Annual Report of the Ministry of Health
1st Year of the 11th Five Year plan (2013-2014)

The first year of the 11th FYP plan saw the general election in 2013 where People's Democratic Party formed the new government. The Ministry of Health got its second parliamentary elected Minister Tandin Wangchuk. In this role, he has the vision to place health at the centre of all development policy and provide free healthcare as the birthright for every Bhutanese as stated by Constitution as well as the Party's manifesto.

The eleventh Five Year Plan of the health sector has the following objectives which are aligned to contribute towards attaining **Universal Health Coverage.**

i. Improve access to quality and equitable health services;
ii. Strengthen preventive, promotive, rehabilitative and palliative health services;
iii. Promote efficiency and effectiveness in financing and delivery of health services

This plan entails to undertake a systematic approach rather than programmatic approach as done in the past planning. Therefore, this plan has been categorized into five system areas, which has been based on the building blocks of health systems strengthening: i)Institutional Strengthening & Monitoring; ii) Medical Services; iii) Medicines, technologies and logistics; iv) Traditional Medicine and v) Public Health Services. Therefore, the progress of the Health Sector is summarized under the above five thematic areas.

1. INSTITUTIONAL STRENGTHENING AND MONITORING

The secretariat of the Ministry of Health, which includes Policy and Planning Division, Human Resource Division, Administration and Finance Division and Internal Audit Division provide all the secretarial support to the technical departments. The following policy initiatives and activities were implemented towards achieving better institutional strengthening and monitoring.

i) Biennial Health Conference

Ministry of Health conducted Biennial Health conference from 16th till 18th October, 2013. The conference was attended by district health officials including representatives of the district medical officers and officials from the Ministry. The main objectives of the conference were to discuss the progress of health related activities in all the 20 districts, to assess the achievements of the 10th Plan and subsequently initiate the cautious implementation of the 11th Plan, to design appropriate measures for enhancing and improving the health services in every aspect through lessons learnt and through other implementation experiences and to brief the participants on the new policies/guidelines/procedures etc.

ii) Strengthening of Monitoring and Evaluation

Efforts have been made to strengthen the monitoring and evaluation (M&E) system in the Ministry. A M&E core team was formed by drawing officials from departments and divisions. Policy and Planning Division (PPD) spearhead the M&E Unit along with the support from members of the core team. The M&E Unit will conduct periodic review and assessment of programmes and units in the Ministry assess socio-economic impact of policies, programmes and projects within the country and monitor and evaluate sector programmes. The unit will also identify areas to improve and review existing M&E mechanisms and if need be, formulate new M&E framework and guidelines. M& E Core Group will be functioning as the governing body where by the group will ensure that all activities are in line with the 11th FYP.

iii) Drafting of National Health Bill

The Ministry of Health launched the National Health Policy in July 2011 with the aim to provide comprehensive guidance, direction and policy reference point. With the growing complexities

in provision of health care and intrusion of the other entities into delivery of health care services in the country, the need to have a sound regulatory mechanism has been recognized. Therefore with technical support from World Health Organization (WHO), Ministry has initiated the drafting of National Health Bill. The draft skeletal framework of the bill has been completed. As a supplement to the National Health Policy 2011, the Health Act will strengthen the legal and regulatory framework for Health sector.

iv) Strengthening of BMHC and BHTF Secretariat

To improve the regulatory and financing functions, Bhutan Medical and Health Council (BMHC) and Bhutan Health Trust Fund (BHTF) were strengthened. The BMHC, as a regulatory agency governing all health professionals in Bhutan, have registered about 90% of health workers in the country. The remaining 10% , mostly foreign workers, are also being registered with the Council. The Council will be delinked from Ministry during the 11th FYP.

The BHTF coordinated the 'Move for Health Walk 2013' and was able to mobilize a sum of Nu. 9.54 million. BHTF web site was developed to facilitate online information dissemination to attract donors and to facilitate online donation. The Trust also released a sum of Nu. 4,533,100.00 equivalent to USD 71,500 as a co-financing with GAVI for the procurement of Pentavalent Vaccines, AD Syringes and Safety Boxes for the year 2014.
The Trust Fund will be delinked from Ministry during the 11th FYP.

v) Health Workforce Development

Currently, 185 doctors are working in various facilities in the country. 37 are Expatriates recruited from India, Cuba, Myanmar, Japan and Germany. 35 doctors are currently undergoing Postgraduate studies in various disciplines in Thailand, India, Sri Lanka and Bangladesh. At present, 14 Dzongkhags have three or more doctors deployed, 4 dzongkhags have two doctors

and two Dzongkhags have one doctor each. The nurse to bed ratio stands at 1:7 and aim to achieve 1:6 by the end of the plan period.

HRD also plan to initiate Early Retirement Scheme for the health staff, if they desire to resign from the service irrespective of categories/professions as an incentive for who served for a long duration.

vi) 2012 National Health Survey (NHS)

The 2012 NHS was implemented by the Ministry of Health in close collaboration with the National Statistical Bureau (NSB) with the following objectives:

- Provide reliable and population-based data, at the national, district and urban-rural levels, on priority health indicators
- Examine access to and utilization of health care services
- Assess childhood immunization coverage, Human Papilloma Virus vaccine coverage for 13 years old and maternal tetanus toxoid vaccination coverage
- Assess the prevalence of domestic violence against women by intimate and non-partners and women's attitude towards domestic violence
- Track progress of international health goals such as Millennium Development Goals

The survey has been completed and the report is currently being printed.

vii) Autonomy of JDWNRH

With the aim to facilitate management and improve operational efficiency, a concept paper on granting autonomy of JDWNRH has been drafted and process of autonomy has been initiated.

viii) Health Management and Information System

Recognizing sound, reliable and timely information as a foundation of all decision making process across all areas of health system, Ministry will be up-grading the current HMIS system to a web based system. The District Health Information System (DHIS 2), which is a web based

internationally recognized health management and information system for aggregated data, developed by the University of Oslow and supported by WHO will be implemented in Bhutan. Preliminary works on implementation has already been initiated and will be rolled over to all 20 districts during the 2nd year of the plan period. DHIS 2 Dzongkhag Level User training has been conducted from 21st till 27th April, 2014 where 21 relevant health data management personnel from districts attended the training.

ix) Health Sector ICT Masterplan

Recognizing that ICT would play a major role in ensuring healthcare resources are used more effectively and efficiently, a comprehensive Health Sector ICT Masterplan has been prepared. It will serve as the guiding document for all ICT initiative in health.

2. MEDICAL SERVICES

The overarching goal of the 'Medical Services' is to deliver quality medical services and increase access to all citizens of the country. Following initiatives and activities were undertaken to deliver quality medical services to the people.

i) Blood donation drive and Non-Communicable Disease Screening camp

Ministry of Health organized a week long Blood Donation Drive and Non-Communicable Disease Screening camp to commemorate the birth anniversary of His Majesty the King in February 2014. In total, 2418 people voluntarily came for Non-Communicable Disease screening and 1029 people donated blood. 366 people or 15% were found to be hypertensive and 43 were diagnosed to be diabetic. A total of 2,57,250 ml of blood was collected. The event also saw 1 person infected with HIV and 17 people with Sexually Transmissible Infection.

ii) Emergency Medical services

In line with the Government's commitment of providing two functional ambulances in each Dzongkhag hospital, all Dzongkhag hospitals today have at least two functional ambulances. A fleet of 107 functional ambulances equipped with GPS and GIS exists in the country today. Six new ambulances were received from His Holiness the Je Khenpo and allocated to 6 districts.

Mrs Sonam Zangmo who suffered from retained placenta during childbirth had to be referred to Thimphu immediately from Bumthang. The Ministry had to charter a Druk Air flight in the absence of helicopter services. Mr. Kinley Drukpa from lhedi, lunana, was evacuated in Helicopter to Thimphu after he was hit by the arrow. Five soldiers who were injured critically while disposing old outdated explosives at Haa were evacuated in Helicopter to JDWNRH, Thimphu.

iii) Expanding ICT-enabled health care services

In our efforts towards strengthening the ICT enabled Health care services, the Health Help Centre (HHC), which was launched in 2011, to overcome the shortage of doctors, nurses and paramedics faced by healthcare system, and also to improve the accessibility to healthcare professional, has made great progress in reaching the unreached sections of the population. It has enabled people to access the services of health professionals, through a toll free number (112), within one hour at anytime from anywhere so long as there is telephone/mobile network.

The Ministry has also strengthened Telemedicine programs in the country through the Bhutan Rural Telemedicine Project and SAARC Telemedicine Project. Today 14 health centers are equipped with telemedicine facilities but have not been fully functional. Ministry intends to make these 14 centers functional in the 2nd year of the plan period. Ministry has also initiated

telemedicine network with hospitals outside Bhutan. A pilot project with the Department of Radiology, JDWNRH with Bangkok hospital has been completed and plans to roll over to other departments. During the pilot phase, 20cases were reviewed. This has been initiated to facilitate in reduction of referral abroad. The Ministry also has plans to initiate telemedicine services with hospitals in India.

With the support of ADB, a pilot project has been initiated at Tang BHU to initiate telemedicine services with Wangdicholing hospital.

iv) Strengthening of patients' safety

Guidelines on patients' safety have been developed and implemented in all hospitals.

v) Diabetes care services established in all BHU I

As the cases of non-communicable diseases are increasing due to socio-cultural changes, diabetes clinics have been established in all Hospitals and BHUs for early detection and to create awareness on NCDs with particular focus on Diabetes.

vi) **Healthy aging- Geriatric Care**

Population above the age of 65 years is projected at 200,000 by 2020. The Ministry established Community based elderly care Program to address the need of the elderly population in the country and promote resourcefulness, productivity, vitality and happiness.

vii) Standardization of services

With the aim to deliver effective health service, standardization of services including Human Resources has been drafted for all levels of health facilities and will be finalized and implemented soon.

3. MEDICINES, TECHNOLOGIES AND LOGISTICS

Adequate stock of medical supplies like medicines, equipments and machines are necessary for providing effective and efficient health services to the people. The following initiatives were taken to strengthen proper planning and co-ordination to ensure adequate and availability of up to 95 % of essential medicines at any point of time, maintain sufficient stock of essential medicines and encourage rational use of medicines and technologies to reduce wastage.

i) Creation of the Department of Medical Supplies and Health Infrastructures

Recognizing access to medicines as a key component in achieving Universal Health Coverage and to strengthen coordination between the units towards improving efficiency and effectiveness in implementing the National Drug Policy, the government approved the creation of the Department during the 10^{th} plan. During the first year of 11^{th} plan, a new director was appointed and the Department became fully operational. The rationale for creation of a separate department was to draw up a focused mandate towards ensuring adequate and un-interrupted supply of drugs, vaccines and equipments in the health facilities. After the creation of the Department, stock out of drugs and essential medicines was not reported for the past six months. The following divisions and units are under the Department:

a. Medical Supplies and Procurement Division:
b. Bio-Medical Engineering Division
c. Medical Store and Distribution Division
d. Health Infrastructure Development Division

ii) Construction of Health Infrastructures

Three 10th FYP spillover projects funded by the Government of India (150 bedded Gelephu Regional Referral Hospital, 40 bedded Samtse District Hospital and Public Health Lab) are progressing well. Two RGoB funded projects (Therapy Unit of ITMS and Medical Supply Depot store) are nearing completion with bridge, road and drain works ongoing. Drawing and design for Tsirang Hospital, Detox Centre and Menjong Sorig Pharmaceutical have been completed and construction will be initiated during the 2nd year of the plan.

4. TRADITIONAL MEDICINE

The Ministry of Health envisages integration of traditional medicine with the modern health care system with nation's rich bio-diversity and proven medical qualities of plants. The following initiatives were undertaken to streamline traditional medicine services and expand coverage of traditional medicines services to unreached rural population.

i) Up-gradation of Traditional Medicine Division to Department

During the 10th FYP, the government endorsed the up-gradation of Traditional Medicine to Department with the aim to strengthen and expand the traditional medicine services in a sustainable manner. The up-gradation was fully operational with the appointment of director to head the Department during the first year of the 11th FYP.

ii) Biennial Traditional Medicine Conference

Traditional Medicine Conference was attended by Director General (DMS), Director General (DTMS), representatives from NITM, DVED, DTMS and respective traditional medicines units from Districts and BHUs. The progresses of the Department, challenges faced by the Department and way forward were discussed at the conference.

iii) Development of centralized system for traditional medicine morbidity and activity in Dzongkha

To facilitate disseminating sound, reliable and timely information to make right decision, a centralized management information system for reporting traditional medicine morbidity and activity has been developed in Dzongkha.

5. PUBLIC HEALTH SERVICES

The Department of Public Health has the mandate to deliver timely and quality public health services and to assure and protect the health of the people through promotive, preventive and rehabilitative services. The Department aims to build a healthy and happy nation through sustained provision of quality public health services within the broader framework of overall national development in the spirit of social, justice, and equity.

Following are some of the major progresses that took place in the last one year:

i) Health related Millennium Development Goals

MDG 4: Reduce Child Mortality

Bhutan is on track of achieving the targets. The Infant Mortality Rate (IMR) has been reduced to 30 per 1000 live births (NHS 2012) as compared to 60.5 in 2000 (NHS 2000). The Under Five Mortality Rate (U5MR) has been reduced to 37.3 per 1000 live births (NHS 2012) as compared to 84 in 2000 (NHS 2000). Immunization coverage has been sustained over 95%.

MDG 5: Improve Maternal Health

The maternal mortality rate (MMR) has been reduced to 86 per 100000 live births (NHS 2012) as compared to 255 in 2000 (NHS 2000). Percentage of births attended by skilled attendants has increased to 73.8 % in 2012 (NHS 2000) as compared to 23.6 % in 2000 (NHS 2000).

MDG 6: Halted by 2015 and begun to reverse the spread of HIV/AIDS, Malaria and Tuberculosis

Ministry is working towards meeting the targets related to Tuberculosis and Malaria, with TB incidence of 158 per 100000 in 2012 and 1 malaria case per 10,000 populations. With the gradual increase in HIV cases detected from 38 cases in 2000 to 321 in 2013, Ministry will continue to detect more cases due to the epidemiological profile of HIV.

ii) Polio-free region certification

The last case of clinically compatible polio in Bhutan was reported in 1986. Since then the country has remained free of any case of wild poliovirus. This achievement can be attributed to the commitment of the Royal Government, unwavering support of our developing partners and the efforts of our health workers in implementing the vaccination program against polio. The entire South-East Asia Region of the World Health Organization has been certified as polio-free region on 27th March, 2014 at New Delhi.

iii) Non- Communicable Diseases (NCD)

Recognizing the increasing burden of non-communicable diseases in the country, a nationwide NCDs STEPs Survey has been carried out from1st April and will be completed by 31st May 2014. The analysis of results is expected to be completed within this financial year and action plan for targeted interventions will be developed and rolled out to all 20 dzongkhags according to the findings of the survey.

In line with the global action plan on NCD, Bhutan has developed the National Action-Plan on NCD and costing of National Action-Plan is under progress. Cost Effective Analysis on WHO Package of Essential NCDs (PEN) which was piloted in 2 Dzongkhags has been completed. The intervention will now be rolled over to all 20 Dzongkhags.

iv) Development of National Health Promotion Plan and strategy

The Health Promotion Division, Department of Public Health, has initiated development of National Health Promotion Plan and Strategy (NHPPS). The main objective is to develop feasible and effective National Health Promotion Plan and Strategy based on "Health in All Policies". The NHPPS would provide the policy and strategic directions for undertaking health promotional activities both within the health sector and across other government and private sectors and civil society organizations.

v) High level stakeholders' consultation on Nutrition

A high level stakeholders' consultation on nutrition was held at Taj Tashi on March 24th 2014 which was attended by the Prime Minister, Minister of Health, Parliamentarians, Development Partners, representatives from various Government agencies and NGOs. The aim of the consultation was to inform the leaders on the nutritional problems in the country and develop a system wide vision and roadmap to improve the nutrition in the country and to garner political support for a paradigm shift to invest in nutrition. The Ministry has also initiated a study on peripheral neuropathy.

vi) Improving maternal and child health services

The National Child Health Strategy (NCHS), 2014 – 2018, the first comprehensive child health strategy, has been developed.

The Health workers manual on Care 4 Child Development has been adopted and it will be rolled out to Basic Health Units (BHUs) and Community Health Units (CHUs) in Hospitals by the end June 2014.

Postnatal Care home visits have been piloted to study the impact of postnatal home visit by health care providers on maternal and child health outcomes in three selected districts. The project interventions included making one PNC visit as soon as possible within three days after delivery for home delivery and within 3-7 days after delivery for facility based delivery. The PNC home visit is now being expanded to all 20 districts.

viii) International Health Regulations

In order to strengthen the implementation of IHR in the country, Communicable Disease Division (CDD) was designated as the new National Focal Point (NFP) for IHR implementation by Ministry of Health. A high level Coordination and Sensitization Meeting was also conducted successfully to foster support in implementation of IHR activities in the country.

ix) Introduction of STI/HIV testing services at the BHUs

Until recently, HIV testing facilities were available only up to the hospitals (Referral and District) and stand alone Voluntary Counseling and Testing (VCT) sites (Health Information and Service Centers) in Phuntsholing, Thimphu, Gelephu and S/Jongkhar). Now, new community-based approaches are developed to better serve people who otherwise lack ready access to HIV Testing and Counseling (HTC). Community-based approaches may offer the greatest potential for progress toward universal access to HTC, which, in turn, supports universal access to treatment and prevention. Introduction of testing services at BHUs will offer easier access to people to undergo the tests which will facilitate early detection of infections and management.

x) **High Level advocacy for policy makers on health needs and actions related to climate change**

A high level advocacy on health needs and actions related to climate change was held in Thimphu. The meeting was attended by ministers, parliamentarians, developing partners, stakeholders and officials from government agencies and NGOs. The objective of the meeting

was to inform and sensitize the policy makers on climate change and its effects on health and to garner political support from the politicians.

xi) Rural Water, Sanitation and Hygiene

- Access to improved sanitation facility is 67.7% (NHS 2012). The low coverage of sanitation is due to the definition of improved sanitation coverage. NHS 2012 has followed the definition of WHO/UNICEF Joint Monitoring Programme, which segregates pit latrines with slab and without slab. It categorizes pit latrine without slab as unimproved sanitation facility.

- Access to safe drinking water is 97.7% (NHS 2012). However this does not take into account the functionality of the schemes which might be lower than what it is reported. In order to get correct information, new study will be conducted during the second year of the plan.

- To further facilitate in improving access to safe sanitation and hygiene, the Rural Sanitation and Hygiene Policy has been drafted.
- In line with the Water Act, Public Health Laboratory is in the process of developing a system of monitoring drinking water quality for both urban and rural areas including the roles of different stakeholders.
- The Ministry initiated a project on reviving drying water source at Khamdang and Thedtsho Gewogs in TashiYangtse using spring shed development approach through rainwater harvesting and geohydrology techniques.

xii) Improving Tuberculosis (TB) case detection and Management

In order to enhance the TB case detection and management, the Ministry has introduced the Line Probe Assay (LPA) Technology, an advanced technology to rapidly diagnose Multi-Drug

Resistant Tuberculosis (MDR-TB) at the Public Health Laboratory. LPA can diagnose MDR-TB within 3 days from fresh sputum samples as compared to conventional methods which takes around 3-4 months. This will enable early diagnosis of MDR-TB and prompt initiation of treatment, and will help reducing transmission of the disease in the community which is key for TB control.

6. CHALLENGES

i) Delivering Quality Health Care

The public expectation for quality health care is viewed against the five-star private hospitals. In addition, the easy availability of un-validated information from the net with the ever increasing literate population is forcing the public health system adapt to the latest medical technologies and medical procedures. Such adaptations may not necessarily be cost effective and efficient in service delivery. On the other hand there is no standard health services package developed at all levels of service delivery and standard operating procedures for most of the services and procedures needs to be developed. In absence of such standards, it is very difficult or near impossible to measure the quality of health care delivery.

ii) Health Human Resource:

Health is a human resource intensive sector and therefore need to consider human resource as an investment. However Bhutanese Health System suffers from acute shortage of all categories of health personnel.

The training for most categories of health workers and especially for doctors is very long and very expensive. In addition Bhutan does not have training institute for churning out most categories of health workers. And in the region, there are only few health training institutes and it is very difficult to secure slots in those training institutes of repute.

Therefore we will continue to face health human resource shortage in the 11th Five Year Plan with the need to expand health services, though consolidation of health infrastructure would be a strategic area of focus.

With the increasing urbanization, deployment of health personnel to rural areas will become an issue that was once unheard. Workload, remuneration, and many other factors need to be looked beyond Civil Service norms before health human resource becomes a liability.

iii) Non-Communicable Diseases (NCDs):

NCDs is already establishing its stronghold with sedentary lifestyle, traditionally high-fat based dietary habit and consumption of alcohol and tobacco. Consequently, diabetes, hypertension, cancers and traffic injuries are on the rise. Besides the profound implication on the quality of life of individuals, families and society at large, the cost of treating patients with NCDs is often exorbitant. We would need to intensify our efforts on health promotion, multi-sectoral response to NCDs and ensuring health is considered as a critical component in all policies.

Selected NCD and Cost Per Unit

Non-Communicable Diseases seen in Bhutan from 2007-2011						Disease Specific cost per admission JDWNRH Cost 2009/2010 (Nu.)
Disease Names	**2007**	**2008**	**2009**	**2010**	**2011**	
Diabetes	1732	2541	2605	3275	3740	Nu. 28,760.00
Cancers	841	685	1147	1041	980	Nu. 24,405.00
Alcohol Liver Diseases	1471	1329	1602	1943	2050	Nu. 20,648.00
Mental Illnesses	**1804**	**2012**	**1953**	**2878**	**2570**	Nu. 28,439.00
Hypertension	19347	20347	21177	23853	23051	Nu. 24,336.00

Source: Annual Health Bulletin 2012; The Cost of Your Healthcare 2009-2010, MoH

iv) HIV/AIDS, TB, Malaria and Neglected Tropical Diseases (NTDs)

The HIV/AIDS cases have increased 38 cases in 2000 to 321 in 2013. The expansion of economic activities especially the hydro power sector and casual attitude of Bhutanese population towards sex is a major challenge in the battle against HIV/AIDS. The TB case detection and

treatment is progressing well. However Multi Drug Resistant (MDR) TB, and HIV-TB co-infection is increasing. The impact of climate change is already becoming visible with the malaria cases been detected in areas that were once unknown. Although Bhutan is going all out to eliminate malaria, cross borders transmission is still an issue. Dengue, chikengunya outbreaks have been reported, isolated cases of Kala-azahar are reported and suspected to have Japanese Encephalitis.

v) Maternal and Child Health

Tremendous progress has been made in the field of mother and child health. However, performance on certain indicators such as MMR, as compared to other countries in the region and relative to health spending is still a cause of concern. Nearly two-fifth of deliveries is still attended by medically untrained personnel, increasing the risk of maternal and neonatal death. Infant death and especially the neonatal death is one of the highest death occurring within the health facilities. There is a need to invest heavily to prevent such deaths.

vi) Nutrition

The general nutritional status of the people has been improving over the decade. While malnutrition indicators like underweight prevalence and wasting have improved, stunting prevalence of 33.5% still remains as a major public health issue. In addition, anemia prevalence in women and children are quite alarming with 54.8% and 80.6% respectively. Bhutan has also been experiencing sporadic outbreaks of vitamin deficiencies, particularly Vitamin B1 and B12 since 1998, and occurrences have been recorded almost every year. There is a need to put in coordinated efforts among Health, Agriculture and Education and Economic Sectors to improve the nutritional status.

vii) Sustainable Healthcare Financing

The constitution mandates the state to provide free health care ensuring the global commitment to universal health coverage is achieved. Currently the government budget outlay for health is around 6% and total health expenditure as percent of GDP is 3.6%. Global health

experts recommend for a country like Bhutan there is a need to spend around 5% of the GDP and about 8% of the total government budget on health to ensure that quality health care services are provided.

viii) Geographical terrain

Bhutan's difficult geographical terrain and scattered population continue to pose challenge in the move towards providing universal quality services.

ix) Health impacts of climate change

Climate change poses a major, and largely unpredictable, challenge. Besides the risk to properties and human lives from frequent flashfloods, Glacial Lake Outburst Flood and landslides, significant public health vulnerabilities exist in the form of wider spread of vector borne tropical diseases, waterborne illnesses and malnutrition. Besides, the scarcity and drying up of water sources present significant challenges in our move towards universal coverage of safe drinking water.

x) Urbanization

By 2020, it is projected that more than 50 percent of the population in Bhutan will be living in urban areas. Urbanization leads to overcrowding, sanitation issues and deterioration of air and water quality thereby adversely impacting health. Diseases transmitted through respiratory and fecal-oral routes such as tuberculosis, rheumatic heart diseases and helminthic infections will be more frequent. Further, the stress of living with limited privacy contributes to the rates of intentional injuries, both suicide and homicide, and to mental illness in general. Air pollution would assume major role in morbidity and mortality.

Summary of major health outcomes and indicators

Millennium Development Goals (Health)					
Goals	**Indicators**	**2000**	**2007**	**2010**	**2012**
Goal 1: Eradicate Extreme Hunger and Poverty	1.Prevalence of underweight children under five years of age	17%	11.1%(2008)	12.7%	9%
	2. Prevalence of stunting		37%(2008)	33.5%	-
	3. Prevalence of wasting		4.6%(2008)	5.9%	-
Goal 4: Reduce Child Mortality	1.Under-5 Mortality (per 1,000 live births)	84	60.1	69	37.3
	2.Infant Mortality Rate (per 1,000 live births)	60.5	40	47	30
	3.Proportion of 1 year-old children immunized against measles	85%	90%	94.5%	-
Goal 5: Improve Maternal Health	1.Mortality Ratio (per 100,000 live births)	255	-	-	86
	2.Percentage of births by the skilled attendants	24	53.6	69.5	73.8
Goal 6: Combat HIV/AIDS, Malaria and other diseases	1.HIV case detected	38	144	246	270
	2.TB cases per 100,000	168	150	191	176
	3.Malaria incidence per 10,000	87	16	7	1
Goal 7: Ensure Environmental Sustainability	1.Percentage of population with access to safe drinking water	78	82	88	98
	2.Percentage of population having access to sanitation (excreta disposal)	90	91	93	68