.9	1.9	0.5	393
Wangdue	2.1	1.6	2.3	0.6	505
Zhemgang	2.5	2.0	2.3	1.6	332
Total 15-69	2.1	2.3	1.6	0.6	11,249



Table 8.1.10 Among individuals aged 15-69 years who have seriously considered attempting suicide in the past 12 months, the percentage of who sought professional help, [Bhutan NHS 2023].

Background characteristics	Percentage who sought professional help	Number of respondents
Total (15-69 years)	33.4	73

Table 8.2.1 Percentage of persons aged 15-69 years with different severity levels of depression (Phq-9 Score), [Bhutan NHS 2023].

			Phq-9	Score (Depress	sion)		
Background characteristics	None Or Minimal	Mild	Moderate	Moderately Sever	Sever	Number of respondents	
Age Range	·			·	·		
15-24	80.6	16.3	2.5	0.5	0.1	1,324	
25-39	86.7	11.0	1.8	0.4	0.1	4,430	
40-54	88.4	9.9	1.4	0.3	0.1	3,441	
55-69	85.9	11.7	1.9	0.4	0.1	2,054	
Sex							
Men	88.4	9.4	1.7	0.4	0.1	4,244	
Women	82.2	15.1	2.1	0.4	0.2	7,005	
Level Of Education							
None	85.3	12.3	1.9	0.3	0.2	5,152	
Primary or less	85.7	11.9	2.1	0.3	0.0	1,321	
Lower Secondary	84.9	11.5	2.6	0.9	0.1	686	
Middle Secondary	86.1	11.3	2.2	0.3	0.1	1,503	
Higher Secondary	83.6	14.0	1.5	0.7	0.1	1,440	
Certificates/Diploma	87.6	10.6	1.5	0.3	0.0	879	
Bachelor/Master/PhD	89.7	8.2	1.6	0.1	0.5	267	
Usual Activity							
Working	87.2	10.7	1.6	0.3	0.1	6,199	
Doing household chores	82.4	14.4	2.3	0.6	0.2	3,888	
Student	84.2	12.9	2.6	0.2	0.1	515	
Retired	93.9	4.8	0.4	0.4	0.5	160	
Doing nothing	81.4	15.7	2.1	0.7	0.1	486	
Location							
Urban	84.3	13.1	2.0	0.5	0.1	4,195	
Rural	86.3	11.4	1.8	0.4	0.1	7,054	
Income Quintiles							
Least Income (Q1)	84.4	12.5	2.5	0.5	0.1	2,381	
Lower (Q2)	84.1	12.7	2.6	0.4	0.2	2,095	
Middle (Q3)	85.4	12.1	1.9	0.4	0.2	2,255	
Upper (Q4)	85.2	12.4	1.7	0.5	0.1	2,311	
Highest Income (Q5)	88.1	10.9	0.9 0.2		0.0	2,207	
Total 15-69	85.5	12.1	1.9	0.4	0.1	11,249	



Table 8.2.2 Percentage of persons aged 15-69 years with different severity levels of depression (Phq-9 Score), [Bhutan NHS 2023].

			Phq-9 Sco	ore (Depressio	on)	
Dzongkhag	None Or Minimal	Mild	Moderate	Moderately Sever	Sever	Number of respondents
Bumthang	92.1	7.3	0.0	0.6	0.0	342
Chhukha	87.1	11.1	1.4	0.3	0.1	1,016
Chhukha (Other than P/ling Thromde)	90.2	8.9	0.8	0.0	0.0	572
Phuentsholing Thromde	82.8	14.5	1.9	0.7	0.2	444
Dagana	87.3	9.6	2.8	0.1	0.1	377
Gasa	90.7	7.4	2.0	0.0	0.0	249
Наа	92.3	7.0	0.7	0.0	0.0	300
Lhuentse	80.8	10.2	7.1	1.6	0.2	293
Monggar	79.2	18.5	2.2	0.0	0.1	557
Paro	78.4	16.6	3.1	1.5	0.4	611
Pema Gatshel	87.8	9.5	2.2	0.5	0.0	400
Punakha	82.1	15.9	1.0	0.8	0.2	420
Samdrup Jongkhar	89.4	9.1	1.4	0.1	0.0	697
Samdrup Jongkhar (Other than SJ Thromde)	90.3	8.4	1.2	0.1	0.0	416
Samdrup Jongkhar Thromde	86.6	11.7	1.7	0.0	0.0	281
Samtse	92.7	6.9	0.3	0.1	0.0	850
Sarpang	89.0	9.8	1.0	0.0	0.2	804
Sarpang (Other than Gelephu Thromde)	89.0	9.5	1.3	0.0	0.2	522
Gelephu Thromde	87.9	11.4	0.7	0.0	0.0	282
Thimphu	84.7	12.4	2.4	0.5	0.1	1,766
Thimphu (Other than T/phu Thromde)	92.8	5.9	1.2	0.0	0.1	393
Thimphu Thromde	82.8	13.9	2.6	0.6	0.1	1,373
Trashiga	87.8	11.5	0.6	0.0	0.0	663
Trashi Y	78.3	18.2	3.1	0.4	0.0	340
Trongsa	83.3	13.2	1.9	1.1	0.4	332
Tsirang	77.5	20.6	1.9	0.0	0.0	394
Wangdue	79.9	16.5	3.0	0.5	0.2	506
Zhemgang	90.9	5.9	2.2	0.5	0.4	332
Total (15-69 Years)	85.5	12.1	1.9	0.4	0.1	11,249



Table 8.2.3 Percentage of persons aged 15-69 years with different severity levels of anxiety (GAD-7 Scale), [Bhutan NHS 2023].

		Pho	q-9 Score (D	epression)			
Background characteristics	None Or Minimal	Mild	Moderate	Sever	Number of respondents		
Age Range							
15-24	87.0	10.8	1.7	0.6	1,326		
25-39	90.5	7.7	1.4	0.4	4,432		
40-54	91.1	7.6	1.1	0.2	3,443		
55-69	90.8	7.4	1.7	0.1	2,054		
Sex							
Men	91.8	6.6	1.3	0.4	4,244		
Women	87.6	10.5	1.6	0.4	7,011		
Level of Education							
None	90.1	8.3	1.4	0.3	5,152		
Primary or less	90.0	8.7	1.2	0.2	1,323		
Lower Secondary	88.4	10.5	0.9	0.2	686		
Middle Secondary	89.9	8.7	1.3	0.2	1,504		
Higher Secondary	89.5	7.9	1.7	0.9	1,443		
Certificates/Diploma	90.2	7.7	1.8	0.3	879		
Bachelor/Master/PhD	90.7	6.7	2.6	0.1	267		
Usual Activity							
Working	91.3	7.4	1.0	0.2	6,200		
Doing household chores	87.5	9.9	2.2	0.4	3,890		
Student	89.1	8.8	1.6	0.5	516		
Retired	96.5	2.6	0.9	0.0	161		
Doing nothing	84.2	12.8	1.9	1.1	487		
Location							
Urban	88.9	9.1	1.6	0.4	4,198		
Rural	90.4	7.9	1.3	0.3	7,057		
Income Quintiles							
Least Income (Q1)	89.0	9.0	1.7	0.3	2,383		
Lower (Q2)	88.2	9.6	1.8	0.3	2,097		
Middle (Q3)	90.8	7.6	1.2	0.4	2,257		
Upper (Q4)	89.2	8.5	1.6	0.7	2,311		
Highest Income (Q5)	91.6	7.4	0.9	0.1	2,207		
Total 15-69	89.8	8.4	1.4	0.4	11,255		



Table 8.2.4 Percentage of persons aged 15-69 years with different severity levels of anxiety (GAD-7 Scale), [Bhutan NHS 2023].

		Phq-9	9 Score (Depr	ession)	
Dzongkhag	None Or Minimal	Mild	Moderate	Sever	Number of respondents
Bumthang	93.8	6.0	0.2	0.0	342
Chhukha	91.7	7.2	0.9	0.1	1,016
Chhukha (Other than P/ling Thromde)	91.0	8.9	0.0	0.1	572
Phuentsholing Thromde	92.5	5.3	2.1	0.1	444
Dagana	91.9	5.2	2.9	0.0	377
Gasa	89.7	9.7	0.6	0.0	249
Наа	96.4	3.2	0.4	0.0	300
Lhuentse	87.1	5.0	7.5	0.4	293
Monggar	88.3	11.1	0.5	0.1	557
Paro	84.8	10.4	3.2	1.6	612
Pema Gatshel	90.0	9.0	0.5	0.5	400
Punakha	88.6	10.8	0.6	0.0	421
Samdrup Jongkhar	89.0	9.5	1.3	0.2	697
Samdrup Jongkhar (Other than SJ Thromde)	88.7	9.9	1.3	0.1	416
Samdrup Jongkhar Thromde	89.7	9.0	0.9	0.3	281
Samtse	94.7	4.6	0.4	0.3	851
Sarpang	92.1	6.8	0.8	0.2	804
Sarpang (Other than Gelephu Thromde)	91.8	7.0	1.0	0.2	522
Gelephu Thromde	93.4	5.9	0.7	0.0	282
Thimphu	88.4	9.7	1.5	0.4	1,768
Thimphu (Other than T/phu Thromde)	94.0	5.2	0.8	0.1	393
Thimphu Thromde	87.1	10.8	1.6	0.5	1,375
Trashiga	94.5	5.0	0.5	0.0	663
Trashi Y	90.2	9.2	0.4	0.2	341
Trongsa	80.2	15.6	2.6	1.6	332
Tsirang	83.8	14.9	1.2	0.0	394
Wangdue	86.7	10.5	2.2	0.6	506
Zhemgang	92.3	4.5	2.9	0.3	332
Total (15-69 Years)	89.8	8.4	1.4	0.4	11,255

Table 8.3.1 Percentage of persons aged 15-69 years who ever used substances, and used in the past 3 months among those who ever used by substances, [Bhutan NHS 2023].

	Ever use	ed substances	Š	sed in the	past 3 mon	iths amon	g those who ev	rer used
Substances	Yes	Number of respondents	Never	Once or twice	Monthly	Weekly	Daily or almost daily	Number of respondents
Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	45.6	11,256	43.7	2:1	0.6	1.2	52.3	4496
Alcoholic beverages (beer, wine, spirits, etc.)	51.3	11,251	21.7	23.8	20.5	24.9	9.1	5667
Cannabis (marijuana, pot, grass, hash, etc.)	7.5	11,251	97.4	1.3	0.3	0.5	0.5	532
Cocaine (coke, crack, etc.)	1.3	11,251	100.0	0.0	0.0	0.0	0.0	102
Amphetamine-type stimulants (speed, meth, ecstasy, etc.)	1:0	11,251	91.4	5.6	3.0	0.0	0.0	72
Inhalants (nitrous, glue, petrol, paint thinner, etc.)	2.7	11,251	91.3	4.1	1.4	3.2	0.0	169
Sedatives or sleeping pills (diazepam, alprazolam, flunitrazepam, midazolam, etc.)	1.8	11,251	88.4	7.0	1.5	0.7	2.4	137
Hallucinogens (LSD, acid, mushrooms, trips, ketamine, etc.)	0.4	11,251	100.0	0.0	0.0	0.0	0.0	33
Opioids (heroin, morphine, methadone, buprenorphine, codeine, etc.)	1.6	11,251	97.4	2.6	0.0	0.0	0.0	105
Others	0.5	11,251	85.1	9.3	5.6	0.0	0.0	32

Table 8.3.2 Mean ASSIST risk score and percentage of persons with different ASSIST risk category among persons aged 15-69 years who used tobacco products and alcoholic beverages in the past 3 months, [Bhutan NHS 2023].

		ASSIS	šT risk sc	ore	Percentage o	of persons with dif	fferent ASSIS	ſ risk category
Substances	Mean	Min	Max	Number of respondents	Lower risk1	Moderate risk²	High Risk³	Number of respondents
Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	13.5	2.0	28.0	11,256	1.9	97.8	0.2	2,468
Alcoholic beverages (beer, wine, spirits, etc.)	6.2	2.0	33.0	11,256	84.7	14.8	0.5	4,249

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¹ASSIST risk score (0-3) for tobacco products and (0-10) for alcoholic beverages ²ASSIST risk score (4-26) for tobacco products and (11-26) for alcoholic beverages

³ASSIST risk score (27+) for tobacco products and (27+) for alcoholic beverages

NOTE: ASSIST risk scores for other substances were not calculated because of the very low number of people who used them in the past 3 months of the survey day.





Table 9.1.1 Percentage of women aged 15-64 years who agree that "A good wife obeys her husband even if she disagrees"; by background characteristic of women, [Bhutan NHS 2023].

Background characteristics	Agree	Disagree	Don't know	Refused	Number of Persons
Age Range					
15-19	22.1	66.0	10.2	1.6	809
20-24	27.2	63.5	8.2	1.0	905
25-29	32.3	61.9	5.0	0.9	1,412
30-34	33.0	61.9	4.5	0.6	1,721
35-39	36.1	59.7	4.2	0.0	1,721
40-44	35.9	58.6	4.9	0.6	1,468
45-49	39.6	54.3	5.7	0.4	1,212
50-54	41.2	51.8	6.6	0.3	985
55-59	44.1	51.6	3.5	0.8	813
60-64	42.1	49.9	7.6	0.4	643
Level of Education					
None	40.9	52.8	5.9	0.4	5,662
Primary or less	37.0	57.6	5.1	0.3	1,093
Lower Secondary	31.3	62.1	5.7	0.9	744
Middle Secondary	30.7	64.5	4.1	0.6	1,723
Higher Secondary	27.8	64.5	6.7	1.0	1,628
Certificates/Diploma	21.9	71.2	5.0	1.9	670
Bachelor/Master/PhD	23.4	69.9	6.2	0.5	166
Usual Activity					
Working	34.4	60.0	5.0	0.6	4,885
Doing household chores	37.9	56.4	5.2	0.5	5,671
Student	20.5	66.9	10.6	2.0	693
Retired	47.5	44.0	7.3	1.2	41
Doing nothing	30.1	59.4	10.1	0.3	377
Location					
Urban	31.4	62.4	5.3	0.9	4,372
Rural	37.5	56.2	5.8	0.4	7,317
Income Quintiles					
Least Income (Q1)	40.0	52.2	7.5	0.3	2,347
Lower (Q2)	37.7	57.1	4.5	0.7	2,315
Middle (Q3)	36.0	58.2	5.3	0.5	2,504
Upper (Q4)	34.1	60.3	5.1	0.5	2,178
Highest Income (Q5)	28.1	65.2	5.6	1.0	2,345
Total 15-64	35.2	58.6	5.6	0.6	11,689



Table 9.1.2 Percentage of women aged 15-64 years who agree that "A good wife obeys her husband even if she disagrees"; by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Agree	Disagree	Don't know	Refused	Number of Persons
Bumthang	34.6	61.4	3.7	0.3	397
Chhukha	39.6	56.4	3.8	0.2	1,027
Chhukha (Other than P/ling Thromde)	44.6	49.2	5.9	0.3	609
Phuentsholing Thromde	33.1	65.9	0.9	0.0	418
Dagana	26.2	61.4	8.0	4.3	340
Gasa	35.5	58.8	5.1	0.6	245
Наа	47.0	48.9	3.8	0.3	311
Lhuentse	52.0	46.7	1.3	0.0	325
Monggar	41.6	55.2	3.0	0.2	636
Paro	38.7	55.8	4.8	0.7	566
Pema Gatshel	36.0	52.1	11.6	0.4	397
Punakha	32.9	57.6	9.2	0.3	466
Samdrup Jongkhar	30.8	57.6	11.0	0.6	740
Samdrup Jongkhar (Other than SJ Thromde)	27.0	60.6	12.4	0.0	459
Samdrup Jongkhar Thromde	42.1	48.5	6.8	2.6	281
Samtse	47.9	45.4	6.5	0.3	890
Sarpang	15.1	81.8	1.7	1.4	840
Sarpang (Other than Gelephu Thromde)	16.4	81.2	1.3	1.1	545
Gelephu Thromde	9.3	84.7	3.2	2.8	295
Thimphu	29.0	63.3	7.0	0.6	1,861
Thimphu (Other than T/phu Thromde)	22.5	67.3	10.1	0.0	411
Thimphu Thromde	30.3	62.5	6.4	0.8	1,450
Trashiga	42.6	52.8	4.6	0.1	704
Trashi Y	62.1	35.1	2.8	0.0	324
Trongsa	21.7	74.5	3.5	0.3	366
Tsirang	26.2	64.7	8.1	0.9	412
Wangdue	43.7	50.9	4.6	0.8	484
Zhemgang	28.6	67.5	3.9	0.0	358
Total 15-64	35.2	58.6	5.6	0.6	11,689

Table 9.1.3 Percentage of women aged 15-64 years who agree that a man has a good reason to hit his wife if; by background characteristic of women [Bhutan NHS 2023].

Number of Persons		809	905	1,412	1,721	1,721	1,468	1,212	985	813	643	_	5,662	1,093	744	1,723	1,628
One or more of the reasons mentioned		43.8	46.7	40.5	41.1	44.1	43.1	46.5	43.9	47.5	46.8		47.7	45.0	44.8	44.4	39.4
She does not take care of the children		26.8	25.4	19.7	22.1	22.6	23.1	25.8	25.2	28.0	27.5		27.1	25.1	22.5	22.0	21.1
He finds out that she has been unfaithful		26.9	31.1	28.4	31.1	31.7	33.2	35.0	34.2	35.9	32.7		36.5	33.1	34.4	30.8	25.5
He suspects that she is unfaithful		6.3	8.9	7.4	7.8	6.3	7.5	7.7	7.4	7.6	10.2		8.2	7.7	7.8	6.6	7.1
She asks him whether he has other girlfriends		6.6	00. 00. 00	6.6	6.8	6.3	6.0	6.9	6.3	7.9	9.1		7.2	6.7	6.6	6.3	7.1
She refuses to have sexual relations with him		3.6	4.5	5.1	4.7	6.8	7.3	8.3	0.6	9.8	13.4		8.9	6.1	6.8	5.1	4.1
She disobeys him		9.5	12.5	8.0	8.9	10.2	12.2	14.7	12.4	13.5	15.3		13.8	11.5	10.6	0.6	8.4
She does not complete her household work to his satisfaction		5.2	6.3	4.0	5.2	6.5	6.6	0.6	8.6	9.4	9.6		0.6	6.1	6.6	4.9	3.5
Background characteristics	Age Range	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	Level Of Education	None	Primary or less	Lower Secondary	Middle Secondary	Higher Secondary

Number of Persons	670	166		4,885	5,671	693	41	377		4,372	7,317		2,347	2,315	2,504	2,178	2,345	11,689
One or more of the reasons mentioned	21.4	32.8		42.8	45.4	39.9	38.0	40.7		40.5	45.9		46.6	46.6	43.5	43.6	39.3	43.9
She does not take care of the children	11.1	16.6		22.5	25.1	23.2	20.9	24.2		21.8	25.2		25.7	25.4	23.5	23.6	21.5	23.9
He finds out that she has been unfaithful	12.0	17.4		31.8	33.5	22.6	20.8	27.7		26.9	35.0		35.6	34.3	31.4	31.3	27.1	31.9
He suspects that she is unfaithful	4.6	8.0		6.9	8.4	5.1	5.1	8.2		7.5	7.6		6.9	7.6	7,1	8.7	7.6	7.6
She asks him whether he has other girlfriends	5.8	8.0		6.5	7.4	6.3	0.0	7.1		7,1	6.8		6.2	6.8	6.1	8.8	6.8	6.9
She refuses to have sexual relations with him	3.4	3.4		6.4	7.6	4.0	13.0	6.5		6.7	7.0		6.5	7.5	6.2	8.1	6.0	6 .8
She disobeys him	4.2	9.1		10.5	12.4	7.6	10.7	11.1		10.5	11.8		11.5	11.6	11.2	13.3	0.6	11.3
She does not complete her household work to his satisfaction	2.1	3.4		5.5	8.0	4.4	10.7	6.1		6.5	6.8		7.2	6.9	5.8	7.9	5.8	6.7
Background characteristics	Certificates/Diploma	Bachelor/Master/ PhD	Usual Activity	Working	Doing household chores	Student	Retired	Doing nothing	Location	Urban	Rural	Income Quintiles	Least Income (Q1)	Lower (Q2)	Middle (Q3)	Upper (Q4)	Highest Income (Q5)	Total 15-64



Table 9.1.4 Percentage of women aged 15-64 years who agree that a man has a good reason to hit his wife if; by Dzongkhag of women, [Bhutan NHS 2023].

Number of Persons	397	1,027	609	418	340	245	311	325	636	566	397	466	740	459
One or more of the reasons mentioned	59.9	46.7	49.9	73.1	53.0	41.3	43.9	29.4	26.8	52.9	51.8	42.5	67.8	70.2
She does not take care of the children	40.1	23.6	50.1	26.9	47.0	58.7	56.1	70.6	73.2	47.1	48.2	57.5	32.2	29.8
He finds out that she has been unfaithful	21.8	26.2	35.5	14.0	38.8	48.6	43.5	59.9	64.9	28.6	29.6	48.8	23.3	22.4
He suspects that she is unfaithful	3.1	3.0	3.1	2.7	15.3	14.6	3.5	39.2	11.7	9.6	6.5	0.0	7.7	6.6
She asks him whether he has other girlfriends	3.1	2.4	9. 6	0.5	7.0	12.6	4.5	35.4	10.5	9.8	5.5	4.2	4.4	3.2
She refuses to have sexual relations with him	1.5	3.6	4.6	2.2	15.7	12.0	7.5	28.8	11.8	7.8	8.6	11.6	3.6	Э.Э
She disobeys him	1.9	10.1	12.8	6.7	13.8	22.3	8.7	39.8	24.1	11.0	15.4	17.5	7.7	6.5
She does not complete her household work to his satisfaction	3.0	5.1	5.6	4.5	5.5	13.6	5.5	35.2	0.6	9.4	1.1	5.5	4.2	
Dzongkhag	Bumthang	Chhukha	Chhukha (Other than P/ling Thromde)	Phuentsholing Thromde	Dagana	Gasa	Haa	Lhuentse	Monggar	Paro	Pema Gatshel	Punakha	Samdrup Jongkhar	Samdrup Jongkhar (Other than SJ Thromde)

Number of Persons	281	068	840	545	295	1,861	411	1,450	704	324	366	412	484	358	11,689
One or more of the reasons mentioned	60.4	78.1	73.6	72.4	79.5	55.4	49.6	56.6	48.9	67.2	59.9	56.9	52.4	33.2	43.9
She does not take care of the children	39.6	21.9	26.4	27.6	20.5	44.6	50.4	43.4	51.1	32.8	40.1	43.1	47.6	66.8	23.9
He finds out that she has been unfaithful	26.0	18.6	16.0	16.6	13.1	30.9	43.1	28.5	35.8	20.6	29.7	32.7	38.9	44.1	31.9
He suspects that she is unfaithful	10.9	1.1	2.3	2.3	2.6	11.7	20:1	10.1	5.0	3.7	2.9	3.1	8. 8. 8.	10.5	7.6
She asks him whether he has other girlfriends	8.0	6.0	2.2	2.2	2.0	10.3	17.7	00 00	6.6	З.З	2.1	4.1	6.2	16.3	6.9
She refuses to have sexual relations with him	4.5	1:1	2.0	1.9	2.6	8.7	11.5	8.2	7.8	2.6	1:2	4.3	5.0	8. 8	6.8
She disobeys him	11.6	2.2	4.5	4.6	3.9	12.6	17.5	11.6	13.6	8.9	6.9	7.2	0.6	15.5	11.3
She does not complete her household work to his satisfaction	6.1	1.1	2.5	2.5	2.3	8.1	9.1	7.9	5.1	9.0	6.5	3.2	7.7	9.2	6.7
Dzongkhag	Samdrup Jongkhar Thromde	Samtse	Sarpang	Sarpang (Other than Gelephu Thromde)	Gelephu Thromde	Thimphu	Thimphu (Other than T/phu Thromde)	Thimphu Thromde	Trashigang	Trashi Yangtse	Trongsa	Tsirang	Wangdue	Zhemgang	Total 15-64





Table 9.1.5 Percentage of women aged 15-64 years who said, "they agree that a married woman can refuse to have sex with her husband for reasons" stated below by background characteristics, [Bhutan NHS 2023].

Background characteristics	She doesn't want to	He is drunk	She is sick	He mistreats her	One or more of the reasons mentioned	Number of Persons
Age Range					'	
15-19	67.6	63.5	69.3	64.6	99.6	809
20-24	69.2	67.1	72.4	67.7	99.9	905
25-29	72.4	70.4	76.8	72.4	99.9	1,412
30-34	71.3	70.0	76.5	72.5	99.4	1,721
35-39	68.6	67.6	74.5	70.1	99.4	1,721
40-44	68.7	67.7	76.0	68.6	99.6	1,468
45-49	65.9	65.7	73.4	67.2	99.4	1,212
50-54	67.2	67.4	74.1	70.6	99.0	985
55-59	67.9	68.0	76.4	69.9	99.5	813
60-64	63.2	62.2	71.4	65.7	98.8	643
Level Of Education						
None	66.2	67.0	75.2	69.7	99.2	5,662
Primary or less	67.8	64.7	70.9	66.1	99.2	1,093
Lower Secondary	70.8	66.6	74.1	68.8	99.5	744
Middle Secondary	69.4	67.0	73.5	68.7	100.0	1,723
Higher Secondary	70.8	67.9	73.6	68.2	99.9	1,628
Certificates/Diploma	79.2	75.9	79.8	77.3	100.0	670
Bachelor/Master/PhD	78.6	74.1	80.0	74.7	100.0	166
Usual Activity						
Working	70.6	69.7	76.7	71.0	99.6	4,885
Doing household chores	67.3	65.9	73.3	68.5	99.3	5,671
Student	67.2	64.0	68.9	64.8	99.8	693
Retired	63.7	73.5	71.7	72.2	100.0	41
Doing nothing	68.7	68.4	76.6	72.4	99.8	377
Location						
Urban	69.0	66.1	72.6	68.4	99.6	4,372
Rural	68.5	68.4	75.8	70.1	99.4	7,317
Income Quintiles						
Least Income (Q1)	67.6	68.4	75.1	70.6	99.0	2,347
Lower (Q2)	67.4	67.2	73.5	69.1	99.7	2,315
Middle (Q3)	68.5	66.8	74.0	68.6	99.4	2,504
Upper (Q4)	68.9	65.8	74.6	68.9	99.5	2,178
Highest Income (Q5)	71.2	69.2	75.7	70.1	99.8	2,345
Total 15-64	68.7	67.5	74.6	69.5	99.5	11,689



Table 9.1.6 Percentage of women aged 15-64 years who said, "they agree that a married woman can refuse to have sex with her husband for reasons" stated below by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	She doesn't want to	He is drunk	She is sick	He mistreats her	One or more of the reasons mentioned	Number of Persons
Bumthang	68.2	66.8	67.6	67.2	100.0	397
Chhukha	67.4	69.9	71.2	73.4	98.2	1,027
Chhukha (Other than P/ling Thromde)	62.2	68.5	66.9	71.6	96.8	609
Phuentsholing Thromde	74.1	71.7	76.8	75.7	100.0	418
Dagana	63.4	63.4	72.1	67.0	99.5	340
Gasa	92.7	87.3	98.5	92.4	99.6	245
Наа	72.5	66.4	81.1	73.1	99.8	311
Lhuentse	84.2	69.0	93.1	78.4	100.0	325
Monggar	73.9	71.4	91.2	80.3	99.0	636
Paro	59.0	56.8	63.1	59.4	99.1	566
Pema Gatshel	51.3	58.2	58.0	49.2	100.0	397
Punakha	80.0	76.7	89.1	70.2	99.4	466
Samdrup Jongkhar	78.1	74.4	87.7	81.3	99.9	740
Samdrup Jongkhar (Other than SJ Thromde)	78.0	75.1	90.3	82.9	100.0	459
Samdrup Jongkhar Thromde	78.3	72.1	80.0	76.5	99.6	281
Samtse	59.5	59.2	61.0	59.7	99.8	890
Sarpang	64.3	62.1	66.1	65.0	99.8	840
Sarpang (Other than Gelephu Thromde)	64.2	61.9	65.9	65.0	99.8	545
Gelephu Thromde	65.1	63.0	66.8	65.0	100.0	295
Thimphu	71.9	69.1	75.2	71.7	99.6	1,861
Thimphu (Other than T/phu Thromde)	84.6	79.7	89.7	86.7	99.6	411
Thimphu Thromde	69.3	67.0	72.2	68.7	99.6	1,450
Trashigang	69.3	72.9	81.7	71.2	100.0	704
Trashi Yangtse	85.0	85.8	89.4	88.7	99.7	324
Trongsa	89.0	83.8	91.8	85.7	100.0	366
Tsirang	74.4	77.0	85.0	78.4	99.4	412
Wangdue	67.9	70.2	75.7	71.9	99.5	484
Zhemgang	58.4	51.1	62.6	45.5	98.9	358
Total 15-64	68.7	67.5	74.6	69.5	99.5	11,689



Table 9.1.7 Percentage of ever-partnered women aged 15-64 years who reported following controlling behaviour of their partner, by background characteristics, [Bhutan NHS 2023].

		LIFETIME								
Background characteristic	Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she are unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of Persons		
Age Range										
15-19	5.3	0.0	10.7	14.4	14.2	6.4	28.3	108		
20-24	8.3	1.7	17.6	18.9	12.1	11.1	34.8	521		
25-29	6.5	2.1	14.1	15.7	11.0	9.9	29.8	1,229		
30-34	8.0	2.7	15.7	16.9	11.1	12.3	29.0	1,626		
35-39	8.6	2.9	14.7	17.4	11.6	13.8	31.1	1,644		
40-44	8.7	3.8	13.5	15.2	10.1	12.4	27.5	1,400		
45-49	8.5	3.0	13.4	14.3	11.6	14.0	27.4	1,154		
50-54	10.5	4.3	16.1	17.2	11.5	13.9	31.9	939		
55-59	7.9	3.3	13.4	14.9	10.6	13.0	26.1	771		
60-64	7.3	2.7	8.5	12.1	9.2	11.9	22.7	591		
Level of Educa	tion									
None	9.4	3.4	14.4	16.5	11.2	14.3	29.5	5,355		
Primary or less	8.1	3.1	16.2	19.4	13.1	13.5	33.0	1,027		
Lower Secondary	10.6	4.7	18.7	21.1	15.0	13.6	34.9	582		
Middle Secondary	7.0	2.6	14.7	16.2	11.2	12.2	30.5	1,375		
Higher Secondary	5.3	1.4	11.9	12.5	8.0	7.6	24.5	1,004		



	LAST 12 MONTHS										
Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she is unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of ever- partnered women				
5.3	0.0	9.5	10.9	11.0	5.3	26.6	108				
6.1	1.4	15.4	15.4	10.4	9.1	29.5	521				
3.7	0.9	10.8	10.0	7.3	8.1	21.9	1,229				
3.9	1.2	10.2	9.5	6.2	8.9	20.0	1,626				
3.8	1.0	9.4	8.7	5.7	8.7	20.1	1,644				
3.5	1.1	8.0	6.2	4.3	7.7	16.4	1,400				
4.2	0.9	8.2	7.4	5.8	9.6	18.1	1,154				
2.3	0.9	5.3	3.9	2.6	7.1	13.9	939				
1.9	0.7	4.6	3.8	3.0	6.5	10.9	771				
2.0	0.7	4.1	2.6	2.3	6.4	9.8	591				
3.8	1.2	7.8	6.9	4.7	8.8	17.2	5,355				
3.3	0.8	9.8	9.5	6.6	8.9	20.4	1,027				
4.6	1.1	13.1	11.6	7.7	8.7	23.5	582				
3.4	1.2	10.3	9.1	7.0	9.2	21.8	1,375				
3.1	0.7	8.9	7.9	5.5	5.7	18.3	1,004				



		LIFETIME								
Background characteristic	Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she are unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of Persons		
Certificates/ Diploma	4.6	0.7	8.6	7.9	8.1	5.0	18.1	503		
Bachelor/ Master/PhD	3.9	0.0	10.2	4.7	6.2	3.0	17.3	136		
Usual Activity										
Working	8.6	3.1	15.2	17.2	12.0	12.4	30.1	4,373		
Doing household chores	8.0	2.8	13.5	14.8	10.1	12.7	28.1	5,314		
Student	8.6	0.0	1.7	17.1	10.9	6.8	27.6	58		
Retired	0.0	0.0	11.0	4.5	3.4	19.2	19.2	33		
Doing nothing	10.0	4.3	16.3	21.3	17.1	10.0	32.2	203		
Location										
Urban	7.3	2.4	13.2	14.7	9.3	10.5	27.2	3,586		
Rural	8.8	3.3	14.9	16.7	12.1	13.7	30.1	6,397		
Income Quintil	es									
Least Income (Q1)	9.9	4.1	15.9	18.6	13.6	15.5	32.6	2,033		
Lower (Q2)	10.3	3.9	16.4	18.9	13.2	14.1	31.7	1,988		
Middle (Q3)	8.0	2.4	14.2	16.3	10.8	12.8	29.9	2,143		
Upper (Q4)	7.5	2.5	12.9	13.6	9.2	10.6	26.2	1,819		
Highest Income (Q5)	5.6	1.9	11.8	12.4	8.4	9.5	24.7	2,000		
Total 15-64	8.3	3.0	14.2	16.0	11.1	12.5	29.0	9,983		



	LAST 12 MONTHS										
Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she is unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of ever- partnered women				
2.1	0.2	5.3	4.9	4.0	3.4	11.2	503				
1.1	0.0	7.3	2.4	3.9	2.0	11.0	136				
3.2	0.9	8.8	7.9	5.8	7.5	18.0	4,373				
3.8	1.1	8.6	7.5	5.1	9.0	18.6	5,314				
6.7	0.0	1.7	13.3	7.0	6.8	21.9	58				
0.0	0.0	7.6	4.5	0.0	12.3	12.3	33				
3.9	2.7	6.3	6.9	4.5	3.0	14.8	203				
3.0	0.9	8.4	7.8	4.8	6.8	18.0	3,586				
3.9	1.1	8.8	7.6	5.8	9.0	18.4	6,397				
3.8	1.2	8.5	7.8	6.5	8.8	17.9	2,033				
4.7	1.6	10.2	9.4	6.0	9.4	20.1	1,988				
3.3	0.7	8.8	7.5	5.2	9.1	19.5	2,143				
3.5	0.9	8.5	7.7	5.5	7.2	17.5	1,819				
2.5	0.6	7:1	6.1	4.0	6.4	16.2	2,000				
3.6	1.0	8.6	7.7	5.4	8.2	18.3	9,983				



Table 9.1.8 Percentage of ever-partnered women aged 15-64 years who reported following controlling behaviour of their partner, by Dzongkhag, [Bhutan NHS 2023].

	LIFETIME									
Dzongkhag	Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	ls often suspicious that she are unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of Persons		
Bumthang	5.9	1.0	7.9	11.9	10.7	6.4	23.0	326		
Chhukha	6.1	1.5	16.7	17.4	9.0	20.6	35.3	868		
Chhukha (Other than P/ ling Thromde)	6.3	1.5	21.7	18.4	12.9	25.0	39.1	515		
Phuentsholing Thromde	5.7	1.5	10.2	16.0	4.0	14.9	30.4	353		
Dagana	11.3	6.1	19.0	22.1	13.4	21.5	35.9	309		
Gasa	7.0	2.3	7.5	20.5	22.1	8.8	32.6	210		
Наа	9.0	3.4	13.1	17.6	14.2	9.4	25.2	265		
Lhuentse	9.8	3.6	11.9	18.2	16.5	6.7	27.2	295		
Monggar	15.0	4.1	17.7	23.5	15.5	20.5	41.1	471		
Paro	6.7	1.6	15.0	15.5	11.3	19.5	31.9	498		
Pema Gatshel	7.2	2.4	7.7	10.7	7.5	14.9	27.4	356		
Punakha	10.8	4.0	17.0	22.7	17.7	8.3	32.0	413		
Samdrup Jongkhar	2.9	1.8	17.0	8.3	2.9	16.9	26.6	612		
Samdrup Jongkhar (Other than SJ Thromde)	3.1	1.9	15.9	8.1	3.0	17.7	26.3	374		



	LAST 12 MONTHS										
Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she is unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of ever- partnered women				
1.6	0.5	4.1	5.7	6.9	3.7	13.9	326				
3.1	0.8	12.9	9.9	5.5	17.2	26.0	868				
3.7	0.9	17.6	11.1	7.8	23.5	31.2	515				
2.4	0.6	6.7	8.3	2.5	9.1	19.3	353				
5.2	2.2	9.6	8.7	5.4	11.4	20.6	309				
2.9	0.8	4.4	9.1	8.2	5.4	16.0	210				
2.7	0.7	5.8	7.2	7.0	6.0	14.3	265				
4.5	1.0	5.2	8.4	6.6	5.0	14.1	295				
5.0	1.3	7.0	6.4	6.1	9.9	20.3	471				
4.7	0.5	10.9	10.0	8.1	14.8	24.6	498				
4.7	0.4	4.9	6.5	5.5	10.4	19.6	356				
4.9	1.5	8.6	11.4	9.4	5.5	16.4	413				
2.5	1.1	15.4	4.7	1.1	13.6	22.1	612				
2.7	1.4	15.1	5.1	1.1	13.7	22.0	374				



	TIME	ЛЕ						
Dzongkhag	Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she are unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of Persons
Samdrup Jongkhar Thromde	2.3	1.5	20.1	8.9	2.7	14.7	27.4	238
Samtse	8.8	1.1	17.6	14.5	8.8	8.8	27.5	754
Sarpang	8.9	4.4	11.4	15.4	9.0	10.4	21.8	715
Sarpang (Other than Gelephu Thromde)	9.6	4.8	12.0	15.7	9.2	11.4	22.4	484
Gelephu Thromde	5.4	2.3	8.3	13.6	7.7	5.1	18.5	231
Thimphu	8.4	2.7	12.2	15.2	10.2	9.1	26.3	1,531
Thimphu (Other than T/ phu Thromde)	11.0	1.9	17.9	18.5	12.5	7.2	30.0	364
Thimphu Thromde	7.9	2.9	11.0	14.5	9.7	9.6	25.4	1,167
Trashiga	5.9	3.8	13.1	17.7	16.5	8.7	29.2	631
Trashi Y	3.4	1.8	33.5	14.6	10.0	20.3	46.4	284
Trongsa	7.7	3.5	13.5	17.8	13.7	6.2	23.6	324
Tsirang	12.3	8.3	11.2	14.5	12.1	10.8	25.3	364
Wangdue	6.9	2.4	10.5	11.8	8.1	11.3	25.9	439
Zhemgang	13.6	4.3	15.2	21.1	16.5	8.6	31.1	318
Total 15-64	8.3	3.0	14.2	16.0	11.1	12.5	29.0	9,983



	LAST 12 MONTHS										
Tries to keep her from seeing her friends	Tries to restrict her family of birth	Insists on knowing where she is at all times	Gets angry if she speak with another man	Is often suspicious that she is unfaithful	Expects her to ask his permission before seeking health care for herself	One or more	Number of ever- partnered women				
1.8	0.4	16.0	3.7	1.2	13.3	22.3	238				
2.9	0.4	12.1	6.9	3.5	5.8	19.2	754				
4.1	0.9	6.1	5.6	2.8	5.0	12.0	715				
4.6	1.1	6.6	5.1	3.0	5.7	12.4	484				
1.4	0.0	3.7	7.8	1.6	1.4	10.1	231				
3.4	1.2	7.0	8.1	5.1	6.0	16.3	1,531				
4.8	0.8	8.9	8.3	6.4	5.2	16.0	364				
3.1	1.3	6.6	8.0	4.8	6.2	16.4	1,167				
2.6	1.2	7.5	9.0	8.1	5.5	17.9	631				
1.5	0.7	28.9	9.2	7.7	16.4	38.7	284				
1.7	0.8	6.5	6.1	7.0	3.1	11.0	324				
4.0	2.7	3.2	5.0	4.7	4.6	11.7	364				
2.8	0.2	4.8	5.7	3.3	5.7	13.2	439				
5.1	1.9	5.9	8.5	6.6	1.7	13.2	318				
3.6	1.0	8.6	7.7	5.4	8.2	18.3	9,983				



Table 9.1.9 Percentage of ever-partnered women aged 15-64 years who reported economic abusive acts by partners, at some point in a lifetime and in previous 12 months, by background characteristics, [Bhutan NHS 2023].

			LIFETIME		
Background characteristics	Prohibits you from getting a job, earning money	Takes your earnings or properties against our will	Refuses to give money for household expenses	At least one act (Economic Violence)	Number of Persons
Age Range					
15-19	4.9	0.0	0.9	5.8	108
20-24	8.7	0.7	3.1	11.2	521
25-29	8.4	2.8	3.0	10.6	1,229
30-34	8.5	3.5	6.0	13.3	1,626
35-39	7.6	4.0	6.7	12.4	1,644
40-44	6.8	3.2	5.9	11.0	1,400
45-49	7.2	3.7	5.4	11.4	1,154
50-54	5.3	3.1	6.5	10.0	939
55-59	6.8	3.9	5.7	11.6	771
60-64	3.7	2.8	4.6	7.8	591
Level Of Education					
None	6.7	3.4	6.3	11.4	5,355
Primary or less	8.2	3.9	5.8	12.6	1,027
Lower Secondary	11.8	5.1	7.1	17.0	582
Middle Secondary	8.7	2.5	4.6	12.7	1,375
Higher Secondary	7.2	2.2	2.9	9.1	1,004
Certificates/Diploma	2.8	1.4	1.6	4.3	503



	L	AST 12 MONTHS		
Prohibits you from getting a job, earning money	Takes your earnings or properties against your will	Refuses to give money for household expenses	At least one act (Economic Violence)	Number of ever- partnered women
4.3	0.0	0.9	5.3	108
7.0	0.4	1.5	8.1	521
5.8	1.4	1.5	6.9	1,229
5.1	1.4	2.7	7.5	1,626
3.4	1.6	2.8	6.3	1,644
2.8	0.7	1.3	4.2	1,400
3.6	1.4	1.8	5.3	1,154
2.1	0.7	1.6	3.2	939
2.4	0.8	1.4	3.5	771
0.8	0.9	1.3	1.9	591
3.2	1.1	2.0	4.9	5,355
4.3	1.0	2.1	6.1	1,027
6.4	2.0	3.1	9.2	582
5.0	0.9	2.2	7.4	1,375
4.6	1.2	1.6	5.8	1,004
1.4	0.8	0.3	1.7	503



	LIFETIME					
Background characteristics	Prohibits you from getting a job, earning money	Takes your earnings or properties against our will	Refuses to give money for household expenses	At least one act (Economic Violence)	Number of Persons	
Bachelor/Master/PhD	2.8	5.1	2.3	6.6	136	
Usual Activity						
Working	6.7	3.6	6.3	11.2	4,373	
Doing household chores	7.7	3.0	4.7	11.6	5,314	
Student	1.8	0.0	0.0	1.8	58	
Retired	5.9	0.0	3.5	5.9	33	
Doing nothing	8.8	2.9	6.0	12.6	203	
Location						
Urban	7.4	3.0	5.0	11.2	3,586	
Rural	7.1	3.4	5.6	11.4	6,397	
Income Quintiles						
Least Income (Q1)	7.1	4.0	6.5	12.0	2,033	
Lower (Q2)	7.9	3.9	6.8	13.2	1,988	
Middle (Q3)	7.3	2.6	5.8	11.6	2,143	
Upper (Q4)	8.1	2.1	3.7	10.4	1,819	
Highest Income (Q5)	5.8	3.4	4.2	9.4	2,000	
Total 15-64	7.2	3.2	5.4	11.3	9,983	



LAST 12 MONTHS								
Prohibits you from getting a job, earning money	Takes your earnings or properties against your will	Refuses to give money for household expenses	At least one act (Economic Violence)	Number of ever- partnered women				
0.6	2.7	0.0	2.7	136				
3.2	1.3	2.0	4.9	4,373				
4.3	1.1	1.9	6.1	5,314				
0.0	0.0	0.0	0.0	58				
2.4	0.0	0.0	2.4	33				
4.8	0.0	0.0	4.8	203				
3.8	1.1	2.0	5.7	3,586				
3.7	1.2	1.9	5.4	6,397				
3.7	1.3	1.9	5.5	2,033				
4.0	1.4	2.4	6.1	1,988				
3.9	1.0	2.3	5.9	2,143				
4.6	0.9	1.3	5.8	1,819				
2.8	1.2	1.5	4.3	2,000				
3.8	1.1	1.9	5.5	9,983				


Table 9.1.10 Percentage of ever-partnered women aged 15-64 years who reported economic abusive acts by partners, at some point in a lifetime and in previous 12 months, by Dzongkhag, [Bhutan NHS 2023].

			LIFETIME		
Dzongkhag	Prohibits you from getting a job, earning money	Takes your earnings or properties against our will	Refuses to give money for household expenses	At least one act (Economic Violence)	Number of Persons
Bumthang	4.4	3.6	5.3	11.4	326
Chhukha	8.3	3.1	5.0	12.3	868
Chhukha (Other than P/ling Thromde)	9.1	3.6	5.4	13.9	515
Phuentsholing Thromde	7.2	2.4	4.5	10.3	353
Dagana	7.5	4.4	7.8	12.9	309
Gasa	7.0	4.2	3.9	10.8	210
Наа	5.4	3.2	6.8	10.4	265
Lhuentse	5.7	2.1	5.9	11.0	295
Monggar	5.1	2.8	5.8	9.5	471
Paro	10.2	2.7	6.4	14.6	498
Pema Gatshel	1.9	2.2	3.1	5.5	356
Punakha	7.7	5.1	7.1	14.8	413
Samdrup Jongkhar	3.7	0.4	3.3	6.5	612
Samdrup Jongkhar (Other than SJ Thromde)	3.9	0.2	2.5	5.9	374
Samdrup Jongkhar Thromde	3.1	0.8	5.5	8.1	238
Samtse	10.2	7.0	4.8	13.1	754
Sarpang	6.6	3.1	5.8	9.9	715
Sarpang (Other than Gelephu Thromde)	6.9	3.4	5.9	10.2	484
Gelephu Thromde	4.9	1.3	4.9	8.2	231
Thimphu	7.6	2.8	5.5	11.7	1,531
Thimphu (Other than T/phu Thromde)	4.2	2.3	5.4	9.4	364
Thimphu Thromde	8.3	2.8	5.5	12.2	1,167
Trashigang	5.9	2.9	5.7	10.7	631
Trashi Yangtse	12.9	4.2	5.5	16.9	284
Trongsa	2.7	1.6	5.7	7.8	324
Tsirang	8.2	5.1	6.9	12.6	364
Wangdue	6.9	1.1	2.2	8.7	439
Zhemgang	6.9	3.0	6.7	11.1	318
Total 15-64	7.2	3.2	5.4	11.3	9,983



	L	AST 12 MONTHS		
Prohibits you from getting a job, earning money	Takes your earnings or properties against your will	Refuses to give money for household expenses	At least one act (Economic Violence)	Number of ever- partnered women
2.3	2.0	2.0	5.6	326
5.0	1.5	1.7	6.9	868
6.6	2.2	2.3	9.1	515
2.9	0.6	0.8	4.0	353
2.8	0.7	3.1	5.2	309
5.0	0.7	0.4	5.4	210
2.0	0.0	1.8	3.8	265
2.7	0.7	1.8	4.6	295
2.3	0.8	2.0	3.4	471
6.8	1.6	3.8	9.3	498
1.3	1.2	0.8	2.8	356
4.1	1.4	3.1	7.1	413
2.2	0.1	1.9	3.8	612
2.4	0.0	0.8	2.9	374
1.3	0.4	5.0	6.3	238
4.8	2.7	1.6	6.2	754
2.8	0.7	1.3	4.0	715
2.8	0.8	1.5	4.1	484
2.6	0.0	0.5	3.1	231
3.9	1.0	2.3	5.9	1,531
1.7	1.3	1.6	3.6	364
4.4	0.9	2.4	6.4	1,167
3.4	0.8	0.8	4.5	631
9.4	2.9	2.0	11.1	284
0.4	0.4	0.4	0.8	324
3.2	1.1	2.0	5.1	364
3.4	0.3	0.5	4.0	439
2.5	0.4	2.2	4.4	318
3.8	1.1	1.9	5.5	9,983



Table 9.1.11 Percentage of ever-partnered women aged 15-64 years who reported emotional abusive acts by partners, at some point in a lifetime and in the previous 12 months, by background characteristics, [Bhutan NHS 2023].

			LIFETIME		
Background characteristics	Insulted her or made her feel bad about herself	Belittled or humiliated her in front of other people	Done things to scare or intimidate her on purpose	At least one act (Emotional Violence)	Number of Persons
Age Range					
15-19	3.6	0.7	7.7	11.3	108
20-24	8.7	2.7	6.5	13.6	521
25-29	10.1	3.8	10.5	16.1	1,229
30-34	12.0	5.2	10.5	17.2	1,626
35-39	12.9	5.8	11.0	18.2	1,644
40-44	12.6	6.7	13.4	18.7	1,400
45-49	12.2	7.3	10.2	17.0	1,154
50-54	13.9	8.0	12.6	19.5	939
55-59	14.0	8.4	10.0	18.6	771
60-64	12.2	5.5	11.9	18.3	591
Level of Education					
None	13.5	7.4	12.2	19.2	5,355
Primary or less	13.6	6.8	13.4	20.4	1,027
Lower Secondary	13.2	5.6	12.6	19.3	582
Middle Secondary	10.0	4.0	9.3	15.2	1,375
Higher Secondary	7.8	2.8	7.0	11.6	1,004
Certificates/Diploma	8.0	2.0	5.2	11.3	503



	L	AST 12 MONTHS		
Insulted her or made her feel bad about herself	Belittled or humiliated her in front of other people	Done things to scare or intimidate her on purpose	At least one act (Emotional Violence)	Number of ever- partnered women
2.7	0.7	7.7	10.4	108
7.7	2.5	5.2	11.9	521
6.1	1.6	5.9	9.5	1,229
6.8	2.4	5.8	10.0	1,626
7.3	2.3	5.6	10.5	1,644
5.1	2.1	4.3	7.5	1,400
5.6	4.1	5.4	9.1	1,154
3.9	1.9	3.3	5.2	939
4.2	2.4	2.7	5.4	771
2.4	0.3	1.9	3.7	591
5.4	2.5	4.5	8.0	5,355
6.8	3.2	5.7	10.0	1,027
7.9	2.8	7.8	12.0	582
5.9	1.8	4.8	9.1	1,375
4.9	1.2	4.0	7.4	1,004
4.9	1.2	4.1	7.7	503



			LIFETIME		
Background characteristics	Insulted her or made her feel bad about herself	Belittled or humiliated her in front of other people	Done things to scare or intimidate her on purpose	At least one act (Emotional Violence)	Number of Persons
Bachelor/Master/PhD	11.3	3.1	8.5	15.3	136
Usual Activity					
Working	14.1	6.4	12.1	19.6	4,373
Doing household chores	10.6	5.5	10.2	16.1	5,314
Student	6.1	3.8	5.3	9.6	58
Retired	16.4	3.5	3.5	16.4	33
Doing nothing	8.6	7.2	9.4	13.5	203
Location			*		
Urban	9.5	4.4	9.3	14.4	3,586
Rural	13.6	6.8	11.9	19.4	6,397
Income Quintiles					
Least Income (Q1)	14.9	7.7	13.3	20.9	2,033
Lower (Q2)	14.2	7.8	12.9	19.9	1,988
Middle (Q3)	11.8	5.9	10.8	17.8	2,143
Upper (Q4)	10.0	4.5	9.5	15.2	1,819
Highest Income (Q5)	9.5	3.8	8.3	13.9	2,000
Total 15-64	12.1	5.9	11.0	17.5	9,983



	L	AST 12 MONTHS		
Insulted her or made her feel bad about herself	Belittled or humiliated her in front of other people	Done things to scare or intimidate her on purpose	At least one act (Emotional Violence)	Number of ever- partnered women
6.5	0.0	5.9	10.0	136
6.6	2.5	5.2	9.7	4,373
5.1	2.1	4.6	7.9	5,314
2.3	0.0	1.8	4.1	58
4.2	0.0	0.0	4.2	33
1.6	1.6	2.8	3.3	203
5.3	1.5	4.7	8.1	3,586
5.9	2.7	4.9	8.8	6,397
5.5	2.4	5.0	8.3	2,033
6.9	3.4	5.2	9.3	1,988
5.6	2.1	4.8	8.7	2,143
5.8	2.1	4.5	8.4	1,819
4.8	1.4	4.6	8.0	2,000
5.7	2.3	4.8	8.5	9,983



Table 9.1.12 Percentage of ever-partnered women aged 15-64 years who reported emotional abusive acts by partners, at some point in a lifetime and in the previous 12 months, by Dzongkhag [Bhutan NHS 2023].

			1E	
Dzongkhag	Insulted her or made her feel bad about herself	Belittled or humiliated her in front of other people	Done things to scare or intimidate her on purpose	At least one act (Emotional Violence)
Bumthang	8.4	3.4	19.6	22.7
Chhukha	9.3	5.5	9.8	14.1
Chhukha (Other than P/ling Thromde)	9.7	7.1	11.4	15.5
Phuentsholing Thromde	8.7	3.5	7.8	12.3
Dagana	11.1	9.3	19.5	21.7
Gasa	17.6	5.8	12.8	23.7
Наа	7.7	6.2	8.7	13.5
Lhuentse	15.2	9.3	10.3	19.7
Monggar	44.4	8.0	24.0	50.7
Paro	7.4	4.3	6.9	11.1
Pema Gatshel	7.2	4.4	8.8	11.7
Punakha	18.3	9.8	20.8	29.3
Samdrup Jongkhar	4.4	3.2	4.9	7.2
Samdrup Jongkhar (Other than SJ Thromde)	4.7	4.0	4.2	6.8
Samdrup Jongkhar Thromde	3.5	0.9	6.9	8.4
Samtse	15.6	6.0	6.3	17.9
Sarpang	8.5	6.2	9.4	12.2
Sarpang (Other than Gelephu Thromde)	8.5	6.3	9.4	12.3
Gelephu Thromde	8.3	5.6	9.2	12.1
Thimphu	9.9	4.9	8.1	14.0
Thimphu (Other than T/phu Thromde)	17.8	7.4	5.7	19.0
Thimphu Thromde	8.1	4.4	8.6	13.0
Trashigang	12.7	6.1	14.4	20.8
Trashi Yangtse	8.3	3.4	16.7	21.4
Trongsa	11.5	9.0	12.9	17.7
Tsirang	9.8	7.4	10.5	13.4
Wangdue	8.1	4.3	8.9	13.4
Zhemgang	20.2	11.8	17.8	28.5
Total 15-64	12.1	5.9	11.0	17.5



	L	AST 12 MONTHS		
Insulted her or made her feel bad about herself	Belittled or humiliated her in front of other people	Done things to scare or intimidate her on purpose	At least one act (Emotional Violence)	Number of ever- partnered women
4.9	1.6	10.4	12.7	326
5.3	2.8	4.3	7.4	868
5.6	3.8	4.5	7.9	515
5.0	1.5	3.9	6.7	353
4.4	4.0	9.7	11.4	309
9.8	2.7	4.0	11.9	210
2.7	1.4	3.1	5.1	265
4.6	2.9	3.9	7.9	295
21.5	3.4	10.5	24.6	471
4.5	2.7	3.8	7.3	498
3.6	2.1	5.2	7.4	356
9.5	4.6	8.8	14.4	413
1.9	0.8	1.9	3.0	612
2.3	1.0	1.4	2.6	374
0.9	0.0	3.5	4.1	238
7.6	2.2	2.2	8.2	754
2.8	1.6	2.9	4.3	715
3.0	1.6	2.9	4.3	484
2.0	1.7	2.8	4.5	231
5.2	2.1	4.4	7.9	1,531
7.1	4.0	1.6	7.4	364
4.8	1.7	5.0	8.0	1,167
5.5	2.1	5.2	9.3	631
5.1	2.4	11.6	14.4	284
3.4	2.1	4.3	6.4	324
2.6	1.9	3.0	3.9	364
2.8	0.9	3.1	5.1	439
8.3	2.5	6.7	11.4	318
5.7	2.3	4.8	8.5	9,983



Table 9.1.13 Percentage of ever-partnered women aged 15-64 years who reported physical and sexual violence by partners, at some point in a lifetime and in the previous 12 months, by background characteristics, [Bhutan NHS 2023].

	LIFE	TIME		LAST 12 M	ONTHS
Background characteristics	Physical	Sexual	Physical	Sexual	Number of
	violence	violence	violence	violence	ever- partnered women
Age Range					
15-19	6.6	3.4	5.6	2.3	108
20-24	10.0	4.9	6	3.0	521
25-29	12.8	6.7	5.4	3.8	1,229
30-34	15.8	8.1	5.7	3.9	1,626
35-39	16.7	7.1	4.1	2.5	1,644
40-44	17.6	7.9	3.2	2.0	1,400
45-49	17.3	5.9	5.3	2.7	1,154
50-54	19.5	7.2	3.4	1.4	939
55-59	20.1	6.2	2.9	1.1	771
60-64	18.4	5.6	2.0	1.2	591
Level of Education					
None	19.2	6.8	4.4	2.2	5,355
Primary or less	19.9	8.6	5.7	3.7	1,027
Lower Secondary	19.8	9.1	7.3	3.7	582
Middle Secondary	13.2	7.5	4.3	2.9	1,375
Higher Secondary	8.3	5.4	3.3	2.5	1,004
Certificates/Diploma	4.6	3.4	1.3	2.2	503
Bachelor/Master/PhD	7.2	5.4	3.5	3.8	136
Usual Activity		•	*	*	•
Working	17.8	7.6	4.3	2.9	4,373
Doing household chores	15.3	6.3	4.5	2.4	5,314
Student	3.8	3.6	0.0	1.8	58
Retired	3.5	3.5	0.0	0.0	33
Doing nothing	19.5	6.8	5.7	1.9	203
Location		•	•		•
Urban	12.7	6.8	3.6	2.5	3,586
Rural	18.5	6.9	4.8	2.6	6,397
Income Quintiles					*
Least Income (Q1)	19.7	7.3	5.1	2.3	2,033
Lower (Q2)	19.4	7.7	5.7	3.2	1,988
Middle (Q3)	16.8	6.9	4.3	2.6	2,143
Upper (Q4)	14.1	6.6	3.9	2.2	1,819
Highest Income (Q5)	11.9	5.9	2.9	2.6	2,000
Total 15-64	16.4	6.9	4.4	2.6	9,983



Table 9.1.14 Percentage of ever-partnered women aged 15-64 years who reported physical and sexual violence by partners, at some point in a lifetime and in the previous 12 months, by Dzongkhag, [Bhutan NHS 2023].

	LIFET	IME		LAST 12	MONTHS
Dzongkhag	Physical violence	Sexual violence	Physical violence	Sexual violence	Number of ever-
Bumthang	18.9	8.0	5.9	5.1	326
Chhukha	16.3	4.8	5.4	2.3	868
Chhukha (Other than P/ling Thromde)	18.8	6.6	7.4	3.7	515
Phuentsholing Thromde	13.1	2.5	2.8	0.5	353
Dagana	20	14.3	6.1	5.4	309
Gasa	17.2	5.7	5.6	2.6	210
Наа	15.4	8.3	4	3.7	265
Lhuentse	23.2	7.4	7.4	3.3	295
Monggar	25.2	4.5	4.7	1.4	471
Paro	11.4	10.0	4.9	4.5	498
Pema Gatshel	14.9	2.4	5.4	1.1	356
Punakha	21.9	11.3	5.9	5.7	413
Samdrup Jongkhar	10.4	3.4	2.8	1.0	612
Samdrup Jongkhar (Other than SJ Thromde)	11.2	3.4	3.3	0.7	374
Samdrup Jongkhar Thromde	7.9	3.6	1.4	1.6	238
Samtse	12.2	4.8	3	1.5	754
Sarpang	17.5	4.5	5.1	1.3	715
Sarpang (Other than Gelephu Thromde)	18.3	4.4	5.6	1.4	484
Gelephu Thromde	13.5	5.0	2.7	0.9	231
Thimphu	13.7	8.3	3.8	2.5	1,531
Thimphu (Other than T/phu Thromde)	23.2	4.9	5.1	1.6	364
Thimphu Thromde	11.5	9.1	3.6	2.7	1,167
Trashigang	21.6	7.0	3.2	3.4	631
Trashi Yangtse	14.4	3.7	3.4	1.4	284
Trongsa	18	6.5	4	2.1	324
Tsirang	19.1	7.0	4.8	1.9	364
Wangdue	13.9	3.4	2.1	0.4	439
Zhemgang	26.5	13.9	6.6	5.1	318
Total 15-64	16.4	6.9	4.4	2.6	9,983

Table9.1.15 Percentage of ever-partnered women aged 15-64 years who reported physical, sexual, emotional violence, controlling behaviours and/or economic violence, at some point in a lifetime, by background characteristics, [Bhutan NHS 2023].

Number of ever- partnered women		108	521	1229	1626	1644	1400	1154	939	771	591		5355	1027	582	1375	1004	503	136
Physical, sexual, emotional, controlling or economic violence		30.3	42.7	39.6	39.9	41.3	38.8 38.8	38.6	41.2	39.0	36.4		41.0	43.4	46.3	40.5	33.7	25.2	26.8
Economic violence		5 .8	11.2	10.6	13.3 1	12.4	11.0	11.4	10.0	11.6	7.8		11.4	12.6	17.0	12.7	9.1	4.3	6.6
Physical, sexual, emotional or controlling		30.3	40.4	38.1	38.3	40.0	37.1	37.3	39.9	37.3	35.0		39.6	42.5	44.7	38.4	31.1	24.2	26.2
Controlling behaviours		28.3	34.8	29.8	29.0	31.1	27.5	27.4	31.9	26.1	22.7		29.5	33.0	34.9	30.5	24.5	18.1	17.3
Physical, sexual or emotional violence		16.6	19.0	22.2	24.7	25.7	26.1	25.0	26.4	27.5	26.2		27.5	27.8	28.9	22.7	16.1	13.1	18.3
Emotional violence		11.3	13.6	16.1	17.2	18.2	18.7	17.0	19.5	18.6	18.3		19.2	20.4	19.3	15.2	11.6	11.3	15.3
Sexual violence		3.4	4.9	6.7	8.1	ĽŹ	7.9	5.9	7.2	6.2	5.6		6.8	8.6	9.1	7.5	5.4	3.4	5.4
Physical violence		6.6	10.0	12.8	15.8	16.7	17.6	17.3	19.5	20.1	18.4		19.2	19.9	19.8	13.2	8. 3.	4.6	7.2
Background characteristics	Age Range	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	Level Of Education	None	Primary or less	Lower Secondary	Middle Secondary	Higher Secondary	Certificates/Diploma	Bachelor/Master/PhD

Background characteristics	Physical violence	Sexual violence	Emotional violence	Physical, sexual or emotional violence	Controlling behaviours	Physical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever- partnered women
Usual Activity									
Working	17.8	7.6	19.6	27.3	30.1	39.9	11.2	41.1	4373
Doing household chores	15.3	6.3	16.1	23.1	28.1	36.8	11.6	38.6	5314
Student	00 00	3.6	9.6	9.6	27.6	29.9	1.8	29.9	28
Retired	3.5	3.5	16.4	16.4	19.2	28.7	5.9	31.2	33
Doing nothing	19.5	6.8	13.5	24.0	32.2	39.5	12.6	41.1	203
Location									
Urban	12.7	6.8	14.4	20.6	27.2	35.2	11.2	37.0	3586
Rural	18.5	6.9	19.4	27.4	30.1	39.9	11.4	41.2	6397
Income Quintiles									
Least Income (Q1)	19.7	7.3	20.9	28.4	32.6	41.5	12.0	42.9	2033
Lower (Q2)	19.4	7.7	19.9	27.6	31.7	40.6	13.2	42.1	1988
Middle (Q3)	16.8	6.9	17.8	25.3	29.9	39.2	11.6	40.6	2143
Upper (Q4)	14.1	6.6	15.2	22.8	26.2	36.1	10.4	38.1	1819
Highest Income (Q5)	11.9	5.9	13.9	20.2	24.7	33.4	9.4	34.7	2000
Total 15-64	16.4	6.9	17.5	24.9	29.0	38.2	11.3	39.7	9983



Table 9.1.16 Percentage of ever-partnered women aged 15-64 years who reported physical, sexual, emotional violence, controlling behaviours and/or economic violence, at some point in a lifetime, by Dzongkhag, [Bhutan NHS 2023].

Dzongkhag	Physical violence	Sexual violence	Emotional violence	Physical, sexual or emotional violence	Controlling behaviours	Physical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever- partnered women
umthang	6.6	3.4	11.3	16.6	28.3	30.3	5.8	30.3	108
hhukha	10.0	4.9	13.6	19.0	34.8	40.4	11.2	42.7	521
Chhukha (Other than P/ling Thromde)	12.8	6.7	16.1	22.2	29.8	38.1	10.6	39.6	1229
Phuentsholing Thromde	15.8	8.1 2.1	17.2	24.7	29.0	38.3	13.3	39.9	1626
Jagana	16.7	7:1	18.2	25.7	31.1	40.0	12.4	41.3	1644
gasa	17.6	7.9	18.7	26.1	27.5	37.1	11.0	38.8 38.8	1400
łaa	17.3	5.9	17.0	25.0	27.4	37.3	11.4	38.6	1154
huentse	19.5	7.2	19.5	26.4	31.9	39.9	10.0	41.2	939
Monggar	20.1	6.2	18.6	27.5	26.1	37.3	11.6	39.0	771
Paro	18.4	5.6	18.3	26.2	22.7	35.0	7.8	36.4	591
Pema Gatshel									
Junakha	19.2	.8 6	19.2	27.5	29.5	39.6	11.4	41.0	5355
Samdrup Jongkhar	19.9	8.6	20.4	27.8	33.0	42.5	12.6	43.4	1027
Samdrup Jongkhar (Other than SJ Thromde)	19.8	9.1	19.3	28.9	34.9	44.7	17.0	46.3	582
Samdrup Jongkhar Thromde	13.2	7.5	15.2	22.7	30.5	38.4	12.7	40.5	1375

Dzongkhag	Physical violence	Sexual violence	Emotional violence	Physical, sexual or emotional violence	Controlling behaviours	Physical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever- partnered women
Samtse	8.3	5.4	11.6	16.1	24.5	31.1	9.1	33.7	1004
Sarpang	4.6	3.4	11.3	13.1	18.1	24.2	4.3	25.2	503
Sarpang (Other than Gelephu Thromde)	7.2	5.4	15.3	18.3	17.3	26.2	6.6	26.8	136
Gelephu Thromde									
Thimphu	17.8	7.6	19.6	27.3	30.1	39.9	11.2	41.1	4373
Thimphu (Other than T/phu Thromde)	15.3	6.3	16.1	23.1	28.1	36.8	11.6	38.6	5314
Thimphu Thromde	3.8	3.6	9.6	9.6	27.6	29.9	1.8	29.9	28
Trashiga	3.5	3.5	16.4	16.4	19.2	28.7	5.9	31.2	33
Trashi Y	19.5	6.8	13.5	24.0	32.2	39.5	12.6	41.1	203
Trongsa									
Tsirang	12.7	6.8	14.4	20.6	27.2	35.2	11.2	37.0	3586
Wangdue	18.5	6.9	19.4	27.4	30.1	39.9	11.4	41.2	6397
Zhemgang									
Total 15-64	16.4	6.9	17.5	24.9	29.0	38.2	11.3	39.7	6983

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Table 9.1.17 Percentage of ever-partnered women aged 15-64 years who reported physical, sexual, emotional violence, controlling behaviours and/or economic violence, in the previous 12 months, by background characteristics, [Bhutan NHS 2023].

Background characteristics	Physical violence	Sexual violence	Emotional violence	Physical, sexual or emotional violence	Controlling behaviours	Physical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever- partnered women
Age Range									
15-19	5.6	2.3	10.4	14.6	26.6	28.6	5.3	28.6	108
20-24	6.0	3.0	11.9	14.9	29.5	34.4	8.1	36.7	521
25-29	5.4	8. 8. 10.	9.5	12.9	21.9	26.7	6.9	28.0	1229
30-34	5.7	3.9 3	10.0	13.2	20.0	24.9	7.5	26.1	1626
35-39	4.1	2.5	10.5	12.4	20:1	24.7	6.3	25.8	1644
40-44	3.2	2.0	7.5	9.1	16.4	20.0	4.2	21.1	1400
45-49	5.3	2.7	9.1	11.2	18.1	22.4	5.3	23.3	1154
50-54	3.4	1.4	5.2	6.9	13.9	16.9	3.2	18.0	939
55-59	2.9	1:	5.4	6.9	10.9	14.5	3.5	15.6	771
60-64	2.0	1.2	3.7	5.2	0.0 0	12.6	1.9	13.4	591
Level of Education									
None	4.4	2.2	8.0	10.1	17.2	21.1	4.9	22.2	5355
Primary or less	5.7	3.7	10.0	12.7	20.4	25.1	6.1	25.5	1027
Lower Secondary	7.3	3.7	12.0	14.9	23.5	29.0	9.2	30.5	582
Middle Secondary	4.3	2.9	9.1	11.8	21.8	25.9	7.4	26.9	1375
Higher Secondary	3.3	2.5	7.4	6.6	18.3	22.2	5.8	24.5	1004

Background characteristics	Physical violence	Sexual violence	Emotional violence	Physical, sexual or emotional violence	Controlling behaviours	Physical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever- partnered women
Certificates/Diploma	1.3	2.2	7.7	8.4	11.2	15.7	1.7	16.7	503
Bachelor/Master/PhD	3.5	3.8	10.0	11.6	11.0	18.0	2.7	18.0	136
Usual Activity									
Working	4.3	2.9	9.7	11.8	18.0	22.6	4.9	23.7	4373
Doing household chores	4.5	2.4	7.9	10.3	18.6	22.4	6.1	23.6	5314
Student	0.0	1.8	4.1	4.1	21.9	24.2	0.0	24.2	28
Retired	0.0	0.0	4.2	4.2	12.3	16.6	2.4	19.0	33
Doing nothing	5.7	1.9	3.3	8.2	14.8	17.7	4.8	18.4	203
Location									
Urban	3.6	2.5	8.1	10.0	18.0	22.0	5.7	23.3	3586
Rural	4.8	2.6	80. 80.	11.3	18.4	22.7	5.4	23.7	6397
Income Quintiles									
Least Income (Q1)	5.1	2.3	8.3	10.6	17.9	21.8	5.5	23.0	2033
Lower (Q2)	5.7	3.2	9.3	12.4	20.1	24.3	6.1	25.4	1988
Middle (Q3)	4.3	2.6	8.7	10.9	19.5	23.5	5.9	24.6	2143
Upper (Q4)	3.9	2.2	8.4	10.4	17.5	21.5	5.8	22.8	1819
Highest Income (Q5)	2.9	2.6	8.0	9.8	16.2	20.9	4.3	21.9	2000
Total 15-64	4.4	2.6	8.5 8.5	10.8	18.3	22.4	5.5	23.6	9983



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Table 9.1.18 Percentage of ever-partnered women aged 15-64 years who reported physical, sexual, emotional violence, controlling behaviours and/or economic violence, in the previous 12 months, by background characteristics, [Bhutan NHS 2023].

Dzongkhag	Physical violence	Sexual violence	Emotional violence	Physical, sexual or emotional violence	Controlling behaviours	Physical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever-partnered women
Bumthang	5.9	5.1	12.7	16.4	13.9	22.5	5.6	23.0	108
Chhukha	5.4	2.3	7.4	10.7	26.0	29.6	6.9	30.6	521
Chhukha (Other than P/ling Thromde)	7.4	3.7	7.9	12.3	31.2	34.6	9.1	35.5	1229
Phuentsholing Thromde	2.8	0.5	6.7	8.5	19.3	23.1	4.0	24.2	1626
Dagana	6.1	5.4	11.4	13.8	20.6	23.2	5.2	23.6	1644
Gasa	5.6	2.6	11.9	14.0	16.0	23.9	5.4	25.8	1400
Haa	4.0	3.7	5.1	8.4	14.3	15.9	80. CY	16.4	1154
Lhuentse	7.4	3.3	7.9	14.1	14.1	21.6	4.6	22.3	939
Monggar	4.7	1.4	24.6	25.4	20.3	35.4	3.4	35.6	771
Paro	4.9	4.5	7.3	10.5	24.6	27.4	9.3	29.8	591
Pema Gatshel	5.4	::	7.4	9.6	19.6	22.9	2.8	22.9	
Punakha	5.9	5.7	14.4	17.9	16.4	23.2	7.1	24.8	5355
Samdrup Jongkhar	2.8	1.0	3.0	4.8	22.1	23.7	3.8 .3	24.2	1027
Samdrup Jongkhar (Other than SJ Thromde)	3.3	0.7	2.6	4.7	22.0	23.2	2.9	23.8	582
Samdrup Jongkhar Thromde	1.4	1.6	4.1	5.1	22.3	25.0	6.3	25.5	1375

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Samtse Sarpang	nysical blence	Sexual violence	Emotional violence	Pnysical, sexual or emotional violence	Controlling behaviours	Pnysical, sexual, emotional or controlling	Economic violence	Physical, sexual, emotional, controlling or economic violence	Number of ever- partnered women
Sarpang	3.0	1.5	8.2	9.2	19.2	21.3	6.2	23.0	1004
	5.1 2.1	1.3	4.3	7.6	12.0	14.7	4.0	15.4	203
Sarpang (Other than Gelephu Thromde)	5.6	1.4	4.3	8.0	12.4	15.3	4.1	16.0	136
Gelephu Thromde	2.7	0.9	4.5	5.8	10.1	11.6	3.1	12.6	
Thimphu	00. Č	2.5	7.9	9.6	16.3	20.4	5.9	21.8	4373
Thimphu (Other than T/phu Thromde)	5.1	1.6	7.4	6.6	16.0	20.2	3.6	20.5	5314
Thimphu Thromde	3.6	2.7	8.0	9.5	16.4	20.5	6.4	22.1	28
Trashiga	3.2	3.4	9.3	11.5	17.9	21.9	4.5	23.1	33
Trashi Y	3.4	1.4	14.4	14.6	38.7	41.2	11.1	43.0	203
Trongsa	4.0	2.1	6.4	7.7	11.0	12.9	0.8	12.9	
Tsirang 4	4.8	1.9	3.9	7.0	11.7	15.4	5.1	16.7	3586
Mangdue	2.1	0.4	5.1	5.7	13.2	15.8	4.0	16.9	6397
Zhemgang	6.6	5.1	11.4	14.7	13.2	19.9	4.4	21.1	
Total 15-64	4.4	2.6	8.5 5	10.8	18.3	22.4	5.5	23.6	6983

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Table 9.1.19 Percentage of women aged 15-64 years who experienced non-partner physical violence, since the age of 15 (lifetime) and in the previous 12 months, by Dzongkhag, [Bhutan NHS 2023].

	LIFETIME	LAST 12	MONTHS
Dzongknag -	Physical violence	Physical violence	Number of women
Age Range			
15-19	10.7	4.5	809.0
20-24	14.0	2.7	905.0
25-29	12.3	2.4	1412.0
30-34	11.2	2.5	1721.0
35-39	11.0	1.8	1721.0
40-44	10.2	1.9	1469.0
45-49	11.1	2.6	1212.0
50-54	10.8	1.5	985.0
55-59	8.8	1.1	813.0
60-64	8.6	0.9	643.0
Level of Education			
None	10.0	2.0	5662.0
Primary or less	14.8	2.7	1093.0
Lower Secondary	14.1	4.2	745.0
Middle Secondary	12.2	2.8	1723.0
Higher Secondary	10.2	1.7	1628.0
Certificates/Diploma	8.8	1.0	670.0
Bachelor/Master/PhD	12.4	2.1	166.0
Usual Activity			
Working	11.5	2.1	4885.0
Doing household chores	10.7	2.1	5672.0
Student	10.3	3.8	693.0
Retired	13.1	1.9	41.0
Doing nothing	11.0	2.4	377.0
Location			
Urban	10.9	2.0	4372.0
Rural	11.1	2.3	7318.0
Income Quintiles			
Least Income (Q1)	11.2	2.4	2347.0
Lower (Q2)	12.1	2.7	2315.0
Middle (Q3)	10.9	2.2	2504.0
Upper (Q4)	10.2	2.1	2179.0
Highest Income (Q5)	10.7	1.7	2345.0
Total 15-64	11.0	2.2	11,690



Table 9.1.20 Percentage of women aged 15-64 years who experienced non-partner physical violence, since the age of 15 (lifetime) and in the previous 12 months, by Dzongkhag, [Bhutan NHS 2023].

	LIFETIME	LAST 12	2 MONTHS
Dzongkhag	Physical violence	Physical violence	Number of ever- partnered women
Bumthang	7.4	1.9	397
Chhukha	14.0	3.3	1027
Chhukha (Other than P/ling Thromde)	12.9	4.6	609
Phuentsholing Thromde	15.5	1.6	418
Dagana	12.7	0.4	340
Gasa	10.2	2.5	245
Наа	7.6	2.0	311
Lhuentse	2.2	1.0	325
Monggar	14.7	1.5	636
Paro	11.3	4.0	566
Pema Gatshel	9.1	2.3	397.0
Punakha	16.2	3.4	466
Samdrup Jongkhar	7.1	1.6	740
Samdrup Jongkhar (Other than SJ Thromde)	7.1	1.8	459
Samdrup Jongkhar Thromde	7.0	1.2	281
Samtse	7.4	2.0	890
Sarpang	17.1	1.9	840
Sarpang (Other than Gelephu Thromde)	16.7	1.8	545
Gelephu Thromde	18.7	2.1	295.0
Thimphu	12.2	2.3	1,861
Thimphu (Other than T/phu Thromde)	13.9	2.1	411
Thimphu Thromde	11.8	2.3	1450
Trashigang	11.0	2.1	704
Trashi Yangtse	8.9	2.1	324
Trongsa	9.2	1.1	366.0
Tsirang	6.6	2.2	413
Wangdue	6.7	1.7	484
Zhemgang	9.0	1.9	358.0
Total 15-64	11.0	2.2	11,690

Table 9.1.21 Percentage of women aged 15-64 years who experienced non-partner sexual violence since the age of 15 (lifetime) and in the previous 12 months, by background characteristics, [Bhutan NHS 2023].

		LIFETIM	Ш			LAS	T 12 MONTHS		
Background characteristics	Forced intercourse	Forced intercourse when too drunk or drugged to refuse	Forced sex with more than one man at the same time	Any sexual violence	Forced intercourse	Forced intercourse when too drunk or drugged to refuse	Forced sex with more than one man at the same time	Any sexual violence	Number of Persons
Age Range									
15-19	2.3	0.6	0.7	1.2	0.6	0.3	0.5	0.8	808
20-24	4.1	1:1	0.6	2.0	0.7	0.2	0.2	6.0	905
25-29	3.7	0.9	0.9	2.0	0.5	0.4	0.3	6.0	1,412
30-34	2.6	0.7	0.4	1:1	0.2	0.1	0.2	0.4	1,721
35-39	2.4	0.7	0.5	1.3	0.5	0.2	0.2	0.6	1,721
40-44	2.5	0.5	0.6	1.2	0.1	0.1	0.2	0.3	1,469
45-49	1.4	0.4	0.4	0.8	0.0	0.1	0.0	0.1	1,212
50-54	2.0	0.9	1.0	1.6	0.2	0.1	0.1	0.3	985
55-59	1.4	0.2	0.9	1:1	0.2	0.0	0.2	0.4	813
60-64	1.4	0.2	0.5	0.8	0.1	0.1	0.0	0.1	643
Level Of Education									
None	2.0	0.5	0.7	1:1	0.1	0.0	0.1	0.2	5,662
Primary or less	3.4	0.9	1.0	2.0	1.0	0.3	0.5	1.2	1,093
Lower Secondary	2.7	0.6	0.4	1:	0.3	0.0	0.0	0.3	745
Middle Secondary	2.7	0.1	0.7	1.8	0.5	0.5	0.2	0.8	1,723
Higher Secondary	2.5	0.6	0.5	1.2	0.3	0.2	0.3	0.6	1,628

		LIFETIM	ш			LAS	T 12 MONTHS		
Background characteristics	Forced intercourse	Forced intercourse when too drunk or drugged to refuse	Forced sex with more than one man at the same time	Any sexual violence	Forced intercourse	Forced intercourse when too drunk or drugged to refuse	Forced sex with more than one man at the same time	Any sexual violence	Number of Persons
Certificates/Diploma	3.3	0.8	0.2	:	0.2	0.2	0.1	0.4	670
Bachelor/Master/PhD	3.6	2.0	0.0	2.0	0.7	1.2	0.0	1.2	166
Usual Activity									
Working	2.5	0.7	0.8	1.4	0.3	0.2	0.3	0.6	4,885
Doing household chores	2.5	0.6	0.6	1.2	0.3	0.1	0.1	0.4	5,672
Student	1.6	0.0	0.1	0.4	0.3	0.0	0.1	0.4	693
Retired	2.2	1.9	0.0	1.9	0.0	6.1	0.0	1.9	41
Doing nothing	3.4	1.6	0.8	2.6	0.6	0.2	0.0	0.6	377
Location									
Urban	2.5	0.6	0.7	1.4	0.3	0.2	0.2	0.6	4,372
Rural	2.4	0.7	0.6	1.3	0.3	0.2	0:1	0.4	7,318
Income Quintiles									
Least Income (Q1)	2.3	0.7	0.7	1.4	0.5	0.3	0.2	0.6	2,347
Lower (Q2)	2.7	0.6	6.0	1.6	0.3	0.2	0.2	0.6	2,315
Middle (Q3)	2.4	0.7	0.5	1.3	0.2	0.1	0.0	0.2	2,504
Upper (Q4)	2.2	0.6	0.4	1:	0.2	0.0	0:1	0.3	2,179
Highest Income (Q5)	2.8	0.6	0.6	1.2	0.4	0.3	0.3	0.7	2,345
Total 15-64	2.5	0.7	0.6	1.3	0.3	0.2	0.2	0.5	11,690



Table 9.1.22 Percentage of women aged 15-64 years who experienced non-partner sexual violence since the age of 15 (lifetime) and in the previous 12 months, by Dzongkhag, [Bhutan NHS 2023].

	Number of Persons	397	1,027	609	418	340	245	311	325	636	566	397	466	740
	Any sexual violence	0.9	0.1	0.2	0.0	1.2	0.2	0.0	1.8	0.2	0.3	0.3	0.0	0.4
T 12 MONTHS	Forced sex with more than one man at the same time	0.2	0.0	0.0	0.0	0.5	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.1
LAS	Forced intercourse when too drunk or drugged to refuse	0.4	0.1	0.1	0.0	0.6	0.0	0.0	0.3	0.2	0.3	0.3	0.0	0.1
	Forced intercourse	0.5	0.1	0.2	0.0	0.7	0.2	0.0	0.0	0.0	0.3	0.3	0.0	0.3
	Any sexual violence	1.8	0.7	0.8 0	0.5	5.1	0.2	0.9	4.2	1.7	0.8	0.6	1.6	0.5
Ш	Forced sex with more than one man at the same time	0.2	0.2	0.4	0.0	3.6	0.0	0.0	3.9	0.8	0.3	0.1	0.3	0.2
LIFETIM	Forced intercourse when too drunk or drugged to refuse	1.3	0.5	0.4	0.5	2.3	0.0	0.9	6.0	1.0	0.5	0.6	1.6	0.1
	Forced intercourse	5.2	2.1	1.9	2.2	2.8	1.6	2.3	1.8	3.1	3.4	1.4	4.2	0.8
	Dzongkhag	Bumthang	Chhukha	Chhukha (Other than P/ling Thromde)	Phuentsholing Thromde	Dagana	Gasa	Haa	Lhuentse	Monggar	Paro	Pema Gatshel	Punakha	Samdrup Jongkhar

-	0 0.4 0 0.2 0.1	2 0 4 0.4 0.9 0.4 0.9 0.1 0.0 0.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 2 0 4 6 6 0.9 0.2 1.1	0 0 0 4 8 0 4.0 0.0 1.1 0.0 0.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0 0.0 0.2 0.4 0.2 0.4 0.0 0.4 0.0 0.2 0.4 0.0 0.2 0.4 0.0 0.2 0.2 0.4 0.0 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0 0.4 45 2 0.2 28 0 0.1 89 4 0.9 84 0 0.1 89 0 0.9 84 0 0.9 84 0 0.9 84 0 0.0 25 0 0.0 26 0 0.8 1,8 0 0.6 24	0 0.4 45 0 0.4 45 0 0.2 28 1 0.9 84 0 0.1 89 0 0.9 84 0 0.0 29 3 0.0 29 3 0.8 1,86 4 0.9 29 4 0.9 1,46 4 0.9 1,45	0 0.4 456 2 0.2 281 0 0.1 896 4 0.9 846 5 1.1 545 3 0.0 296 3 0.0 296 3 0.0 296 3 0.0 1,1 5 1.1 546 3 0.0 296 1 0.0 296 1 0.0 1,456 1 0.2 1,456 1 0.2 1,456	0 0.4 459 2 0.2 281 0 0.1 890 4 0.9 840 5 1.1 545 0 0.0 295 0 0.0 295 0 0.0 295 1 0.0 295 1 0.0 295 1 0.0 295 1 0.2 704 1 0.2 704 0 0.0 324 0 0.0 324	0 0.4 459 2 0.2 281 0 0.1 890 4 0.9 840 5 1.1 545 0 0.0 295 3 0.0 295 3 0.0 295 4 0.0 295 3 0.8 1,861 1 0.0 295 3 0.2 1,450 1 0.2 704 1 0.2 704 2 0.0 324 2 0.5 366	0 0.4 459 2 0.2 281 0 0.1 890 4 0.2 281 5 1.1 545 6 1.1 545 7 0.0 295 8 0.0 295 9 0.0 295 1 1 545 1 0.0 295 1 0.0 295 1 0.0 295 1 0.0 295 1 0.0 324 1 0.0 324 1 0.0 324 2 0.0 326 2 0.0 326 2 0.0 326 2 0.0 36 2 0.0 32 2 0.0 32 2 0.0 32 2 0.0 36 3 0.0	0 0.4 459 2 0.2 281 0 0.1 890 4 0.9 840 5 1.1 545 0 0.9 840 1 1 545 0 0.9 840 1 1 545 0 0.9 840 1 1 545 1 1 545 0 0.0 1,450 1 0.2 704 1 0.2 704 1 0.2 704 0 0.5 411 0 0.5 366 0 0.5 366 0 0.5 366 0 0.6 413 0 0.4 484	0 0.4 459 2 0.2 281 0 0.1 890 4 0.9 840 1.1 545 1.1 5 1.1 545 0 0.0 295 0 0.0 295 0 0.0 295 1 1 545 0 0.0 1,450 1 0.2 1,450 1 0.2 704 0 0.5 411 0 0.5 413 0 0.5 356 0 0.5 356 0 0.5 358 0 0.4 484 0 0.4 358 0 0.7 358 0 0.7 358
Forced	0.2 0.0 0.0 0.2 0.0 0.0	0.2 0.0 0.0 0.2 0.0 0.2 0.0 0.0	0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.4 0.0 0.5	0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.4 0.0 0.5 0.0 0.5	0.2 0.0 0.0 0.2 0.0 0.4 0.0 0.4 0.0 0.5 0.1 0.3	0.2 0.0 0.0 0.2 0.0 0.0 0.0 0.4 0.0 0.5 0.1 0.3 0.1 0.3	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.0 0.0 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.4 0.1 0.4 0.1 0.4	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.4 0.0 0.0 0.0 0.0 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.1 0.2 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.2 0.0	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.2 0.0 0.3 0.3 0.4 0.3 0.5 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4 0.1 0.4 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0	0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.1 0.3 0.2 0.3 0.4 0.4 0.4 0.3 0.4 0.3 0.4 0.3 0.4 0.3 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0 0.4 0.0
-	0.0 0.0	0.0 0.0 0.0 0.0	0.0 2.0 2.0 2.0 2.0 2.1 2.1	0.0 1.0 0.0 1.1 0.0	0.0 1.0 4.0 0.0 4.0	0.0 0.0 0.0 0.0 0.0 0.0 0.5	0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.1 1.1 0.5 0.0 0.5 0.0 1.1 0.0 1.1 0.0 1.1 0.0 1.1 0.0 1.1 0.0 1.1 0.0 1.1 0.0 1.1 0.1 0	0.0 0.0 1.1 0.9 0.1 1.1 0.0 0.4 0.0 0.4 0.0 0.0 1 0.0 0 0.0	0.0 1.1 1.1 0.0 0.5 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.11 0.1 1.1 0.0 1.1 0.0 1.1 0.0 0.2 0.3 0.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0
Any	0.9 0.9 0.4 0.8	0.9 0.9 0.4 0.8 0.6 1.5	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.4 0.7	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.4 0.7 0.8 1.5	0.9 0.9 0.9 0.8 0.8 0.6 1.5 0.7 0.6 1.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.8 1.5 0.0 0.7 0.0 0.7 0.7 0.7 0.7 0.7 0.7 0.7	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.8 1.5 0.8 1.5 0.0 0.7 0.0 0.7 0.0 0.7 0.0 1.5 0.0 1.5 0.0 0.7 0.0 0.7	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.8 1.5 0.8 1.5 0.0 0.7 0.9 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7 0.0 0.7	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.8 1.5 0.9 0.7 0.9 1.5 0.0 0.7 0.0 0.7 0.8 1.5 0.0 0.7 0.15 1.7 0.4 0.7 0.4 0.7 0.9 1.7 0.15 1.6	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.8 1.5 0.9 0.7 0.9 0.7 0.9 1.5 0.0 0.7 0.0 0.7 0.0 0.7 0.15 1.6 0.15 0.4 0.15 0.4 0.2 0.3 0.3 0.4 0.4 0.4 0.5 1.5 0.2 1.5 0.2 1.5	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.8 1.5 0.9 0.7 0.0 0.7 0.8 1.5 0.9 1.7 0.9 0.7 0.9 1.7 0.0 0.7 0.15 1.6 1.5 1.6 1.5 1.6 1.5 1.6 1.1 1.8	0.9 0.9 0.4 0.8 0.6 1.5 0.7 1.6 0.8 1.5 0.8 1.5 0.9 0.7 0.9 1.5 0.9 0.7 0.9 1.7 0.9 1.7 0.9 1.6 0.15 1.6 0.15 1.6 0.11 1.1 0.11 0.6 0.11 0.6 0.11 0.6	0.9 0.9 0.9 0.4 0.8 1.5 0.5 1.6 1.6 0.7 1.6 1.5 0.8 1.5 1.5 0.9 0.3 0.7 0.9 0.4 0.7 0.0 0.3 1.5 0.4 0.4 0.4 0.9 1.7 1.6 1.5 1.6 1.5 1.1 1.8 1.5 0.1 1.1 1.8 0.1 1.1 1.8 0.1 0.1 1.6 0.1 0.1 0.6 0.1 0.1 0.6 0.5 1.9 0.6 0.5 1.9 0.6
intercourse	0.4	0.4 0.3	0.4 0.3 0.3	0.4 0.3 0.3 0.3	0.4 0.3 0.3 0.3 0.5	0.4 0.3 0.3 0.5 0.2	0.4 0.3 0.5 0.5 0.6	0.4 0.3 0.3 0.3 0.5 0.2 0.6 0.1 0.1	0.4 0.3 0.3 0.5 0.2 0.6 0.1 0.7	0.4 0.3 0.3 0.5 0.6 0.6 0.1 0.7	0.4 0.3 0.3 0.5 0.2 0.2 0.2 0.1 0.1 1.2	0.4 0.3 0.3 0.5 0.5 0.6 0.1 0.1 1.1 1.1 0.6	0.4 0.3 0.3 0.5 0.6 0.6 0.1 1.1 1.1 1.5
	5	1.1 2.6	1.1 2.6 2.8	1.1 2.6 1.7	1.1 2.6 1.7 2.9	1.1 2.6 1.7 2.9 2.6	1.1 2.6 1.7 2.9 2.6 3.0	1.1 2.6 1.7 2.9 2.9 3.0 3.0	1.1 2.6 1.7 2.9 2.6 3.0 3.0 2.1 2.1	1.1 2.6 2.8 2.8 2.6 2.6 3.0 2.6 2.1 2.1 2.3	1.1 2.6 2.8 2.8 2.9 2.6 3.0 3.0 2.1 2.1 2.3 3.7	1.1 2.6 1.7 1.7 2.6 2.6 3.0 3.0 2.1 2.3 2.3 2.3 2.3 2.3 2.5 2.3	1.1 2.6 2.8 2.8 2.9 2.6 2.1 2.1 2.3 2.3 2.3 2.1 2.1 2.6 1.5
	amtse	samtse Sarpang	Samtse Sarpang Sarpang (Other than Gelephu Thromde)	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu Thimphu (Other than T/ phu Thromde)	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu Thimphu (Other than T/ phu Thromde) Thimphu Thromde	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu (Other than T/ phu Thromde) Thimphu Thromde Trashiga	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu (Other than T/ phu Thromde) Thimphu Thromde Trashiga Trashi Y	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde) Thimphu (Other than T/ phu Thromde) Thimphu Thromde Trashiga Trashiga Trongsa	Samtse Sarpang Sarpang (Other than Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu (Other than T/ phu Thromde) Thimphu Thromde Trashiga Trashi Y Trashi Y Trongsa Tsirang	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu (Other than T/ phu Thromde) Thimphu (Other than T/ phu Thromde) Trashiga Trashiga Trashiga Trashiga Trashiga Trashiga	Samtse Sarpang Sarpang (Other than Gelephu Thromde) Gelephu Thromde Thimphu (Other than T/ phu Thromde) Thimphu Thromde Trashiga Trashiga Trashiga Trashiga Trang Trang Trongsa Zhemgang
JkhagForced hencourseintercourse when too drunkwith more than one man sexualAny sexualForced when too drunkIntercourseor drugged to at the same ongkharuntercourse or drugged to timewhen too drunk or drugged to timeintercourse or drugged to refuse0.40.20.30.40.00.90.90.00.0	2.6 0.3 0.6 1.5 0.9 0.0		Nther than 2.8 0.3 0.7 1.6 1.1 0.0	Nther than 2.8 0.3 0.7 1.6 1.1 0.0 hromde 1.7 0.3 0.4 0.7 0.0 0.0	Nther than 2.8 0.3 0.7 1.6 1.1 0.0 hromde 1.7 0.3 0.4 0.7 0.0 0.0 hromde 1.7 0.3 0.4 0.7 0.0 0.0 2.9 0.5 0.8 1.5 0.4 0.1 0.1	Nther than hromde) 2.8 0.3 0.7 1.6 1.1 0.0 hromde 1.7 0.3 0.4 0.7 0.0 0.0 hromde 1.7 0.3 0.4 0.7 0.0 0.0 2.9 0.5 0.8 1.5 0.4 0.1 0.1 Dther than T/ 2.6 0.2 0.0 0.0 0.0 0.0	Nther than hronde) 2.8 0.3 0.7 1.6 1.1 0.0 hronde 1.7 0.3 0.4 0.7 0.0 0.0 hronde 1.7 0.3 0.4 0.7 0.0 0.0 hronde 1.7 0.3 0.4 0.7 0.0 0.0 Other than T/ 2.6 0.5 0.8 1.5 0.4 0.1 Other than T/ 2.6 0.2 0.0 0.7 0.5 0.0 hronde 3.0 0.6 0.9 1.7 0.4 0.1	ther than hronde)2.8 0.3 0.7 1.6 1.1 0.0 hronde 1.7 0.3 0.4 0.7 0.0 0.0 hronde 1.7 0.3 0.4 0.7 0.0 0.0 Other than T/ de) 2.6 0.5 0.8 1.5 0.4 0.1 Other than T/ de) 2.6 0.2 0.0 0.7 0.5 0.0 hronde 3.0 0.6 0.9 1.7 0.4 0.1 hronde 3.0 0.6 0.9 1.7 0.4 0.1 1.5 0.1 0.4 0.1 0.1	Wher than hromde)2.80.30.71.61.10.0hromde)1.70.30.40.70.00.0hromde1.70.50.81.50.40.1Other than T/ de)2.60.20.00.70.50.0Other than T/ de)2.60.20.00.70.50.0Nhomde3.00.60.91.70.40.1hromde3.00.60.91.70.40.11.50.10.40.40.40.12.10.70.71.51.60.00.1	ther than nronde) 2.8 0.3 0.7 1.6 1.1 0.0 hronde) 1.7 0.3 0.4 0.7 0.0 0.0 hronde 1.7 0.3 0.4 0.7 0.0 0.0 hronde 1.7 0.5 0.8 1.5 0.4 0.1 Other than T/ de) 2.6 0.2 0.8 1.5 0.4 0.1 Nher than T/ de) 2.6 0.2 0.8 1.5 0.4 0.1 hronde 3.0 0.6 0.9 1.7 0.4 0.1 hronde 3.0 0.6 0.9 1.7 0.4 0.1 hronde 1.5 0.1 0.4 0.4 0.1 2.1 0.7 1.5 0.6 0.0 0.1 2.1 0.7 1.5 0.3 0.2 0.1	ther than noonde)2.80.30.71.61.10.0hronde)1.70.30.40.70.00.0hronde1.70.30.40.70.00.0bronde1.70.50.81.50.40.1Dther than T/ de)2.60.20.00.70.50.0Dther than T/ de)2.60.20.00.70.50.0Dther than T/ de)2.60.20.00.70.50.0Dther than T/ de)2.60.20.00.70.50.0Dther than T/ de)2.60.20.00.70.50.0Dther than T/ de)2.60.20.00.70.50.0hronde3.00.60.91.70.40.1hronde2.10.10.40.40.00.12.10.71.51.60.00.02.31.20.20.21.50.30.23.71.11.11.11.80.60.4	Wher than roonde)2.80.30.71.61.10.0roonde)1.70.30.40.70.00.0hronde1.70.30.40.70.00.02.90.50.81.50.40.1Other than T/ de)2.60.20.00.70.50.0bronde3.00.60.20.00.70.50.0hronde3.00.60.91.70.40.1hronde3.00.60.91.70.40.1bronde3.00.60.91.70.40.1bronde3.00.60.91.70.40.1bronde3.01.20.10.40.10.1bronde2.10.10.40.40.10.1bronde3.71.11.11.11.80.60.43.71.11.11.11.10.60.40.42.60.60.10.10.60.40.4	Wher than nomde) 2.8 0.3 0.7 1.6 1.1 0.0 fromde 1.7 0.3 0.4 0.7 0.0 0.0 hromde 1.7 0.3 0.4 0.7 0.0 0.0 hromde 1.7 0.3 0.6 0.8 1.5 0.4 0.1 2.9 0.5 0.8 1.5 0.4 0.7 0.0 0.0 hromde 3.0 0.6 0.2 0.0 0.7 0.5 0.0 hromde 3.0 0.6 0.9 1.7 0.4 0.1 hromde 3.0 0.6 0.9 0.7 0.6 0.0 hromde 3.0 0.1 0.4 0.4 0.1 0.1 2.3 1.2 0.1 1.6 0.2 0.2 0.4 3.7 1.1 1.1 1.8 0.6 0.4 1.5 1.5 0.6 0.2 0.4 <



Table 9.1.23 Percentage of women aged 15-64 years who experienced non-partner sexual violence since the age of 15 (lifetime) and in the previous 12 months, by background characteristics, [Bhutan NHS 2023].

LIFETIME ouched her Made her touch Attempted sexually their private parts intercoursee 5.8 1.1 1.0
6.4 1.4 0
6.9 2.1
5.5 1.3
6.0 1.3
6.4 1.6
5.7 1.3
7.0 1.6
5.7 1.4
4.8 1.4
5.7 1.6
7.5 1.9
6.5 1.8
6.3 1.4
5.5 1.1

List of Tables

	Number of Persons	670	166		4,885	5,672	693	41	377		4,372	7,318		2,347	2,315	2,504	2,179	2,345	44 600
AONTHS	Made her touch their private parts	0.1	0.0		0.4	0.3	0.0	0.0	0.0		0.1	0.5		0.4	0.3	0.4	0.3	0.2	(
LAST 12 N	Touched her sexually	0.9	1.2		2.2	0.9	1.6	1.7	0.8		1:1	1.7		1.5	1.4	1.9	1.4	1.2	ļ
	Attempted intercoursee	0.1	0.7		0.3	0.2	0.5	0.0	0.2		0.2	0.3		0.3	0.2	0.3	0.1	0.3	(
	Made her touch their private parts	0.8	1.2		1.8	1.3	0.5	0.0	1.8		1.3	1.6		1.4	1.1	2.0	1.5	1.3	
LIFETIME	Touched her sexually	6.8	6.6		7.6	5.1	4.9	5.8	3.3		5.0	6.7		6.3	5.6	6.2	5.5	6.6	
	Attempted intercoursee	3.7	5.1		2.9	2.8	1.9	3.2	2.3		2.6	2.9		2.4	2.4	3.4	2.6	3.1	(
	background characteristics	Certificates/Diploma	Bachelor/Master/PhD	Usual Activity	Working	Doing household chores	Student	Retired	Doing nothing	Location	Urban	Rural	Income Quintiles	Least Income (Q1)	Lower (Q2)	Middle (Q3)	Upper (Q4)	Highest Income (Q5)	



Table 9.1.24 Percentage of women aged 15-64 years who experienced non-partner sexual violence since the age of 15 (lifetime) and in the previous 12 months, by Dzongkhag, [Bhutan NHS 2023]

		LIFETIME			LAST 12 N	MONTHS	
Dzongkhag	Attempted intercoursee	Touched her sexually	Made her touch their private parts	Attempted intercoursee	Touched her sexually	Made her touch their private parts	Number of Persons
Bumthang	0.9	9.1	2.2	0.4	1.8	0.7	1,412
Chhukha	2.1	œ. Ċ	1.0	0.2	1.6	0.5	1,721
Chhukha (Other than P/ ling Thromde)	3.3	4.8	0.1	0.1	2.0	0.3	1,721
Phuentsholing Thromde	0.4	2.5	11	0.1	<u>.1</u>	0.2	1,469
Dagana	3.3	6.3	2.7	0.0	1.3	0.3	1,212
Gasa	2.5	3.4	0.0	0.0	<u>.</u> .	0.1	985
Haa	4.1	2 8	2.3	0.0	0.4	0.2	813
Lhuentse	3.0	2.2	0.6	0.0	0.1	0.2	643
Monggar	7.3	18.8	1.9				
Paro	3.8	5.6	1.0	0.1	1.1	0.3	5,662
Pema Gatshel	2.4	3.7	.1	0.4	2.5	0.4	1,093
Punakha	7.6	19.2	5.0	0.3	2.1	0.4	745
Samdrup Jongkhar	0.6	6.0	0.1	0.5	1.6	0.5	1,723
Samdrup Jongkhar (Other than SJ Thromde)	0.6	8. O	0.0	0.3	1.8	0.2	1,628
Samdrup Jongkhar Thromde	0.6	1.3	0.3	0.1	6.0	0.1	670

List of Tables

		LIFETIME			LAST 12 N	AONTHS	
Dzongkhag	Attempted intercoursee	Touched her sexually	Made her touch their private parts	Attempted intercoursee	Touched her sexually	Made her touch their private parts	Number of Persons
Samtse	0.6	1.9	0.9	0.7	1:2	0.0	166
Sarpang	2.2	4.5	0.7				
Sarpang (Other than Gelephu Thromde)	2.2	4.5	0.7	0.3	2.2	0.4	4,885
Gelephu Thromde	2.3	4.3	0.4	0.2	0.0	0.3	5,672
Thimphu	3.0	5.1	1.2	0.5	9.	0.0	693
Thimphu (Other than T/ phu Thromde)	4.0	10.3	0.9	0.0	1.7	0.0	41
Thimphu Thromde	2.8	4.0	<u>с;</u>	0.2	0.8	0.0	377
Trashiga	1.5	6.3	6.				
Trashi Y	0.0	3.3	0.3	0.2	1:1	0.1	4,372
Trongsa	2.1	9.6	2.6	0.3	1.7	0.5	7,318
Tsirang	2.3	2.9	11	_			
Wangdue	3.3	6.3	4.3	0.3	1.5	0.4	2,347
Zhemgang	3.8 3	7.6	0.7	0.2	1.4	0.3	2,315
Total 15-64	2.8	6.1	1.5	0.2	1.5	0.3	11,690

5th National Health Survey



Table 9.2.1 Percentage of children age 1-14 years by child disciplining methods experienced during the last one month, [Bhutan NHS 2023].

	Percer	ntage of children	age 1-14 yea	ars who exp	erienced:	Number of
Dzongkhag	Only non-	Psychological	Physical p	unishment	Any violent	children age
	violent discipline	aggression	Any	Severe ^A	discipline method1	1-14 years
Total	14.4	73.5	60.1	18.3	82.2	5,717
Sex				**		
Male	13.6	74.05	62.55	19.80	83.38	2,862
Female	15.3	72.70	57.52	16.63	80.84	2,855
Area						
Urban	14.8	72.41	60.71	18.28	81.44	2,235
Rural	14.1	74.03	59.55	18.16	82.57	3,482
Age						
1-2	15.6	66.73	61.36	14.02	76.11	702
3-4	11.7	74.94	71.53	21.65	85.77	756
5-9	12.7	75.68	66.40	21.72	84.70	2,148
10-14	16.8	72.45	49.64	14.80	80.06	2,111
Dzongkhag						
Bumthang	11.3	79.42	56.19	16.73	84.08	233
Chhukha	11.5	77.40	66.55	17.02	85.87	309
Phuentshogling Thromde	17.0	67.55	61.32	11.33	79.79	235
Dagana	15.8	78.79	58.08	14.44	82.97	173
Gasa	6.7	80.84	69.45	13.49	91.14	123
Наа	9.5	82.05	65.14	17.02	88.31	144
Lhuentse	18.7	63.96	47.19	17.25	73.14	152
Monggar	21.3	69.72	59.80	26.76	77.47	322
Paro	13.9	70.69	56.76	19.80	78.79	247
Pema Gatshel	16.6	59.76	52.65	16.71	76.68	183
Punakha	10.8	70.89	61.01	16.19	82.12	211
Samdrup Jongkhar	32.9	54.75	38.83	12.74	65.12	229
Samdrup Jongkhar Thromde	28.3	60.46	52.17	13.92	69.86	155
Samtse	13.3	67.43	70.96	10.10	85.46	394
Sarpang	11.9	72.06	56.34	12.57	82.63	269
Gelegphu Thromde	15.0	67.10	59.21	13.94	76.73	138
Thimphu	8.8	88.87	61.10	16.14	91.17	215
Thimphu Thromde	14.2	72.52	59.29	17.51	81.25	620



	Percer	tage of children	age 1-14 yea	rs who exp	erienced:	Number of
Dzongkhag	Only non-	Psychological	Physical pu	inishment	Any violent	children age
	discipline	aggression	Any	Severe ^A	method1	1-14 years
Trashigang	15.1	78.55	62.89	28.37	83.87	355
Trashi Yangtse	9.8	75.88	59.93	20.00	82.74	212
Trongsa	6.2	89.33	75.83	35.97	91.29	171
Tsirang	16.0	70.36	51.55	8.53	80.56	191
Wangdue Phodrang	6.6	86.40	70.22	24.12	91.39	264
Zhemgang	11.6	82.36	61.76	29.79	87.40	172
Wealth index quintile						
Poorest	17.7	69.49	57.56	17.06	78.79	984
Second	13.7	72.13	58.90	18.33	82.12	1,291
Middle	13.5	75.74	63.07	21.58	83.31	1,011
Fourth	13.0	76.04	62.04	17.92	84.32	1,237
Richest	15.1	73.00	58.58	16.55	81.45	1,194
	¹ MICS indic	ator PR.2 - Viole	nt discipline;	SDG 16.2.1		
A Severe physical punishm	ent includes: 1 ہ) Hit or slapped o and over as hard	n the face, h as one could	ead or ears	or 2) Beat up, th	at is, hit over

The child discipline module is administered in both the Questionnaire for Children Under Five and the Questionnaire for Children Age 5-17. The module is administered for all children aged 1-4, but only to one randomly selected child aged 5-17 (if age 5-14). To account for the random selection, the household sample weight is multiplied by the total number of children aged 5-17 in each household; this weight is used when producing data on 5-14 year old children in this table.

Columns of the table refer to the following (the question numbers are preceded by either U or F, e.g. UCD3A or FCD3A, indicating Under 5 (U) or 5-17 (F), respectively):

(B) Only non-violent discipline: (CD2A=1 or CD2B=1 or CD2E=1) and (CD2C, CD2D, CD2F, CD2G, CD2H, CD2I, CD2J, CD2K=2)

(C) Psychological aggression: CD2D=1 or CD2H=1

(D) Any physical punishment: CD2C=1 or CD2F=1 or CD2G=1 or CD2I=1 or CD2J=1 or CD2K=1

(E) Severe physical punishment: CD2I=1 or CD2K=1

(F) Any violent discipline method: CD2C, CD2D, CD2F, CD2G, CD2H, CD2I, CD2J or CD2K=1

Child disciplining methods in this table should be considered as lower bounds of the actual discipline methods used by the household members, since children who may have been separated from the household members (e.g. at boarding school) during the past month are considered not to have been subjected to any disciplining method.



Table 9.2.2 Percentage of mothers/caretakers of children aged 1-14 years who believe that physical punishment is needed to bring up, raise, or educate a child properly, [Bhutan NHS 2023].

Background characteristics	Percentage of mothers/caretakers who believe that a child needs to be physically punished	Number of mothers/ caretakers responding to a child discipline module
Total	29.8	5,717
Area		
Urban	28.3	2,235
Rural	30.8	3,482
Dzongkhag		
Bumthang	18.7	233
Chhukha	41.6	309
Phuentshogling Thromde	26.7	235
Dagana	44.6	173
Gasa	26.9	123
Наа	35.9	144
Lhuentse	17.5	152
Monggar	20.4	322
Paro	30.4	247
Pema Gatshel	20.4	183
Punakha	23.2	211
Samdrup Jongkhar	21.7	229
Samdrup Jongkhar Thromde	33.5	155
Samtse	30.3	394
Sarpang	38.2	269
Gelegphu Thromde	38.7	138
Thimphu	36.3	215
Thimphu Thromde	27.7	620
Trashigang	34.6	355
Trashi Yangtse	19.5	212
Trongsa	57.7	171
Tsirang	23.2	191
Wangdue Phodrang	32.7	264
Zhemgang	24.7	172
Wealth index quintile		
Poorest	32.6	984
Second	29.2	1,291
Middle	31.7	1,011
Fourth	30.0	1,237
Richest	26.6	1,194

A The disaggregate of Functional difficulties is shown only for people to the Adult Functioning module, i.e. individually interviewed women age 18-49 years and men age 18-49 years in selected households.



Appendices

Key Definitions and Concepts

	KEY DEFINITIONS AND CONCEPTS
Chiwog	A basic electoral precinct confirmed and defined by the Local Government Act 2009. There are 1,044 chiwogs in Bhutan.
Gewog	A geographic administrative unit subordinate to the Dzongkhag. There are 205 gewogs in Bhutan.
Dzongkhag	An administrative and judicial district. There are 20 districts in Bhutan. Each district is further sub-divided into gewogs or groups of villages.
Household	A group of persons living together, sharing the living space, having common arrangement for food and sharing the family resources. People who live alone and make their own meal arrangements are considered as single member households.
Head of the household	A person who is identified as the head of the household is considered as someone who usually lives in that household. This person may be acknowledged as the head on the basis of age (elder), sex (generally, but not necessarily male), economic status (main provider), who is most knowledgeable about other members, or some other reason.
Usual household member	A person who lived in the household for at least 6 of the past 12 months. The following categories are also counted as usual household members even though they have lived less than 6 months in the past 12 months with the household: (a) in-country school or college students who are staying with the household as boarders; (b) all students living outside Bhutan; (c) armed forces personnel who live in barracks (dekhas); (d) monks (gelongs) who live in shedras, gomdeys, or dratshangs in Bhutan or outside Bhutan; (e) infants; (f) newly married couples; (g) servants and other paid domestic employees who are living with the household; and (h) persons who have recently joined the household and are expected to stay permanently.
Non-usual household member	The following categories are not counted as usual household members and were excluded from the survey: (a) person who has lived in the household but who are no longer members of the household because of death or separation or other reasons; (b) collective living arrangements (also referred to as institutional populations) such as hostels, dekhas, boarding schools, or prisons; (c) expatriate households.
Household size	The total number of persons living in the household.
Population coverage	The de jure population of households consisting of their usual members were followed for the NHS 2023.
Usual activity	Defined as what a person (aged 15 years and above) usually does at the time of the survey or what s/he did most of the time during the 6 month period prior to the survey and expects to continue doing in the near future as well. For the purpose of the survey, usual activity was categorized as: 1) Working 2) Doing household chores 3) Student 4) Retired 5) Doing nothing



	KEY DEFINITIONS AND CONCEPTS
Working	For respondents who indicated that their usual activity is working, data on the following 10 major occupations were collected according to the International Standard Classification of Occupations (ISCO-08): 1) Manager 2) Professional 3) Technician or associate professional 4) Clerical 5) Service and sales worker 6) Skilled agricultural, forestry or fishery worker 7) Craft and other related trade worker 8) Plant and machine operator 9) Unskilled worker 10) Member of Armed forces
Age in completed years	Age at his/her last birthday or the number of completed years since birth.
Age dependency ratio	The ratio of non-working age population (0-14 years and 65 plus years) to the working-age population (15-64 years).
Health facility	Health facility generally includes: 1) Referral Hospital 2) Military Hospitals 3) Hospitals (10-60 bedded) 4) Primary Healthcare Centre 5) Basic Health Unit II 6) Sub-posts 7) ORCs
Replacement fertility	A term commonly used by demographers when referring to levels of childbearing and it is normally presented as being around 2.1 children per woman.
Age-specific fertility rate (ASFR)	The age-specific fertility rate is calculated as the quotient of the numerator divided by the denominator for each age group, multiplied by 1000. The result is an average rate over the 36-month period, expressed as an annual rate per 1000 women.
Total fertility rate (TFR)	The total fertility rate (TFR) is an age-period fertility rate for a synthetic cohort of women. It measures the average number of births a group of women would have by the time they reach age 50 if they were to give birth at the current age-specific fertility rates. The TFR is expressed as the average number of births per woman. Unless otherwise specified, the TFR is for all women.
General fertility rate (GFR)	The general fertility rate (GFR) is the average number of children currently being born to women of reproductive age in the period, typically 1-36 months preceding the survey, expressed per 1,000 women age 15-44.
Crude birth rate (CBR)	The crude birth rate (CBR) is the annual average number of births per thousand of the whole population.
Age at menarche	Age at which a woman experiences her first menstrual period and it determines the risk of becoming pregnant.
Fecund	Capable of producing offspring.
Adolescent/ teenage fertility rate	Also referred to as adolescent birth rate, it is the number of live births to adolescent women (15-19 years) per 1000 adolescent women.



	KEY DEFINITIONS AND CONCEPTS
Age-specific death rate (ASDR)	The ASDR measures the incidence of death at each age. It is calculated by deaths at calendar year at age-x divided by population aged-x times 1000.
Crude death rate (CDR)	General measures of mortality in a population. CDR is defined as the number of deaths in a year per 1,000 population. The CDR was estimated using the vital statistics approach in the NHS 2023.
Neonatal Mortality Rate	The neonatal mortality rate is the probability of a child exposed in a specific period dying before reaching the age of 1 month.
Infant mortality rate (IMR)	The infant mortality rate is the probability of a child exposed in a specific period dying before reaching their first birthday.
Post-neonatal Mortality Rate	The post-neonatal mortality rate is the probability of a child exposed in a specific period on or after the age of 1 month but before reaching the age of 1 year, calculated as the difference between the infant mortality rate and the neonatal mortality rate.
Child Mortality Rate	The child mortality rate is the probability of a child exposed in a specific period dying on or after their first birthday but before reaching the age of five years.
Under-five mortality rate (U5MR)	The under-5 mortality rate is the probability (expressed as a rate per 1,000 live births) of a child exposed in a specific period dying before reaching the age of five years.
Maternal mortality ratio (MMR)	Expressed as maternal deaths per 100,000 live births. MMR is estimated as the number of maternal deaths divided by the live births in a year times 100,000.
One standard drink	Net alcohol content of a standard drink is approximately 10g of ethanol.
One fruit serving	One standard serving is equal to 80 grams - one medium size piece of fruits such as apple, banana, orange, etc, or ½ cup of chopped or cooked fruit (Fruit juice or canned fruit were excluded).
One vegetable serving	One standard serving is equal to 80 grams - one cup of raw green leafy vegetables such as lettuce, spinach, salad, etc, or 1 cup of other vegetables, cooked or chopped raw such as tomatoes, carrots, pumpkin, corn, Chinese cabbage, fresh beans, onion, etc (vegetable juice and tubers such as potatoes and cassava were excluded).



Annexure 1

National Steering Committee Members:

- 1. Hon'ble Health Minister, Chairperson
- 2. Acting Secretary, MoH
- 3. Director, Department of Macro-Fiscal and Development Finance
- 4. Director, Department of Local Governance and Disaster Management
- 5. Director/Specialist, National Statistics Bureau (NSB)
- 6. President, National Medical Services (NMS)
- 7. Director, DoPH, MoH
- 8. Director, DHS, MoH
- 9. Representative, The Pema
- 10. Chief Planning Officer, MoH

Co-opt members:

- 1. WHO Representative, WHO Country Office, Bhutan
- 2. Head of Office, UNFPA, Bhutan
- 3. Resident Representative, UNICEF, Bhutan
- 4. WFP Representative and Country Driector for Bhutan

The Terms of Reference of the National Steering Committee are as follows:

- 1. Provide policy clearance to proceed with the survey
- 2. Endorse survey implementation plan
- 3. Provide oversight, guidance, support, and directives for the survey
- 4. Endorse final report of the survey



Annexure 2

National Technical Working Group Members:

SI. No	Name	Designation/ Expertise	Agency	Primary Role
1	Tashi Penjor	СРО	PPD, MoH	TWG Chair
2	Mongal S Gurung	DCRO	PPD, MoH	Chief Survey Coordinator
3	Sonam Wangdi	DCPO	PPD, MoH	Survey Coordinator
4	Hari P Pokhrel	DCPO	DoPH, MOH	Nutrition & IDD
5	Pempa	DCLO	DHS, MoH	CET
6	Tashi Tshomo	SPO	DoPH, MoH	RH
7	Laigden Dzed	СРО	DoPH, MoH	NCD & STH
8	Tobgye Tobgye	Program Analyst	VDCP, MoH	Malaria
9	Dr Bikhram Chhetri	Psychiatrist	NMS	Mental Health
10	Dil Kumar Subba	SPO	The Pema Secretariat	Mental Health
11	Dr Karma Tenzin	Physiologist	KGUMSB	NCD Plus
12	Dorji Lethro	DCSO	NSB	Sampling
13	Tashi Dorjee	CSO	NSB	Demography
14	Dr Sonam Wangchuk	Specialist Head	RCDC, MoH	Lab Plus
15	Dr Tshokey	Microbiologist	NMS	Lab Plus
16	Vishal Chettri	DCLO	RCDC, MoH	Lab (IDD, Micronutrients & STH)
17	Tashi Choden	DCLO	NMS	Lab (Micronutrients & STH)
18	Dr Sonam Choden R	Biochemistry	KGUMSB	Lab (Micronutrients & STH)
19	Pema Dorji	SLT	NMS	Lab (Supplies & Micronutrients)
20	Kinley Gyem	DCLO	RCDC, MoH	Lab (STH)
21	Adeep Monger	DCLO	RCDC, MoH	Lab (IDD, Micronutrients & STH)

		Co-opt TWG Members	
1	Pema Lethro	National Professional Officer	WHO
2	Ugyen Wangchuk	National Professional Officer	WHO
3	Karma Tshering	Sexual and Reproductive Health and Family Planning Specialist	UNFPA
4	Jigme Choden	Gender and Youth Programme Specialist	UNFPA
5	Shahula Ahmed	Programme Specialist	UNICEF
6	Kinley Dorji	Health & Nutrition Officer	UNICEF




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