Data Quality Audit
Of
MCTS and HMIS

Conducted by

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Preface

The extent and coverage of health care services in Uttar Pradesh has gone manifold in recent years. This widening spectrum and increased accessibility has benefitted the masses to a great extent. As the total number of beneficiaries receiving Immunization, Ante and Post Natal Care, Delivery etc. is increasing day by day, the role of tools for effective motoring of the services being provided assumes vital importance.

Mother and Child Tracking System (MCTS) and Health Management Information System(HMIS) had been devised to help in achieving this objective. These systems, over the years, have become the base for retrieving the information relating to various health services parameters for monitoring, review and planning.

In Uttar Pradesh, SIFPSA has played major role in implementation and rolling out of these two portals. The biggest challenge as of now is to have improved quality of data on these two portals as Government of India has clearly indicated that the provisioning of funds under PIP will be based of health schemes data available on HMIS portal. Government of India has also reiterated that availability of vaccines and funds will be on the basis of immunization details available on MCTS portal. Now, it is imperative for all district and state officials to make use of data available on these two portals on day to day basis for reviewing the status of various health schemes. This will improve quality of data immensely and help in documenting the actual work done by health functionaries on web portals.

With monitoring tools playing such vital role, it is imperative that effective measures are taken to ensure the authenticity and accuracy of stored and reported information. SIFPSA has taken the innovative initiative called Data Quality Audit of MCTS and HMIS data to fulfill the need to measure and improve the usability of data. I hope this activity would provide a big boost in terms of qualitative as well as quantitative excellence and become a guide post in years to come. SIFPSA and NHM team under the leadership of Sri BK Jain, General Manager(R&E/FPIS/BD), SIFPSA deserves all credits for completing the task in short span of time.

(Amit Kumar Ghosh)
Executive Director

Foreword

Health Management Information System (HMIS) and Mother and Child Tracking System (MCTS) portals are two key portals launched by Government of India and facility based data entry is being done on these two portals by health facilities in all states of India. These portals have assumed the role of resource house of information pertaining to various aspects of health care services. These portals have helped in providing quick access to the information in this domain as and when needed. However, the information is as good as its actual usability for the intended purpose. The usability of information vastly depends upon quality parameters like reliability and accuracy. Ensuring that the data entered is authentic, accurate and up-to-date, requires a well-defined, in-depth analysis and understanding of the data sources, the information about awareness levels of persons concerned and the recording and reporting patterns among many others.

Uttar Pradesh is largest state in terms of number of facilities reporting on these portals and the challenges of data collection, entry, validations and follow-up are complex and voluminous. There are challenges like availability of computer operators, regular supply of electricity in rural areas and issues of ownership of data.

The Data Quality Audit of MCTS and HMIS data has been carried out by SIFPSA with the objective of achieving aforementioned objectives and I am sure it will achieve overall goal of making the information more useful to a greater degree with the assurance of authenticity, reliability and usability.

The team comprising of Sri UC Pant, PC(FPIS), Sri KS Bisht , Divisional PM(R&E), Sri SP Khare, Consultant (R&E) from SIFPSA, Sri Ashish Kumar Maurya, Consultant (MIS), Sri Prakhar Goswami, Data Analyst, Sri Shiv Kumar, Data Analyst, Sri Qumesh Ul Hasan, Sri MP Singh, Programme Coordinator from NHM and Divisional Accounts Managers of divisions Aligarh, Varanasi, Moradabad, Saharanpur and Basti deserves special thanks for carrying out the exercise of Data Quality Audit under the leadership of Sri BK Jain, General Manager (FPIS/R&E/BD), SIFPSA.

(Rigzin Samphel)
Addional Executive Director

Abbreviations

ANM	Auxiliary Nurse Midwife
ARO	Assistant Research Officer
BAM	Block Accounts Manager
BPM	Block Project Manager
BSNL	Bharat Sanchar Nigam Limited
CBR	Crude Birth Rate
CDR	Crude Death Rate
CHC	Community Health Centres
CMO	Chief Medical Officer
DDAA	District Data and Accounts Assistants
DDM	District Data Manager
Div. PM	Divisional Program Manager
Div. PMU	Divisional Program Management Unit
DPM	District Program Manager
DPMU	District Program Management Unit
DWH	District Women's Hospital
HEO	Health Education Officer
HMIS	Health Management Information System
IMR	Infant Mortality Rate
MCH	Maternal and Child Health
MCTS	Mother & Child Tracking System
MMR	Maternal Mortality Rate
MOIc	Medical Officer in Charge
NHM	National Health Mission
PHC	Primary Health Centres
RCH	Reproductive Child Health
SIFPSA	State Innovations in Family Planning Services Project Agency
TFR	Total Fertility Rate
USB	Universal Serial Bus

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Chapter 1

Data Quality Audit Study

Chapter 1

Data Quality Audit

Objective :

HMIS (Health Management Information System) and MCTS (Mother and Child Tracking System) have been among the major gateways of the wealth of information covering various parameters related to health services and related domains. These remain the prime monitoring tools for effective supervision, management, evaluation and implementation at various levels. Considering the importance, it is imperative to ensure that the data remains accurate and authentic. The activity i.e. "Data Audit for Improving Quality of Data" aimed at fulfilling this need.

Team :

The team comprised of Mr. U C Pant -PC(FPIS), Mr. Kaushal Singh Bisht -Div. PM(R&E) and Mr. S P. Khare -Consultant(R&E). The team was accompanied by HMIS/MCTS Data Analysts/PC from National Health Mission(NHM). Divisional Account Managers also joined the team in their respective districts.

Area and Duration :

The audit was conducted in 53 blocks of 5 districts of Uttar Pradesh other than High Priority Districts. Approximately 250 reporting units in 5 districts, comprising of CHC/PHC/SC, were covered for this purpose as per following itinerary:

1.	Varanasi	11-18 Sep 2014
2.	Saharanpur	21-28 Sep 2014
3.	Basti	09-16 Oct 2014
4.	Moradabad	27 Oct-4 Nov 2014
5.	Aligarh	10-17 Nov 2014

Study Design/ Sampling :

Out of the five districts, Varanasi and Basti were selected from Eastern Uttar Pradesh whereas Aligarh, Saharanpur and Moradabad were selected from Western Uttar Pradesh. For each of selected 5 districts, the details pertaining to Community Health Centres(CHC), Primary Health Centres(PHC) and Sub-centres were taken from facility master database of Health Management Information System(HMIS) and Mother and Child Tracking System(MCTS) portals. The details about the HMIS portal and MCTS portal are given on next page.

Table 2.1 : Reporting units in HMIS and MCTS portals

Sr.	Districts	HMIS Portal				MCTS Portal
		No. of Reporting CHC	No. of Reporting PHC	No. of Reporting Sub- Centre	Total Reporting Units	No. of Reporting Units
1	Varanasi	7	28	323	358	8
2	Saharanpur	14	40	366	420	11
3	Basti	8	37	273	318	14
4	Moradabad	4	5	267	276	9
5	Aligarh	14	35	359	408	5
TOTAL		**47**	**145**	**1588**	**1780**	**47**

In light of the above, data collected from HMIS and MCTS Portals it was decided that all 53 block of selected 5 districts will be covered. For the purpose of uniformity, 50 service delivery point of each selected district were selected for the study. For data collection and verification of data by HMIS and MCTS portal all CHCs and 20% of total PHC existing in the districts and remaining from Sub-centres service points were selected for the study. The selection of samples from each district is given below:

Table 2.2 : Reporting units in HMIS and MCTS portals

Sr.	District	Block Level CHC/PHC (Administrative Units)		No. of Reporting PHC (20% of total Units)		No. of Reporting Sub-centres and selected Sub-centres for study		Total Sample of service points per district (D+F+H)
		Reporting Units in HMIS and MCTS	Sample units for study	Reporting Units	20% of Reporting Units for study	Reporting Sub-Centres	50-(D+F) SC units for Study	
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
1	Varanasi	7	8	28	6	323	36	50
2	Saharanpur	14	11	40	8	366	31	50
3	Basti	8	14	37	8	273	28	50
4	Moradabad	4	8	5	1	267	41	50
5	Aligarh	14	12	35	7	359	31	50
TOTAL		**47**	**53**	**145**	**30**	**1588**	**167**	**250**

Chapter 2

Methodology

Chapter 2

Methodology

The methodology adopted for Data Quality Audit may be described as follows :

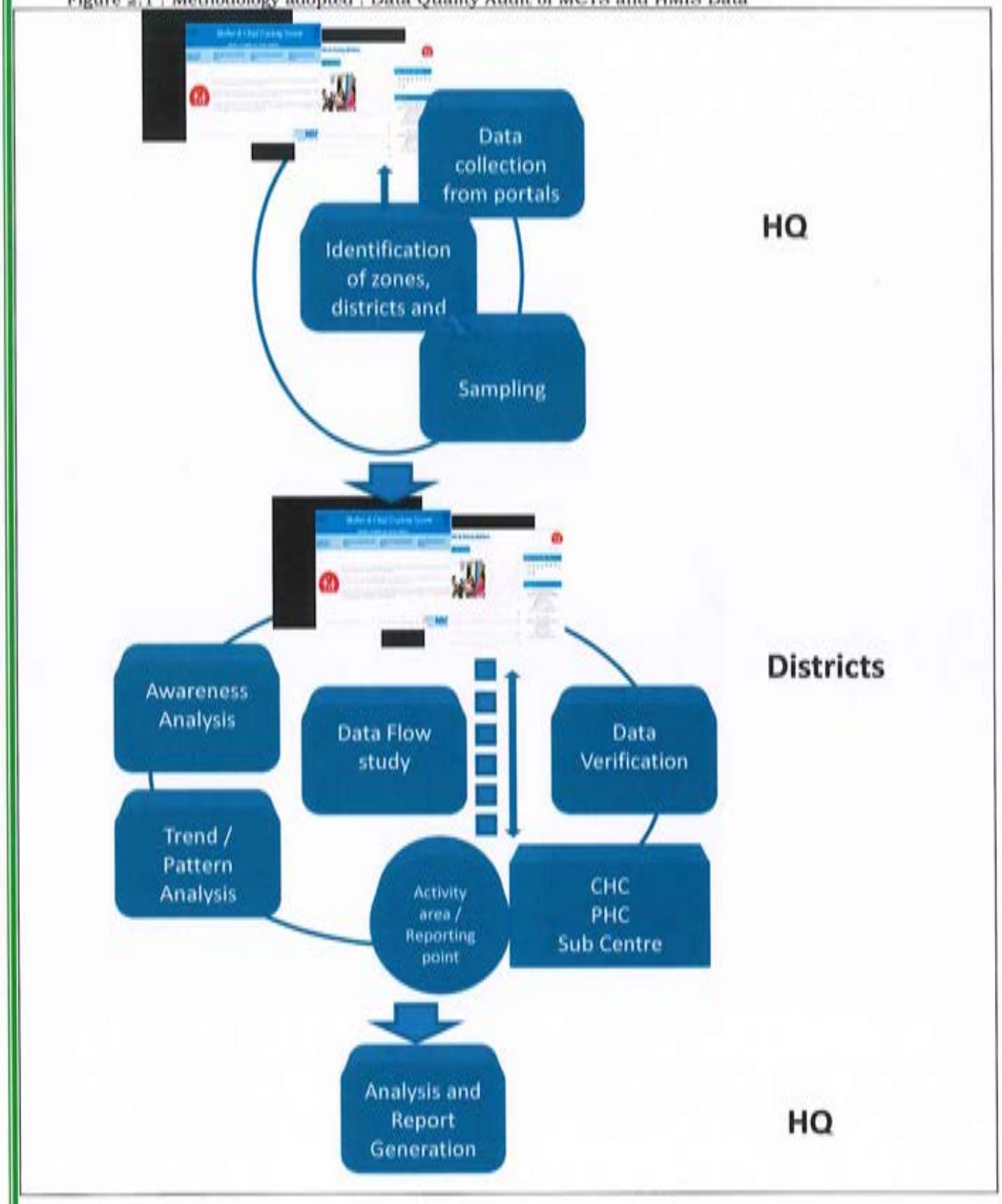
- HMIS data for the month of June 2014 and MCTS data uploaded till 30 August 2014 was collected from HMIS and MCTS portal.
- Analysis /review of the online database for consistency.
- Identification of HMIS/MCTS data elements that do not comply with the general behavior of data.
- Comparison of online data at HMIS and MCTS with the source documents at block level for mismatching / missing components.
- Data flow mechanism.
- Accuracy check in terms of mapping of indicators into online database.
- Analysis of data for its quality in terms of general validation rules.

The team visited Block CHCs/PHCs (Administrative Unit), Additional PHCs and Sub centres and interacted with Chief Medical Officer(CMO), Superintendent/Medical Officer in Charge(MOIc), Health Education Officer(HEO), Block Project Manager(BPM), Assistant Research Officer(ARO), Auxiliary Nurse Midwife(ANMs) and MCTS and HMIS operator during visit. The team observed and collected information about the data as well as the associated factors like pattern of data collection, reporting, submission, verification, and data entry.

The study also included the assessment of awareness level of the persons. The copies of online record was also tallied with the Physical record for inconsistencies / discrepancies with special focus on :

- Tracking of High risk pregnancies.
- Check and Back check of High risk pregnancies.
- ANC/PNC follow-up of High risk pregnancies.
- Infant Immunization.
- Child Immunization.
- Check and Back check the cases of Low weight children.
- Institutional Deliveries.
- Home Deliveries etc.

Figure 2.1 : Methodology adopted : Data Quality Audit of MCTS and HMIS Data



Chapter 3

Findings / Observations

Chapter 3.1

Data Flow Pattern and Awareness Analysis

District : Varanasi

The data audit in the district was conducted during 11 – 18 Sept 2014.

Pattern / Trend Analysis

Data Identification and Collection Pattern :

The information, at its initial stage, is noted by ANM. In case of HMIS this is noted on prescribed HMIS formats provided to her by the concerned PHC/CHC. The information relating to MCTS is recorded on MCH register. At certain stages, though not very frequent, the information is noted down on a piece of paper / notebook and then entered on registers.

Data Recording and Reporting Pattern :

As the reporting cycle starts on 21st and ends on 20th, filled HMIS formats are usually submitted in between 21st – 25th of each month. In case of MCTS, the registers are submitted / exchanged by ANMs during weekly meetings. At times, when registers are not available with ANMs, they note down the information on paper, update it at CHC/PHC and submit for uploading onto the portal. These meetings are usually held on Tuesday with exception of PHC Pindra, where this is held on Thursday.

Data Verification Pattern :

There isn't any scheduled data verification pattern in Varanasi before data uploading. The data is usually entered directly on to the portal. Field visits, which are also random in nature, are done at most places by Superintendent/MOIc/BPM/staff for the purpose of monitoring and supervision. These visits are general in nature and not specific to HMIS and MCTS data. However, at PHC Chiraigaon, MOIc remains in close touch with the staff during the verification / data entry / report generation.

Data Entry Pattern :

The selected units in Varanasi showed mix pattern of direct entry from filled HMIS formats and MCH registers. While the entry is sometimes done on the base of filled HMIS formats and MCH registers, at certain places like CHC Cholapur, PHC Pindra, CHC Arazi Lines etc., ARO also manually notes down the reported information in the registers maintained by him. These documents, at times, are referred by the operator while doing data entry.

Data Sharing Pattern :

The data is shared / shown to the MOIc before uploading it onto portals only at few places like PHC Chiraigaon. Generally, the reports are shown to the ARO before and after data entry while the Superintendent / MOIc gets the printed reports generated from the portals after data entry.

Awareness Analysis

Superintendent / MOIc :

Only a few MOIc(for eg. PHC Chiraigaon) use computers frequently. This fact is also reflected in their relative awareness of HMIS and MCTS portals and their features. However, the lack of operational awareness is the common factor shared by most of Superintendents / MOIc across the district.

ARO / HEO :

The AROs of selected units were not using computers in day-to-day life and hence not computer friendly. However, all AROs were well aware of the HMIS and MCTS portals, data entry procedures and their basic features associated with these portals. Not being aware of basic functionality of computers, AROs don't work themselves on portals but sit with the operator while the entry is being done.

BPM :

All the BPMs are comfortable with HMIS and MCTS portals. They monitor and facilitate the processes relating to data collection, verification, entry and report generation.

MCTS operator and other staff :

It is observed that MCTS operator are generally the most computer savvy staff. He/she takes care of MCTS related tasks. However, they are also found well aware of HMIS portal. They also get involved in the activities requiring extensive use of internet / computers / printers and so on. BAM are also comfortable with computers in general and assist the staff in day-to-day activities.

Awareness at District Level :

All the DPMU staff members at Varanasi are well aware of HMIS and MCTS portals and well versed with computers. District HMIS Operator works as facilitator and provides orientation / inputs to block level staff in the matter relating to operational aspects of HMIS portal. DPM also works as Nodal officer for HMIS / MCTS related matters.

Awareness at Divisional Level :

Similarly, the staff at Divisional PMU Varanasi is comfortable with computers and HMIS and MCTS portals and provides inputs in monitoring of the same.

District : Saharanpur

The data audit in the district was conducted during 21 – 28 Sept 2014.

Pattern / Trend Analysis

Data Identification and Collection Pattern :

The ANM notes down primary information relating to the activities on various reporting mediums. In case of HMIS this is noted on prescribed HMIS formats provided to her by the concerned PHC/CHC. The information relating to MCTS is recorded on MCH register. At certain stages, though not very frequent, the information is noted down on a piece of paper / notebook and then entered on registers.

Data Recording and Reporting Pattern :

As the reporting cycle starts on 21st and ends on 20th, filled HMIS formats are usually submitted in the first meeting held at PHC/CHC after 20th of each month. In case of MCTS, the registers are submitted / exchanged by ANMs when they attend weekly meetings. These meetings are usually held on Tuesday.

Data Verification Pattern :

The audit shows mixed pattern of data verification in Saharanpur . While the data is usually entered directly on to the portal in most of the cases, certain exceptions were also found. For eg. The Superintendent at CHC Gangoh, is aware of MCTS as well as HMIS portals to the data entry and reporting level. He has also done entries in the portals in the past when required. He has also given the instructions to the staff to show him the data before uploading. Similarly, ARO at Deoband CHC cross checks data with the BPM before uploading.

Data Entry Pattern :

In most of the cases, the entry is done directly from the filled formats submitted by ANMs. In case of MCTS, MCH register, which is submitted by ANMs during weekly meeting, is referred for this purpose. In certain cases, like CHC Nanota, CHC Gangoh, CHC Sunheti Kharkhari etc., the information from these formats / registers is noted down by ARO for his reference. Sometimes, these are also used / referred while data entry onto portals.

Data Sharing Pattern :

In certain cases like CHCs of Gangoh, Nanota and Deoband, it was noted that the data is shared / shown to the Superintendent before uploading it onto portals. Generally, the reports are shown to the ARO before and after data entry while the Superintendent / MOIc gets the printed reports generated from the portals after data entry.

Awareness Analysis

Superintendent / MOIc :

The common factor shared by most of Superintendents / MOIc was the lack of operational awareness. However, at CHC Gangoh and CHC Nakur, the Superintendents use computers

frequently. This fact is also reflected in their relatively increased awareness of HMIS and MCTS portals and their features.

ARO / HEO :

In general, the AROs interviewed were not using computers in day-to-day life and hence not computer friendly. However, all AROs were well aware of the HMIS and MCTS portals, data entry procedures and their basic features associated with these portals. Though AROs don't work themselves, most of the time they sit with the operator while the entry is being done.

BPM :

All the BPMs are comfortable with HMIS and MCTS portals. They monitor and facilitate the processes relating to data collection, verification, entry and report generation. It was also found that at most places, BPMs are well versed with HMIS and doing data entry / report generation quite frequently.

MCTS operator and other staff :

MCTS operator are generally the most computer savvy staff. He/she takes care of MCTS related tasks. However, they are also found well aware of HMIS portal. They also get involved in the activities requiring extensive use of internet / computers / printers and so on. BAM are also comfortable with computers in general and assist the staff in day-to-day activities.

Awareness at District Level :

All the DPMU staff members at Saharanpur are well aware of HMIS and MCTS portals and well versed with computers. District HMIS Operator works as facilitator and provides orientation / inputs to block level staff in the matter relating to operational aspects of HMIS portal. DPM also works as Nodal officer for HMIS / MCTS related matters.

Awareness at Divisional Level :

Similarly, the staff at Divisional PMU Saharanpur is comfortable with computers and HMIS and MCTS portals and provides inputs in monitoring of the same.

District : Basti

The data audit in the district was conducted during 09 – 16 Oct 2014.

Pattern / Trend Analysis

Data Identification and Collection Pattern :

The information starts its journey in form of the entries made by ANM. In case of HMIS this is noted on prescribed HMIS formats and MCTS MCH register. Information is also noted on different kind of registers maintained by ANMs. At certain stages, though not very frequent, the information is noted down on a piece of paper / notebook and then entered on registers.

Data Recording and Reporting Pattern :

As the reporting cycle starts on 21st and ends on 20th, filled HMIS formats are usually submitted in between 21st – 25th of each month. In case of MCTS, the registers are submitted / exchanged by ANMs during weekly meetings. At times, when registers are not available with ANMs, they note down the information on paper, update it at CHC/PHC and submit for uploading onto the portal. These meetings are usually held on Tuesdays.

Data Verification Pattern :

There isn't any scheduled data verification pattern in Basti. The data is usually entered directly on to the portal. Field visits, which are also random in nature, are done at most places by Superintendent/MOIc/ staff for the purpose of monitoring and supervision. These visits are general in nature and not specific to HMIS and MCTS data. However, at few places like PHC Kudreha, MOIc remains in close touch with the staff during the verification / data entry / report generation.

Data Entry Pattern :

The selected units in Basti showed almost universal pattern of direct entry from filled HMIS formats and MCH registers. However, at certain places like CHC Parshrampur, ARO also manually notes down the reported information in the registers maintained by him. The operator, at times, refers to these while doing data entry.

Data Sharing Pattern :

The data is shared / shown to the MOIc before uploading it onto portals at very few places like PHC Kudreha. Generally, the reports are shown to the ARO before and after data entry while the Superintendent / MOIc gets the printed reports generated from the portals after data entry.

Awareness Analysis

Superintendent / MOIc :

MOIc at PHC Kudreha and PHC Saughat use computers quite frequently. This fact is also reflected in their relatively increased awareness of HMIS and MCTS portals and their features. However, the common factor shared by most of Superintendents / MOIc was the lack of operational awareness.

ARO / HEO :

The AROs of selected units were not using computers in day-to-day life and hence not computer friendly. However, all AROs were well aware of the HMIS and MCTS portals, data entry procedures and their basic features associated with these portals. Not being aware of basic functionality of computers, AROs don't work themselves on portals but sit with the operator while the entry is being done.

BPM :

All the BPMs are comfortable with HMIS and MCTS portals. They monitor and facilitate the processes relating to data collection, verification, entry and report generation. It was also found that at most places like CHC Parshrampur, PHC Dubuliya, CHC Saughat, CHC Vikramjot etc. BPMs are well versed with HMIS and do data entry / report generation and using it quite frequently.

MCTS operator and other staff :

It is observed that MCTS operator are generally the most computer savvy staff. He/she takes care of MCTS related tasks. However, they are also found well aware of HMIS portal. They also get involved in the activities requiring extensive use of internet / computers / printers and so on. Block Accounts Manager(BAM) are also comfortable with computers in general and assist the staff in day-to-day activities.

Awareness at District Level :

All the DPMU staff members at Basti are well aware of HMIS and MCTS portals and well versed with computers. District HMIS Operator works as facilitator and provides orientation / inputs to block level staff in the matter relating to operational aspects of HMIS portal. DPM also works as Nodal officer for HMIS / MCTS related matters.

Awareness at Divisional Level :

Similarly, the staff at Divisional PMU Basti is comfortable with computers and HMIS and MCTS portals and provides inputs in monitoring of the same.

District : Moradabad

The data audit in the district was conducted during 27 Oct – 04 Nov 2014.

Pattern / Trend Analysis

Data Identification and Collection Pattern :

The ANM notes down the details of the activities in various forms. In case of HMIS this is noted on prescribed HMIS formats provided to her by the concerned PHC/CHC. The information relating to MCTS is recorded on MCH register. At certain stages, though not very frequent, the information is noted down on a piece of paper / notebook and then entered on registers.

Data Recording and Reporting Pattern :

As the reporting cycle starts on 21st and ends on 20th, filled HMIS formats are usually submitted in between 21st – 25th of each month. In case of MCTS, the registers are submitted / exchanged by ANMs during weekly meetings. At times, when registers are not available with ANMs, they note down the information on paper, update it at CHC/PHC and submit for uploading onto the portal. These meetings are usually held on Tuesday with some exceptions. For eg. PHC Kundarki conducts it on Mondays, PHC Mundanpandey does the same on Thursdays.

Data Verification Pattern :

The audit did not find any established data verification pattern in Moradabad. The data is usually entered directly on to the portal. Field visits, which are also random in nature, are done at most places by Superintendent/MOIc/PMB/staff for the purpose of monitoring and supervision. However, no direct link was found between these visits and the verification of reported data in general.

Data Entry Pattern :

The selected units in Moradabad showed universal pattern of direct entry from filled HMIS formats and MCH registers. The operator refers to the information submitted and makes entry on the base of the same.

Data Sharing Pattern :

The data is shared / shown to the MOIc before uploading it onto portals at some places like PHCs of Kundarki, Mundanpandey and Bhojpur. Generally, the reports are shown to the ARO before and after data entry while the Superintendent / MOIc gets the printed reports generated from the portals after data entry.

Awareness Analysis

Superintendent / MOIc :

At CHC Bilari, PHC Kundarki, PHC Mundanpandey the Superintendents/MOIc use computers frequently. This fact is also reflected in their relatively increased awareness of HMIS and MCTS portals and their features. However, the common factor shared by most of Superintendents / MOIc was the lack of operational awareness.

ARO / HEO :

The AROs of selected units were not using computers in day-to-day life and hence not computer friendly. However, all AROs were well aware of the HMIS and MCTS portals, data entry procedures and their basic features associated with these portals. Not being aware of basic functionality of computers, AROs don't work themselves on portals but sit with the operator while the entry is being done.

BPM :

All the BPMs are comfortable with HMIS and MCTS portals. They monitor and facilitate the processes relating to data collection, verification, entry and report generation. It was also found that at most places, BPMs are well versed with HMIS and do data entry / report generation quite frequently. For eg. BPMs at PHC Bhojpur, PHC Kundarki and PHC Dilari also contribute in data entry and report generation when required.

MCTS operator and other staff :

MCTS operator are generally the most computer savvy staff. He/she takes care of MCTS related tasks. However, they are also found well aware of HMIS portal. They also get involved in the activities requiring extensive use of internet / computers / printers and so on. BAM are also comfortable with computers in general and assist the staff in day-to-day activities.

Awareness at District Level :

All the DPMU staff members at Moradabad are well aware of HMIS and MCTS portals and well versed with computers. District HMIS Operator works as facilitator and provides orientation / inputs to block level staff in the matter relating to operational aspects of HMIS portal. DPM also works as Nodal officer for HMIS / MCTS related matters.

Awareness at Divisional Level :

Similarly, the staff at Divisional PMU Moradabad is comfortable with computers and HMIS and MCTS portals and provides inputs in monitoring of the same.

District : Aligarh

The data audit in the district was conducted during 10 – 17 Nov 2014.

Pattern / Trend Analysis

Data Identification and Collection Pattern :

Like most of districts, the information, at its initial stage, is noted by ANM. In case of HMIS this is noted on prescribed HMIS formats provided to her by the concerned PHC/CHC. The information relating to MCTS is recorded on MCH register. However, at times, the information is noted down on a piece of paper / notebook and then entered on registers. This additional step adds the probability of error in recording of data.

Data Recording and Reporting Pattern :

As the reporting cycle starts on 21st and ends on 20th, filled HMIS formats are usually submitted in the first meeting held at PHC/CHC after 20th of each month. In case of MCTS, the registers are submitted / exchanged by ANMs when they attend weekly meetings. These meetings are usually held on Tuesday.

Data Verification Pattern :

The audit shows mixed pattern of data verification in Aligarh. While the data is usually entered directly on to the portal in most of the cases.

Data Entry Pattern :

In most of the cases, the entry is done directly from the filled formats submitted by ANMs. In case of MCTS, MCH register, which is submitted by ANMs during weekly meeting, is referred for this purpose. In certain cases, the information from these formats / registers is noted down by ARO for his reference. Sometimes, these are also used / referred while data entry onto portals.

Data Sharing Pattern :

In certain cases, it was noted that the data is shared / shown to the Superintendent before uploading it onto portals. Generally, the reports are shown to the ARO before and after data entry while the Superintendent / MOIc gets the printed reports generated from the portals after data entry.

Awareness Analysis

Superintendent / MOIc :

The common factor shared by most of Superintendents / MOIc was the lack of operational awareness of computers/portals.

ARO / HEO :

In general, the AROs interviewed were not using computers in day-to-day life and hence not computer friendly. However, all AROs were well aware of the HMIS and MCTS portals, data

entry procedures and their basic features associated with these portals. Though AROs don't work themselves, most of the time they sit with the operator while the entry is being done.

BPM :

All the BPMs are comfortable with HMIS and MCTS portals. They monitor and facilitate the processes relating to data collection, verification, entry and report generation. It was also found that at most places, BPMs are well versed with HMIS and doing data entry / report generation quite frequently.

MCTS operator and other staff :

MCTS operator are generally the most computer savvy staff. He/she takes care of MCTS related tasks. However, they are also found well aware of HMIS portal. They also get involved in the activities requiring extensive use of internet / computers / printers and so on. BAM are also comfortable with computers in general and assist the staff in day-to-day activities.

Awareness at District Level :

All the DPMU staff members at Aligarh are well aware of HMIS and MCTS portals and well versed with computers. District HMIS Operator works as facilitator and provides orientation / inputs to block level staff in the matter relating to operational aspects of HMIS portal. DPM also works as Nodal officer for HMIS / MCTS related matters.

Awareness at Divisional Level :

Similarly, the staff at Divisional PMU Aligarh is comfortable with computers and HMIS and MCTS portals and provides inputs in monitoring of the same.

Chapter 3.2

Common Factors affecting Quality of Data

The analysis of MCTS and HMIS data revealed certain common factors which affect the accuracy, authenticity and reliability of the information.

1. **Difference between the data reported by ANMs and uploaded data** is among the most noticeable errors found in data audit.

2. **Mistakes in recording the data on paper:** leading to confusion as logically incompatible data elements are do not correspond to each other. For eg. 3 deliveries linked to 21 births and so on.

3. **Incomplete reporting:** This trend is specially noticed in MCTS portal entries. When the entries are missing or blank, it becomes difficult at later stage to interpret whether it means 'not applicable', 'no services provided' or simply missed out entry. This leads to erroneous conclusions.

4. **Multiple reporting:** The figures about the same activity are communicated via various means like forms, photocopies, telephonic conversation etc. This increases the possibility of errors as the entry done in portal may not match with correct / intended reporting means, hence can't be verified.

The detailed analysis of specific factors affecting quality of data in connection with MCTS and HMIS is presented in coming sections.

Chapter 3.3

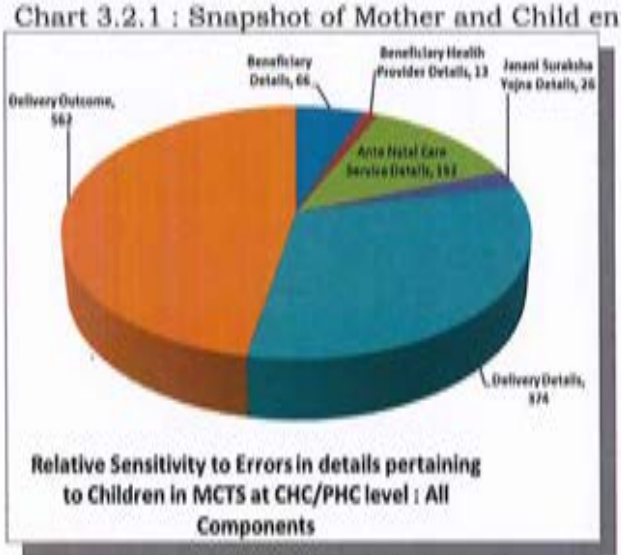
Data Analysis : Mother and Child Tracking System (MCTS)

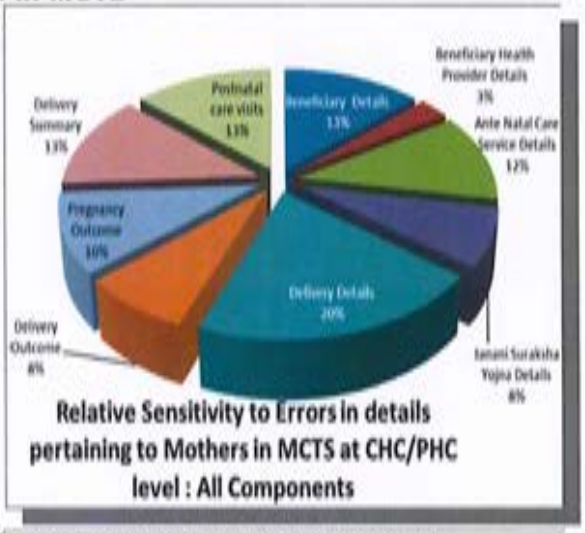
"When a mother dies, children lose their primary caregiver, communities are denied her paid and unpaid labour and countries forego her contributions to economic and social development.....More than a decade of research has shown that small and affordable measures can significantly, reduce the health risks that women face when they become pregnant. Most maternal deaths could be prevented if women had access to appropriate health care during pregnancy, childbirth, and immediately afterwards. "

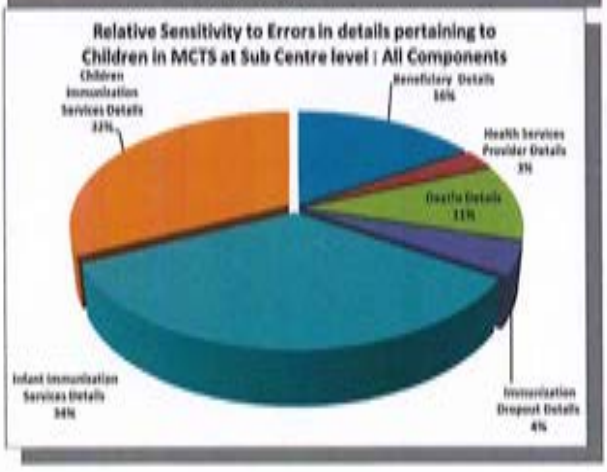
Taken from MCTS portal http://nrhm-mcts.nic.in/MCH/

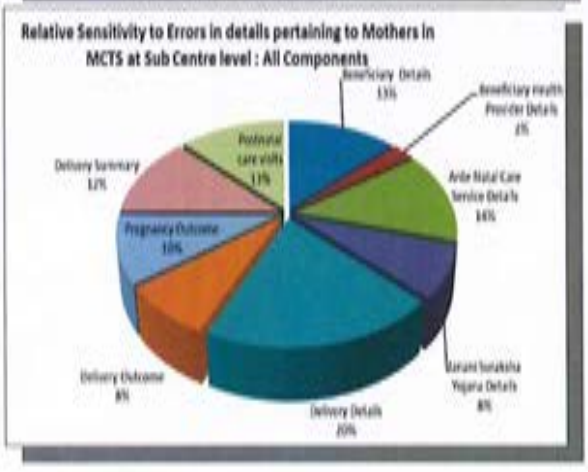
Along with general analysis, Data Quality Audit also worked upon identifying the sensitivity of various reporting parameters of MCTS. These entries are the ones which are usually are left out or left as blank or seen as non-reporting figure. These indicators were further classified into different domains like CHC/PHC and Sub Centre wise, Mother and Children detail wise etc.

Chart 3.2.1 : Snapshot of Mother and Child entries in MCTS









A. Detailed Analysis of entries pertaining to Infant / Child details

Key focus areas of MCTS include vital parameters relating to Infant / Child health which includes Beneficiary Details, Health Services Provider Details, Deaths Details, Immunization Drop out Details, Infant Immunization Services Details and Child Immunization Services Details.

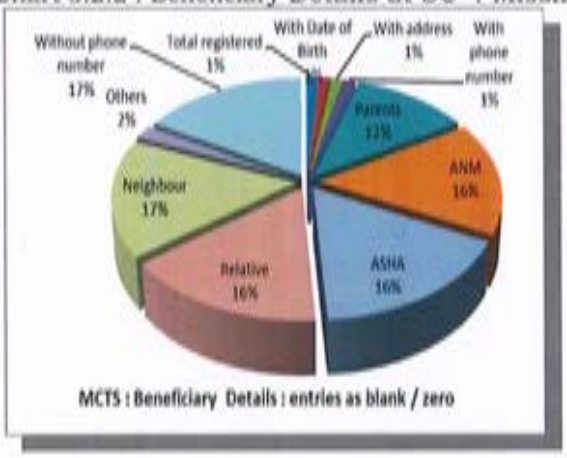
Findings of each of these components are as follows :

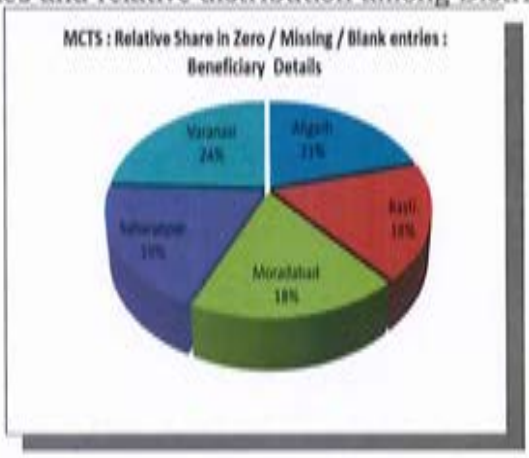
1. Beneficiary Details :

In Beneficiary Details section, most of the entries which were blank are noticed in the entry pertaining details of Neighbour(17%), ASHA(16%), Relatives(16%),ANM(16%) and Parents(12%). However,as either of these fields are to be filled for providing contact details, this indicates the trend rather than error.

a) Sub Centre level

Chart 3.2.2 : Beneficiary Details at SC : Missing entries and relative distribution among Districts

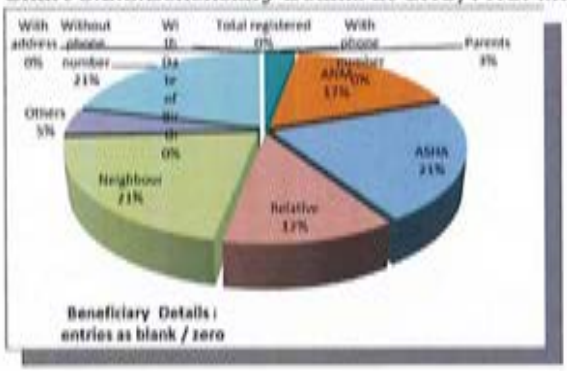


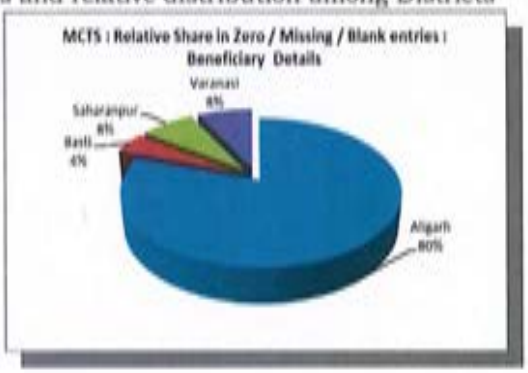


b) CHC/PHC level

At CHC/PHC level, the distribution of these entries is noticed as ASHA(21.2%),Neighbour(21.2%),Without phone number(21.2%),ANM(16.6%), Relative(12.1%), Others(4.54%) segments.

Chart 3.2.3:Beneficiary Details at CHC/PHC: Missing entries and relative distribution among Districts



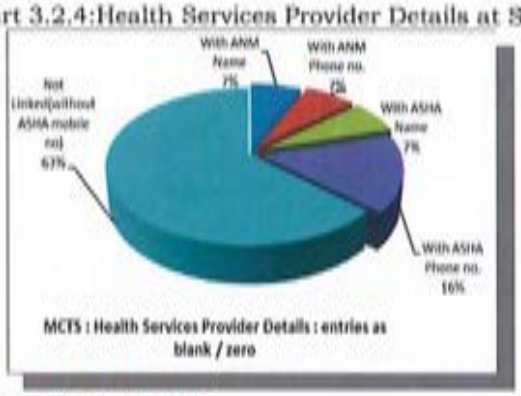


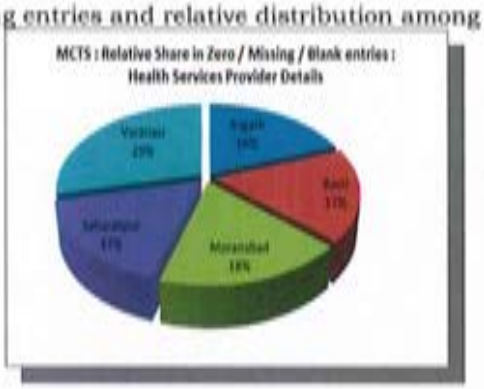
2. Health Services Provider Details:

a) Sub Centre level

Most noticeable entries in Health Services Provider section include Not Linked(without ASHA mobile no)(63.3%),With ASHA Phone number(16.1%),With ANM Name(6.83%),With ANM Phone number(6.83%),With ASHA Name(6.83%). These entries were more prominent in Varanasi with other districts sharing almost the same portion.

Chart 3.2.4:Health Services Provider Details at SC:Missing entries and relative distribution among Districts

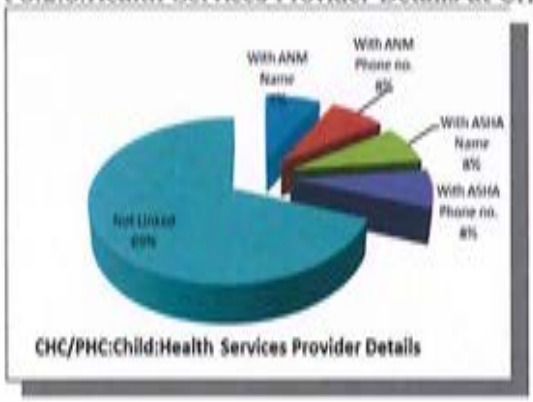


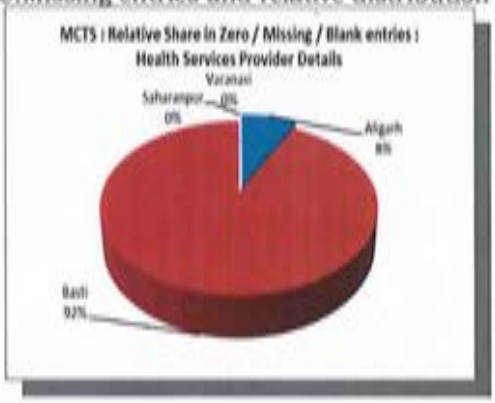


b) CHC/PHC level

While at CHC/PHC level, Not Linked(69.2%),With ANM Name(7.69%),With ANM Phone number(7.69%),With ASHA Name(7.69%),With ASHA Phone number(7.69%) show most of these entries. This trend was most noticeable in Basti.

Chart 3.2.5:Health Services Provider Details at CHC/PHC:Missing entries and relative distribution among Districts





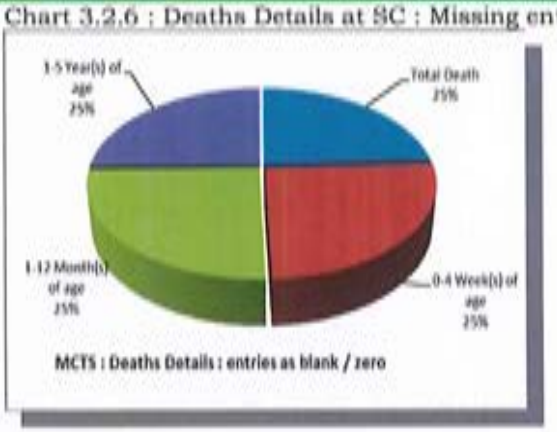
3. Deaths Details:

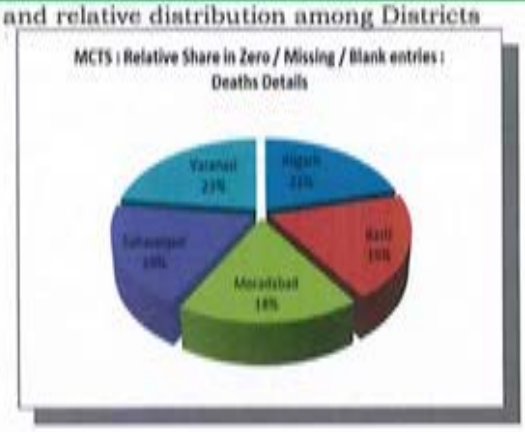
This section of MCTS deals with Infant/Children Death(s) in view of parameters like Total Death, 0-4 Week(s) of age, 1-12 Month(s) of age, 1-5 Year(s) of age. No significant trend is observed in this section and the entries are almost evenly distributed across segments and district.

a) Sub Centre level

In Infant/Children Death(s) section, blank entries are found in 0-4 Week(s) of age(25.2%),1-12 Month(s) of age(25.2%),1-5 Year(s) of age(25.2%),Total Death(24.2%).

Chart 3.2.6 : Deaths Details at SC : Missing entries and relative distribution among Districts

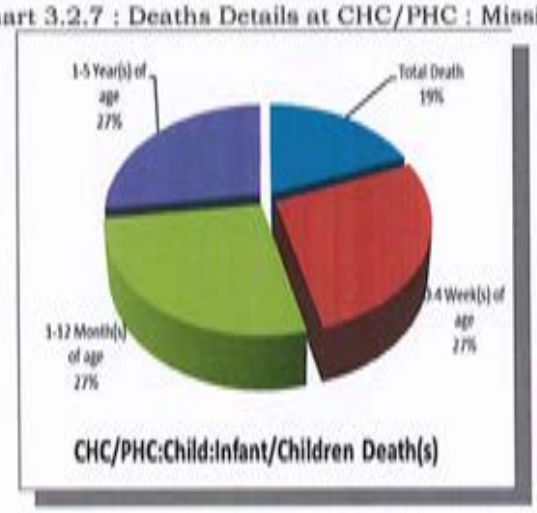


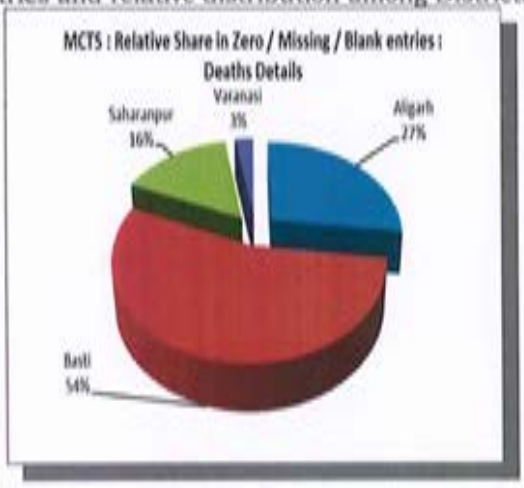


b) CHC/PHC level

0-4 Week(s) of age(26.9%),1-12 Month(s) of age(26.9%),1-5 Year(s) of age(26.9%),Total Death(19.0%) are the most common blanks at CHC/PHC level.

Chart 3.2.7 : Deaths Details at CHC/PHC : Missing entries and relative distribution among Districts





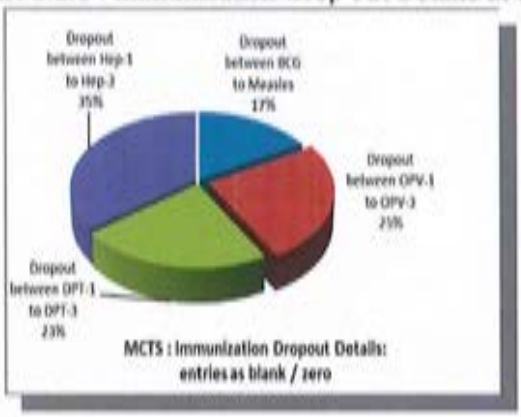
4. Immunization Drop out Details:

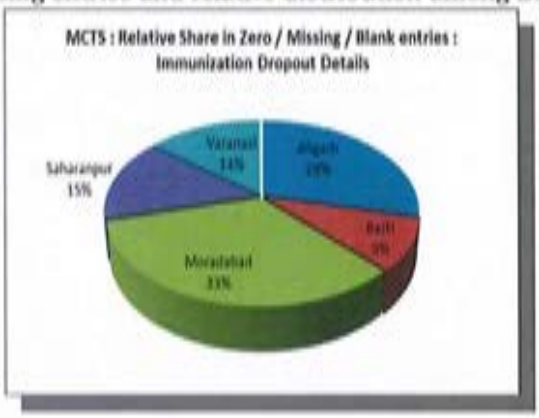
Immunization Drop out section includes vital statistics about break / Drop out cases in Drop out between BCG to Measles, OPV-1 to OPV-3, between DPT-1 to DPT-3 and between Hep-1 to Hep-3. The information about Drop outs between Hep-1 to Hep-3 was noticed to be missing at times followed by OPV-1 to OPV-3 and DPT-1 to DPT-3.

a) Sub Centre level

Most blank/zero/missing in Immunization Drop out section are found in Drop out between Hep-1 to Hep-3(35.4%),Drop out between OPV-1 to OPV-3(25.2%),Drop out between DPT-1 to DPT-3(22.6%) and Drop out between BCG to Measles (16.6%).

Chart 3.2.8 : Immunization Drop out Details at SC : Missing entries and relative distribution among Districts

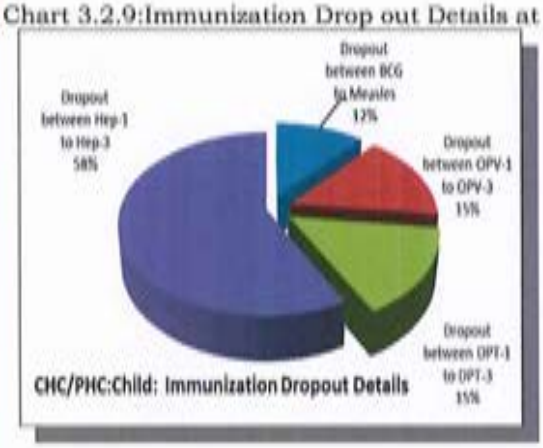


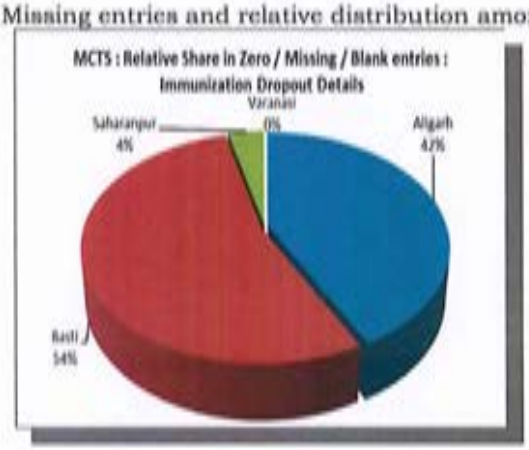


b) CHC/PHC level

The entries relating to Drop out between Hep-1 to Hep-3(57.6%),Drop out between OPV-1 to OPV-3(15.3%),Drop out between DPT-1 to DPT-3(15.3%),Drop out between BCG to Measles (11.5%) are major contributors in this section.

Chart 3.2.9:Immunization Drop out Details at CHC/PHC:Missing entries and relative distribution among Districts





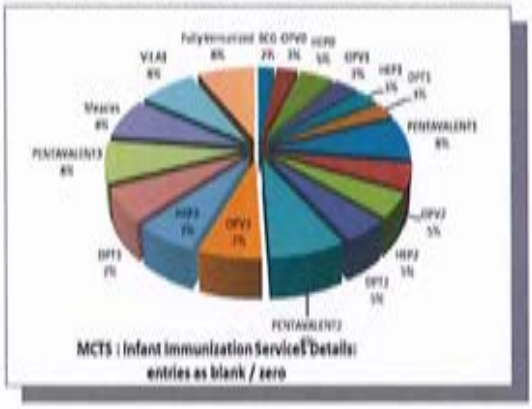
5. Infant Immunization Services Details:

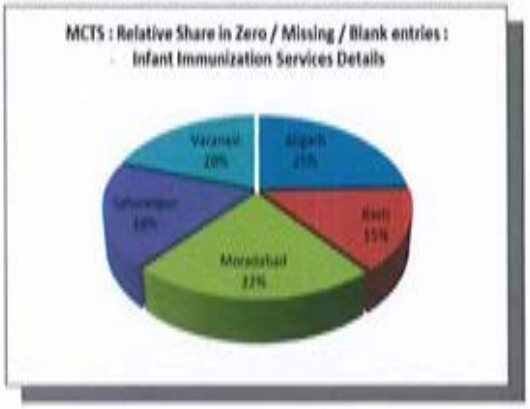
Infant Immunization section among the most comprehensive section covering details about BCG, OPV0, HEP0, OPV1, HEP1, DPT1, PENTAVALENT1, OPV2, HEP2, DPT2, PENTAVALENT2, OPV3, HEP3, DPT3, PENTAVALENT3, Measles and Vit A1. It also records Fully Immunized infants. The entries about Fully Immunized infants were found to be more frequent in this segment.

a) Sub Centre level

At Sub Centre level, maximum blank entries in Infant Immunization Services are seen in Vit A1(7.81%), Measles(7.66%), Fully Immunized(7.66%), DPT3(6.61%), OPV3(6.51%), HEP3(6.51%).

Chart 3.2.10 : Infant Immunization Details at SC : Missing entries and relative distribution among Districts

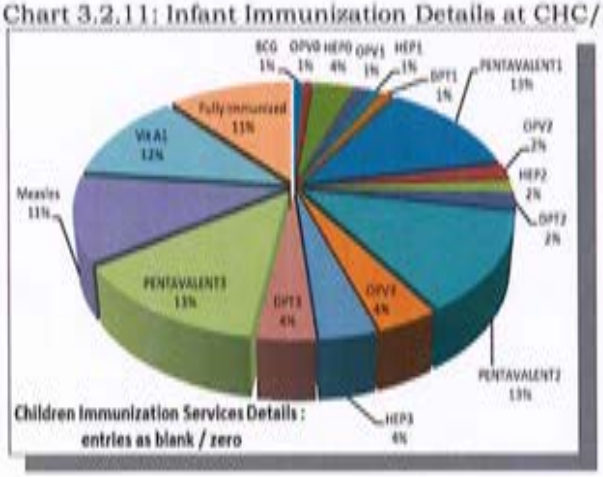


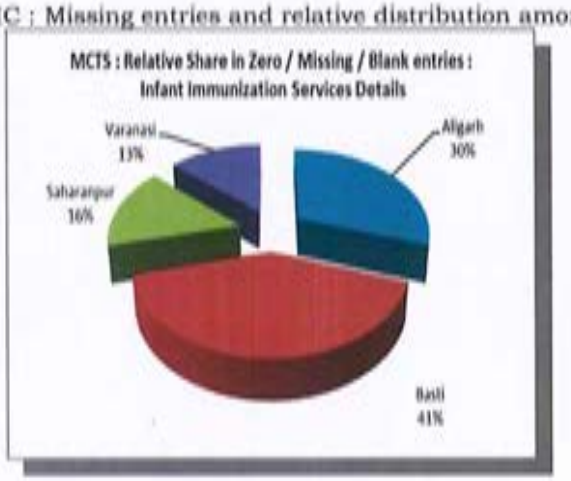


b) CHC/PHC level

Vit A1(12.0%), Measles(11.2%), Fully Immunized(11.2%),OPV3(4.01%), HEP0(3.74%), HEP3(3.74%), DPT3(3.74%) are among the components with most blank entries at CHC/PHC level. Basti and Aligarh shows this frequency relatively more.

Chart 3.2.11: Infant Immunization Details at CHC/PHC : Missing entries and relative distribution among Districts



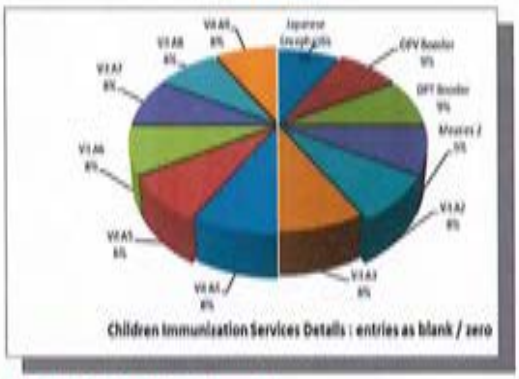


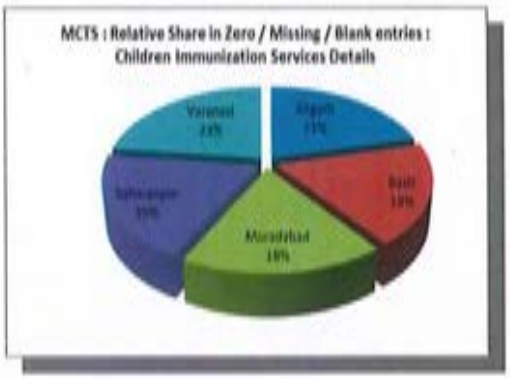
6. Child Immunization Services Details:

In this section, which provides immunization details about Japanese Encephalitis, OPV Booster, DPT Booster, Measles 2, Vit A2, Vit A3, Vit A4, Vit A5, Vit A6, Vit A7, Vit A8, Vit A9. No significant trend is observed in this section and the entries are almost evenly distributed across segments and district.

a) Sub Centre level

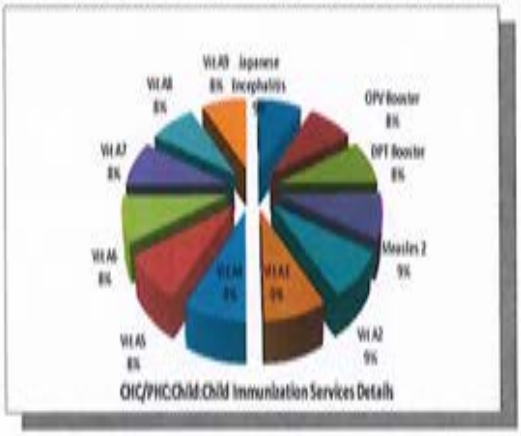
Chart 3.2.12 : Child Immunization Details at SC: Missing entries and relative distribution among Districts

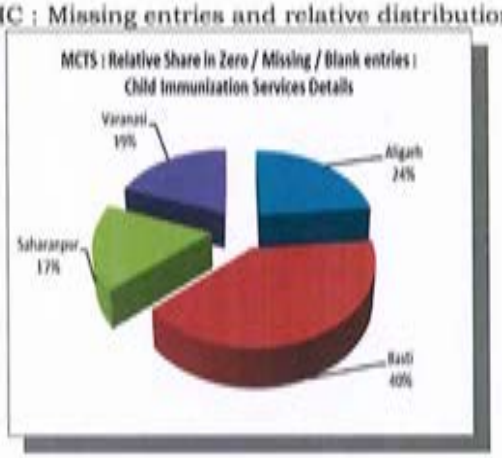




b) CHC/PHC level

Chart 3.2.13 : Child Immunization Details at CHC/PHC : Missing entries and relative distribution among Districts





B. Detailed Analysis of entries pertaining to Mothers' details

Apart from facts about Infant / Child services, MCTS also focuses on vital parameters relating to Mothers' details in terms of Beneficiary Details, Beneficiary Health Provider, Ante Natal Care Service, Janani Suraksha Yojana, Delivery Details, Delivery Outcome, Pregnancy Outcome, Delivery Summary and Postnatal care visits.

Findings of each of these components are as follows :

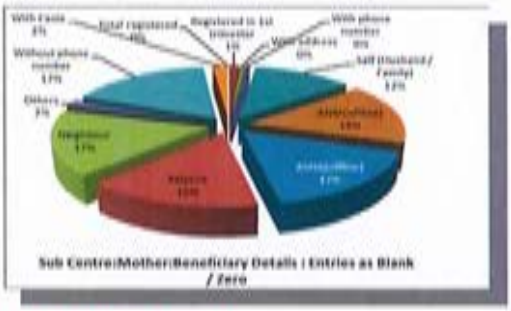
1. Beneficiary Details:

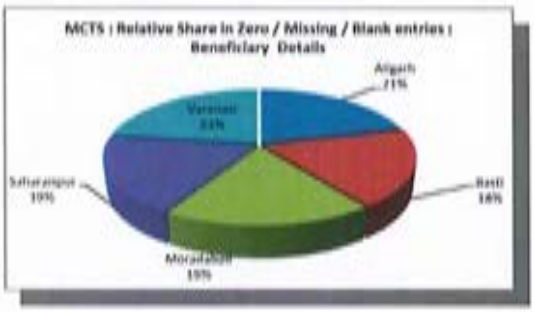
This section provides information about basic facts about registrations like Total registrations, Registrations in 1st trimester, entries with with address, with phone number, Self (Husband / Family), ANM(offline), ASHA(offline), relative, neighbour, Others, without phone number, with Caste etc. The most noticeable fact in this section is the frequent apperance of blank entries in phone numbers.

a) Sub Centre level

At Sub Centre level, most of the blank entries in Beneficiary section include ASHA(offline)(16.9%), Neighbour(16.9%), Without phone number(16.9%), ANM(offline)(15.6%), Relative(15.6%), Self (Husband / Family)(11.9%), Others(1.89%), With Caste(1.75%).

Chart 3.2.14 : Beneficiary Details at SC : Missing entries and relative distribution among Districts

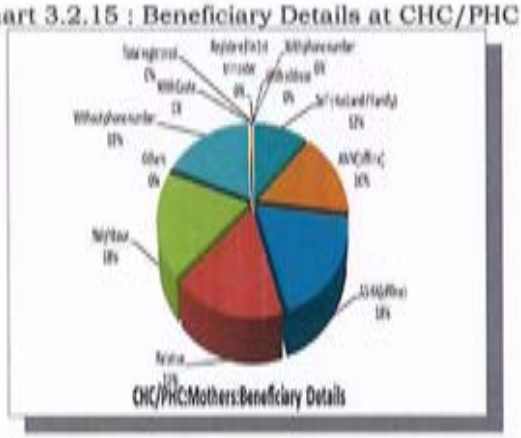


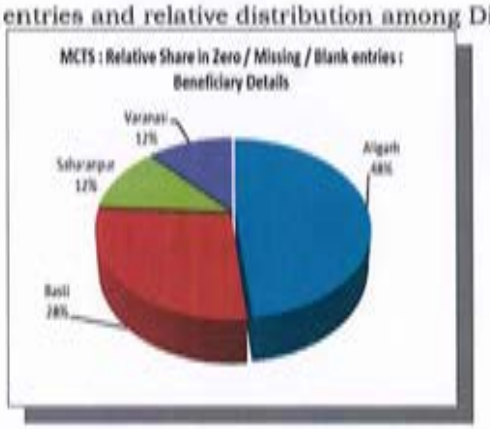


b) CHC/PHC level

Maximum blank entries in this section include ASHA(offline)(18.4%), Neighbour(18.4%),Without phone number(18.4%), Relative(16.8%), ANM(offline)(15.5%) and Self (Husband / Family)(11.4%).

Chart 3.2.15 : Beneficiary Details at CHC/PHC : Missing entries and relative distribution among Districts





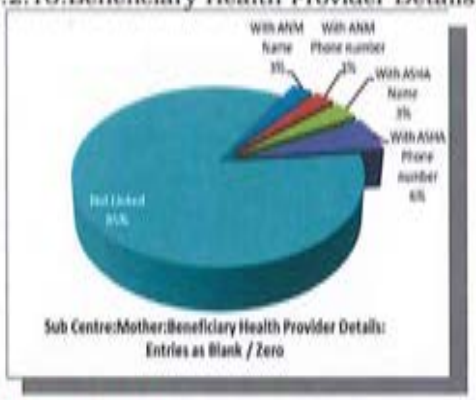
2. Beneficiary Health Provider Details:

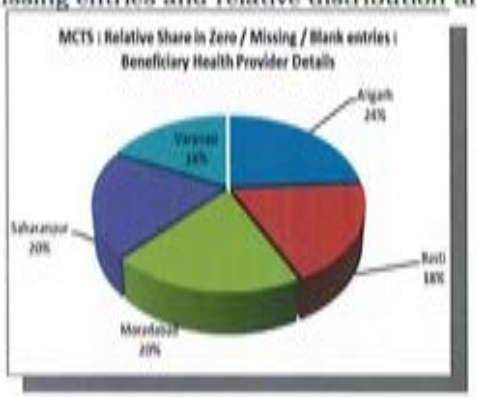
In this section, which covers information about entries with ANM Name, ANM Phone number, ASHA Name, ASHA Phone number and not Linked, it is noticed that a significant number of entries are those having neither ANM nor ASHA details in mother's records.

a) Sub Centre level

The fields with blank/zero/missing entries in this section include Not Linked(85.0%),With ASHA Phone number(6.12%),With ASHA Name(3.40%).

Chart 3.2.16:Beneficiary Health Provider Details at SC: Missing entries and relative distribution among Districts

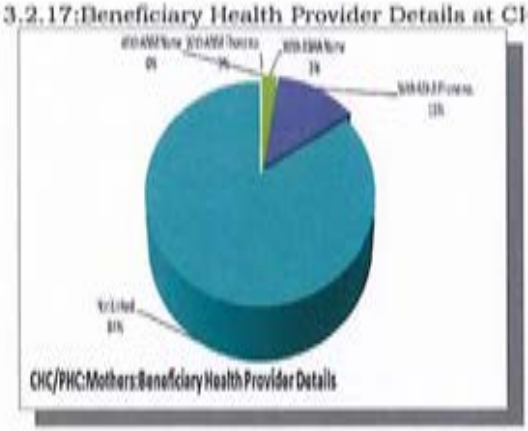


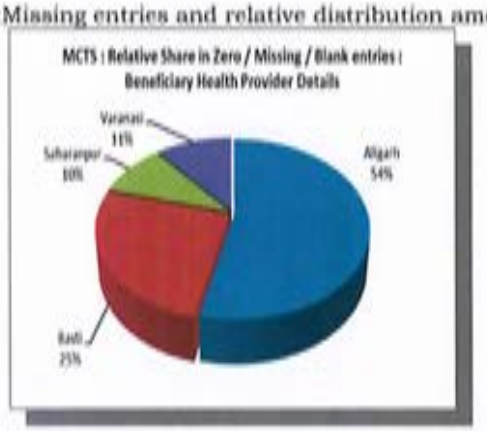


b) CHC/PHC level

Most of the missing entires in section are noticed in the details of Mothers with neither ANM nor ASHA's details(84%).

Chart 3.2.17:Beneficiary Health Provider Details at CHC/PHC:Missing entries and relative distribution among districts





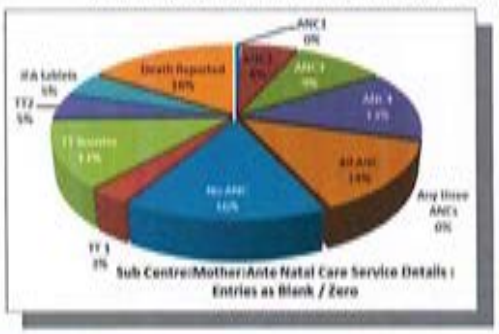
3. Ante Natal Care Service Details:

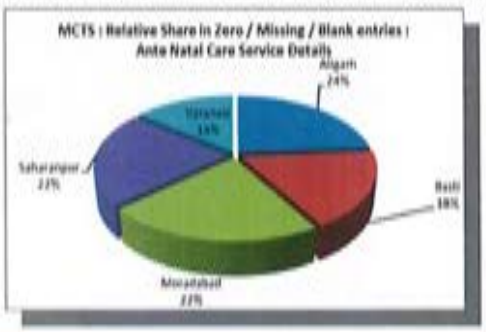
Amnong various parameters like ANC1, ANC2,ANC3, ANC4, Any three ANCs, All ANC, No ANC, TT 1, TT Booster, TT2, IFA tablets and Death Reported, blank entries in All ANC segment are among most prominent, stressing the fact that either all services are not being provided to mothers or the entry for the same is left pending at times.

a) Sub Centre level

The missing details in fields namely Death Reported(15.8%), No ANC(15.6%), All ANC(13.7%), ANC4(13.2%), TT Booster(12.9%), ANC3(9.52%) etc. are the most noticeable factors in this segment.

Chart 3.2.18 : ANC Details at SC : Missing entries and relative distribution among Districts

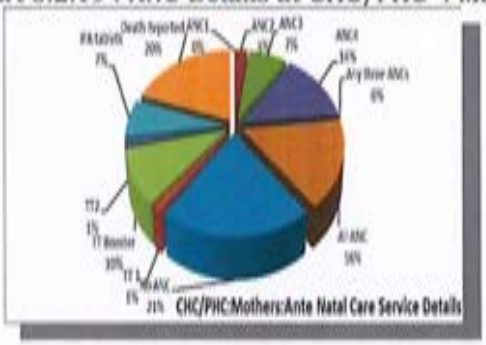


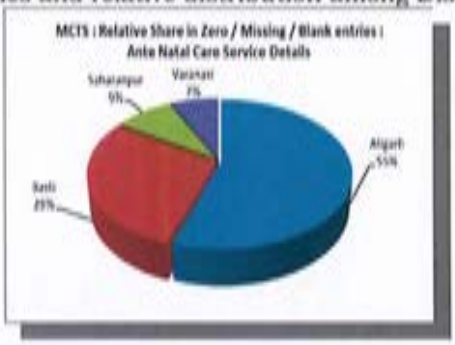


b) CHC/PHC level

Maximum number of blank entries are noticed in details relating to No ANC(20.5%), Death Reported(19.9%), All ANC(16.3%), ANC4(13.5%), TT Booster(10.2%).

Chart 3.2.19 : ANC Details at CHC/PHC : Missing entries and relative distribution among Districts





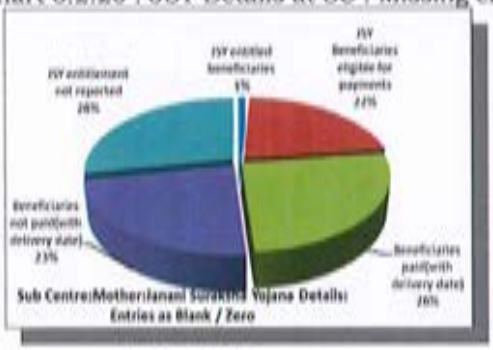
4. Janani Suraksha Yojana Details:

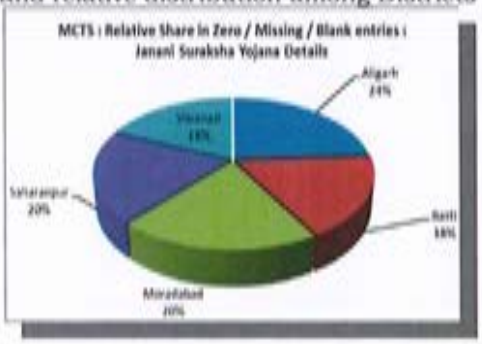
Janani Surakhsha Yojana section aims at recording information about JSY entitled beneficiaries, JSY Beneficiaries eligible for payments, Beneficiaries paid(with delivery date), Beneficiaries not paid(with delivery date), JSY entitlement not reported etc. Maximum blank entries in this section are noticed in 'JSY entitlement not reported' segment.

a) Sub Centre level

Most of the missing entries in this section at Sub Centre level are found in JSY entitlement not reported(28.0%), Beneficiaries paid(with delivery date)(26.0%), Beneficiaries not paid(with delivery date)(23.0%), JSY Beneficiaries eligible for payments(21.9%).

Chart 3.2.20 : JSY Details at SC : Missing entries and relative distribution among Districts

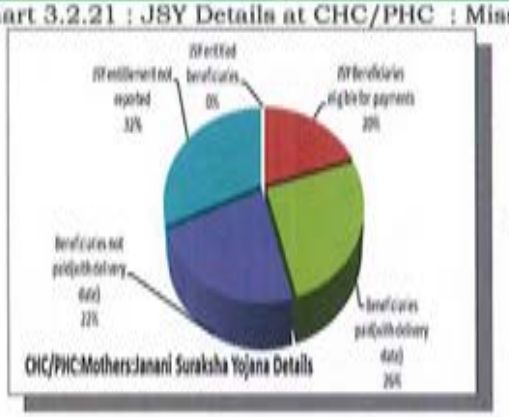


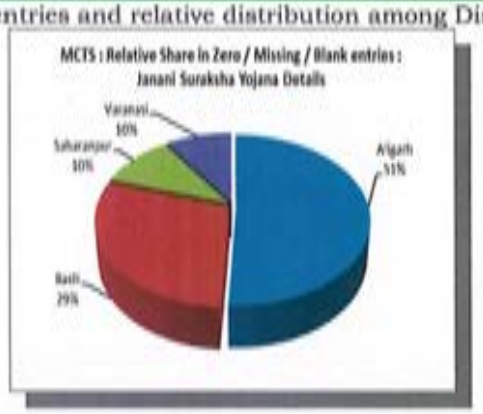


b) CHC/PHC level

Major blank components in this section are seen in JSY entitlement not reported(31.6%), Beneficiaries paid(with delivery date)(25.6%), Beneficiaries not paid(with delivery date)(22.4%), JSY Beneficiaries eligible for payments(20.1%).

Chart 3.2.21 : JSY Details at CHC/PHC : Missing entries and relative distribution among Districts





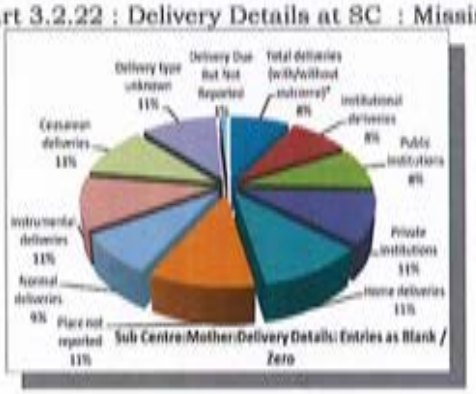
5. Delivery Details:

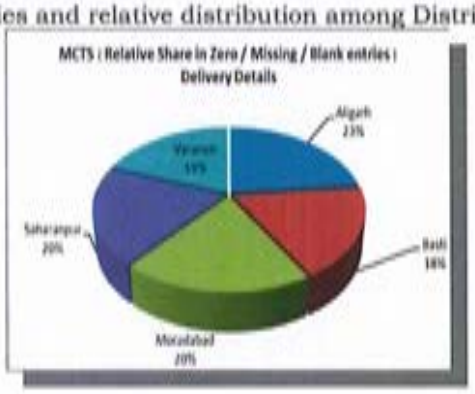
Includes information in relation with Total deliveries (with/without outcome), Institutional deliveries, Public institutions, Private institutions, Home deliveries, Place not reported, Normal deliveries, Instrumental deliveries, Ceasarean deliveries, Delivery type unknown and Delivery Due But Not Reported. No significant trend is observed in this section and the entries are almost evenly distributed across segments and districts with exception of Aligarh and Basti, where blank entries at CHC/PHC level are noticeably more compared to others.

a) Sub Centre level :

Most of the missing entries in Delivery Details at Sub Centre level are noticed in Instrumental deliveries(10.8%), Delivery type unknown(10.8%), Home deliveries(10.8%),Place not reported(10.8%), Caesarean deliveries(10.7%),Private institutions(10.6%),Total deliveries (with/without outcome)(8.54%), Institutional deliveries(8.54%),Public institutions(8.54%).

Chart 3.2.22 : Delivery Details at SC : Missing entries and relative distribution among Districts

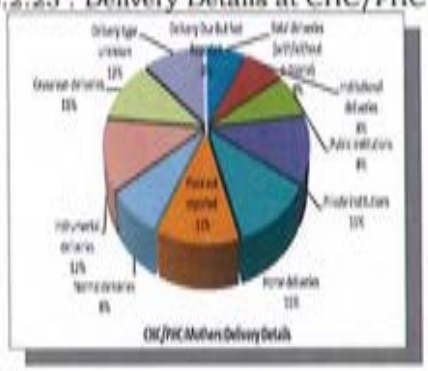


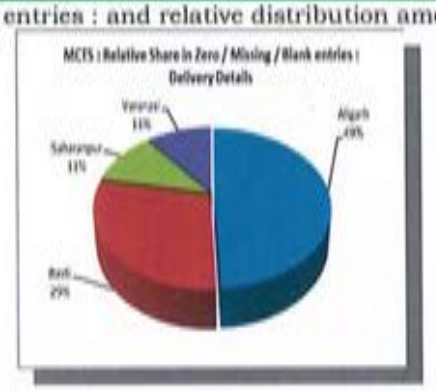


b) CHC/PHC level

Major gap in entries in this section is noticed in information relating to Instrumental deliveries(11.9%), Delivery type unknown(11.9%), Private institutions(11.4%), Place not reported(11.4%),Home deliveries(11.2%), Caesarean deliveries(11.2%),Total deliveries with/without outcome (7.62%), Institutional deliveries(7.62%), Public institutions(7.62%),Normal deliveries(7.62%).

Chart 3.2.23 : Delivery Details at CHC/PHC : Missing entries : and relative distribution among Districts





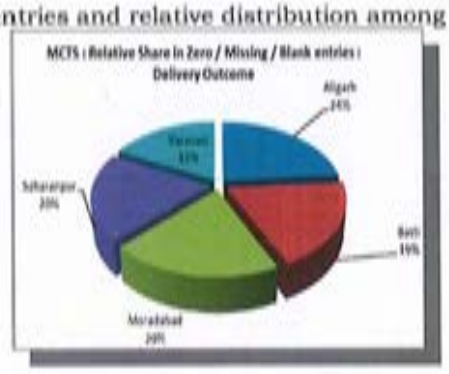
6. Delivery Outcome:

Delivery Outcome aims at recording parameters in terms of Live births (Male/Female), Still births, Pregnant women for tracking etc. No significant trend is observed in this section and the entries are almost evenly distributed across segments and districts.

a) Sub Centre level

Still births(27.7%), Live birth (Male)(24.4%), Live birth (Female)(24.2%), Live births(22.4%) are among the most missing entries in Delivery Outcome section at Sub Centre level.

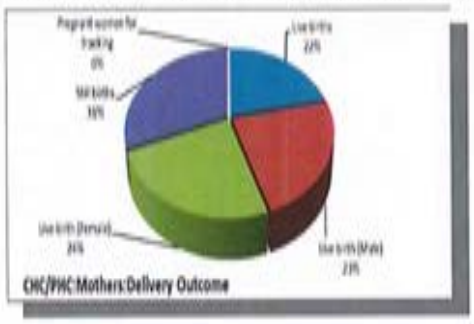
Chart 3.2.24 : Delivery Outcome Details at SC : Missing entries and relative distribution among Districts

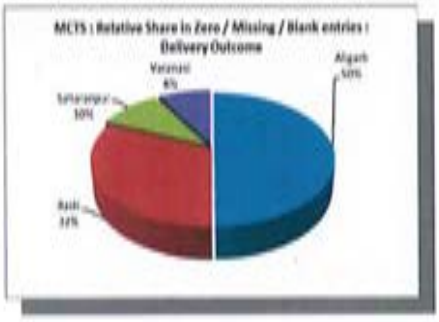


b) CHC/PHC level

Still births(31.0%), Live birth (Female)(24.0%), Live birth (Male)(23.1%), Live births(21.7%) are the most noticeable blank entries at this level for Delivery Outcome.

Chart 3.2.25 : Delivery Outcome Details at CHC/PHC: Missing entries and relative distribution among Districts





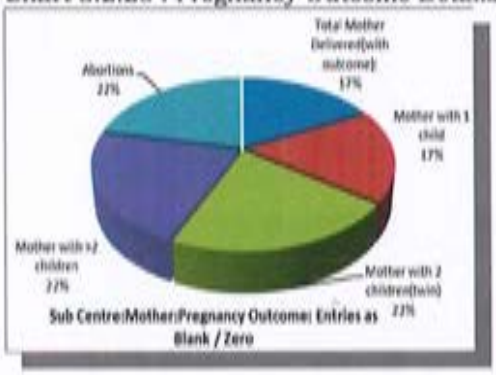
7. Pregnancy Outcome:

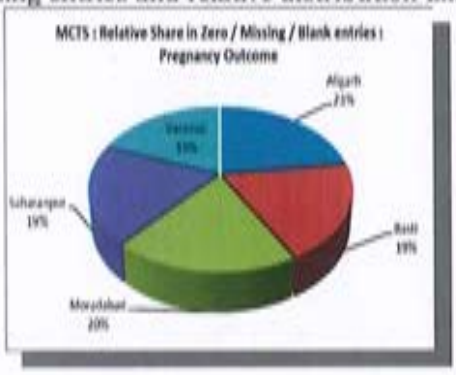
Among parameters like Total Mother Delivered(with outcome), Mother with 1 child, Mother with 2 children(twin), Mother with >2 children, Abortions , while there is no specifific trend in data entry, Aligarh and Basti units are found to be having maximum number of blank entries.

a) Sub Centre level

Most missing entries at Sub Centre level , in Pregnancy Outcome section are found in Mother with 2 children(twin)(21.6%), Mother with >2 children(21.6%), Abortions(21.6%).

Chart 3.2.26 : Pregnancy Outcome Details SC : Missing entries and relative distribution among Districts

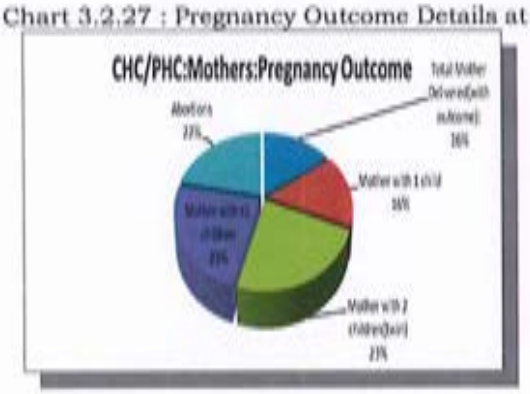


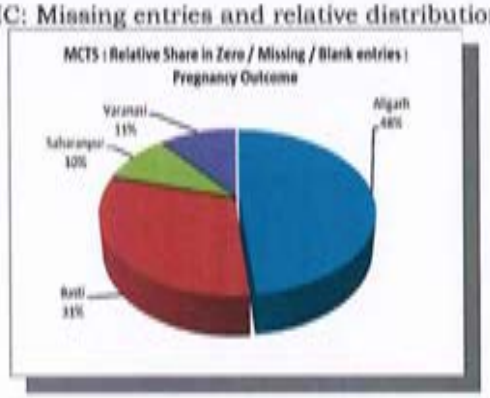


b) CHC/PHC level

Mother with 2 children(twin)(23.3%), Mother with >2 children(23.3%), Abortions(22.0%) are the components with most number of missing entries at CHC/PHC level.

Chart 3.2.27 : Pregnancy Outcome Details at CHC/PHC: Missing entries and relative distribution among Districts





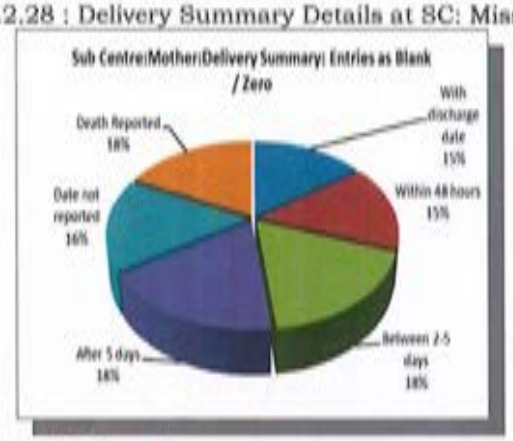
8. Delivery Summary:

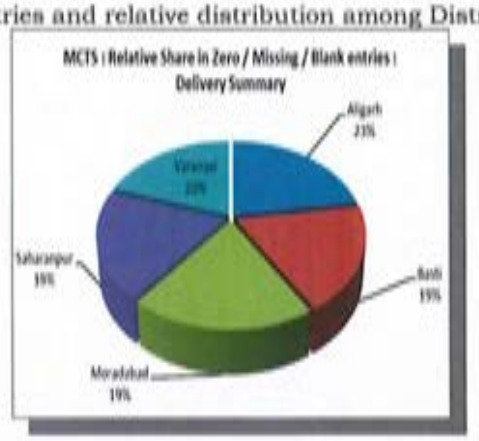
Delivery Summary section provides details about fact in relation with entries about discharge of mothers with discharge date, within 48 hours, between 2-5 days, after 5 days, date not reported and death Reported. No significant trend is observed in this section and the entries are almost evenly distributed across segments and districts with exception of Aligarh and Basti, where blank entries at CHC/PHC level are noticeably more compared to others.

a) Sub Centre level

Most missing entries in this section include fields namely Between 2-5 days(17.7%), After 5 days(17.7%), Death Reported(17.7%), Date not reported(16.3%).

Chart 3.2.28 : Delivery Summary Details at SC: Missing entries and relative distribution among Districts

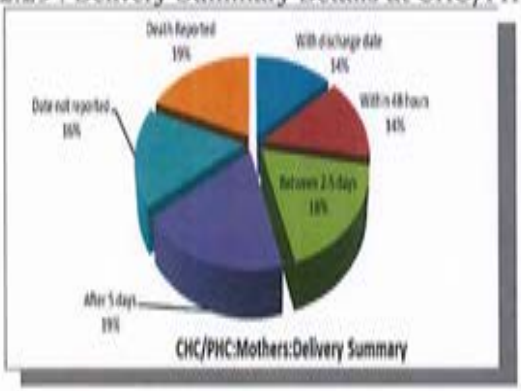


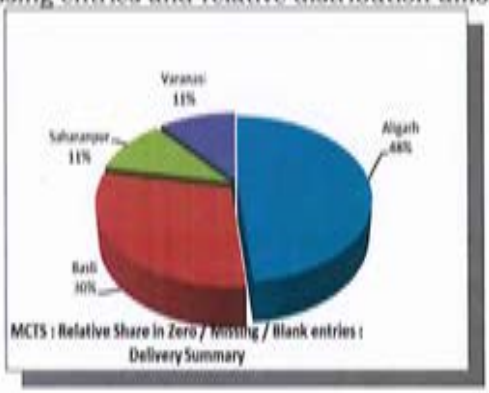


b) CHC/PHC level

The blank entries in components After 5 days(18.8%), Death Reported(18.8%), Between 2-5 days(18.3%), Date not reported(16.3%), With discharge date(13.8%), Within 48 hours(13.8%).

Chart 3.2.29 : Delivery Summary Details at CHC/PHC : Missing entries and relative distribution among Districts





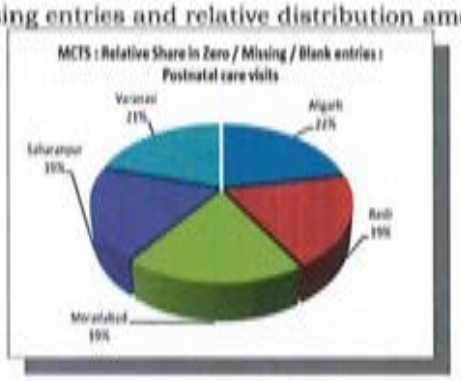
9. Postnatal care visits:

Among Postnatal visits details covering information about PNC visits done within 48 hours, within 3- 7 days, after 7 Days, no postnatal visit, PNC not reported and death reported, while there is no specifific trend in data entry , Aligarh and Basti units are found to be having maximum number of blank entries.

a) Sub Centre level

Most blank/missing/ zero entries in Postnatal visits details at Sub Centre level are seen in PNC not reported(17.3%), Death Reported(17.3%), Within 3- 7 days(17.1%), After 7 Days(17.1%), Within 48 hours(16.8%).

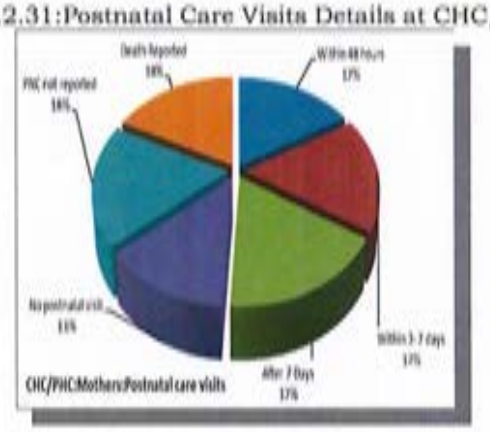
Chart 3.2.30 : Postnatal Care Visits Details at SC : Missing entries and relative distribution among Districts

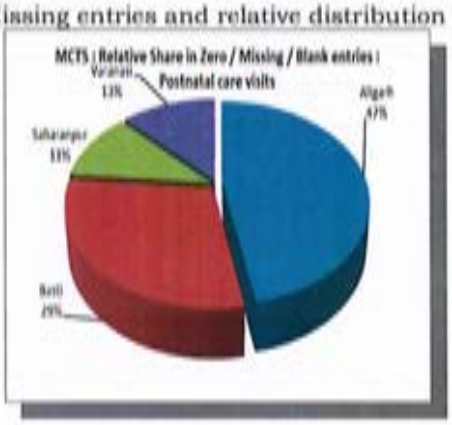


b) CHC/PHC level

PNC not reported(18.2%),Death Reported(17.7%), Within 3- 7 days(17.1%), After 7 Days(17.1%), Within 48 hours(16.6%) are the components with most number of blank/missing entries in Postnatal Care visits sections at CHC/PHC level.

Chart 3.2.31:Postnatal Care Visits Details at CHC/PHC : Missing entries and relative distribution among Districts





Summary :

Based on the findings mentioned above, the most crucial components in terms of data accuracy and authentication are summarised in quick reference tables as follows :

Table 3.2.1 : Summary : Infant / Child Details at Sub Centres

Sub Centres : Children: Fields requiring most attention

Indicator	Relative Sensitivity (%)
Infant Immunization Services Details	34.06
Children Immunization Services Details	31.94
Beneficiary Details	16.12
Deaths Details	10.61
Immunization Dropout Details	4.52
Health Services Provider Details	2.75

Table 3.2.2 : Summary : Infant / Child Details at CHC/PHC

CHC/PHC : Children: Fields requiring most attention

Indicator	Relative Sensitivity (%)
Children Immunization Services Details- Others	47.11
Infant Immunization Services Details - Basic	31.35
Deaths Details	12.74
Beneficiary Details	5.53
Immunization Dropout Details	2.18
Health Services Provider Details	1.09

Table 3.2.3 : Summary : Mothers' Details at Sub Centres

Sub Centres : Mothers' details: Fields requiring most attention

Indicator	Relative Sensitivity (%)
Delivery Details	20.06
Ante Natal Care Service Details	13.76
Beneficiary Details	12.92
Postnatal care visits	12.62
Delivery Summary	12.31
Pregnancy Outcome	10.09
Delivery Outcome	7.87
Janani Suraksha Yojana Details	7.80
Beneficiary Health Provider Details	2.57

Table 3.2.4 : Summary : Mothers' Details at CHC/PHC

CHC/PHC : Mothers' details : Fields requiring most attention

Indicator	Relative Sensitivity (%)
Delivery Details	20.42
Postnatal care visits	13.38
Beneficiary Details	13.23
Delivery Summary	12.56
Ante Natal Care Service Details	11.71
Pregnancy Outcome	10.44
Janani Suraksha Yojana Details	7.71
Delivery Outcome	7.64
Beneficiary Health Provider Details	2.90

Chapter 3.4

Data Analysis : Health Management Information System (HMIS)

"This portal will be your gateway to a wealth of information regarding the Health Indicators of India. The information available on this portal is being compiled from Health Management Information System (HMIS) and other varied information sources such as National Family Health Survey (NFHS), District Level Household Survey (DLHS), Census, SRS and performance statistics."

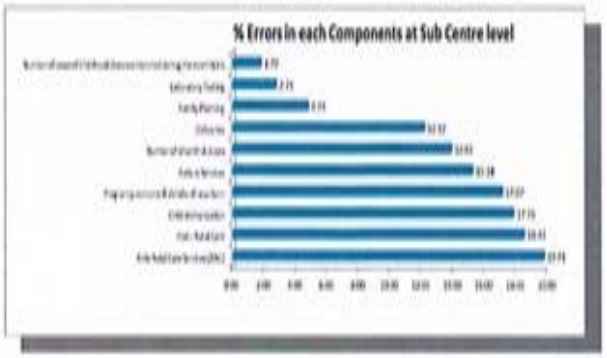
Taken from HMIS portal https://nrhm-mis.nic.in

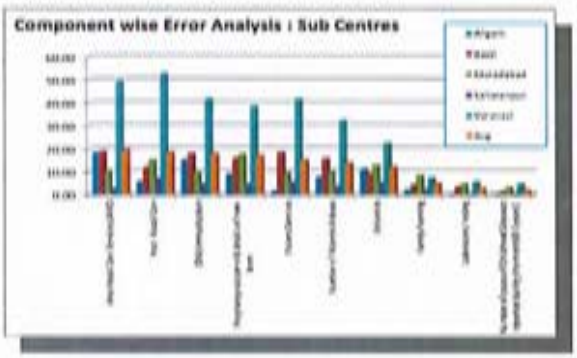
HMIS data audit also included the cross-checking of reported data in original documents with the recorded data on the portal. The original documents referred were taken from the reporting personnel, which in ANM in most cases. The source and destination points were cross-tallied and the resulting information was further scrutinized at Sub Centre, PHC/CHC and District Women Hospital's levels. The graphical presentation of the same is as follows :

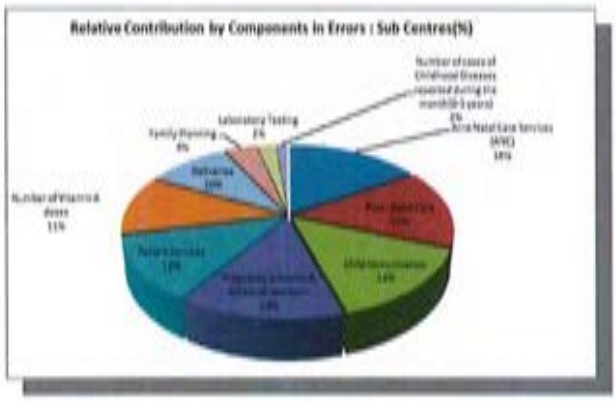
Sub Centre level

At Sub Centre level, most discrepancies are noticed in Ante Natal Care Services (19.7%), Post - Natal Care (18.4%), Child Immunization(17.7%), Pregnancy outcome and details of new-born and Patient Services(17.7%). This trend is relatively more visible in Varanasi and Basti.

Chart 3.3.1 HMIS : Errors at Sub Centre level and relative distribution among districts







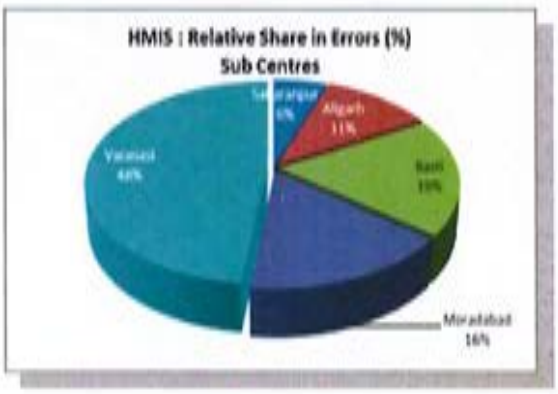


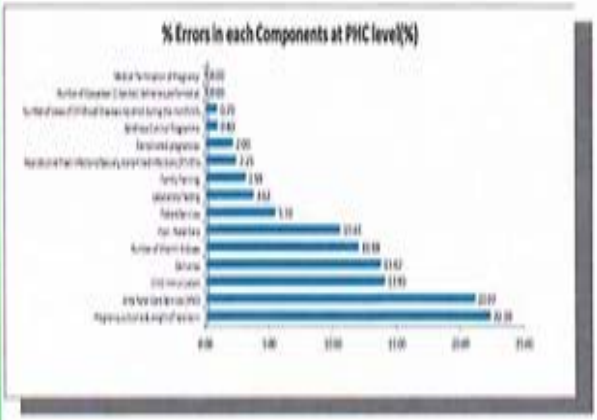
Table 3.3.1 HMIS : Errors at Sub Centre level : District wise

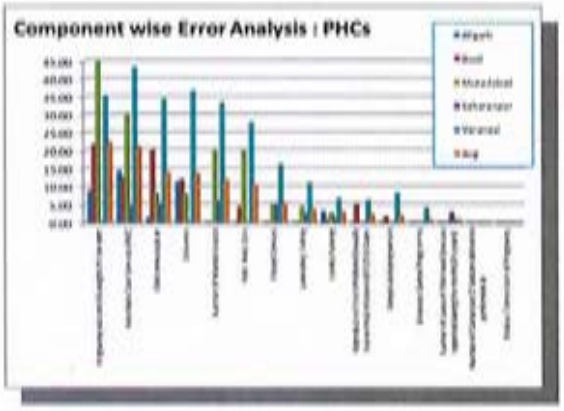
	Indicator group	Aligarh	Basti	Moradabad	Saharanpur	Varanasi	Average
SC	Ante Natal Care Services (ANC)	18.29	18.67	10.00	2.41	49.17	19.71
	Post - Natal Care	5.71	11.67	15.12	6.90	52.78	18.43
	Child Immunization	15.19	17.89	9.55	4.45	41.74	17.76
	Pregnancy outcome & details of new-born	8.93	15.83	17.73	4.31	38.54	17.07
	Patient Services	1.43	18.33	9.30	5.17	41.67	15.18
	Number of Vitamin A doses	7.62	15.56	10.08	3.45	32.41	13.82
	Deliveries	11.14	9.00	12.79	5.17	22.50	12.12
	Family Planning	1.96	4.17	8.28	1.94	7.29	4.73
	Laboratory Testing	0.00	3.33	4.65	0.00	5.56	2.71
	Number of cases of Childhood Diseases reported during the month(0-5 years)	0.00	1.11	3.10	0.00	4.63	1.77
	Average	7.03	11.56	10.06	3.38	29.63	12.33

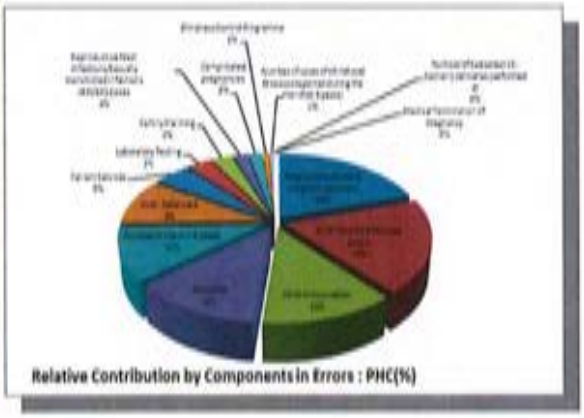
PHC level

Pregnancy outcome and weight of new-born(22.20%), Ante Natal Care Services(20.97%), Child Immunization(13.93%), Deliveries(13.62%), Number of Vitamin A doses(11.88%), Post - Natal Care(10.44%) etc. are the segments where most number of errors were noticed. These errors occur more frequently in Varanasi and Moradabad.

Chart 3.3.2 HMIS : Errors at PHC level and relative distribution among districts







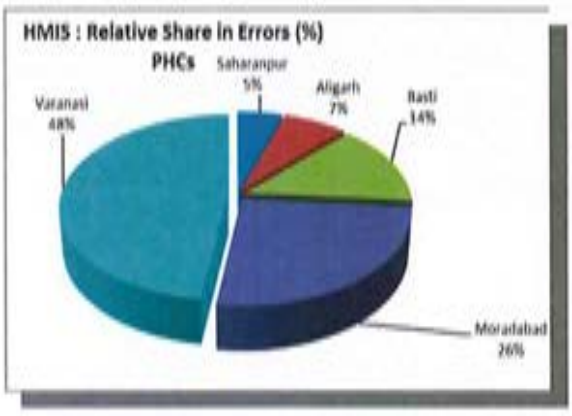


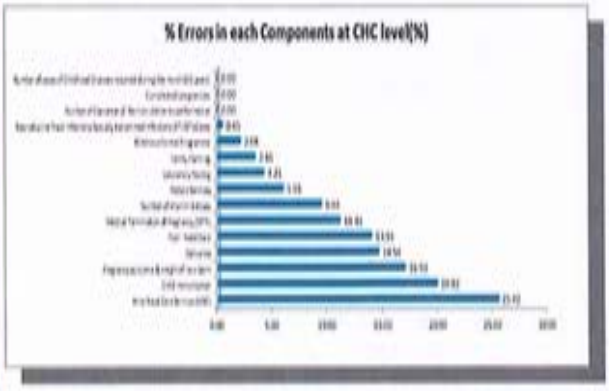
Table 3.3.2 HMIS : Errors at PHC level : District wise

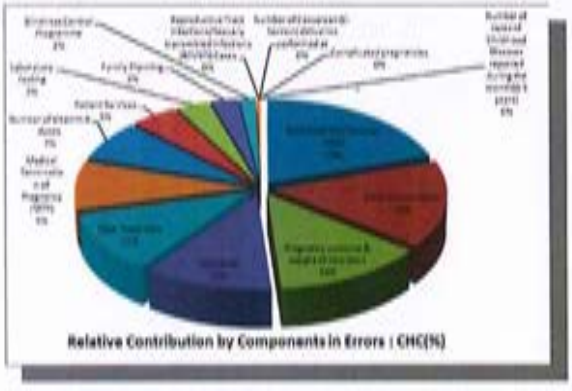
	Indicator group	Aligarh	Basti	Moradabad	Saharanpur	Varanasi	Average
PHC	Pregnancy outcome & weight of new-born	8.93	21.67	45.00	0.00	35.42	22.20
	Ante Natal Care Services (ANC)	14.29	12.67	30.00	4.55	43.33	20.97
	Child Immunization	1.54	20.36	8.11	5.16	34.46	13.93
	Deliveries	11.43	12.00	8.00	0.00	36.67	13.62
	Number of Vitamin A doses	0.00	0.00	20.00	6.06	33.33	11.88
	Post - Natal Care	0.00	4.44	20.00	0.00	27.78	10.44
	Patient Services	0.00	0.00	5.22	5.14	16.30	5.33
	Laboratory Testing	0.00	0.00	4.44	2.53	11.11	3.62
	Family Planning	3.25	0.91	2.73	1.24	6.82	2.99
	Reproductive Tract Infections/Sexually transmitted infections (RTI/STI) Cases	0.00	5.00	0.00	0.00	6.25	2.25
	Complicated pregnancies	0.00	1.67	0.00	0.00	8.33	2.00
	Blindness Control Programme	0.00	0.00	0.00	0.00	4.17	0.83
	Number of cases of Childhood Diseases reported during the month(0-5 years)	0.00	0.00	0.00	3.03	0.93	0.79
	Number of Caesarean (C-Section) deliveries performed at	0.00	0.00	0.00	0.00	0.00	0.00
	Medical Termination of Pregnancy	0.00	0.00	0.00	0.00	0.00	0.00

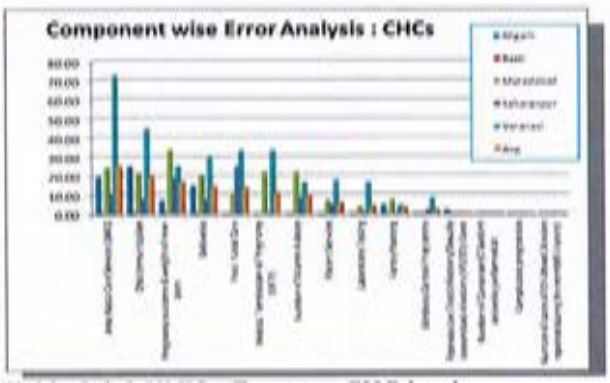
CHC Level

At CHC level, the entries in Ante Natal Care segment shows maximum number of errors at 25.42%. Other segments having significant no. of errors include Child Immunization(19.82%), Pregnancy outcome and weight of new-born(16.93%), Deliveries(14.54%), Post - Natal Care(13.91%), Medical Termination of Pregnancy (MTP)(11.11%), Number of Vitamin A doses(9.44%) etc. These errors are mostly seen in Varanasi and Moradabad.

Chart 3.3.3 HMIS : Errors at CHC level and relative distribution among districts







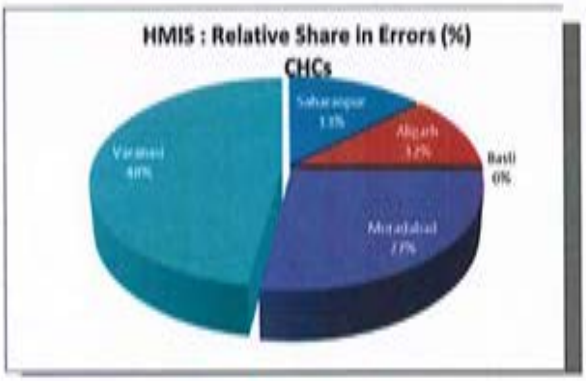


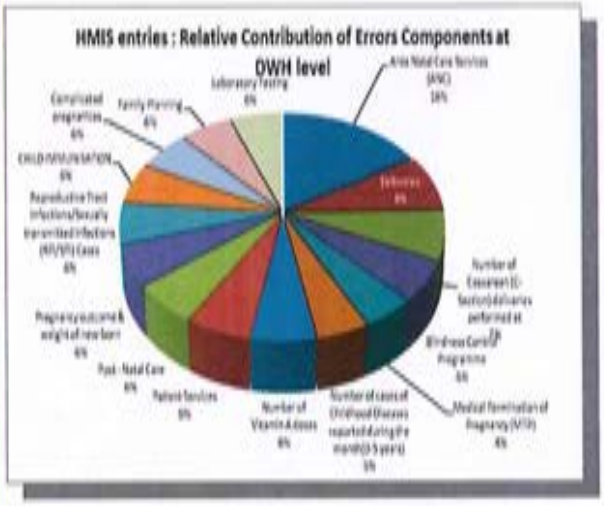
Table 3.3.3 HMIS : Errors at CHC level :

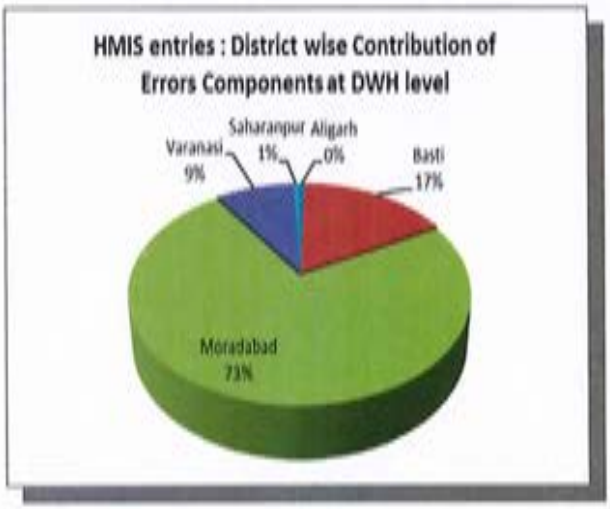
	Indicator group	Aligarh	Basti	Moradabad	Saharanpur	Varanasi	Average
CHC	Ante Natal Care Services (ANC)	19.70	0.16	24.24	10.23	72.73	25.42
	Child Immunization	25.00	0.33	21.62	7.77	44.59	19.82
	Pregnancy outcome & weight of new-born	7.29	0.29	33.33	18.75	25.00	16.93
	Deliveries	15.00	0.20	20.00	7.50	30.00	14.54
	Post - Natal Care	0.00	0.10	11.11	25.00	33.33	13.91
	Medical Termination of Pregnancy (MTP)	0.00	0.00	22.22	0.00	33.33	11.11
	Number of Vitamin A doses	0.00	0.00	22.22	8.33	10.67	9.44
	Patient Services	0.00	0.00	7.34	4.91	17.86	5.98
	Laboratory Testing	0.00	0.00	3.70	0.69	16.67	4.21
	Family Planning	4.92	0.02	7.58	0.00	4.55	3.41
	Blindness Control Programme	0.00	0.00	0.00	2.08	8.33	2.08
	Reproductive Tract Infections/Sexually transmitted infections (RTI/STI) Cases	2.08	0.18	0.00	0.00	0.00	0.45
	Number of Caesarean (C-Section) deliveries performed at	0.00	0.00	0.00	0.00	0.00	0.00
	Complicated pregnancies	0.00	0.00	0.00	0.00	0.00	0.00
	Number of cases of Childhood Diseases reported during the month(0-5 years)	0.00	0.00	0.00	0.00	0.00	0.00
	Average	4.93	0.07	11.55	5.68	20.20	8.49

DWH level

The data relating to DWH shows relatively more accurate entries and less number of errors compared to Sub Centres, PHCs and CHCs. The components where deviation was found include information about Ante Natal Care Services(16%), Deliveries(7%), Number of Caesarean (C-Section) deliveries performed(7%), Number of Vitamin A doses(6%), Patient Services(6%), Post - Natal Care(6%), Pregnancy outcome and weight of new-born(6%), Reproductive Tract Infections/Sexually transmitted infections (RTI/STI) Cases(6%) etc. Except Moradabad, most of the entries were found tallying with the source at this level.

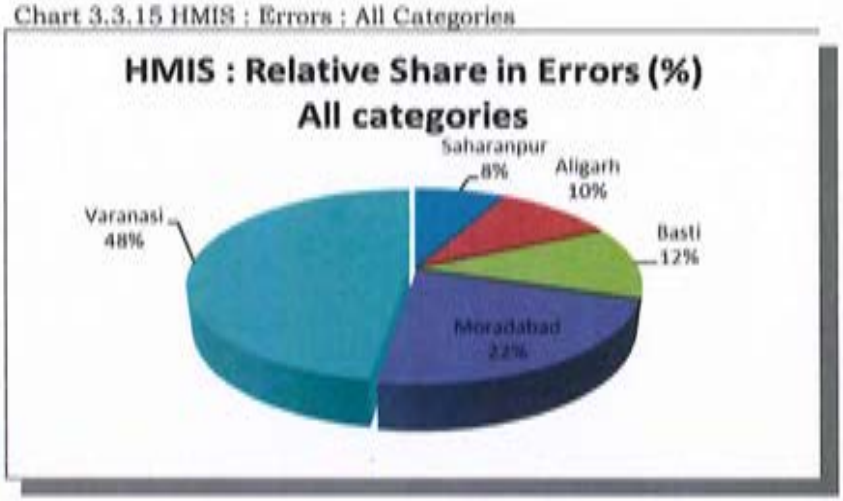
Chart 3.3.4 HMIS : Errors at DWH level





Summary

Chart 3.3.15 HMIS : Errors : All Categories



Based on the findings mentioned above, the most crucial components in terms of data accuracy and authentication are summarised in quick reference table as follows :

Table 3.3.4 HMIS : Common Error Components

Common Errors Components in order of Frequency of Occurrence			
Sub Centre	**PHC**	**CHC**	**DWH**
1. Ante Natal Care Services (19.70%) 2. Post - Natal Care (18.43%) 3. Child Immunization (17.76%) 4. Pregnancy outcome and details of new-born (17.06%) 5. Patient Services (15.18%) 6. Number of Vitamin A doses (13.82%) 7. Deliveries(12.12%)	1. Pregnancy outcome and weight of new-born (22.20%) 2. Ante Natal Care Services (ANC) (20.96%) 3. Child Immunization (13.92%) 4. Deliveries(13.61%) 5. Number of Vitamin A doses (11.87%) 6. Post - Natal Care (10.44%) 7. Patient Services (5.33%)	1. Ante Natal Care Services (25.41%) 2. Child Immunization (19.81%) 3. Pregnancy outcome and weight of new-born (16.93%) 4. Deliveries (14.54%) 5. Post - Natal Care (13.90%) 6. Medical Termination of Pregnancy (MTP) (11.11%) 7. Number of Vitamin A doses (9.44%)	1. Natal Care Services (16%) 2. Deliveries(7%), Number of Caesarean (C-Section) deliveries performed (7%) 3. Number of Vitamin A doses (6%) 4. Patient Services (6%), Post-Natal Care (6%) 5. Pregnancy outcome and weight of new-born (6%)

Chapter 4

Recommendations

Chapter 3.5
General Observations

1. The data flow pattern : The data in HMIS as well as MCTS usually starts its journey when the ANM notes it down on various means like HMIS forms, MCH registers and/or similar formats. The entry, at some instances, is also done on a piece of paper and reportedly updated at end of the day. This data is then submitted at concerned CHC / PHC. The data is now entered onto the portal.

2. The filled HMIS forms are usually submitted by ANMs between 21st – 24th of every month. MCH registers are generally given during weekly meetings which are held at CHC/PHC.

3. When data is submitted at CHC/PHC, it is generally not cross checked for inconsistencies.

4. In most of the cases, CHCs/PHCs maintain the records submitted to them by ANMs / other sources.

5. Most of the units were not using Due List / Work plan feature of MCTS.

6. The computer awareness of almost all AROs is below average and most of the work done by them is done manually. The awareness level of Superintendent / MOIc, however, was found comparatively better.

7. All AROs, irrespective of computer awareness level, know the basics of HMIS and MCTS portals. They often sit aside the operator while the data entry is done.

8. Almost all the BPMs are aware of the basics and functioning of the portals. Some of them also work as and when required.

9. Most of the block units at CHC/PHC usually have two computers, UPS and one printer. The units, in most cases have Internet connectivity through BSNL broadband. Most of the units also use USB Internet dongle for accessing the Internet.

10. The issues regarding electricity supply were also noted during audit. The supply usually is only for few hours. This problem is further aggravated by the problem of frequent voltage fluctuations.

11. Another factor affecting the data quality is occasional delay in reporting to CHC/PHC. This results in some entries are done while others left out for updation at a later stage.

Chapter 4

Recommendations

1. As the data entry is done on the base of filled forms / registers submitted by ANMs, all attempts must be made to ensure the authenticity of information being provided. For this purpose, ANMs should be made to sign each page of the HMIS monthly report submitted. Any correction made in submitted reports must be done by concerned ANM only in her own handwriting. This must be further verified by putting the initials. These report must be verified by the ARO and countersign by MOIc/MS. before handing over for data entry. The operator should make entry only if the reports are signed by ANM, ARO and MOIc/MS.

2. Similarly, monthly HMIS reports of PHC/CHC/DH should be verified and countersigned by reporting personnel, ARO and MOIc/MS/CMS.

3. In order to make sure that the data remains original, especially with HMIS reports, transparent cello tape may be applied on handwritten information at time of submission. Similar method is generally used in banks to ensure authenticity.

4. Data entry must be done directly from the forms submitted by ANMs. It is noted that sometimes the information is noted down on a separate register. The same register is then used for data entry at later stage. With introduction of additional channel, the chances of increase in error and the time required to back check also gets added.

5. To streamline the data submission procedure, a roster must be maintained at CHC/PHC. This roaster should clearly specify all necessary information like days, dates, timings, contact persons whom the information is to be submitted.

6. Use of Due list / Work plan must be made compulsory. This will immensely help in putting the things in order and ensure that the services are being given in timely manner.

7. Block unit staff, especially BPM, MCTS operator and BAM must have the operational knowledge of both MCTS and HMIS portals. For this purpose, regular training / refresher courses may be organized.

8. For correct reporting, it is imperative that the information, while capturing, is noted in the right place. For this purpose, reporting personnel must be updated/refreshed about the correct ways of recording information on regular basis.

9. Lack of printer paper / stationery was quoted as the common bottleneck while generating and distribution of work plans. Steps must be taken to ensure that stationery , printer cartridge, paper etc. are available in sufficient quantity to carry on day-to-day activities.

10. It was noted that most of the AROs/ HEOs are not computer friendly and don't use computers in day-to-day life. Because of this, they don't have sufficient operational exposure to HMIS and MCTS portals. There is need to train AROs/ HEOs about computer fundamentals and operational aspects of HMIS and MCTS portals.

11. The information relating to immunization sessions, which is currently captured in Tally sheet by ANMS, is maintained by IO at block level. This information should also be entered

in the computer by MCTS operator on session/facility wise. This would enable cross checking of immunization figures reported by ANMs in monthly HMIS reports easily.

12. ANMs / ASHAs must be made accountable for making sure that MCTS registers are up-to-date.

13. District ARO and District Nodal Officer-HMIS/MCTS(DPM) must work in unison. They should be made accountable for ensuring the correctness of reported data. They should visit each block on monthly basis for verification. The data must be shared with CMO before uploading.

14. The Demographic Cell in DG(FW) office may work as Nodal agency for HMIS/MCTS.

15. The HMIS/MCTS reviews must be held at state level at regular intervals.

Annexure A

Data Audit Sample : District Varanasi

Sub Centres

Sr.	District	Sub District	Facility
1	Varanasi	Araji Lines	Narsada
2	Varanasi	Araji Lines	Todarpur
3	Varanasi	Araji Lines	Hardattpur
4	Varanasi	Araji Lines	Gangapur
5	Varanasi	Araji Lines	Basantpur
6	Varanasi	Cholapur	Cholapur Fp
7	Varanasi	Cholapur	Chaubeypur
8	Varanasi	Cholapur	Tisaura
9	Varanasi	Cholapur	Niyar Sub Center
10	Varanasi	Badagoan	Basani
11	Varanasi	Badagoan	Balua
12	Varanasi	Badagoan	Changwar
13	Varanasi	Badagoan	Tadi
14	Varanasi	Chiraigoan	Imaliya
15	Varanasi	Chiraigoan	Khalishpur
16	Varanasi	Chiraigoan	Bikapur
17	Varanasi	Chiraigoan	Pualpur
18	Varanasi	Harraua	Harahua I
19	Varanasi	Harraua	Chamav
20	Varanasi	Harraua	Ayar
21	Varanasi	Harraua	Paliya Shambhupur
22	Varanasi	Harraua	Bhatapurawa
23	Varanasi	Kashi Vidhyapith	Lohta Dhamariya
24	Varanasi	Kashi Vidhyapith	Bhatti
25	Varanasi	Kashi Vidhyapith	Delhna
26	Varanasi	Kashi Vidhyapith	Bhagwanpur
27	Varanasi	Pindara	Pindra I
28	Varanasi	Pindara	Phoolpur
29	Varanasi	Pindara	Garkhara
30	Varanasi	Pindara	Bhanpur
31	Varanasi	Pindara	Amaut
32	Varanasi	Pindara	Nandapur
33	Varanasi	Sewapuri	Maharajpur
34	Varanasi	Sewapuri	Pure
35	Varanasi	Sewapuri	Lalpur
36	Varanasi	Sewapuri	Mniyaripur

Annexure A

Block PHCs/CHCs			
Sr.	District	Sub District	Facility
1	Varanasi	Araji Lines	Araziline
2	Varanasi	Cholapur	Colapur Mch
3	Varanasi	Badagoan	Baragaon
4	Varanasi	Chiraigoan	Chiraigaon
5	Varanasi	Harraua	Haraua
6	Varanasi	Kashi Vidhyapith	Kashividyapith
7	Varanasi	Pindara	Pindra
8	Varanasi	Sewapuri	Sewapuri

PHCs			
Sr.	District	Sub District	Facility
1	Varanasi	Badagoan	Badagoan
2	Varanasi	Chiraigoan	Chiraigoan
3	Varanasi	Araji Lines	Araji Lines
4	Varanasi	Araji Lines	Araji Lines
5	Varanasi	Cholapur	Cholapur
6	Varanasi	Sewapuri	Sewapuri

Annexure A

Data Audit Sample : District Saharanpur

Sub Centres

Sr.	District	Sub District	Facility
1	Saharanpur	Daoband	Rankhandi 2
2	Saharanpur	Daoband	Jarodda Jatt
3	Saharanpur	Daoband	Manki
4	Saharanpur	Nanota	Kishanpur
5	Saharanpur	Nanota	Badgaon
6	Saharanpur	Punwarka	Sarkheri Shekh
7	Saharanpur	Punwarka	Nagrajpur
8	Saharanpur	Punwarka	Mohindinpur
9	Saharanpur	Nukkur	Aghyana
10	Saharanpur	Nukkur	Mandhor
11	Saharanpur	Nukkur	Islamnagar
12	Saharanpur	Rampur Maniharan	Husainpur
13	Saharanpur	Rampur Maniharan	Ambehatachand
14	Saharanpur	Sadholi Kadeem	Madthi
15	Saharanpur	Sadholi Kadeem	Kadarpur
16	Saharanpur	Sadholi Kadeem	Sherpur Pello
17	Saharanpur	Sarsawa	Bhettpura
18	Saharanpur	Sarsawa	Sultanpur
19	Saharanpur	Balliyakhare	Hariabas
20	Saharanpur	Balliyakhare	Khajuri Akbarpur
21	Saharanpur	Balliyakhare	Malhipur
22	Saharanpur	Gangoha	Salarpura
23	Saharanpur	Gangoha	Bahadernagar
24	Saharanpur	Gangoha	Manohara
25	Saharanpur	Gangoha	Gangoh Urban
26	Saharanpur	Nangal	Nagal Main
27	Saharanpur	Nangal	Bchiti
28	Saharanpur	Nangal	Pirad
29	Saharanpur	Muzzafrabad	Jahanpur
30	Saharanpur	Muzzafrabad	Khidka Junardar
31	Saharanpur	Muzzafrabad	Kamaalpur

Annexure A

Block PHCs/CHCs

Sr.	District	Sub District	Facility
1	Saharanpur	Daoband	Deoband
2	Saharanpur	Nanota	Nanota
3	Saharanpur	Punwarka	Punwarka
4	Saharanpur	Nukkur	Nakur
5	Saharanpur	Sarsawa	Sarsawa
6	Saharanpur	Gangoha	Gangoh
7	Saharanpur	Rampur Maniharan	Rampur Maniharan
8	Saharanpur	Balliyakhare	Sunheti Kharkhari
9	Saharanpur	Muzzafrabad	Muzaffarabad
10	Saharanpur	Nangal	Nagal
11	Saharanpur	Sadauli Kadeem	Sadauli Kadeem

PHCs

Sr.	District	Sub District	Facility
1	Saharanpur	Daoband	Rankhandi
2	Saharanpur	Nanota	Tikrol
3	Saharanpur	Nukkur	Tabar
4	Saharanpur	Rampur Maniharan	Ambehata Chand
5	Saharanpur	Sarsawa	Panchkuan
6	Saharanpur	Muzzafrabad	Babel Bujurg
7	Saharanpur	Gangoha	Doodhla
8	Saharanpur	Nangal	Korwa

Annexure A

Data Audit Sample : District Basti

Sub Centres

Sr.	District	Sub District	Facility
1	Basti	Parasrampur	Berta
2	Basti	Parasrampur	Harigaon
3	Basti	Parasrampur	Dhenugawa khurd
4	Basti	Vikramjot	Malauli
5	Basti	Vikramjot	Sukrauli
6	Basti	Dubealiya	Barsaw
7	Basti	Dubealiya	Ujhi
8	Basti	Goura	Mahowadabar
9	Basti	Goura	Hardi
10	Basti	Hreaiya	Harraiya
11	Basti	Hreaiya	Barahpur
12	Basti	Hreaiya	Marwatiya
13	Basti	Kaptanganj	Badhani
14	Basti	Bhadurpur	Dewapar
15	Basti	Bhadurpur	Agauna
16	Basti	Bhadurpur	Bhelwal 1 st
17	Basti	Kudreha	Charkaila
18	Basti	Bankuti	Bankati
19	Basti	Bankuti	Arel
20	Basti	Bankuti	Makdumpur
21	Basti	Sahughat	Shihari
22	Basti	Sahughat	Purshiya
23	Basti	Saltova	Pachmohani
24	Basti	Saltova	Bahariya
25	Basti	Ramnagar	Bhaisahiya
26	Basti	Ramnagar	Bargadwa
27	Basti	Ramnagar	Tusayal
28	Basti	Rudhouli	Hanumanganj

Annexure A

Block PHCs/CHCs

Sr.	District	Sub District	Facility
1	Basti	Parasrampur	Parasrampur
2	Basti	Vikramjot	Vikramjot
3	Basti	Hreaiya	Harraiya
4	Basti	Goura	Gaure
5	Basti	Basti Sader	Marwatiya
6	Basti	Ramnagar	Bhanpur
7	Basti	Sahughat	Saughat
8	Basti	Dubealiya	Dubuliya
9	Basti	Kaptanganj	Kaptanganj
10	Basti	Bhadurpur	Bahadurpur
11	Basti	Kudreha	Kudrha
12	Basti	Bankuti	Bankati
13	Basti	Saltova	Saltauwa
14	Basti	Rudhouli	Rudhauli

PHCs

Sr.	District	Sub District	Facility
1	Basti	Parasrampur	Sikanderpur
2	Basti	Vikramjot	Sukrauli
3	Basti	Hreaiya	Indauli
4	Basti	Goura	Halua
5	Basti	Basti Sader	Walterganj
6	Basti	Bankuti	Munderwa
7	Basti	Saltova	Ama Tinich
8	Basti	Rudhouli	Dayanagar

Annexure A

Data Audit Sample : District Moradabad

Sub Centres

Sr.	District	Sub District	Facility
1	Moradabad	Bilhari	Darni
2	Moradabad	Bilhari	Sanai
3	Moradabad	Bilhari	Karsara
4	Moradabad	Bilhari	Jalalpur
5	Moradabad	Bilhari	Beerampur
6	Moradabad	Kunderki	Bhaisod
7	Moradabad	Kunderki	Fatehpurkhas
8	Moradabad	Kunderki	Jaitwara
9	Moradabad	Kunderki	Lalpur Hamir
10	Moradabad	Kunderki	Mohanpur
11	Moradabad	Kunderki	Tewarkhas
12	Moradabad	Mundapanday	Sarkada Khas
13	Moradabad	Mundapanday	Saktu Nagla
14	Moradabad	Mundapanday	Veer Pur Variyar
15	Moradabad	Mundapanday	Gautora
16	Moradabad	Mundapanday	Barbala Khas
17	Moradabad	Mundapanday	Raniya Ther
18	Moradabad	Thakurdwara	Raghuwala
19	Moradabad	Thakurdwara	Maanpur dattram
20	Moradabad	Thakurdwara	Sarkadapram
21	Moradabad	Thakurdwara	Sharifnagar
22	Moradabad	Thakurdwara	Surjannagar
23	Moradabad	Bhagtepurtanda	Bhagetpur
24	Moradabad	Bhagtepurtanda	Guldiya
25	Moradabad	Bhagtepurtanda	Mangawala
26	Moradabad	Bhagtepurtanda	Pasiyapura
27	Moradabad	Bhagtepurtanda	Taah Maden
28	Moradabad	Dilhari	Rehetamafi
29	Moradabad	Dilhari	Sarkada Visnoi
30	Moradabad	Dilhari	kumariy jubal
31	Moradabad	Dilhari	Ahmadpur
32	Moradabad	Dilhari	Jatpura
33	Moradabad	Tajpur	Bijna
34	Moradabad	Tajpur	Pandit Nagla
35	Moradabad	Tajpur	Mehlakpur Mafi
36	Moradabad	Tajpur	Mangupura
37	Moradabad	Tajpur	Sherua Sharampur
38	Moradabad	Tajpur	Milak Mohabbatpur
39	Moradabad	Chjlate	Pegamberpur
40	Moradabad	Chjlate	Kuchawali
41	Moradabad	Chjlate	Bhikanpur
42	Moradabad	Chjlate	Begampur

Annexure A

Block PHCs/CHCs

Sr.	District	Sub District	Facility
1	Moradabad	Thakurdwara	CHC Thakurdwara
2	Moradabad	Bilhari	CHC Bilari
3	Moradabad	Chjlate	Kanth
4	Moradabad	Bhagtepurtanda	Bhojpur
5	Moradabad	Dilhari	Dilari
6	Moradabad	Tajpur	Tajpur
7	Moradabad	Mundapanday	Mundapandey
8	Moradabad	Kunderki	Kundarki

Data Audit Sample : District Aligarh

Annexure A

Sub Centres

Sr.	District	Sub District	Facility
1	Aligarh	Lodha	Mehrawal
2	Aligarh	Lodha	Ahamadpur
3	Aligarh	Lodha	Bhukhrawali
4	Aligarh	Khair	Pala Chand
5	Aligarh	Gonda	Rafayatpur
6	Aligarh	Gonda	Baschinta
7	Aligarh	Gonda	Uttampur
8	Aligarh	Iglas	Gursena
9	Aligarh	Iglas	Jawar
10	Aligarh	Akrabad	Bamnoi Ii
11	Aligarh	Akrabad	Kaseri
12	Aligarh	Akrabad	Suhawali
13	Aligarh	Atrauli	Khedia Bhadurgarhi
14	Aligarh	Atrauli	Gadia Chaupur
15	Aligarh	Bijoli	Bijauli
16	Aligarh	Bijoli	Badhol
17	Aligarh	Bijoli	Dadon
18	Aligarh	Jawan	Panjopur
19	Aligarh	Jawan	Nagala Barola
20	Aligarh	Jawan	Memti
21	Aligarh	Tappal	Bena
22	Aligarh	Tappal	Jalalpur
23	Aligarh	Chandaus	Amratpur
24	Aligarh	Chandaus	Pisawa
25	Aligarh	Chandaus	Bamoti
26	Aligarh	Gagiri	Phusawali
27	Aligarh	Gagiri	Bhamorikala
28	Aligarh	Gagiri	Majhola
29	Aligarh	Khair	Meerpur
30	Aligarh	Dhnipur	Rashupur
31	Aligarh	Dhnipur	Panethi

Annexure A

Block PHCs/CHCs

Sr.	District	Sub District	Facility
1	Aligarh	Lodha	Lodha
2	Aligarh	Khair	Khair
3	Aligarh	Gonda	Gonda
4	Aligarh	Iglas	Iglas
5	Aligarh	Akrabad	Akrabad
6	Aligarh	Atrauli	Atrauli
7	Aligarh	Bijoli	Bijauli
8	Aligarh	Dhnipur	Harduaganj
9	Aligarh	Gagiri	Chharra
10	Aligarh	Jawan	Jawan
11	Aligarh	Tappal	Tappal
12	Aligarh	Chandaus	Chandaus

PHCs

Sr.	District	Sub District	Facility
1	Aligarh	Lodha	PHC Kulwa
2	Aligarh	Khair	Sofa
3	Aligarh	Akrabad	Bamnoi
4	Aligarh	Atrauli	Suratgarh
5	Aligarh	Bijoli	Harnauth
6	Aligarh	Jawan	Chharat
7	Aligarh	Tappal	Palseda

District Wise Health Indicators

Annexure B

Indicators	Saharanpur	Moradabad	Aligarh	Basti	Varanasi
Total Population as per Census 2011	3464228	4773138	3673849	2461056	3682194
TFR	3.3	3.6	3.5	3.5	2.3
MMR	204	222	256	304	281
CBR	26.2	25.2	26.0	27.0	19.1
CDR	9.1	8.1	7.5	11.1	7.5
IMR	76	64	70	81	72
Sex Ratio at Birth	921	1064	1081	938	848
Sex Ratio (All)	919	902	911	1068	922
No of Blocks	11	8	12	14	8
No of SC	360	416	361	273	341
MOIC	11	8	12	14	8
IO	11	8	12	14	8
HEO/ARO	11	8	12	14	8
No of ANMs /LHV (Max)	360	416	361	273	341

Source : Census 2011, Annual Health Survey 2012-13, DGFW data sources 2014-15

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State Innovations in Family Planning Services Project Agency(SIFPSA),
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