

HMIS in Bihar: Trials and Tribulations towards Better Usage of Data

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INTRODUCTION

Despite increasing importance being laid on use of routine data for decision making in India, it has frequently been reported to be riddled with problems.

Evidence suggests lack of quality in the health management information system (HMIS), however there is no robust analysis to assess the extent of its inaccuracy.

This study aims to bridge this gap in evidence by assessing the extent of completeness and quality of HMIS in Bihar state of India.

RATIONALE

Appropriate decision making and program planning in the health and related fields is not possible without establishing an effective and valid health information system and an HMIS can be effective when it provides right information at the right time effectiveness of the data is highly dependent on the field level workers and managers .Under reporting, over reporting and non-reporting of health indicator can be detrimental for program planning and further lead to no use of HMIS.

AIM OF THE STUDY

To compare the HMIS online data and HMIS records maintained by ANMs.

RESEARCH QUESTION

Is there any gap between HMIS data and HMIS records reported by ANM?

OBJECTIVES OF THE STUDY

- To assess the gap in reporting of HMIS data.
- To assess the errors in reporting of data

RESEARCH METHODOLOGY

STUDY DESIGN

This study was descriptive study completed with secondary data which has been uploaded in HMIS portal and Field Staffs submitted their reports to the facility to verify the efficiency and reliability of HMIS system.

STUDY AREA

The study was carried out all Primary Health Centre of 38 district of Bihar where Auxillary Nurse Midwife submits HMIS records of Health Sub-Centres month of February 2018 to Block Monitoring and Evaluation Officer who usually sits in PHC.

DURATION OF THE STUDY

3 months (from 5th February- 4th May)

SAMPLE SIZE

The total number of HSCs are 11229 across Bihar which are reporting in HMIS. Thus, study covers all 11229 HSCs for validation.

RESEARCH INSTRUMENT

A questionnaire was prepared taking all the indicators of HMIS for HSC format named as **HMIS Format of HSC available at PHC**.

METHOD OF DATA COLLECTION

The data collection has been done by simply observing and verifying the records available at the facility and same from the HMIS source. Data collection done after the 5th March because ANMs have to submit the hardcopies of monthly HMIS of HSC to the respected PHC by 5th of every next month. Some qualitative observations regarding any kind of hurdle were noted down during data collection to support the findings of the study.

DATA ANALYSIS

Data has been collected from Two Sources: both are secondary and compared with each other. First data gathered from HMIS Portal while second data has been collected from the Facilities.

Analysis was done in Microsoft Excel.

Total two layers of data had summarized in excel to check difference among them. **(A= HMIS Data, and B= Data from facility Records or Self counted.)**

After summarizing data on excel, relative differences had checked between HMIS data and data from Facility or self-counted.

INCLUSION CRITERIA

Data collection was done for only those HSCs for which HMIS format of HSCs was be found.

EXCLUSION CRITERIA

Handmade formats were not accepted.

RESULTS

COMPLETENESS OF DATA

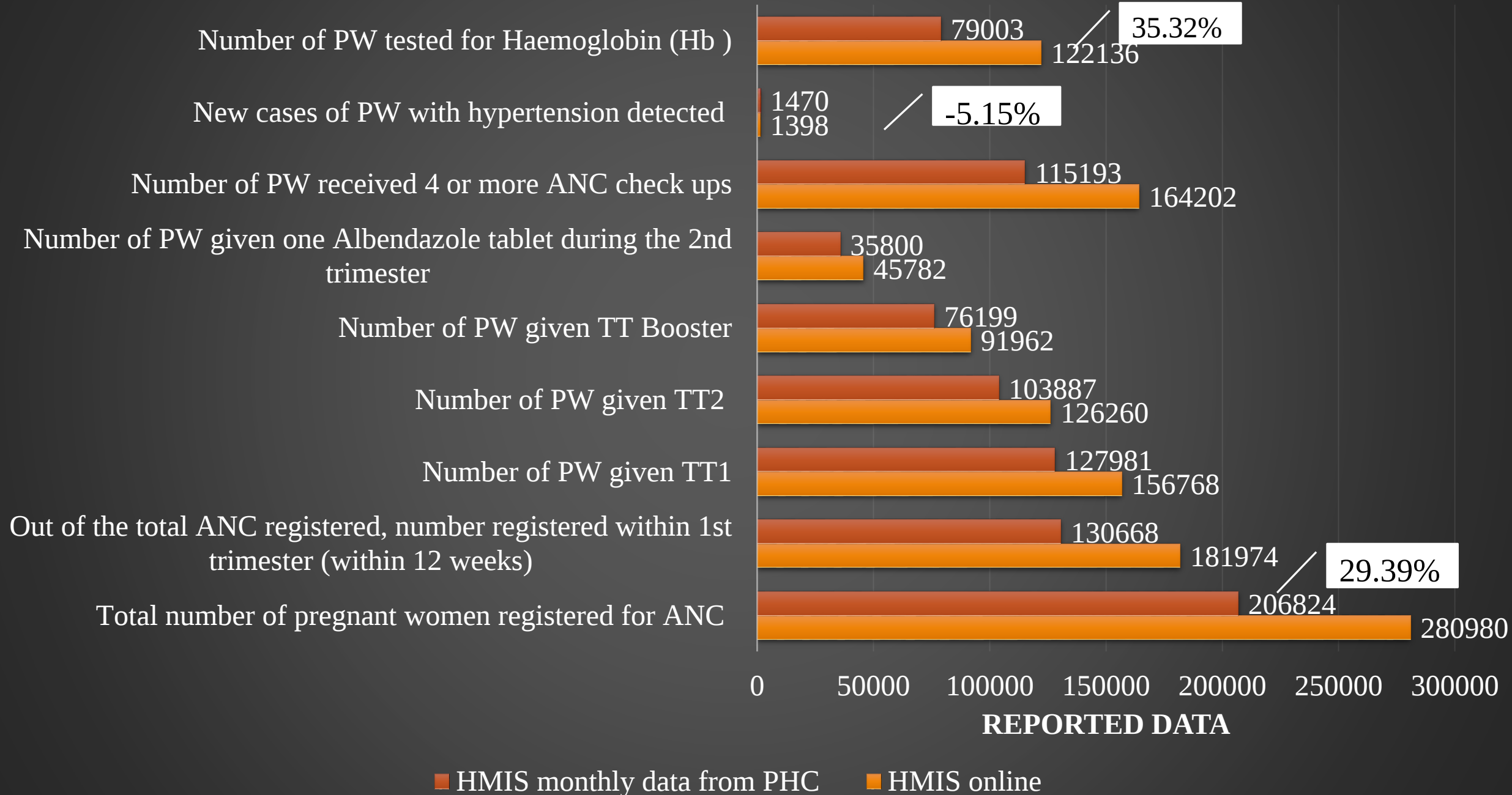
Out of 11229 HSCs only 95.7% facilities were reported into HMIS format of HSCs available at PHC.

ACCURACY OF DATA

Correctness of the data is measured by observing and comparing the 75 indicators for the various services provided to beneficiaries and health events organized. Further section of results focuses on the accuracy of each indicator.

Ante Natal Services

INDICATORS



Deliveries conducted at home and c-section

INDICATORS

Total C -Section deliveries performed

530
1934

Number of newborns received 6 HBNC visits after Institutional Delivery

23860
54823

Out of total institutional deliveries number of women discharged within 48 hours of delivery

18544
103606
82%

Number of Institutional Deliveries conducted (Including C-Sections)

21922
120193
81.8%

Number of newborns received 7 Home Based Newborn Care (HBNC) visits in case of Home delivery

21058
22768

Number of Home Deliveries attended by Skill Birth Attendant(SBA) (Doctor/Nurse/ANM)

8588
6628
-29.6%

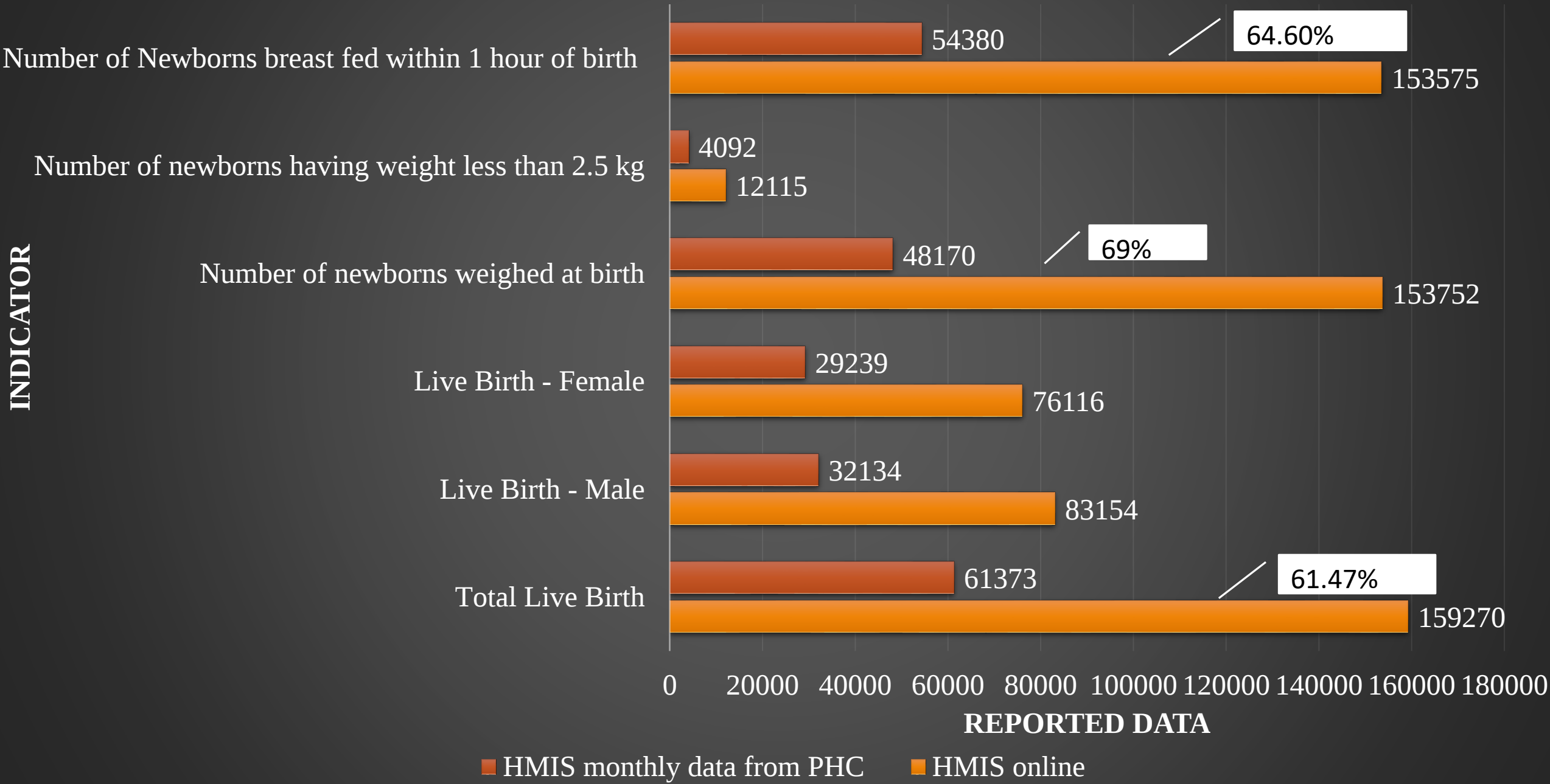
0 20000 40000 60000 80000 100000 120000 140000

REPORTED DATA

■ HMIS monthly data from PHC

■ HMIS online

Pregnancy Outcomes and Details

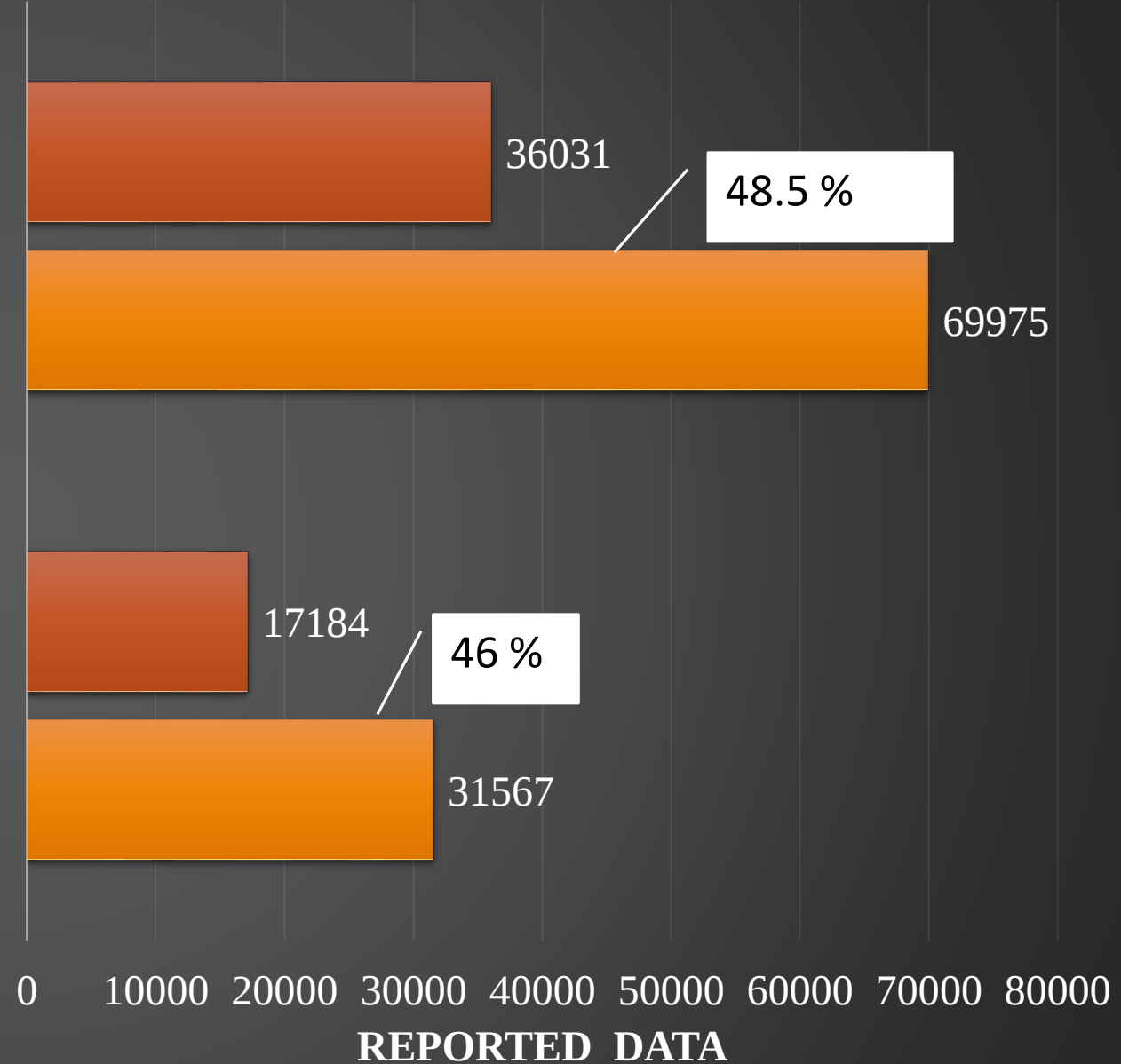


Post Natal Services

INDICATOR

Women receiving 1st post partum checkup between 48 hours and 14 days

Women receiving 1st post partum checkups within 48 hours of delivery

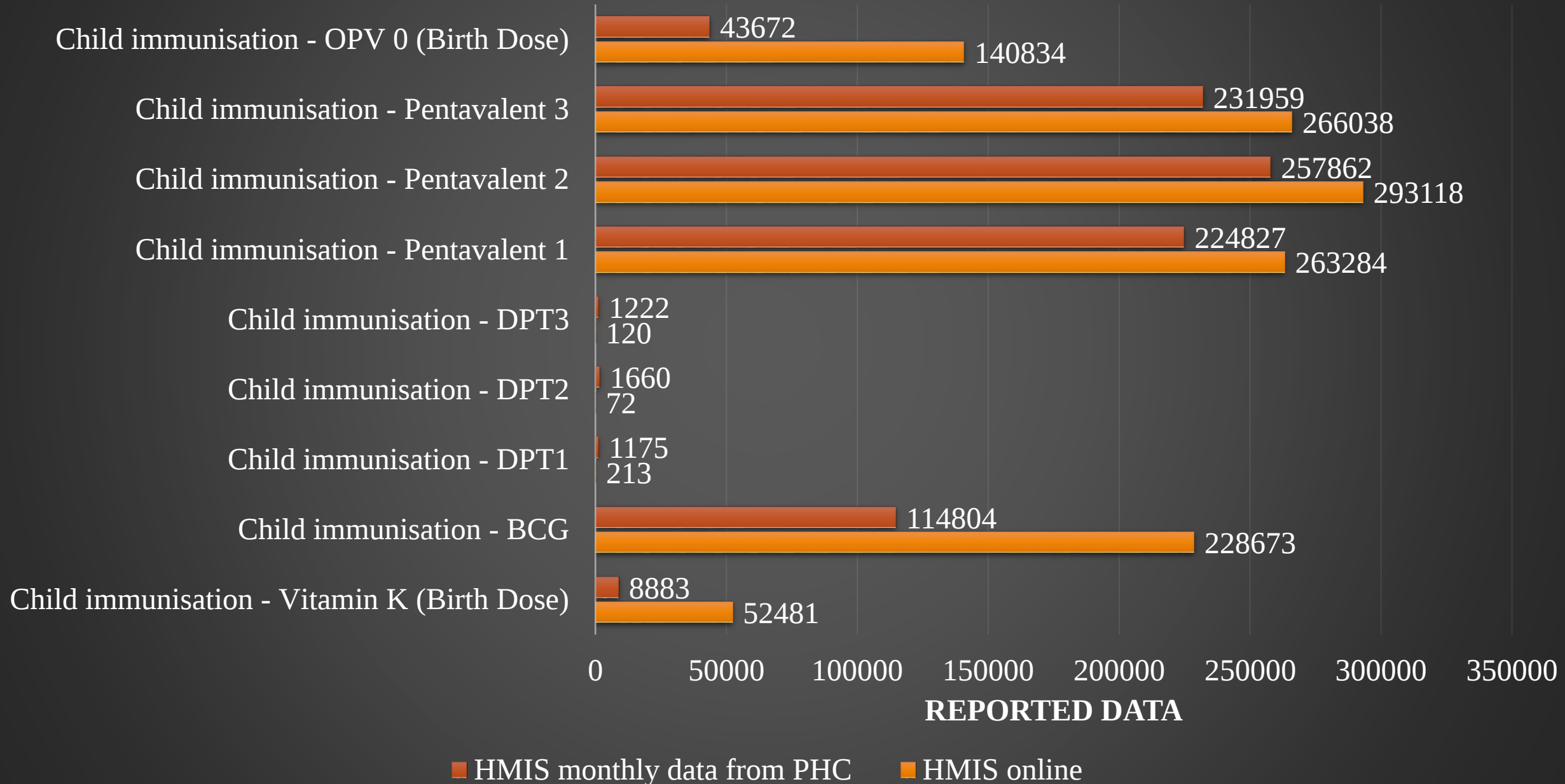


■ HMIS monthly data from PHC

■ HMIS online

Child Immunization: Number of infants 0 to 11 months

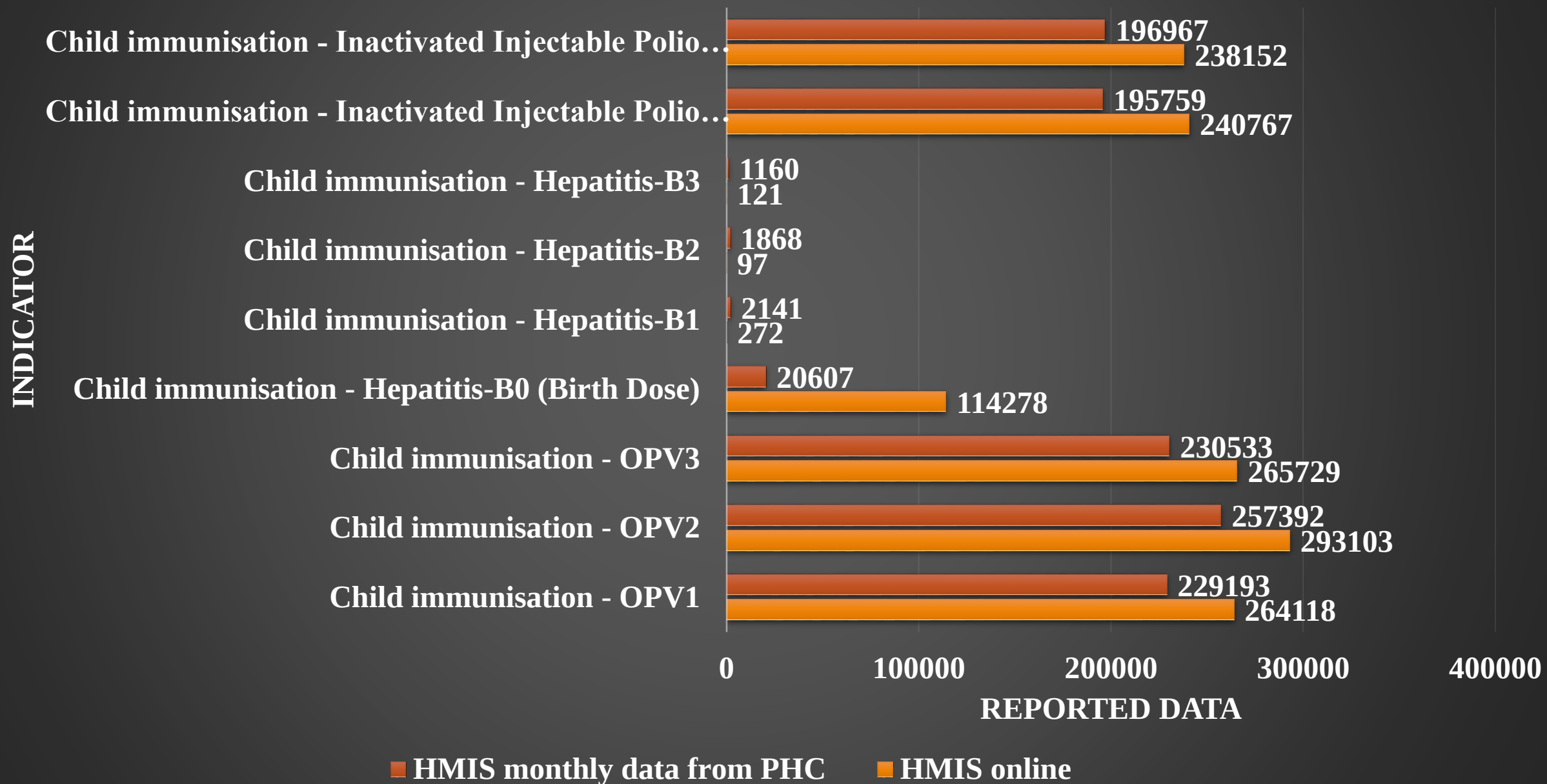
INDICATOR



PROPORTION OF VACCINATION AMONG BIRTH

	Total Birth(no.)	BCG(%)	Vitamin K(%)	OPV 0(%)
HMIS online	159270	72.08137	5.577322	27.4201
HMIS monthly data from PHC	61373	372.5954	85.51154	229.4722

Child Immunization: Number of infants 0 to 11 months

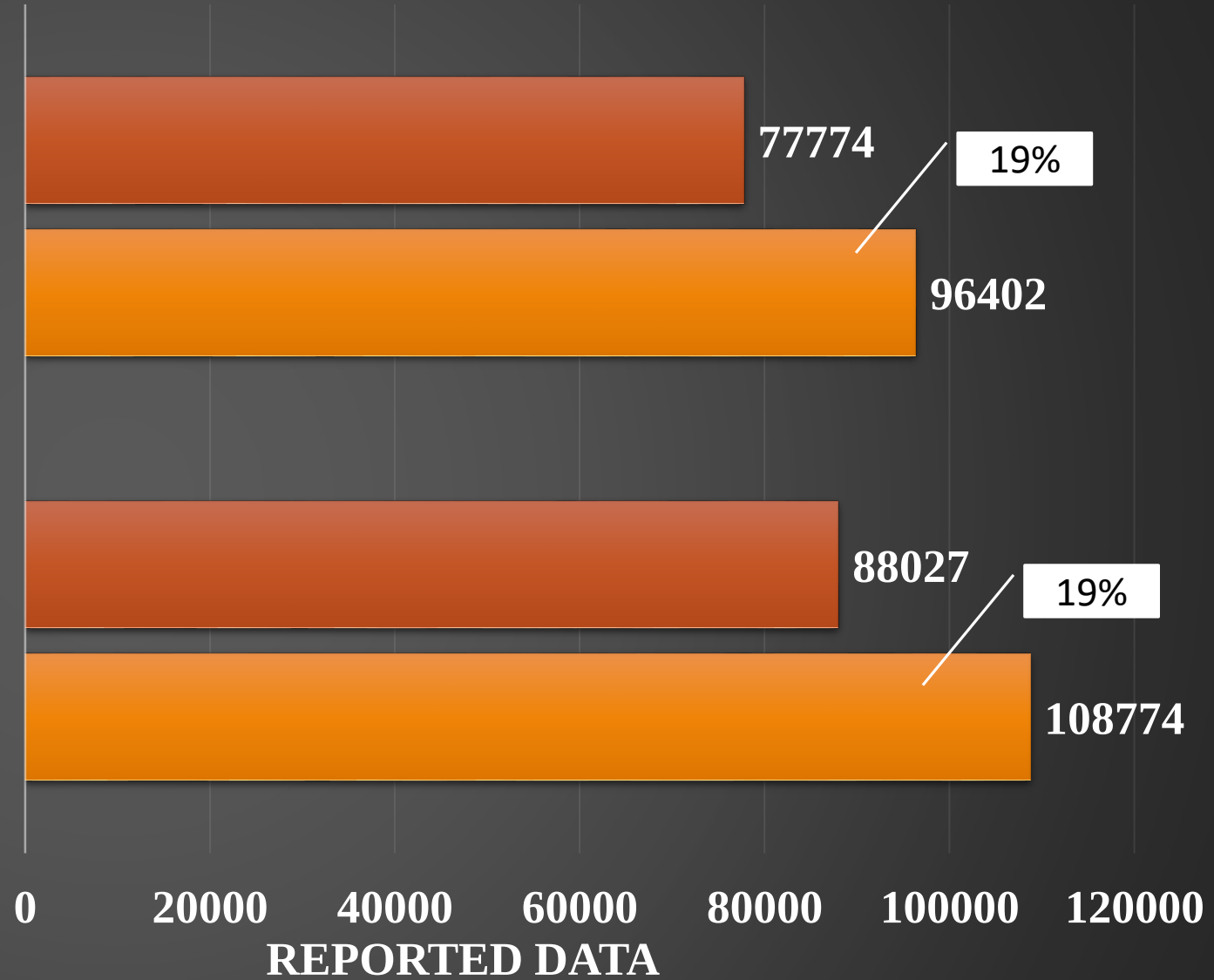


Full Immunization

INDICATORS

Children aged between 9 and 11 months fully immunized - Female

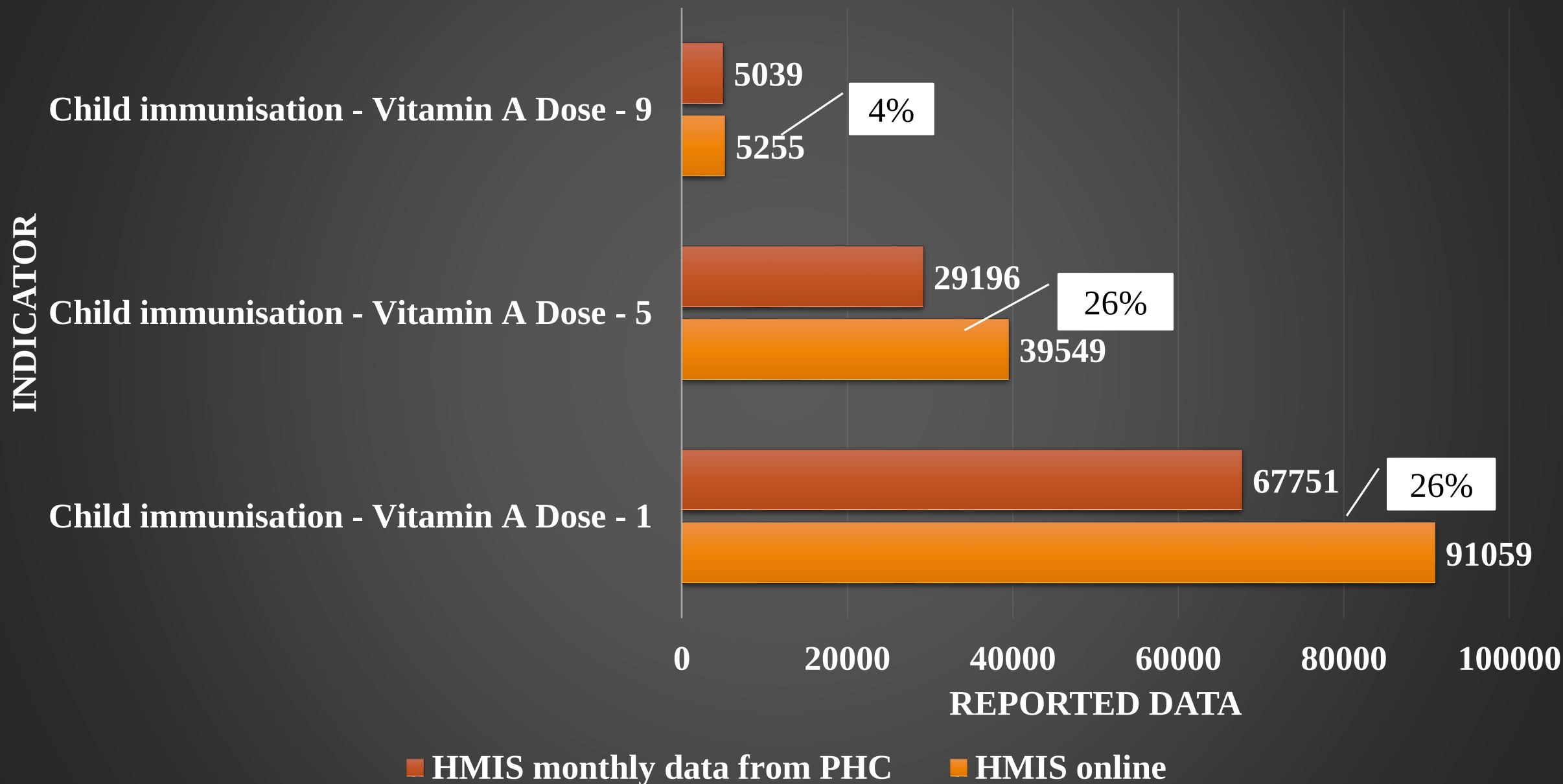
Children aged between 9 and 11 months fully immunized- Male



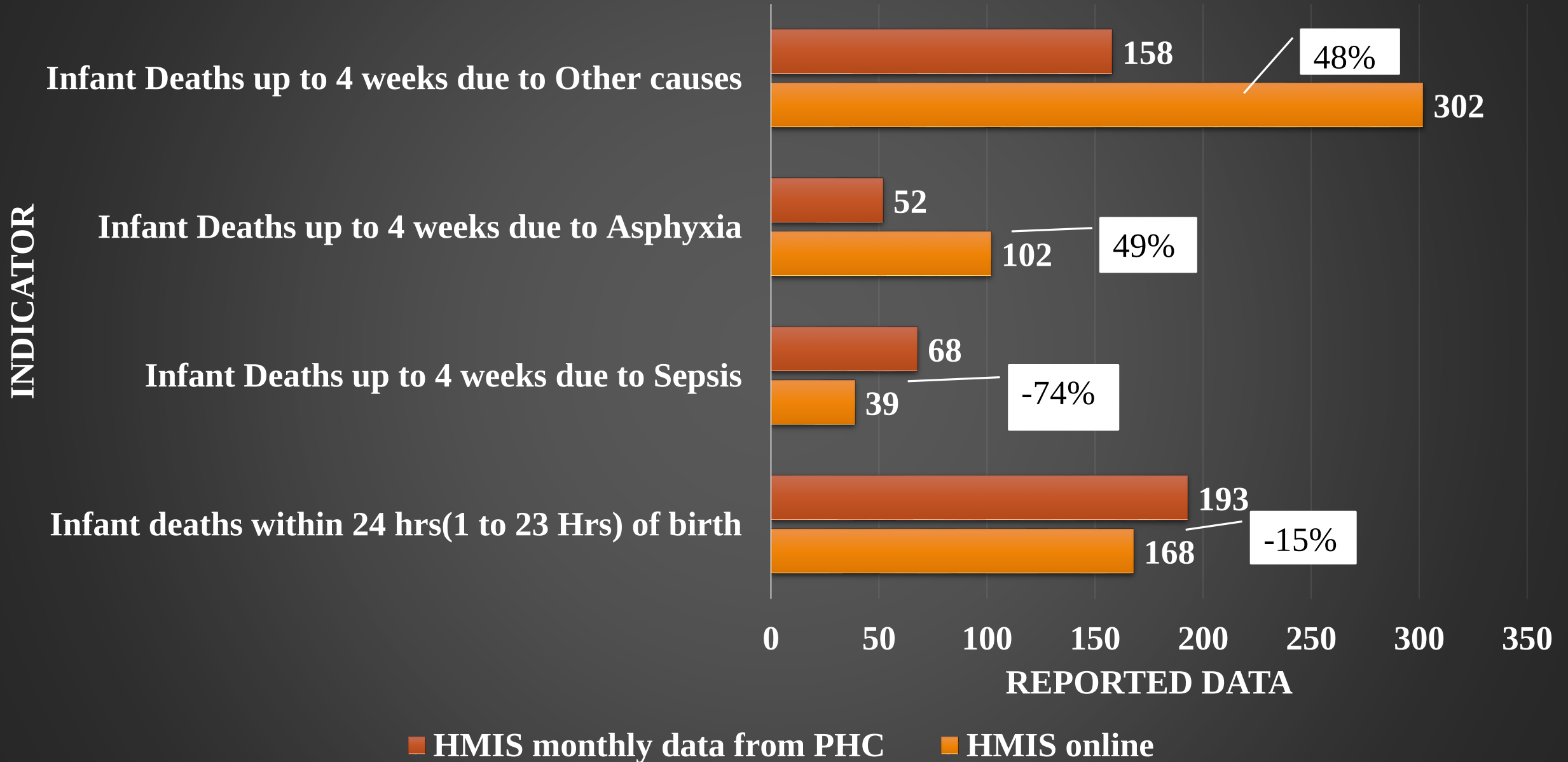
■ HMIS monthly data from PHC

■ HMIS online

Children received Vitamin A Dosages between 9 month to 5 years



Infant Deaths



Maternal Deaths

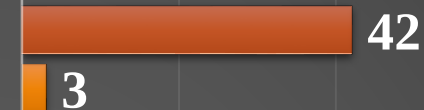
INDICATOR

Number of Maternal Deaths due to Other Causes
(including causes not known)

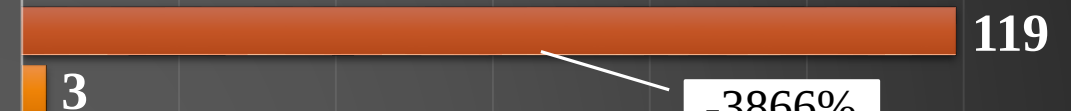


-121%

Number of Maternal Deaths due to Severe
hypertension/fits



Number of Maternal Deaths due to
Obstructed/prolonged labour



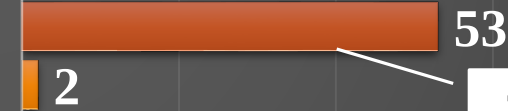
-3866%

Number of Maternal Deaths due to Abortion



-700%

Number of Maternal Deaths due to High fever



-2550%

Number of Maternal Deaths due to Bleeding



-245%

0 20 40 60 80 100 120 140

REPORTED DATA

■ HMIS monthly data from PHC

■ HMIS online

RECOMMENDATION

There is immense need of training with pre-test and post-test to all Field level workers and Block Monitoring and Evaluation Officer so that they have same understanding of data elements. Validation should be conducted for HSCs and data entered by Block M&E officer.

A detailed guideline on what should be done when monthly data are not reported should be prepared. In absence of consistent protocols for incomplete or missing data it is very difficult to procure good quality data. Blocks should report all data they have and explain which facilities did not report and why.

All the facilities should be provided with the HMIS format of HSC adequately on annual or six-monthly basis as desired by the state. Clear instructions should be given to field staff that report data on printed forms and no other forms will be accepted for reporting.

Further research is required to identify and rectify the issues at grassroot level. In-depth qualitative studies can be undertaken to check motivation, knowledge & skill sets and understanding of definitions and protocols by ANMs and data entry operators who are involved in the process of data reporting. They must be made aware of the importance of different indicators in routine HMIS and their correct reporting so that genuine data can be generated for its effective use.

Accountability measures for ensuring correctness of data need to be followed and efforts to maintain quality need to be assessed periodically so that observed deficiencies may be timely addressed.

CONCLUSION

HMIS records in terms of completeness found to be satisfactory. However, there were significant differences in terms of misreporting of the data. Quality of HMIS needs to be improved in order to make it relevant for public health program planning and research.

Completeness, Accuracy, Timeliness, Data Entry Errors and Systematic errors are the challenges for quality of HMIS data. Some of the challenges can be solved by rigorous training of Field Level Worker and Block M &E officer, providing a same format throughout the all HSCs etc.