

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

By

Priya Gokhale Koshta

*Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management*

Academic year, 2016-2018



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TO WHOMSOEVER MAY CONCERN

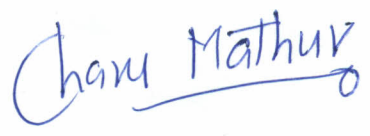
This is to certify that **Priya Gokhale Koshta** student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training at Care India, Bihar from 5th February 2018 to 4th May 2018.

The Candidate has successfully carried out the study designated to her during dissertation and her approach to the study has been sincere, scientific and analytical.

The Dissertation is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.


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Dissertation Completion Certificate

Certified that Priya Gokhale, pursuing Master of Business Administration in Hospital and Health Management from IIHMR University, Jaipur was placed at CARE India during 5th February to 4th May`2018 for academic dissertation on “HMIS in Bihar: Trials and Tribulations towards better Usage of Data”. She was placed in Lakhisarai District under CML unit, CISSD, BTSP CARE India, Bihar Project, as a District Monitoring, Learning & Evaluation Officer.

During dissertation under the guidance of Dr. Sohini Banerjee, Assistant Epidemiologist, CML unit of CARE India in Bihar, she has met the necessary requirement and worked closely with the Concurrent Measurement & Learning team. She has been found to be sincere and dedicated towards the responsibilities bestowed on her.

We wish to see her well stationed in life with bright future ahead.

Thanks and regards,

CML Team Lead

Deputy Director-Human Resource

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "HMIS in Bihar: Trials and Tribulations towards Better Usage of Data" and submitted by **Priya Gokhale Koshta** Enrollment No IIHMR-U/01/2016-18/0471 under the supervision of **Dr. Charu Mathur** for award of MBA in Hospital and Health Management of the University carried out during the period from 5th February 2018 to 4th May 2018 embodies my original work and has not formed the basis for the award of any degree, diploma associateship, fellowship, titles in this or any other institute or other similar institution of higher learning.



Signature

ABSTRACT

Background

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 incorrectness. This study aims to bridge this gap in evidence by assessing quality of HMIS in Bihar state of India.

Methods

The study was done by comparing two data sets HMIS online data and HMIS records of HSC maintained by ANM and submitted to Block Monitoring and Evaluation Officer who usually sits in PHC of the Block. The comparison was done for 11229 Health Sub-Centres in 38 districts across Bihar for 75 indicators related to Maternal and Child Health for the month of february'18.

Results

Correctness of the data was checked through misreporting and interrelating two and more indicators for the month of February. Out of 75 indicators 49% of the indicators were over reported and no any indicator found to accurately reported. These indicators were related to Ante Natal Services, Institutional Deliveries, Number of births, Family Planning, Immunization, and Infant's death due to asphyxia and other causes.

Conclusion

Significant difference was found 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.

ACKNOWLEDGEMENT

“Vital to every operation is cooperation”–

A wonderful quotation put forth by Mr. Frank Tyger.

This Dissertation opportunity which I had with CARE INDIA, Bihar was an enriching experience, it was a great chance for learning and professional development. It helped me develop an ability to understand healthcare issues from various perspectives.

Bearing in mind the previous, I would like to take this opportunity to express my deepest gratitude and special thanks to my mentor, Dr. Charu Mathur, Assistant Professor, IIHMR University, Jaipur, for guiding and keeping me on the correct path throughout the two months of internship.

It is my radiant sentiment to place on record my best regards, deepest sense of gratitude and indebtedness to Mr. Anup Gopalakrishnan Nair, Deputy Director - HR & OD Care India, Bihar for his immense support and faith and for allowing me to carry out the study with ease at his esteemed organization during the internship.

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I perceive the opportunity as a big milestone in my professional development. I will strive to use the gained skills and acknowledgement on the best possible way, and will continue to work on their improvement, to attain the desired career objectives.

Sincerely,

Priya Gokhale Koshta

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LIST OF ABBREVIATIONS

ANM	Ante Natal Care
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWW	Aanganwadi Worker
BCG	Bacillus Calmette Guérine
BP	Blood Pressure
CHC	Community Health Centre
C-Section	Caesarean Section
DH	District Hospital
DHIS	District Health Information System
DHQ	District Headquarter
DLHS	District Level Household Survey
DPT	Diphtheria Pertussis Tetanus
FP	Family Planning
HMIS	Health Management Information System
HSC	Health Sub-Centre
IFA	Iron Folic Acid
IMR	Infant Mortality Rate
IUP	Intra Uterine Device
IV	Intra-Venous
JE	Japanese Encephalitis
LBW	Low Birth Weight
M & E Officer	Monitoring and Evaluation Officer
MMR	Maternal Mortality Ratio
MMR	Measles Mumps and Rubella
NRHM	National Rural Health Mission
OPV	Oral Polio Vaccine
PHC	Primary Health Centre
PNC	Post Natal Care
SBA	Skilled Birth Attendant
SDH	Sub-District Hospital
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
WHO	World Health Organization

1. INTRODUCTION

Sound and reliable information is the foundation of decision-making across all health system building blocks .It is helpful in health system policy development and implementation, governance and regulation, health research, human resources development, health education and training, service delivery and financing.(1)

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 incorrectness. This study aims to bridge this gap in evidence by assessing quality of HMIS in Bihar state of India.

HEALTH MANAGEMENT INFORMATION SYSTEM

Health Management Information System (HMIS) is one of the important components of National Rural Health Mission (NRHM).(2) The web based HMIS was launched in 2008 to ensure the production, Analysis, dissemination and use of reliable and timely information on health determinants, health system performance and health status at different level of health system and helps in evidence-based decision making.(3)

The necessity of sound information system as a support to the various developmental activities of the Health sector in India was identified as early as BHORE Committee Report soon after the independence. The national health policy of India (1983) states that appropriate decision making and program planning in the health and related fields is not possible without establishing an effective health information system and that nationwide organizational set up should be established to procure essential health information which may provide support for the local management of the health care and effective decentralization of the activities.

The portal was envisaged as a “Single Window” for all public health data for the MOHFW. The MOHFW initially rolled out the HMIS up to the District Level and now being expanded to the Sub District/Block level facility wise data entry.

The basic objective of HMIS is to enable data entry at different facility level, to enable users to preview, compare, modify and forward to next upper level. The data stored can be used for statistical analysis and ad-hoc reporting purpose, to consolidate data entered at each facility which can be stored at a central database. Over 630 Districts are reporting their monthly

performance on a regular basis. Strong HMIS system require a constant flow of resources – human, financial and material to establish & maintain effective and efficient services. (4)

FLOW OF HMIS DATA

HMIS captures data about antenatal coverage, ANC services, delivery services, immunization services, family planning coverage, death in the community etc. The Indian Public Health System has multiple tiers, where the first point of contact between the community and the health system is the Sub-Centre where the most peripheral health services are provided by Auxiliary Nurse and Midwife who keeps documentation of all pregnant women and beneficiaries of that Sub-Centre. Most of the states follow bottom up approach in reporting of data. The sub-centre (SC/HSC) reports to PHC, the PHC to CHC and the CHC to SDH/District Hospital. District hospital reports to District HQ which then collates the data sends to the data and sends to the State HQ. But the reporting pattern is varying from state to state. Facility wise data plays an important role because with this we can assess performance of each facility with respect to other facility in a district. Also, it is easy to find the overburden facility or duplication or over reporting. The ANM at the Sub-Centre level do not have access to computers and have to record all the information in handmade registers. ANM is required to fill a monthly format of health Sub-Centre in which she provides information regarding all the rendered services in that catchment area and submit this format to the relevant Primary Health Centre where this information is transferred onto HMIS by a Data Entry Operator.

Data Aggregation unit is the place where the data is collected and consolidated. But for any place to be a data aggregation unit certain basic requirement like availability of Computers, Internet connection and Trained personnel (Nodal M & E officers should be fulfilled). Data from the Sub-Centres, Primary Health Centres, and Community Health Centres is aggregated at the block level. The data sent from the block level and sub-district hospital and district hospital is aggregated at the District Headquarters. The District Headquarters then sends the aggregated data to the State Headquarters which forwards it to the national level.

Once the data aggregation unit is identified the Mapping of health facilities need to be done and accordingly arranged the staff members. There are different modes of data which is used for forwarding the data to next level at different levels (Draft Mode & Forward Mode).

2. RATIONALE OF THE STUDY

Appropriate decision making and program planning in the health and related fields is not possible without establishing an effective 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 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.

3. AIM OF THE STUDY

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

4. RESEARCH QUESTION

What is the status of reporting of HMIS data with respect to HMIS records reported by ANM?

5. OBJECTIVES OF THE STUDY

To assess the status of reporting of HMIS data.

To assess the errors in reporting of data

To identify the underlying causes for errors in HMIS.

6. LITERATURE REVIEW

In India, the emphasis has been laid on creation and utilization of an effective HMIS system under the National Rural Health Mission (NRHM), flagship healthcare program under the Ministry of Health and Family Welfare. Since NRHM's inception in 2005, several mechanisms have been put in place to improvise and strengthen its functioning. One of these efforts includes revision and simplification of existing HMIS to avoid duplication. Secondly, a national web-based HMIS portal was set-up in 2008 for collection and sharing of data in a timely manner.

An effective HMIS not only serves to monitor the performance and quality of the health services being provided but also provides a sound evidence platform to base decisions upon, by acting as a repository of information for various healthcare indicators collecting data from the community and healthcare providers.(5)

Utilization of routine MIS is not limited to policy makers and program managers. Researchers also draw upon it to answer critical health system questions pertaining to effectiveness or efficiency of health programs. Numerous such efforts have been carried out recently in India.(6)(7)

But an HMIS is only successful to the extent to which it ensures production, analysis, dissemination and use of information reliably and in a timely fashion.(1)

Despite its unequivocal importance for routine decisions, HMIS has repeatedly been reported to be riddled with many problems. Not only have the records suffered incompleteness and poor quality, there is a tendency to over-report the outputs and outcomes.(8)

7. RESEARCH METHODOLOGY

STUDY DESIGN

This study was descriptive study completed with secondary data which has been uploaded in HMIS portal and HMIS records maintained by Auxiliary Nurse Midwife (ANM) reported to the facility to verify the reliability of HMIS system.

STUDY AREA

The study was carried out all Primary Health Centre of 38 district of Bihar where ANM submitted monthly format of HSC for the 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)

SAMPLING

38 districts were selected to verify District HMIS reporting. In the District, all the Health Sub-Centres were selected and surveyed HMIS data from hardcopy of February 2018.

SAMPLING 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.

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, 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 will be found.

EXCLUSION CRITERIA

No handmade format was accepted.

8. RESULTS

CORRECTNESS OF DATA

Correctness of the data is measured by observing and comparing the 75 indicators for the various services provided to beneficiaries taking HMIS records maintained by ANM as an accurate data. Further section of results focuses on the correctness of each indicator-

ANTE NATAL CARE SERVICES

Data of all Ante Natal Services is highly reported in HMIS online. Number of pregnant woman tested for Hemoglobin was over reported by 35.32% where as New cases of PW with hypertension detected is under reported in HMIS online. It can be interpreted that there can be data entry error for the number of pregnant women tested for Hb. Discrepancy in data found in two indicators, these are number of pregnant women received TT1 and total number of ANC registered for pregnancy. The number for both indicators should be same as TT1 is given at the time of registration. Contrary to this, it can also be interpreted that there might be less stock or no stock of TT injections in some of the facilities.

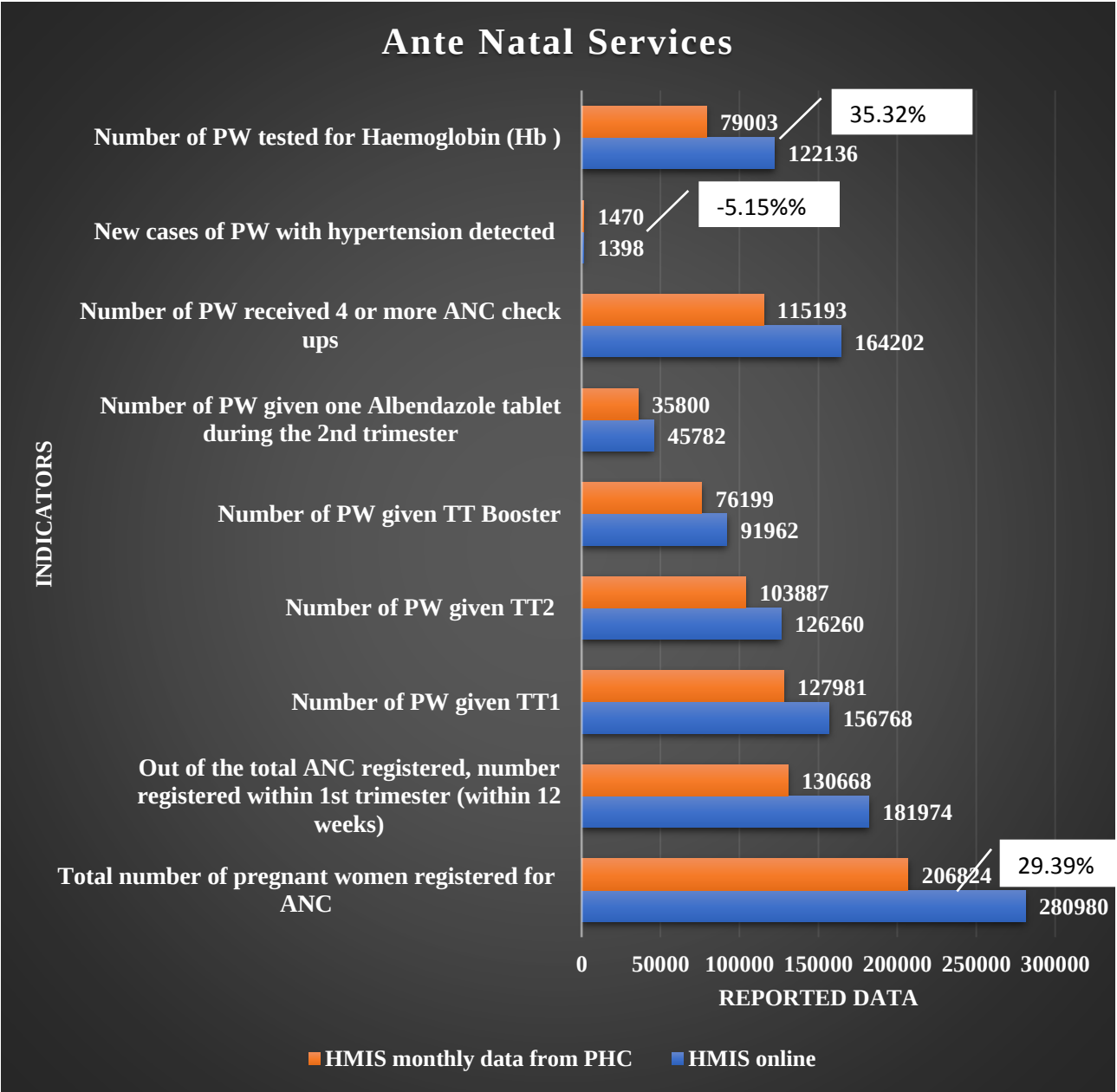


Figure 1Ante Natal Service

NUMBER OF HOME DELIVERIES AND C-SECTIONS

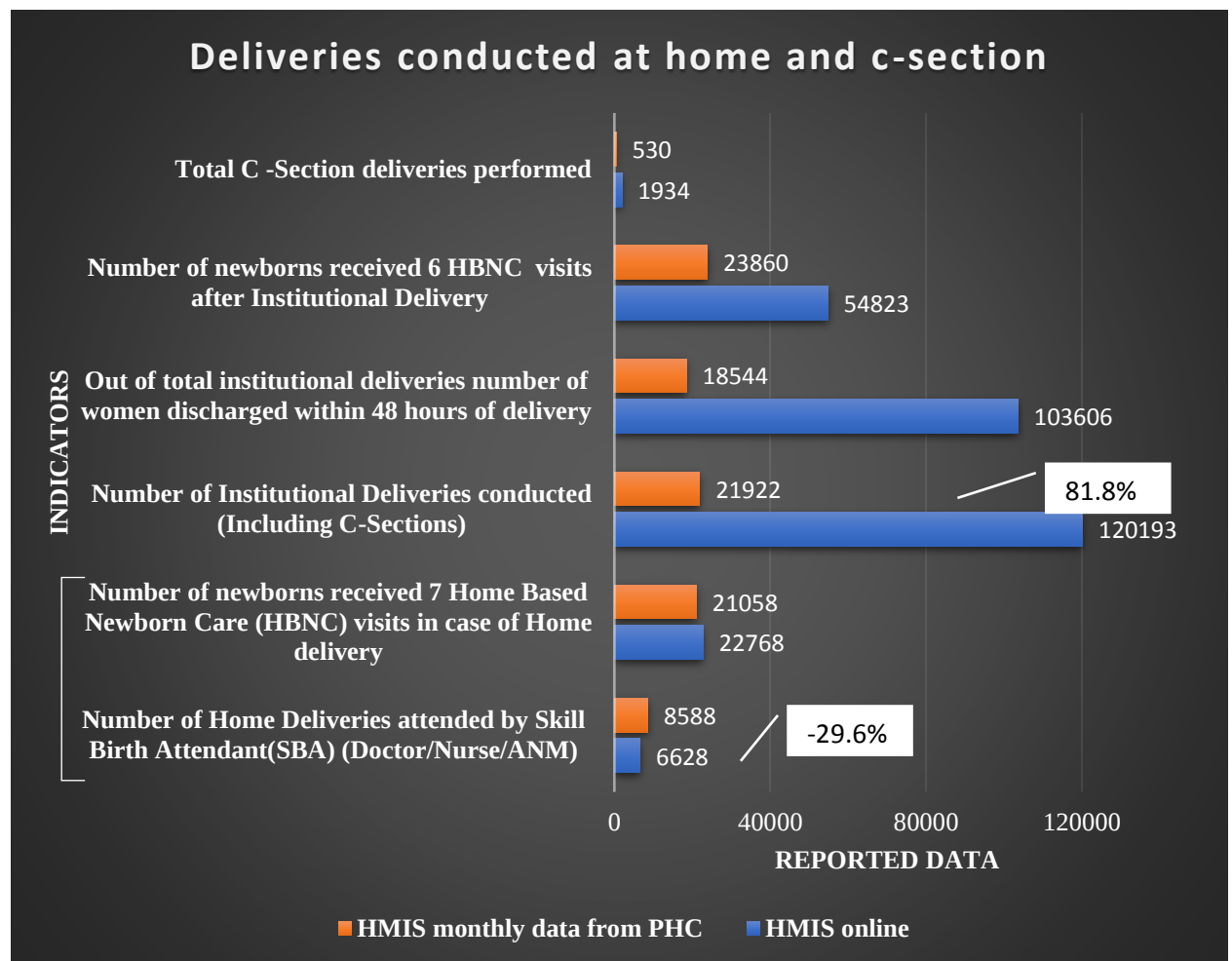


Figure 2 Number of home deliveries and c-sections

Indicator of Home Deliveries attended by Skilled Birth Attendant (Doctor/Nurse/ANM) is under-reported by near about 30%.

Taking institutional delivery into the account, high number of institutional delivery indicates about the data duplication. In addition to this some of HSCs reported C-section deliveries which are not being conducted in HSCs.

It was found that there is high proportion of total number of women discharged within 48 hrs among all institutional deliveries. This can be attributed to lack of proper understanding of data element as number of women discharged within 48hrs of delivery is a negative indicator.

It was found that the number of new-borns received 6 HBNC visits after Institutional Delivery is much higher than the number of institutional delivery conducted. Probably some of the ANM went for home visits in the month of February'18 for those women who have delivered in the month of January'18

PREGNANCY OUTCOMES AND DETAILS

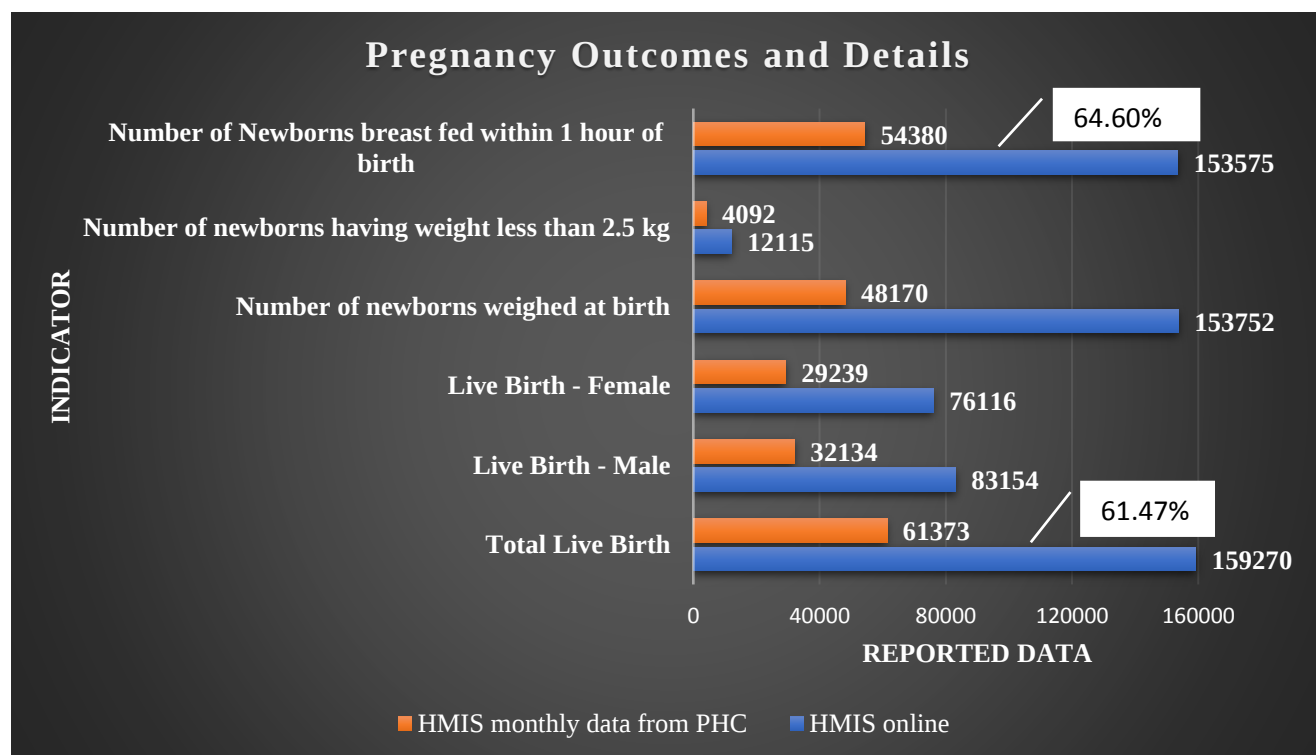


Figure 3Pregnancy outcomes and details

Pregnancy outcome indicators were over reported in HMIS online. There is huge gap between HMIS online data and HMIS records maintained by ANM. This over reporting can be attributed to problem in data aggregation and data duplication.

POST NATAL SERVICES

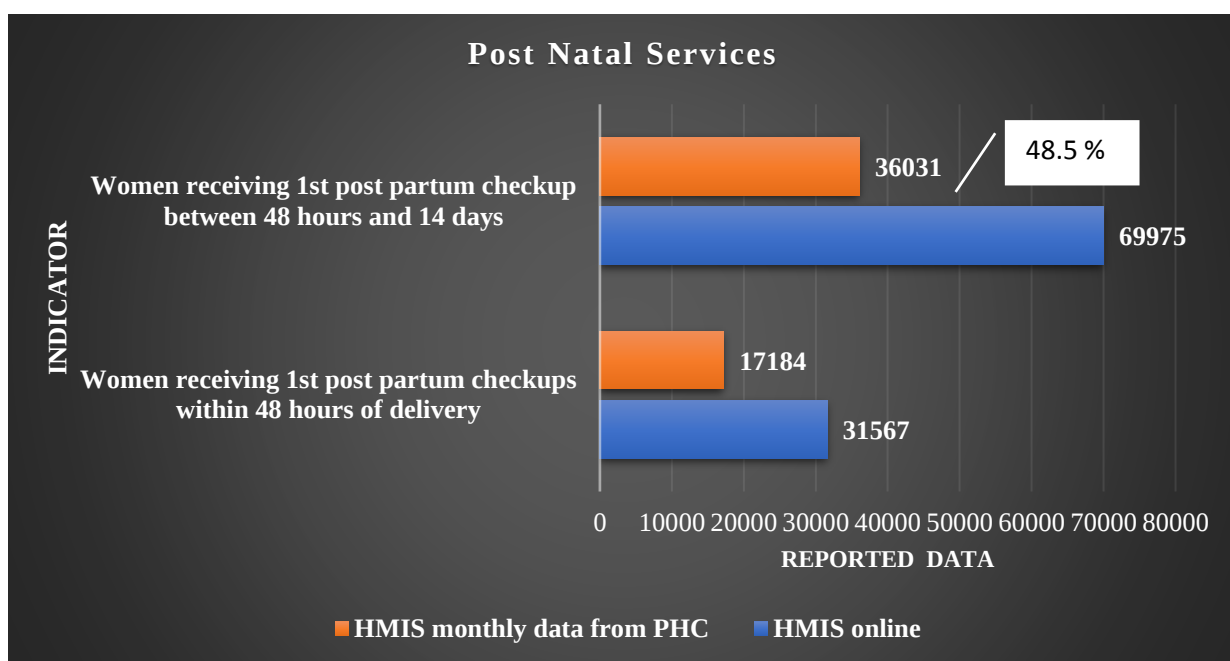


Figure 4 Post Natal Services

It was found that the women receiving 1st post-partum check-ups within 48 hrs of delivery and women receiving 1st post-partum check-up between 48hrs and 14 days were over reported. The proportion of PNC services is very low among total deliveries (home deliveries and institutional delivery) conducted which indicates there is less awareness about the PNC services. There is scope of improvement in the program implementation for PNC services.

FAMILY PLANNING

Total number of Non-Scalpel Vasectomy/Conventional Vasectomy are very less in Bihar which indicates that the proportion of Male Sterilization is very less among total sterilization.

Mini lap sterilization is highly over reported in HMIS online.

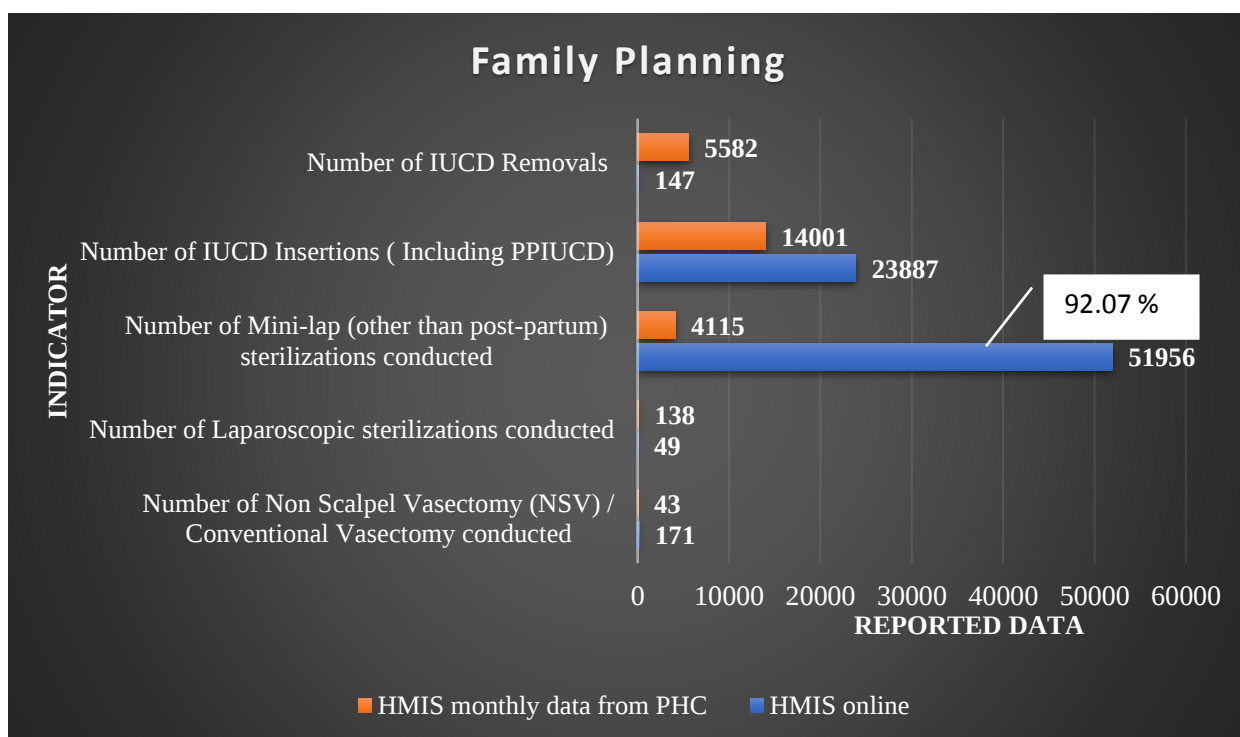


Figure 5 Family Planning

CHILD IMMUNIZATION: NUMBER OF INFANTS 0 TO 11 MONTHS

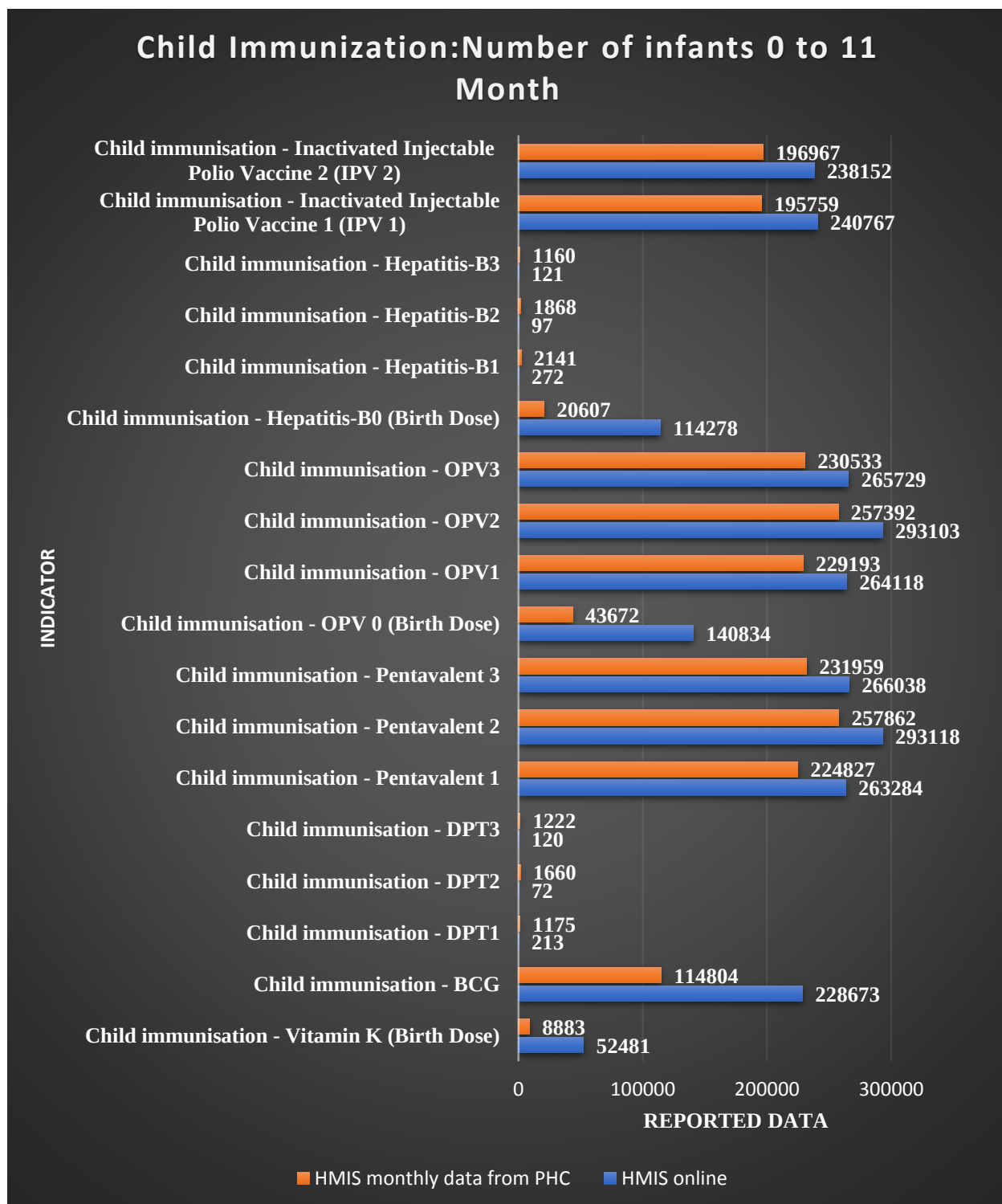


Figure 6 Child immunization for children 0-11 months

Child immunization is highly over reported in HMIS online. The proportion of Birth dose of OPV '0' and Vitamin K and Hepatitis 'B' birth dose is also very less among total live births.

Data of Hepatitis vaccination and DPT doses are reported neither in HMIS online data nor HMIS data from PHC but it was found that all three dosages of pentavalent vaccine is given which includes Hepatitis, DPT and Hib vaccines.

CHILD IMMUNIZATION: 9-11 MONTHS

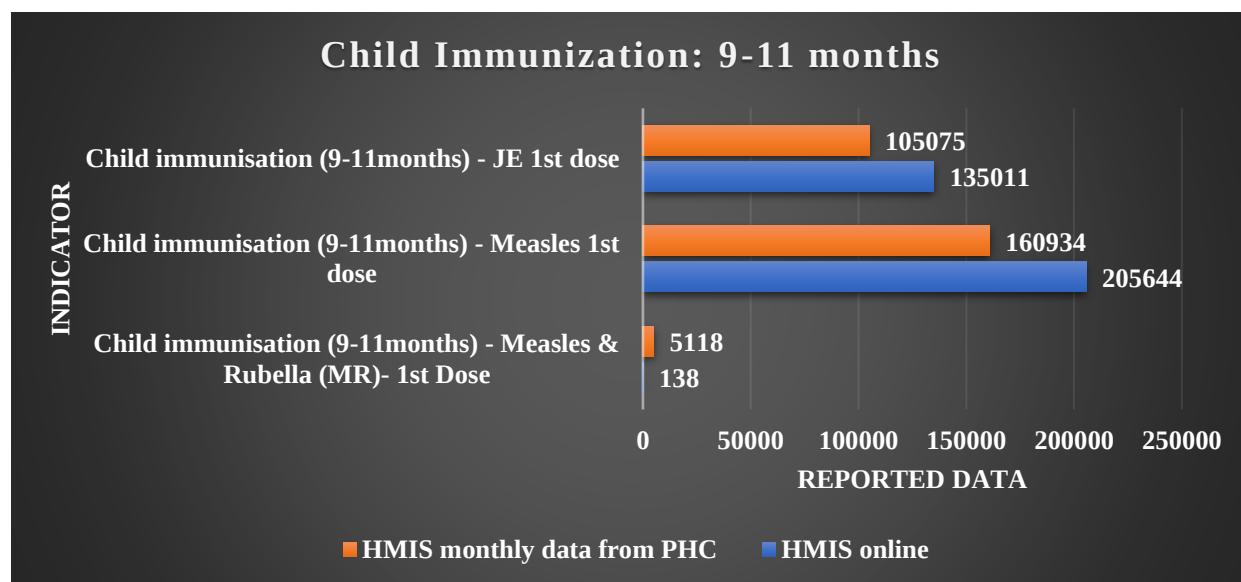


Figure 7 Child Immunization :9 -11 months

Children between the age of 9 to 11 months were also over reported for JE, Measles 1st dose immunization. Immunization of Measles and Rubella 1st dose was not reported. Measles and Rubella vaccine is not being given across Bihar. MR vaccine is in the phased introduction in five states namely Karnataka, Tamil Nadu, Goa, Lakshadweep, and Puducherry (as of feb'17). However, some cases were reported which can be attributed to either field level worker doesn't know about it or some of the family migrated to Bihar from these states. In addition to this, MR vaccine is proposed to launch in Bihar also.

FULL IMMUNIZATION

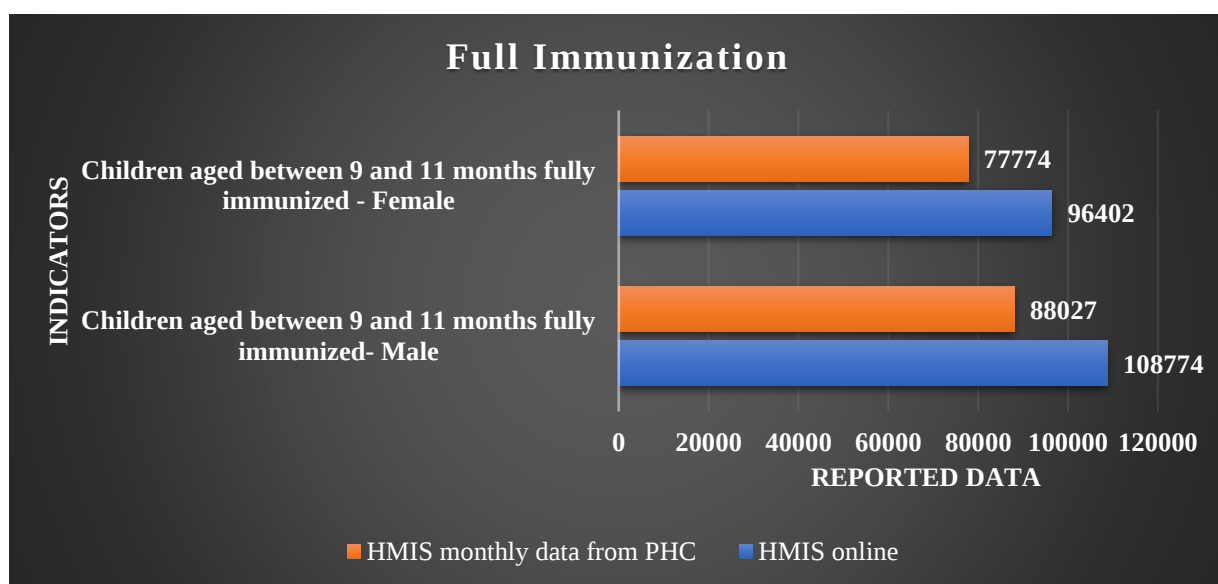


Figure 8 Full Immunization

Full immunization indicator is highly reported in both sources which clearly indicates that the definition of this indicator is not known to field level managers and field level worker. Definition of full immunization includes percentage of children aged between 9 to 11 months who have been given one dose of BCG, three dosages of DPT i.e. DPT1,2,3 and three dosages of polio i.e. OPV 1,2,3 and one dose of measles.

Stakeholders misinterpreted this indicator and calculate all the children who received any of these vaccines.

NUMBER OF CHILDREN MORE THAN 12 MONTHS WHO RECEIVED FOLLOWING IMMUNIZATION

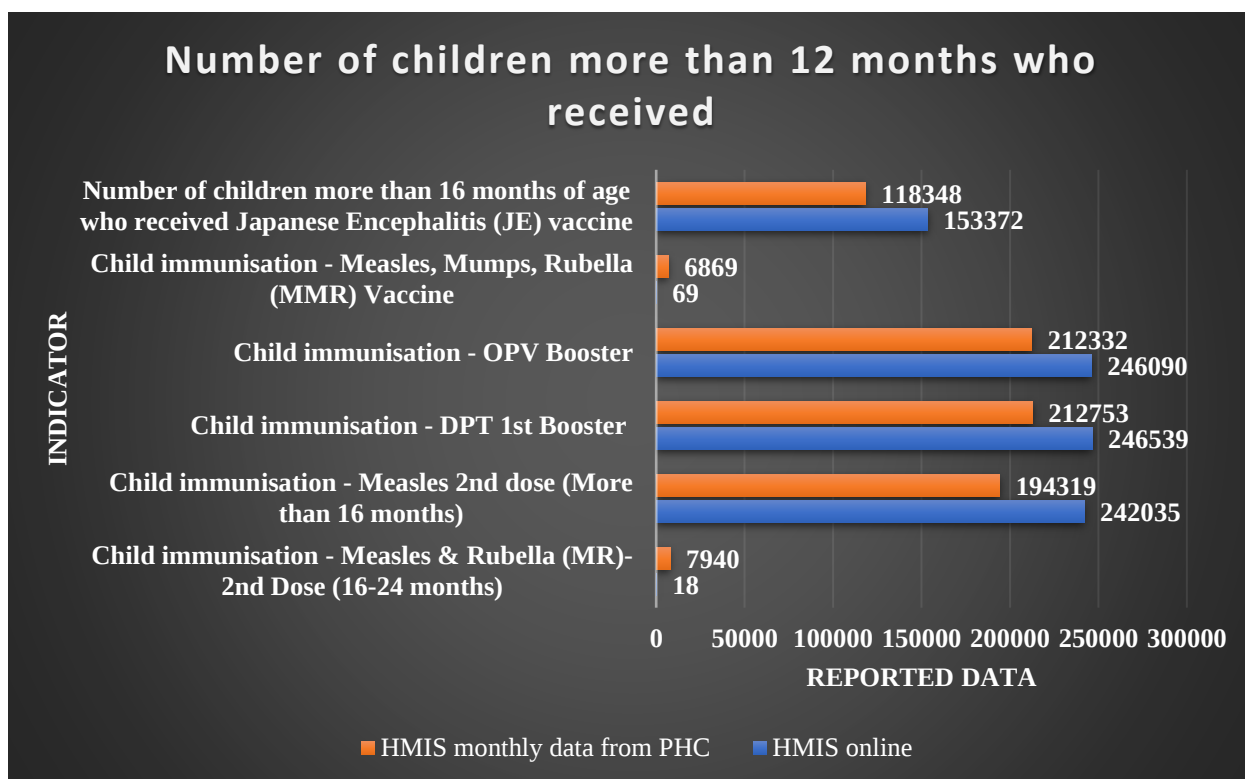


Figure 9 Number of children more than 12 months who received JE, Measles, MR vaccines

All vaccines given after 12 months of the age of the children are given and overreported in HMIS online.

CHILDREN RECEIVED VITAMIN A DOSES BETWEEN 9 MONTHS TO 5 YEARS

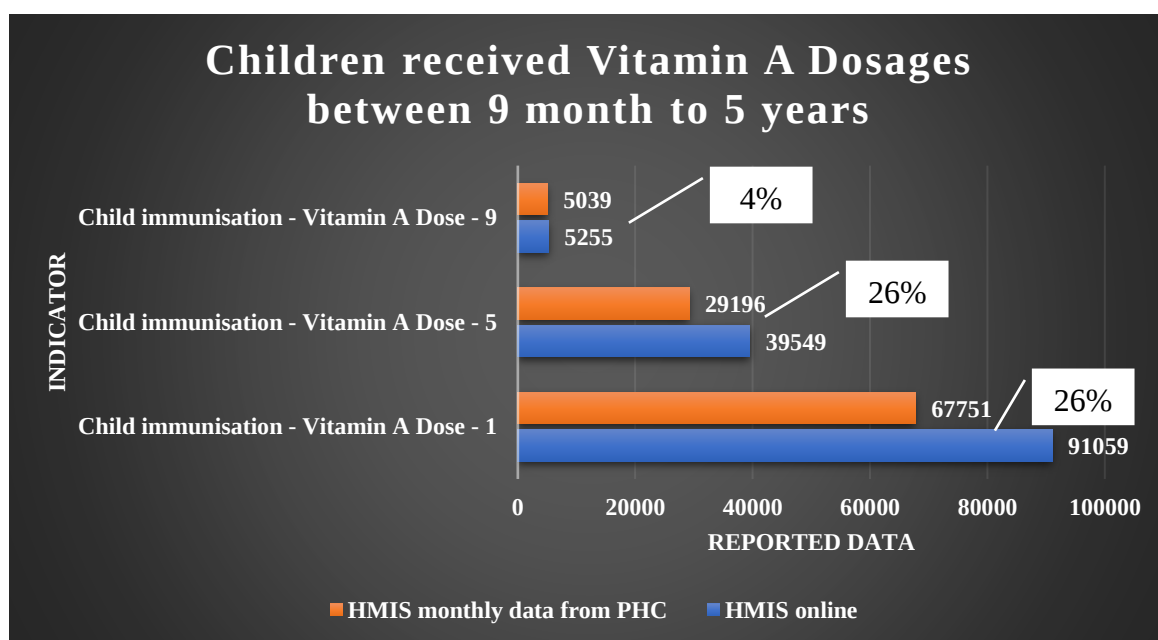


Figure 10 Children received vitamin A dosages between 9 months to 5 years

First dose of Vitamin A is given at nine completed month with the measles but it was found that number of Vitamin A dose-1 is very less than measles 1st dose in the month of February'18 . Number of Vitamin A dose-9 is very less which is given at the age of 5years whereas the number of children who received DPT booster are very high which is also given at the age of 5 years.

CHILDREN BETWEEN THE AGE OF 12-59 MONTHS GIVEN OTHER HEALTH SERVICES

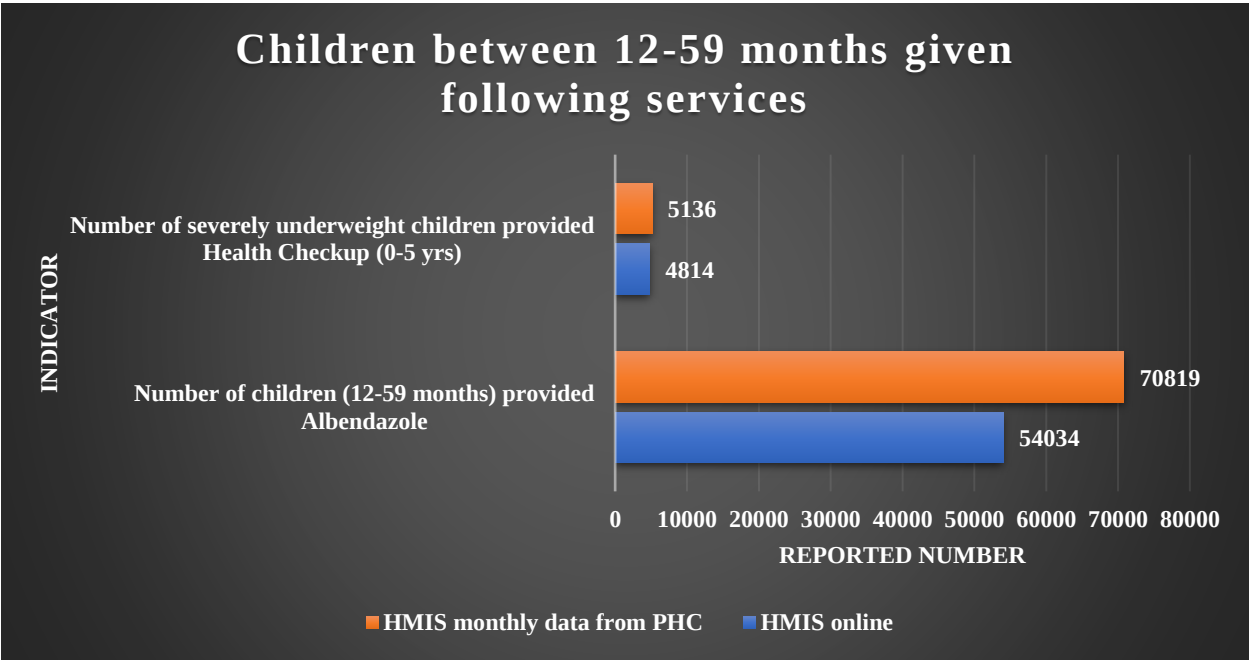


Figure 11 Children between 12-59 months given other health services

Data of deworming is under reported It can be interpreted that number of children provided Albendazole is very high because it is the data of February month and 10th February is known as a deworming day. Block M&E Officer misunderstood this data and deliberately under reported it.

Number of severely underweight children provided Health Check-up (0-5 years) is very less across Bihar. It can be interpreted that parents of these children are not informed about any health services regarding underweight children, or some of the children are getting health facility in private facility.

INFANT DEATHS

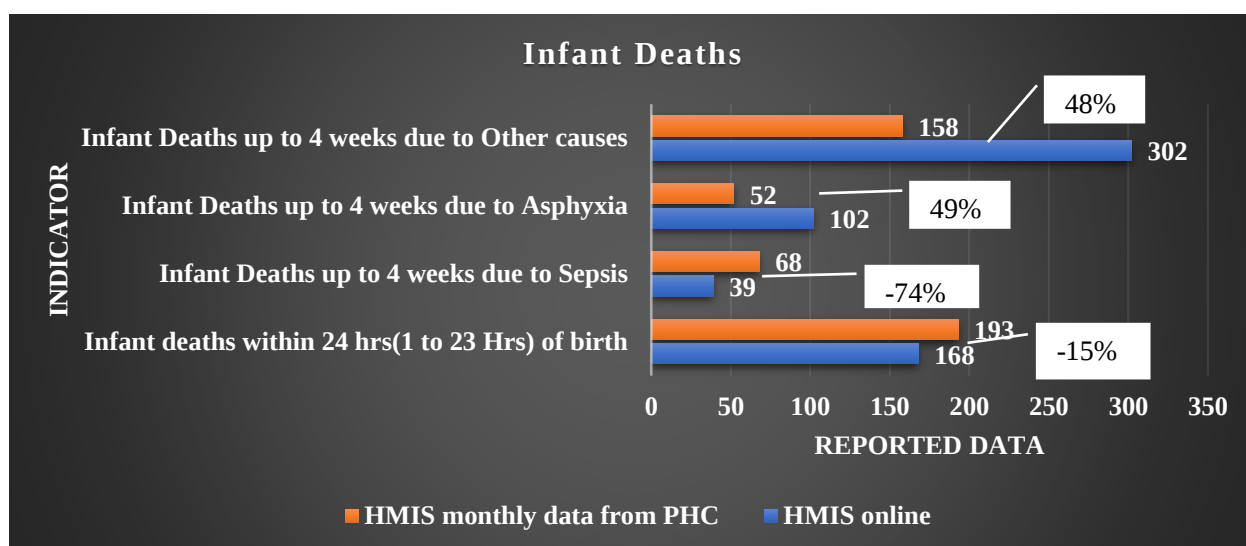


Figure 12 Infant Deaths

Death of infant is a mirror of quality of public health facility. Infant deaths within 24 hrs (1 to 23 Hrs) of birth is under reported in HMIS online. Infants deaths up to 4 weeks due to Asphyxia and other causes are over reported which is attributed to infant's physiological problem although it could be prevented. But infant deaths due to sepsis is under reported which is attributed to health staff's failure to perform their responsibility.

MATERNAL DEATHS

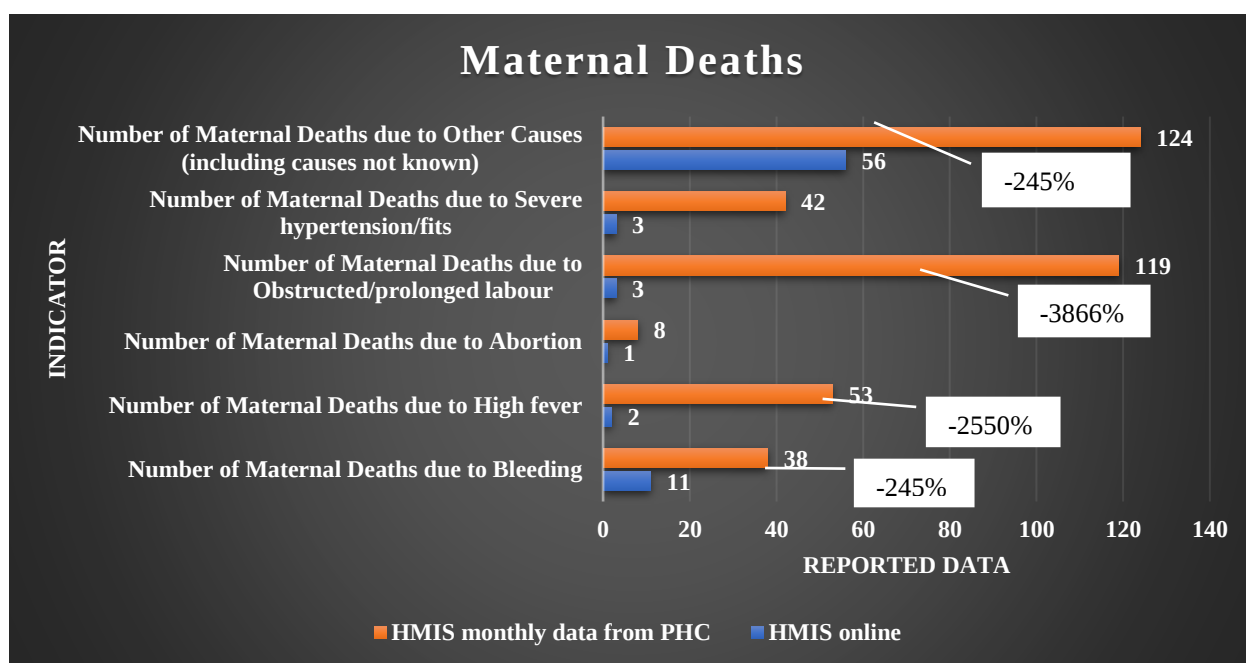


Figure 13 Maternal Deaths

Data of maternal death is under reported in HMIS online. HMIS monthly data from PHC is also not reliable because calculating all the maternal death in the month of February across Bihar is contributing to 384. It can be interpreted that ANMs doesn't know about these technical terms and misinterpreted these cases for e.g. a single woman may have two symptoms mentioned in bar graph and ANM reported that death in those two categories.

9. DISCUSSION

Completeness, Correctness, Timeliness, Data Entry Errors and Systematic errors are the challenges for quality of HMIS data.

Facility reports reflect provision and utilization of services thus an incomplete report indicates partial service delivery/utilization. Data completeness is assessed for the number of facilities reported against total facilities and for the number of data elements reported against total data elements in a reporting form. In this study data incompleteness was found in both terms. During the assessment of data definition of zero and blank field also addressed where blank addresses the unavailability of services in that facility and zero addresses that service is available but not given to any person during that month. Data regarding the completeness was found to be satisfactory as 95.7% HSCs reported their data in HMIS format of HSCs.

Timeliness in submission of report was another bottleneck for this study. As per the guideline all the ANMs must submit HMIS format of HSC to Block Monitoring and evaluation officer till the 5th of every next month but some formats were not available during the data collection which led to second visit to those PHCs.

Correctness or correctness of data collected in terms of actual number of services provided or health events organized. Quality of data was hampered due to lack of understanding of data definitions and data collection methods, data recording and data entry errors, systemic errors i.e. logical errors embedded in the system due to which these errors remain unless underlying systemic issues are corrected.

Misreporting and non-reporting of data can be attributed to many reasons. Possible systemic errors were found during the study were error due to multiple register or poorly designed registers, misinterpretation of the data element of HMIS format, language barrier, understanding of technical terms, consistency in terms use and manual formats within the health system, computation error, problems in data integration, lack of written guidelines and procedure, logistic problems, data duplication, data reported for non-existent facilities, wrong choice of denominators, reporting of missing values.

Recording of information in multiple registers make the work more troublesome and monotonous which adds to 'data weariness'. To reduce this burden of multiple registers ANMs preferred to make their own format for different information and collect data on it which

results in capturing all information for a single data element and leaving the information for other data element. Thus, the quality of data is highly dependent on the skills and priorities of service provider.

Misinterpretation of data element was the major challenge for this study because many of the indicators was not compared because of different understanding of data element among all stakeholders for e.g. the study didn't take comparison of some data elements like Number of pregnant women given 100 IFA tablets, Number of pregnant women given 360 calcium tablets, Number of mothers provided full course of 180 IFA tablets after delivery, and Number of mothers provided 360 Calcium tablets after delivery. Data for these elements were having huge discrepancy, some of the ANM reported the total number of tablets they distributed, while some reported number of tablets to each woman.

During the study different HMIS formats of HSCs were found even formats were not same within the Block of each district. Some of the data elements of HMIS has been changed and updated. Some of the format were in English also.

There is potential for error in data aggregation. Certain data elements which belongs to one group and can't be added together to generate an aggregate number for e.g. data reported for number of children between 9-11 months fully immunized (BCG+DPT123+OPV123+Measles). The definition of this data element is the total number of children who have received all these four vaccines not the number of children who have received any of them or sum of number of children who received BCG, DPT123, OPV 123, and measles.

Logistic problem of HMIS format leaded to non-reporting or inconsistent reporting. Travelling to PHC to submit those formats was also an issue. There was shortage of printed forms and registers required for record keeping. Most of the time quality of reporting forms due to repeated photocopy remained very poor. As a result, health workers designed and create their own forms which are different from the prescribed formats and the consistency of data varies. Therefore, this was another reason for less reporting in HMIS formats from PHC because during the study some handmade formats of HMIS were also found but it was not included in the data collection.

Data duplication is a frequent problem which hampers data quality. In many cases, ANM also reported services that are delivered by facilities such as PHC or district hospital but ANM recorded those services in het HMIS HSC format.

In an earlier study undertaken in Uttarakhand state in 2012, 24.6% entries were reported missing for various indicators.(9)

Other study indicated that the variables mostly over-reported were the ones for which high levels of coverage were desired but not achieved. This finding was also observed in a previous study from Haryana where correctness of records for immunization, attendant at the time of delivery & contraception was reported to be around 66%, 60.5% & 27.5% respectively.(8)(10) Khandade et al in 2013, in their study from Bihar state, reported correctness of HMIS for various indicators to vary from 65% to 80%.

Another study by Harikumar in 2013 found limits of correctness and completeness of data in Kerala state to be around 37% and 29% respectively, which are lower than results observed in our study.(11)

Major strength of this study is the use of a systematic approach for assessment of quality. None of the previous studies have attempted to assess quality of both levels of data reporting for generating a comprehensive evaluation statement.

10. 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.

Recoding of data in HMIS portal should be done facility wise i.e. HSCs wise so that this data can be used for the particular HSC and interventions can be performed for catchment area of those HSCs by ANMs. It will also increase the morale of FLW because they can use their own data for health intervention.

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.

There should be a single register for all the services delivered by ANM to reduce the burden of multiple registers.

ANM should report only for the services that she provided herself (except births and deaths which are reported for the area and not the facilities). ANMs should be clearly informed and explained this guideline.

11. CONCLUSION

The study was carried out taking the two sources of data first one was HMIS online data which is updated by Block M& E Officer at the Block level and second one was HMIS format of HSC filled by ANM to the respective PHC.

Comparison were done for each indicator for the month of February. Indicators regarding reproductive and child health, Ante Natal Services, Post Natal Services, Pregnancy Outcome, Vaccination of children 0-11 months, vaccination of children between 9-11 months, Full Immunization, Vaccination of children between 12-59 months, Infant Deaths and Maternal Deaths were taken for the study.

Analysis was done for all these indicators. It was found that most of the services were over reported and less number of indicators were under reported. Data for indicator for some valuable services like number of pregnant women provided 180 IFA tablets and 360 calcium tablets was not mentioned in the study because that data was unreliable and understanding of this data element is different among field level worker and block M&E Officer.

Completeness, Correctness, 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.

12. INSTRUMENTATION

MONTHLY FORMAT FOR PHC AND EQUIVALENT INSTITUTIONS

State% &			
District %&		Month%	
Block		Year%	
HSC Name			
Name of the PHC:		Name of the BMLE	
Data available or not: Yes.....1 No.....2 ---- - Go to End			
Sl. No.	Data Item	Data availabl e : Yes..... 1 No.....2	Nu mb ers Re por ted dur ing the mo nth
Part A	REPRODUCTIVE AND CHILD HEALTH		
M1	Ante Natal Care (ANC) Services		
1.1	Total number of pregnant women registered for ANC		

1.1.1	Out of the total ANC registered, number registered within 1 st trimester (within 12 weeks)		
1.2	Tetanus Toxoid (TT) Immunisation to Pregnant Women (PW)		
1.2.1	Number of PW given TT1		
1.2.2	Number of PW given TT2		
1.2.3	Number of PW given TT Booster		
1.2.4	Number of PW given 180 Iron Folic Acid (IFA) tablets		
1.2.5	Number of PW given 360 Calcium tablets		
1.2.6	Number of PW given one Albendazole tablet during the 2 nd trimester		
1.2.7	Number of PW received 4 or more ANC check ups		
1.3	Pregnant women (PW) with Hypertension (BP>140/90)		
1.3.1	New cases of PW with hypertension detected		
1.3.1.a	Out of the new cases of PW with hypertension detected, cases managed at institution		
1.3.2	Number of Eclampsia cases managed during delivery		
1.4	Pregnant women (PW) with Anaemia		
1.4.1	Number of PW tested for Haemoglobin (Hb)		
1.4.2	Number of PW having Hb level<11 (tested cases)		
1.4.3	Number of PW having Hb level<7 (tested cases)		
M2	Deliveries		
2.1	Deliveries conducted at Home		
2.1.1	Number of Home Deliveries attended by		

2.1.1.a	Number of Home Deliveries attended by Skill Birth Attendant(SBA) (Doctor/Nurse/ANM)			
2.1.1.b	Number of Home Deliveries attended by Non SBA (Trained Birth Attendant(TBA) /Relatives/etc.)			
2.1.2	Number of PW given Tablet Misoprostol during home delivery			
2.1.3	Number of newborns received 7 Home Based Newborn Care (HBNC) visits in case of Home delivery			
2.1.4	Number of Institutional Deliveries conducted (Including C-Sections)			
2.1.4.a	Out of total institutional deliveries number of women discharged within 48 hours of delivery			
2.1.4.b	Number of newborns received 6 HBNC visits after Institutional Delivery			
M3	Number of Caesarean (C-Section) deliveries			
3.1	Total C -Section deliveries performed			
M4	Pregnancy outcome & details of new-born			
4.1	Pregnancy Outcome (in number)			
4.1.1	Live Birth			
4.1.1.a	Live Birth – Male			
4.1.1.b	Live Birth – Female			
4.1.2	Number of Pre term newborns (< 37 weeks of pregnancy)			
4.1.3	Still Birth			
4.2	Abortion (spontaneous)			
4.3	Medical Termination of Pregnancy (MTP)			
4.3.1	Number of MTPs conducted			
4.3.1.a	MTP up to 12 weeks of pregnancy			
4.3.1.b	MTP more than 12 weeks of pregnancy			

4.4	Details of Newborn children			
4.4.1	Number of newborns weighed at birth			
4.4.2	Number of newborns having weight less than 2.5 kg			
4.4.3	Number of Newborns breast fed within 1 hour <i>of birth</i>			
M6	Post Natal Care (PNC)			
6.1	Women receiving 1 st post partum checkups within 48 hours of delivery			
6.2	Women receiving 1st post partum checkup between 48 hours and 14 days			
6.3	Number of mothers provided full course of 180 IFA tablets after delivery			
6.4	Number of mothers provided 360 Calcium tablets after delivery			
M8	Family Planning			
8.1	MALE STERILISATION			
8.1.1	Number of Non Scalpel Vasectomy (NSV) / Conventional Vasectomy conducted			
8.2	FEMALE STERILISATION			
8.2.1	Number of Laparoscopic sterilizations conducted			
8.2.2	Number of Mini-lap (other than post-partum) sterilizations conducted			
8.3	Number of IUCD Insertions (Including PPIUCD)			
8.5	Number of IUCD Removals			
M9	CHILD IMMUNISATION			
9.1	Number of Infants 0 to 11 months old who received:			
9.1.1	Child immunisation - Vitamin K (Birth Dose)			
9.1.2	Child immunisation – BCG			
9.1.3	Child immunisation - DPT1			

9.1.4	Child immunisation - DPT2		
9.1.5	Child immunisation - DPT3		
9.1.6	Child immunisation - Pentavalent 1		
9.1.7	Child immunisation - Pentavalent 2		
9.1.8	Child immunisation - Pentavalent 3		
9.1.9	Child immunisation - OPV 0 (Birth Dose)		
9.1.10	Child immunisation - OPV1		
9.1.11	Child immunisation - OPV2		
9.1.12	Child immunisation - OPV3		
9.1.13	Child immunisation - Hepatitis-B0 (Birth Dose)		
9.1.14	Child immunisation - Hepatitis-B1		
9.1.15	Child immunisation - Hepatitis-B2		
9.1.16	Child immunisation - Hepatitis-B3		
9.1.17	Child immunisation - Inactivated Injectable Polio Vaccine 1 (IPV 1)		
9.1.18	Child immunisation - Inactivated Injectable Polio Vaccine 2 (IPV 2)		
9.1.19	Child immunisation - Rotavirus 1		
9.1.20	Child immunisation - Rotavirus 2		
9.1.21	Child immunisation - Rotavirus 3		
9.2	Number of Children 9-11 months who received:		
9.2.1	Child immunisation (9-11months) - Measles & Rubella (MR)- 1 st Dose		
9.2.2	Child immunisation (9-11months) - Measles 1 st dose		
9.2.3	Child immunisation (9-11months) - JE 1 st dose		
9.2.4	Number of children aged between 9 and 11 months fully immunized (BCG+DPT123/ pentavalent123+OPV123+Measles)		
9.2.4.a	Children aged between 9 and 11 months fully immunized- Male		

9.2.4.b	Children aged between 9 and 11 months fully immunized - Female		
9.3	Children given following vaccination after 12 months		
9.3.1	Child immunisation - Measles & Rubella (MR)- 1st Dose		
9.3.2	Child immunisation - Measles-1st dose		
9.3.3	Child immunisation - JE 1st dose		
9.4	Number of Children more than 12 months who received:		
9.4.1	Child immunisation - Measles & Rubella (MR)- 2nd Dose (16-24 months)		
9.4.2	Child immunisation - Measles 2nd dose (More than 16 months)		
9.4.3	Child immunisation - DPT 1st Booster		
9.4.4	Child immunisation - OPV Booster		
9.4.5	Child immunisation - Measles, Mumps, Rubella (MMR) Vaccine		
9.4.6	Number of children more than 16 months of age who received Japanese Encephalitis (JE) vaccine		
9.8	Children received Vitamin A Doses between 9 months and 5 years		
9.8.1	Child immunisation - Vitamin A Dose - 1		
9.8.2	Child immunisation - Vitamin A Dose - 5		
9.8.3	Child immunisation - Vitamin A Dose - 9		
9.9	Number of children (6-59 months) provided 8-10 doses (1ml) of IFA syrup (Bi weekly)		
9.10	Number of children (12-59 months) provided Albendazole		
9.11	Number of severely underweight children provided Health Checkup (0-5 yrs)		
Part C.	Mortality Details		
M16	Details of deaths reported with probable causes:		

16.1	Infant deaths within 24 hrs(1 to 23 Hrs) of birth		
16.2	Infant Deaths up to 4 weeks (1 to 28 days) due to		
16.2.1	Infant Deaths up to 4 weeks due to Sepsis		
16.2.2	Infant Deaths up to 4 weeks due to Asphyxia		
16.2.3	Infant Deaths up to 4 weeks due to Other causes		
16.5	Maternal Deaths (15 to 49 yrs.) due to		
16.5.1	Number of Maternal Deaths due to Bleeding		
16.5.2	Number of Maternal Deaths due to High fever		
16.5.3	Number of Maternal Deaths due to Abortion		
16.5.4	Number of Maternal Deaths due to Obstructed/prolonged labour		
16.5.5	Number of Maternal Deaths due to Severe hypertesnion/fits		
16.5.6	Number of Maternal Deaths due to Other Causes (including causes not known)		

Selected Indicators for quality check: DATA COLLECTORS has
to fill the data of these selected indicators once again

Instruction: Please fill the data of these selected indicators again (Repeated entry)		Data available : Yes.....1 No.....2	Numbers Reported during the last (February'18 month)
1.2.1	Number of PW given TT1		
1.2.4	Number of PW given 180 Iron Folic Acid (IFA) tablets		
2.1.4	Number of Institutional Deliveries conducted (Including C-Sections)		
4.1.1.a	Live Birth – Male		
4.1.1.b	Live Birth – Female		
8.2.1	Number of Laparoscopic sterilizations conducted		
8.3	Number of IUCD Insertions (Including PPIUCD)		
9.1.1	Child immunisation - Vitamin K (Birth Dose)		
9.1.9	Child immunisation - OPV 0 (Birth Dose)		
9.3.1	Child immunisation - Measles & Rubella (MR)- 1st Dose		
16.5.3	Number of Maternal Deaths due to Abortion		
16.1	Infant deaths within 24 hrs(1 to 23 Hrs) of birth		

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