# CHAPTER-6

# MATERNAL AND CHILD CARE, CANCER AND HIV/ AIDS CARE

# Chapter - 6: Maternal and Child Care, Cancer and HIV/ AIDS Care

***Adequacy of healthcare services relating to maternal and infant care***

## 6.1 Maternal and Child Health

Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period, whereas prenatal health refers to health from 22 completed weeks of gestation until seven completed days after birth. New born health is the babies' first month of life. A healthy start during the prenatal period influences infancy, childhood and adulthood[18].

### 6.1.1 MMR and IMR (State Level)

Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR) are important indicators of the quality of maternal and child care services available and is one of the most sensitive index of quality of maternal and new born care. The goal set forth by the State Government in its State Programme Implementation Plan 2014-17 was to reduce MMR from 76 (2013) to less than 60 by 2017 and to reduce IMR from 35 (2013) to less than 30 by 2017.

Trends of Maternal Mortality Rate and Infant Mortality Rate in Mizoram for the period 2014-19 are given in table-6.1:

**Table-6.1: Trends of MMR and IMR of Mizoram during 2014-19**

| Year | No. of reported live births | No. of reported maternal death | No. of reported infant death | MMR (of one lakh live births) | IMR (of 1,000 live births) |
|---|---|---|---|---|---|
| 2014-15 | 21,819 | 19 | 821 | 87 | 38 |
| 2015-16 | 19,945 | 21 | 449 | 105 | 23 |
| 2016-17 | 19,251 | 20 | 398 | 103 | 21 |
| 2017-18 | 19,393 | 19 | 390 | 98 | 20 |
| 2018-19 | 19,289 | 26 | 340 | 135 | 18 |

*Source: HMIS data of Mizoram*

From the table above, it can be seen that MMR of the State showed a fluctuating trend during 2014-19 with the MMR increasing to 135 in 2018-19 from 87 in 2014-15. The State Government has not been able to achieve the target for reduction of MMR and the steep jump in 2018-19 merits appropriate policy and programme interventions. The State Government attributed the increase in MMR to four main factors namely, poor health behaviour, late Absolute Neutrophil Count (ANC) check-ups, floating population in international border areas and difficult terrain and poor connectivity especially in monsoons.

IMR showed a decreasing trend and had come down from 38 per 1,000 live births in 2014-15 to 18 per 1,000 live births in 2018-19. The State Government was able to reduce IMR much lower than the target.

[18] According to World Health Organisation (WHO)

### 6.1.2 MMR and IMR in test checked DHs

Audit of three sampled DHs was taken up to assess the condition of Maternal and Child care services. Being the secondary level Health facility, it is imperative for DH to have facility tending to complicated cases as well as referral cases. The trends of MMR and IMR of test checked three sampled DHs during 2014-19 are given in table-6.2:

**Table-6.2: Trends of MMR and IMR test checked three sampled DHs during 2014-19**

| Year | Aizawl CH | | | Champhai DH* | | | Lawngtlai DH | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of live births including CS** | No. of infant death (IMR in parenthesis) | No. of Maternal Death (MMR in parenthesis) | No. of live births including CS | No. of infant death (IMR in parenthesis) | No. of Maternal Death (MMR in parenthesis) | No. of live births including CS | No. of infant death (IMR in parenthesis) | No. of Maternal Death (MMR in parenthesis) |
| 2014-15 | 5,837 | 165 (28.27) | 2 (34.26) | 894 | 19 (21.25) | 0 (0.00) | 315 | 22 (69.84) | 0 (0.00) |
| 2015-16 | 5,412 | 107 (19.77) | 2 (36.95) | 898 | 18 (20.04) | 1 (111.36) | 437 | 17 (38.90) | 0 (0.00) |
| 2016-17 | 5,270 | 114 (21.63) | 6 (113.85) | 736 | 7 (9.51) | 0 (0.00) | 326 | 14 (42.94) | 2 (613.50) |
| 2017-18 | 5,284 | 85 (16.09) | 1 (18.93) | 782 | 19 (24.30) | 1 (127.88) | 466 | 7 (15.02) | 0 (0.00) |
| 2018-19 | 5,067 | 84 (16.58) | 3(59.21) | 837 | 13 (15.53) | 1 (119.47) | 458 | 6 (13.10) | 2 (436.68) |
| **Total** | **26,870** | **555** | **14** | **4,147** | **76** | **3** | **2,002** | **66** | **4** |

*Source: Records of test checked DHs*

** Data in respect of Maternal deaths in Champhai DH are available from January 2015 only*

*** Cesarean section*

It can be seen from table above that:

- All the sampled DHs showed a declining IMR trend during 2014-15 to 2018-19. In 2018-19, IMR in all the sampled DHs were lower than the State's IMR of 18 per 1,000 live births; and
- Champhai achieved zero MMR in 2014-15 and 2016-17 while Lawngtlai DH achieved zero MMR in 2014-15, 2015-16 and 2017-18.

### 6.1.3 Pregnancy outcomes

With a view to gauge the quality of maternity care provided by the hospitals, Audit test-checked the pregnancy outcomes in terms of live births, stillbirths and neonatal deaths pertaining to 2014-19, as discussed below:

Stillbirth or intrauterine foetal death is an unfavourable pregnancy outcome and is defined as complete expulsion or extraction of baby from its mother where the foetus does not breathe or show any evidence of life, such as heartbeat or a cry or movement of the limbs[19]. World Health Organisation defines Stillbirth for international comparison as a baby born with absolutely no signs of life at or after 28 weeks of gestation. The stillbirth rate is a key indicator of quality of care during pregnancy and childbirth.

It was seen in Audit that stillbirth rate of three test-checked DHs during 2014-19 ranged between 0.81 and 1.43 *per cent* as given in table-6.3:

[19] As per operational guidelines for establishing sentinel stillbirth surveillance system 2016 (MH&FW, GoI)

**Table-6.3: District Hospital wise Stillbirths during 2014-19**

| Year | Aizawl CH | | | Champhai DH | | | Lawngtlai DH | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total Deliveries | No. of Live births (*per cent*) | No. of Still Births (*per cent*) | Total Deliveries | No. of Live births (*per cent*) | No. of Still Births (*per cent*) | Total Deliveries | No. of Live births (*per cent*) | No. of Still Births (*per cent*) |
| 2014-15 | 5,866 | 5,837 (99.51) | 29 (0.49) | 903 | 894 (99.00) | 9 (1.00) | 318 | 315 (99.06) | 3 (0.94) |
| 2015-16 | 5,453 | 5,412 (99.25) | 41 (0.75) | 914 | 898 (98.25) | 16 (1.75) | 445 | 437 (98.20) | 8 (1.80) |
| 2016-17 | 5,314 | 5,270 (99.17) | 44 (0.83) | 742 | 736 (99.19) | 6 (0.81) | 331 | 326 (98.49) | 5 (1.51) |
| 2017-18 | 5,334 | 5,284 (99.06) | 50 (0.94) | 794 | 782 (98.49) | 12 (1.51) | 471 | 466 (98.94) | 5 (1.06) |
| 2018-19 | 5,123 | 5,067 (98.91) | 56 (1.09) | 842 | 837 (99.41) | 5 (0.59) | 466 | 458 (98.28) | 8 (1.72) |
| **Total** | **27,090** | **26,870 (99.19)** | **220 (0.81)** | **4,195** | **4,147 (98.86)** | **48 (1.14)** | **2,031** | **2,002 (98.57)** | **29 (1.43)** |

*Source: Records of test-checked DHs*

It can be seen that the three test checked DHs were able to contain stillbirth rate below two *per cent* during the five-year period.

**Neonatal deaths:** Neonatal death is death during the first 28 days of livebirth delivery. Neonatal death rate is also an indicator of quality of maternity and newborn care services. Maternal and NewBorn Health Toolkit, 2013 requires hospitals to record the number of neonatal deaths per month with causes of such deaths in the labour room register.

Status of neonatal deaths in the test checked DHs during 2014-19 are given in table-6.4:

**Table-6.4: Position of neonatal deaths in the test-checked DHs during 2014-19**

| Year | Aizawl CH | | Champhai DH | | Lawngtlai DH | |
|---|---|---|---|---|---|---|
| | No. of Infant deaths | No. of neonatal death cases (percentage) | No. of Infant deaths | No. of neonatal death cases (percentage) | No. of Infant deaths | No. of neonatal death cases (percentage) |
| 2014-15 | 165 | 71 (43.03) | 19 | 5 (26.32) | 22 | 2 (9.09) |
| 2015-16 | 107 | 66 (61.68) | 18 | 7 (38.89) | 17 | 5 (29.41) |
| 2016-17 | 114 | 85 (74.56) | 7 | 3 (42.86) | 14 | 4 (28.57) |
| 2017-18 | 85 | 68 (80.00) | 19 | 8 (42.11) | 7 | 3 (42.86) |
| 2018-19 | 84 | 72 (85.71) | 13 | 8 (61.54) | 6 | 3 (50.00) |
| **Total** | **555** | **362 (65.23)** | **76** | **31 (40.79)** | **66** | **17 (25.76)** |

*Sources: Records of test-checked DHs*

As can be seen from the table above that neonatal death cases were 65.23 *per cent* of IMR in Aizawl CH, 40.79 *per cent* in Champhai DH and 25.76 *per cent* in Lawngtlai DH during the five-year period. Further, percentage of neonatal deaths showed an increasing trend in all the sampled DHs. The percentage of neonatal deaths increased from 43.03 to 85.71, 26.32 to 61.54 and 9.09 to 50 in Aizawl CH, Champhai DH and Lawngtlai DH respectively during 2014-15 to 2018-19. This indicates that neonatal death was one of the main contributors of IMR.

### 6.1.4 Intra-partum Care

Intra-partum Care includes care of pregnant woman during intra-partum period (the time period spanning childbirth from the onset of labour). Proper care during labour saves not only mothers and their newborn babies, but also prevents stillbirths, neonatal deaths and other complications. The quality of Intra-partum Care is largely affected by availability of essential resources and clinical efficiency of the medical and paramedical staff. A summarised position of availability/ non-availability of some of the basic facilities in the DHs are given in table-6.5:

**Table-6.5: position of availability/ non-availability of some of the basic facilities in the DHs**

| Basic Facilities | District Hospital | | | Remark |
|---|---|---|---|---|
| | Aizawl CH | Champhai DH | Lawngtlai DH | |
| Intensive Care Unit | Available | Not available | Not available | ICU facility was inaugurated at Champhai DH in November 2019. As per IPHS, ICU is a desirable facility for 31 to 100 bedded hospital |
| Blood Bank | Available | Available | Available | |
| Eclampsia Room | Available | Available | Available | |
| Septic Room | Available | Available | Available | |
| Antenatal Care/ Post Natal Care ward | Available | Available | Available | |
| Drinking Water Facility | Available | Available | Available | |

*Source: Physical verification of the DHs*

It can be seen that the sampled DHs are more or less equipped with all of the basic facilities for intra-partum care except for the absence of ICU in Lawngtlai DH.

### 6.1.5 Sick Newborn Care Unit (SNCU)

Sick New-born Care Unit (SNCU)/ Neonatal Intensive Care Unit (NICU) is a special new-born unit meant primarily to reduce fatality case among sick children born within the hospital or outside, including home deliveries within first 28 days of life. Therefore, SNCU plays a vital role in Post Natal Care.

IPHS norms for 101 to 500 bedded hospitals envisages that every DH should provide facilities of SNCU/ NICU with at least 12 beds and specially trained staff. It was seen in Audit that SNCU/ NICU was available in the three test-checked DHs *viz*: (i) Aizawl CH (12 beds), (ii) Champhai DH (10 beds) and (iii) Lawngtlai DH (seven beds) as of March 2019.

**Availability of SNCU, *etc*. equipment:** The IPHS for 31 to 100 bedded hospitals prescribes 20 types of essential equipment for Labour and Neonatal care of which Audit sampled and verified 10 equipments in Champhai and Lawngtlai DHs (31 to 100 bedded) which had labour room and neonatal unit or SNCU. The details of the sampled equipment and Audit findings are highlighted in table-6.6:

**Table-6.6: Shortage/ non-availability of Neonatal and SNCU equipment in Champhai and Lawngtlai DHs**

| Sl. No. | Sampled equipment | Utility of the equipment | Audit findings |
|---|---|---|---|
| 1. | Baby Incubators | Incubators are clear boxes which help keep your baby warm | Champhai and Lawngtlai DHs had one each |
| 2. | Phototherapy unit | Phototherapy unit is used for the administration of doses of bright light in order to normalise the body's internal clock and/ or relieve depression | 4 nos. in Lawngtlai DH and 7 nos. in Champhai DH |
| 3. | Emergency Resuscitation Kit-Baby | Emergency Resuscitation Kit for babies | 5 nos. in Lawngtlai DH and 2 nos. in Champhai DH |
| 4. | Radiant Warmer | It is a bed for stabilising the body temperature of a newborn or premature infant. It has a heat source positioned above the baby to keep his or her temperature constant. Unlike an incubator, it is not enclosed | 7 nos. in Lawngtlai DH and 10 nos. in Champhai DH |
| 5. | Foetal Doppler | It is a hand-held ultrasound transducer used to detect the foetal heart beat for prenatal care | Not available in both Champhai and Lawngtlai DHs |
| 6. | Cardiotocography Monitor | Cardiotocography (CTG) is a technical means of recording the foetal heartbeat and the uterine contractions during pregnancy | Not available in both the DHs. |
| 7. | Vacuum extractor metal | A vacuum extraction, also known as a vacuum-assisted delivery, is used to help move the baby through the birth canal during delivery when a mom's labour has stalled | Not available in both the DHs |
| 8. | Cardiac monitor baby and adult | A device to monitor the heartbeat | Not available in both the DHs |
| 9. | Nebuliser baby | A nebuliser is a device that turns liquid medicine into a mist, used to treat the swelling in child's airway, shortness of breath, coughing, and wheezing | Two nos. each in Champhai and Lawngtlai DHs |
| 10. | Weighing machine infant | For measuring the weight of baby | Two nos. each in Champhai and Lawngtlai DHs |

*Source: Physical inspection of DHs*

It can be seen from the above that various essential equipment such as foetal doppler, cardiotocography, cardiac monitor were not available in the two test checked DHs.

Similarly, the IPHS norms for 200 to 300 bedded hospitals prescribed 27 types of essential equipment for Labour Ward, Neonatal and SNCU/ NICU. The details of availability of equipment are highlighted in table-6.7:

**Table-6.7: Shortage/ non-availability of Neonatal and SNCU/ NICU equipment in Aizawl CH**

| Sl. No. | Equipment | As per IPHS norms | Status of availability | Remark |
|---|---|---|---|---|
| 1. | Baby Incubators | 3 (1-labour room and 2-neonatal room) | -- | |
| 2. | Phototherapy Unit | 3 | -- | |
| 3. | Emergency Resuscitation Kit-Baby | 4 | 3 | Attach in every warmer |
| 4. | Standard weighing scale (each for the labour room and OT) | 1 | 1+1 | |

| Sl. No. | Equipment | As per IPHS norms | Status of availability | Remark |
|---|---|---|---|---|
| 5. | Newborn Care equipment (1 set each for labour room and OT) | 1 | -- | Available |
| 6. | Double–outlet Oxygen Concentrator (each for the labour room and OT) | 1 | 3 | |
| 7. | Radiant Warmer | 3 (1-labour room and 2-neonatal room) | 3 | |
| 8. | Room Warmer | 2 | -- | |
| 9. | Foetal Doppler | 2 | 1 | |
| 10. | Cardiotocography Monitor | 3 | -- | |
| 11. | Delivery Kit | 15 | 36 | Episiotomy Kit and Delivery Kit are combined |
| 12. | Episiotomy kit | 10 | | |
| 13. | Forceps Delivery Kit | 2 | 2 | |
| 14. | Crainotomy | 2 | -- | |
| 15. | Vacuum extractor metal | 2 | 1 | |
| 16. | Silastic vacuum extractor | 2 | -- | |
| 17. | Pulse Oxymeter baby and adult | 2 each | 1 | |
| 18. | Cardiac monitor baby and adult | 2 | -- | |
| 19. | Nebulizer baby | 4 (for ICU and wards) | -- | |
| 20. | Weighing machine adult | 6 | 1 | |
| 21. | Weighing machine infant | 4 | 1 | |
| 22. | Head box for oxygen | 6 | 1 | |
| 23. | Haemoglobinometer | 1 | -- | |
| 24. | Glucometer | 1 | 1 | |
| 25. | Public Address System | 1 | -- | |
| 26. | Wall Clock | 1 | 7 | |
| 27. | BP Apparatus and Stethoscope | 3+3 | 1 | |

*Source: Physical inspection of Aizawl CH*

It can be seen from the above that various essential equipment such as incubator, phototherapy unit, cardiotocography, cardiac monitor, cardiotocography monitor, nebuliser, haemogloginometer were not available in Aizawl CH.

Audit observed that lack of the essential equipment in the SNCU/ NICU could be one of the factors contributing to the high proportion of neonatal deaths in IMR.

The department stated (October 2020) that certain essential equipment as per IPHS norms such as incubators were outdated and have been replaced with warmers and assured that various equipment like phototherapy unit, cardiac monitor, nebuliser and haemoglobinometer would be procured under NHM [Reproductive and Child Health (RCH) programme] whenever funds are available for SNCU/ NICU.

## *Conclusion*

There was a high incidence of neonatal deaths in the test checked DHs ranging from 50 to 85.71 *per cent* during 2018-19 and increasing trend was seen in all the selected DHs during the period. The Department had not reviewed the seriousness of the problem and action taken was not available. The rate of stillbirths in the three test checked DHs ranged between 0.81 to 1.43 *per cent* during 2014-19.

A review of only ten sampled types of essential equipment for Labour Ward, Neonatal and Special Newborn Care Unit (SNCU) in respect of Champhai and Lawngtlai DHs revealed that the test checked hospitals did not have all the essential equipment such as foetal doppler, cardiotocography and cardiac monitor, required for child deliveries and care of new born babies. Further, a review of 27 types of essential equipment in Labour Ward, Neonatal and SNCU in Aizawl Civil Hospital revealed that various essential equipment such as incubator, phototherapy unit, cardiotocography, cardiac monitor, cardiotocography monitor, nebuliser, haemogloginometer were not available.

### *Recommendations*

*i. The DHS and District Hospitals may investigate the causes and take appropriate specific steps to reduce high incidence of maternal and neonatal deaths.*

*ii. The State Government may strictly monitor the involvement of ASHA workers of the Health Department for counselling of expectant mothers to reduce MMR and neonatal deaths.*

*iii. The Government may ensure that all the District Hospitals are equipped completely with all the essential equipments for child deliveries and new born baby care.*

*iv. The Department may specifically review the fire safety arrangements in SNCU/ NICU units of DHs considering high incidents of sick new born babies.*

## 6.2 Cancer

**Cancer incidence, common types of cancer and cancer mortality in the State:** The Population Based Cancer Registry (PBCR), Aizawl, Mizoram as part of National Cancer Registry Programme was started (06 March 2003) in Aizawl CH. The PBCR, Aizawl, Mizoram registers all malignant neoplasm (cancers) with a morphology behaviour code of "3" (primary) and "6" (secondary) as defined by the International Classification of Disease – Oncology. The number of district-wise cancer cases registered by the PBCR, Aizawl, Mizoram during 2013-17 is given in table-6.8:

**Table-6.8: District-wise cancer cases registered during 2013-17 by the PBCR**

| District | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|
| Aizawl | 778 | 783 | 836 | 902 | 839 |
| Lunglei | 168 | 204 | 204 | 197 | 242 |
| Champhai | 185 | 173 | 157 | 149 | 148 |
| Siaha | 59 | 79 | 60 | 64 | 73 |
| Serchhip | 99 | 94 | 112 | 90 | 105 |
| Kolasib | 111 | 117 | 128 | 161 | 162 |
| Lawngtlai | 85 | 63 | 54 | 63 | 64 |
| Mamit | 96 | 108 | 111 | 98 | 98 |
| **Total** | **1,581** | **1,621** | **1,662** | **1,724** | **1,731** |

*Source: PBCR, Aizawl, Mizoram*

The number of Cancer cases had increased from 1,581 to 1,731 during the period. The types of Cancer prevalent in the State during the period 2013-17 are given in table-6.9.

**Table-6.9: Types of Cancer prevalent in Mizoram**

| Types of Cancer | Number of cases | | | | |
|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 |
| Malignant Neoplasm, without specification of site | 185 | 155 | 143 | 179 | 162 |
| Bronchus or Lungs, Unspecified | 177 | 184 | 163 | 157 | 122 |
| Stomach, Unspecified | 125 | 108 | 121 | 98 | 119 |
| Cervix Uteri, Unspecified | 100 | 116 | 117 | 122 | 101 |
| Breast, Unspecified | 79 | 80 | 105 | 91 | 125 |
| Oesophagus, Unspecified | 83 | 84 | 67 | 90 | 95 |
| Others | 832 | 894 | 946 | 987 | 1,007 |
| **Total** | **1,581** | **1,621** | **1,662** | **1,724** | **1,731** |

*Source: PBCR, Aizawl, Mizoram*

**Diagnostic and linkage services:** As per rules, cancer screening services are to be provided in DHs. The status of availability of cancer screening and confirmatory services in the test checked DHs are given in the table-6.10:

**Table-6.10: Services and linkages available for cancer treatment in the sampled DHs**

| Hospital | Services available in DH | Linkage to nearest tertiary centres/ medical colleges for referral services |
|---|---|---|
| Aizawl CH | Diagnostic procedures such as Histopathology, Immuno-histochemistry, Cytopathology including FNAC, Blood fluid analysis | 1. Mizoram State Cancer Institute, Zemabawk, Aizawl for chemotherapy and Radiotherapy<br>2. Dr. Bhubaneswar Borooah Cancer Institute (BBCI), Guwahati for treatment and diagnosis<br>3. Apollo Gleneagles, Hospital, Kolkata for treatment and diagnosis<br>4. TATA Medical Centre, Kolkata for treatment and diagnosis<br>5. AMRI Hospital, Kolkata for treatment and diagnosis |
| Champhai DH | FNAC, Endoscopy and Ultrasonography | Linked with Aizawl CH |
| Lawngtlai DH | No diagnostic facility available in the Hospital | Linked with Aizawl CH |

*Source: Records of DHs*

It was noticed that none of the test checked DHs maintained data on cancer such as number and type of cancer cases detected/ diagnosed in the HDs, number of cancer patient referred to specialised health care facilities, *etc*. Further, it was noticed that Lawngtlai DH did not have diagnostic facilities while Champhai DH did not have biopsy facilities for detection of cancer.

Thus, it was seen that the DHs especially Champhai and Lawngtlai were ill-equipped or not equipped at all for diagnosis of cancer and the cases had to be referred to a facility of a higher centre. Cancer treatment was done at specialised institutions in Aizawl, Guwahati and Kolkata.

## 6.3 Human Immunodeficiency Virus (HIV)/ Acquired Immuno Deficiency Syndrome (AIDS)

GoI established the National AIDS Committee within the Ministry of Health and Family Welfare when the first case of HIV was diagnosed in Chennai, Tamil Nadu in 1986 amongst six female sex workers. On the basis of National AIDS Committee, the Government set up the National AIDS Control Organisation (NACO) in 1992, to oversee policies and prevention and control programmes relating to HIV and AIDS and launch the National AIDS Control Programme for HIV prevention. Subsequently, the State AIDS Control Societies were set up in States and Union Territories for implementation of NACO programme at State level with functional independence to upscale and innovate.

GoM constituted the Mizoram State AIDS Control Society on 22 July 1998 with the objective to prevent HIV transmission and to control the spread, reduce morbidity and mortality associated with HIV infection, to strengthen HIV/ AIDS surveillance, to provide technical support to Government and non-Government organisations in the prevention and control of HIV/ AIDS.

**Prevalence of HIV:** Status of year-wise HIV cases in Mizoram during 2014-19 is shown in table-6.11:

**Table-6.11: Status of year-wise HIV cases in Mizoram during 2014-19**

| Name of District | No. of HIV cases | | | | | Remark |
|---|---|---|---|---|---|---|
| | 2014-15 | 2015-16 | 2016-17 | 2017-18 | 2018-19 | |
| Aizawl | 921 | 1,024 | 1,457 | 1,660 | 2,004 | AIDS cases could not be calculated as the indicator had been removed from the data system by NACO |
| Champhai | 130 | 141 | 142 | 136 | 165 | |
| Kolasib | 71 | 118 | 226 | 161 | 192 | |
| Lawngtlai | 19 | 30 | 22 | 55 | 38 | |
| Lunglei | 75 | 81 | 90 | 108 | 228 | |
| Mamit | 16 | 34 | 46 | 59 | 50 | |
| Siaha | 20 | 22 | 31 | 14 | 34 | |
| Serchhip | 28 | 38 | 23 | 35 | 55 | |
| **Total** | **1,280** | **1,488** | **2,037** | **2,228** | **2,766** | |

*Source: Records of Mizoram State AIDS Control Society*

The number of HIV cases detected had increased in the State from 1,280 in 2014-15 to 2,766 in 2018-19.

### *Conclusion*

The number of cancer cases diagnosed in the State showed an increasing trend during the period from 2013 to 2017, from 1,581 cases in 2013 to 1,731 cases in 2017. Out of the three sampled DHs, Champhai and Lawngtlai DHs were ill equipped for diagnosis of cancer related tests. Further, none of the sampled hospitals maintained data on cancer viz., number and type of cancer cases detected/ diagnosed, number of cancer patient referred to specialised health care facilities, *etc*. Cancer care/ treatment was mainly done as referrals to specialised institutes in Aizawl, Guwahati and Kolkata.

Number of HIV cases have more than doubled during 2014-19 as the number of HIV positive cases have increased from 1,280 in 2014-15 to 2,766 in 2018-19.

### *Recommendation*

*The Government may strengthen the testing facilities for detection of Cancer and AIDS cases in the DHs of the State by providing required equipments.*