

## **Terms of Reference for Active Surveillance of Vaccine Preventable Diseases**

### **Context**

Bhutan remained polio-free since 1986 and received polio-free certification in 2014. Subsequently, Bhutan eliminated neonatal tetanus in 2016, measles in 2017, and rubella in 2023. However, the risk of importing these diseases remains a pressing concern. Effective surveillance systems are indispensable in identifying, containing, and mitigating the spread of these diseases to reduce their impact on public health and prevent outbreaks.

The main objective of this protocol is to ensure that surveillance is implemented uniformly across all surveillance sites and sustain the eradication and elimination status of the aforementioned diseases through a robust surveillance system.

### **Terms of Reference**

1. The surveillance officers must visit the surveillance sites quarterly and/or monthly as per the assigned hospital (**Annexure 1**).
2. Inform the concerned hospital head about your visit dates in advance.
3. Brief hospital head about the purpose of the visit.
4. Visit the medical record session and review the total OPD attendees and IPD admissions to review if the list of diseases or syndrome as per the surveillance cases definition have been detected and reported (**Table 1**).
5. Visit the IPD (different wards) and check the IPD register for the last three months/one month (based on your visit frequency) to check for any suspected cases of AFP, MR, CRS, and NT.
6. Discuss with the in-charges of the departments/units to gather more source of information.
7. Visit MCH and check the maternal and child health register for MR cases and AEFI cases.
8. Visit the Laboratory Department to confirm if samples of suspected cases are collected and shipped to reference lab in RCDC on time.
9. For CRS - In addition to the above, visit the Ophthalmology and ENT unit, Paediatric, Medical, and Gynaecology wards.
10. Verify all the gathered information with the head of the hospital or the relevant departments.

11. Debrief the hospital head and relevant staff about the findings and recommend a follow up action plan with a specified time frame.
12. Submit the complete report to the Vaccine Preventable Disease Program within two days of visit (**Annexure 2**).

**Table 1:** List of prioritized VPDs and surveillance case definition for active surveillance

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| <p><b>Measles and Rubella suspected case</b>– A patient with acute fever and maculopapular (non-vesicular) rash, or a patient whom a health-care worker suspects has measles or rubella irrespective of the age.</p> <p><b>CRS suspected case:</b> Any infant less than 1 year of age in whom a health worker suspects CRS, usually in an infant 0-11 months old who presents with heart disease and/or suspicion of hearing impairment and/or one or more of the following eye signs (cataracts, congenital glaucoma, pigmentary retinopathy) or infant’s mother has a history of suspected or confirmed rubella during the pregnancy, even when the infant shows no signs of CRS.</p> <p><b>AFP suspected case:</b> Any child under 15 years of age with AFP (including Guillain-Barré syndrome, Transverse myelitis, Flaccid hemiplegia, traumatic neuritis, Facial palsy) or any person of any age with paralytic illness.</p> <p><b>Neonatal tetanus suspected case:</b> Any neonatal death between 3 and 28 days of age in which the cause of death is unknown, or any neonate reported as having suffered from neonatal tetanus between 3 and 28 days of age and not investigated. The date of onset of NT should be considered as the date of onset of inability to suck.</p> |
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**Annexure 1: Surveillance sites and surveillance officers**

| Sl. No. | Dzongkhag     | AFP Surveillance site        | Focal Surveillance Officer               | Frequency of visits |
|---------|---------------|------------------------------|--|---------------------|
| 1       | Bumthang      | Wangdicholing Hospital       | Trongsa CMO/MO in-charge                 | Quarterly           |
| 2       | Chhukha       | <b>Phuntsholing Hospital</b> | <b>Gedu CMO- Dr. Abi Narayan Pradhan</b> | <b>Monthly</b>      |
|         |               | Tsimalakha Hospital          | Gedu CMO- Dr. Tej Nath Nepal             | Quarterly           |
|         |               | Gedu Hospital                | MS Phuntsholing Hospital                 | Quarterly           |
| 3       | Dagana        | Dagapela Hospital            | Tsirang CMO/MO in-charge                 | Quarterly           |
| 4       | Gasa          | Gasa Hospital                | Punakha CMO/MO in-charge                 | Quarterly           |
| 5       | Haa           | Haa Hospital                 | Paro CMO/MO in-charge                    | Quarterly           |
| 6       | Lhuentse      | Lhuentse Hospital            | MS ERRH                                  | Quarterly           |
| 7       | Monggar       | <b>ERRH, Monggar</b>         | <b>Trashigang Pediatrician</b>           | <b>Monthly</b>      |
| 8       | Paro          | Paro Hospital                | JDWNRH Pediatrician                      | Quarterly           |
| 9       | Pemagatshel   | Pemagatshel Hospital         | Deothang CMO/MO in-charge                | Quarterly           |
|         |               | Nganglam Hospital            | Pemagatshel CMO/MO in-charge             | Quarterly           |
| 10      | Punakha       | Punakha Hospital             | Wangdue CMO/MO in-charge                 | Quarterly           |
| 11      | S/Jongkhar    | S/jongkhar Hospital          | Riserboo CMO/MO in-charge                | Quarterly           |
|         |               | Jomotsangkha Hospital        | S/Jongkhar CMO/MO in-charge              | Quarterly           |
|         |               | Deothang Hospital            | S/Jongkhar CMO/MO in-charge              | Quarterly           |
| 12      | Samtse        | <b>Samtse Hospital</b>       | <b>Phuntsholing Pediatrician</b>         | <b>Monthly</b>      |
|         |               | Gomtu Hospital               | Samtse CMO/MO in-charge                  | Quarterly           |
|         |               | Tashichholing Hospital       | Samtse CMO/MO in-charge                  | Quarterly           |
| 13      | Sarpang       | <b>CRRH, Gelephu</b>         | <b>Sarpang CMO/MO in-charge</b>          | <b>Monthly</b>      |
|         |               | Sarpang Hospital             | MS CRRH                                  | Quarterly           |
| 14      | Thimphu       | <b>JDWNR Hospital</b>        | <b>Dr. Yowaan Thapa</b>                  | <b>Monthly</b>      |
|         |               | Gidakom Hospital             | Dr. Dhruptob Sonam                       | Quarterly           |
|         |               | Lungtenphu Military Hospital | JDWNRH Pediatrician                      | Quarterly           |
| 15      | Trashigang    | Trashigang Hospital          | Mongar Pediatrician                      | Quarterly           |
| 16      | Trashiyangtse | Trashiyangtse Hospital       | Trashigang Pediatrician                  | Quarterly           |
|         |               | Khamdang Hospital            | Trashiyangtse CMO/ MO in-charge          | Quarterly           |
| 17      | Trongsa       | Trongsa Hospital             | Bumthang CMO/Mo in-charge                | Quarterly           |
| 18      | Tsirang       | Damphu Hospital              | CRRH Pediatrician                        | Quarterly           |
| 19      | Wangdue       | Wangdue Hospital             | Punakha CMO/MO in-charge                 | Quarterly           |
| 20      | Zhemgang      | Yebilaptsa Hospital          | Zhemgang MO in-charge                    | Quarterly           |
|         |               | Panbang Hospital             | Nganglam MO In-charge                    | Quarterly           |
|         |               | Zhemgang Hospital            | Yebilaptsa MO in-charge                  | Quarterly           |

**Annexure 2**

**Monthly/Quarterly Active Surveillance for Cases of Acute Flaccid Paralysis, Measles, Rubella, Congenital Rubella Syndrome and Neonatal Death: Report Form**

Name of the Hospital:..... -

Visit Month/Quarterly: .....

**General information**

- Total population of hospital catchment area: .....
- Number of deaths under 5: .....
- Total Admission – this month/quarter: .....
- Total OPD attendance – this month/quarter: .....

**Acute flaccid paralysis (AFP)**

- Total under 15 admissions – this month/quarter: .....
- How many suspected AFP cases reported: .....
- Any suspected AFP case missed: .....
- Reasons for being missed: .....
- Action taken for the missed case (s): .....

**Measles and Rubella**

- How many Measles & Rubella suspected cases reported: .....
- How many Measles or Rubella confirmed case investigated: .....
- Any Measles or Rubella suspected case missed: .....
- Reasons for being missed: .....
- Action taken for the missed case (s): .....

**Congenital rubella syndrome (CRS)- Only for 5 sentinel sites**

- Total Admission (0 - 11 months): .....
- How many CRS suspected cases reported: .....

- Any CRS suspected case missed: .....
- Reason for being missed: .....
- Action taken for the missed case (s): .....

**Neonatal Death**

- How many neonatal deaths reported: .....
- How many neonatal death cases investigated: .....
- List the cause of the neonatal death: .....
- Any maternal and neonatal tetanus reported: .....

**Adverse Event Following Immunization**

- How many serious AEFI cases reported: .....
- Type of vaccines: .....
- How many serious AEFI cases investigated: .....

*(Note: Refer AFP, Measles, Rubella, CRS and Maternal & Neonatal Tetanus (MNT) surveillance and AEFI guidelines)*

**Observations on VPD’s surveillance implementation**

**Recommendations**

Date of active Surveillance

Name & Signature of the official contacted

Name & Signature of the surveillance officer

Monthly/quarterly

