"Data Verification of Routine MIS of ICDS in Madhya Pradesh at Anganwadi Level"

A dissertation submitted in partial fulfilment of the requirements for the award of

Post-Graduate Diploma in Health and Hospital Management

By

Vasundhara Bijalwan
PG/10/056

International Institute of Health Management Research
New Delhi -110075
May, 2012

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Astron Hospital and Healthcare Consultants Pvt. Ltd.

Certificate of Internship

Date: 11th April 2012

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Vasundhara Bijalwan** has successfully completed her internship in ASTRON Hospital and Healthcare Consultants Pvt. Ltd. from December 17, 2011 to April 10, 2012. During this period, she has worked on the project on "**Data Verification of Routine MIS of ICDS Project in MP**", funded by DFID.

During her tenure with the organization, Ms Vasundhara was found to be hardworking, sincere, self disciplined and conscientious worker.

We wish her all the success for her future assignments.

Dr. Neeru Bhatia
Executive Director

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Certificate of Approval

The following dissertation titled **"Study on Data Verification Of Routine MIS of ICDS in Madhya Pradesh at Anganwadi level"** is hereby approved as a certified study in management carried out and presented in a manner satisfactory to warrant its acceptance as a prerequisite for the award of Post- Graduate Diploma in Health and Hospital Management for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation

Name	Signature
Dr Dharmesh Lal	
DR. NITISH DOGRA	

Certificate from Dissertation Advisory Committee

This is to certify that **Ms. Vasundhara Bijalwan**, a graduate student of the **Post- Graduate Diploma in Health and Hospital Management**, has worked under our guidance and supervision. He is submitting this dissertation titled **""Study on Data Verification of Routine MIS of ICDS in Madhya Pradesh at Anganwadi level"** in partial fulfilment of the requirements for the award of the **Post- Graduate Diploma in Health and Hospital Management**.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Faculty Mentor	Dr. Dharmesh Lal	**Organizational Advisor**	Dr. Neeru Bhatia
Designation	Associate Dean	**Designation**	Executive Director, Public Health
	IIHMR, New Delhi	**Organization**	Astron Healthcare Consultancy
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Date-		**Date**	

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Vasundhara Bijalwan
PGDHHM
PG/10/056

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PART-1

INTERNSHIP REPORT

Organization Profile –ASTRON

Astron is a professionally managed consultancy organization specializing in hospital and healthcare, promoted by Dr. Yash Paul Bhatia who has been at the forefront of hospital and healthcare facility management since 1981, along with a team of Healthcare and allied professionals. The combined strength of these professionals, 'Team Astron', forms the core strength of the organization. Individually, the team members have excelled in their respective fields of expertise and specialties.

Astron Hospital and Healthcare consultants are well endowed with technical expertise and experience to comprehensively assimilate projects in Hospital and Healthcare activities from conceptualization, execution, operational management to turn key project management. Their capabilities in contemporary and visionary planning of new hospitals is equally matched in adapting existing commercial buildings (hotels and commercial complexes) into healthcare delivery facilities. Functionality remains their watchword to ensure a healing environment for the seekers and ergonomic comfort for providers within the facility.

An unmatched distinction of the 'Team Astron' is its combined experience in setting up and managing large number of hospitals. Astron Hospital and Healthcare Consultants are uniquely poised to deliver advisory services in operational management for existing healthcare facilities and offer services to take on this role. The 'Team Astron' ascribes to concept of corporate governance for taking on the challenge of astute healthcare facility management.

VISION

To facilitate quality healthcare delivery system globally.

MISSION

Astron commits to developing, executing and optimizing quality healthcare delivery infrastructure and operating systems. It envisions a global reach for its conceptualizations enthroning local

perspectives. It plans to do so through consultancy, turnkey project and systems management services, research and creating a resource pool for healthcare organizations to access operational requirements.

Core Areas of Operations:

1. Division of Public Health
2. Division of Healthcare Human Resources
3. Division of Corporate Governance and System Optimization
4. Division of Facility Planning and Design
5. Division of Quality and Accreditation
6. Division of Equipment Management

IN-HOUSE INFRASTRUCTURE CAPABILITY

Astron has the following in house infrastructural strengths:

1. Corporate office and presence across the country:

Astron Hospital & Healthcare Consultants has presence across the country with corporate office located in Gurgaon. The office is equipped with all facilities of high end communication and software capabilities including AUTOCAD and wifi enabled web based system at all terminals. Team .Astron has its presence pan India with offices in Bangalore, Kolkata and Ahmadabad and representation in Punjab, Chandigarh, Rajasthan, Madhya Pradesh, Uttar Pradesh, Gujarat, Karnataka, Maharashtra, Bihar and Jharkhand.

Astron has strength of 42 full time qualified consultants and staff. The team includes Hospital Planning and management experts, public health research experts and professional with expertise in accreditation. The team also has technical expertise from specification from AYUSH in addition to architect and biomedical engineers.

2. Facilitating Quality Initiatives in Health Care Services

NRBPT Registration: Registration of Astron Hospital & Healthcare Consultants with National Registration Board for Personnel and Training (NRBPT) of Quality Council of India (QCI) has evolved its procedures to deliver high quality of consultancy services. The systems and processes are audited by an expert team from QCI at regular intervals to ensure that highest quality of services is provided uniformly by the ASTRON team.

Quality and Accreditation projects for State Governments: ASTRON has been entrusted with the responsibility of improving health care systems in many state governments including Gujarat, Andhra Pradesh and also for Government of India. Recently ASTRON has been commissioned for facilitationg quality improvement in all the health care organizations of New Delhi Municipal Corporation.

JCI Collaboration: Astron has been designated as a collaborating and resource organization by Joint Commission International (JCI), the biggest international health care accreditation body of the world. Astron is privileged and honoured to be the exclusive organization having these privileges in Indian subcontinent.

3.Geographical Experience: Haryana, Punjab, Chandigarh, Rajasthan, Himachal Pradesh, Uttar Pradesh, National Capital Region, Maharashtra, Manipur, Karnataka, Madhya Pradesh, Gujarat and Andhra Pradesh

LIST OF CLIENTS:

Team Astron has successfully completed projects with the following organisation

Government Sector:

- Govt. of Uttar Pradesh
- Govt. of Punjab
- Govt of Haryana
- Govt. of Delhi
- Govt. of Himachal Pradesh
- Govt of Gujarat
- Govt. of Madhya Pradesh(Madhya Pradesh Technical Assistance Support Team)
- National AIDS Control Organization
- Delhi State AIDS Control Society

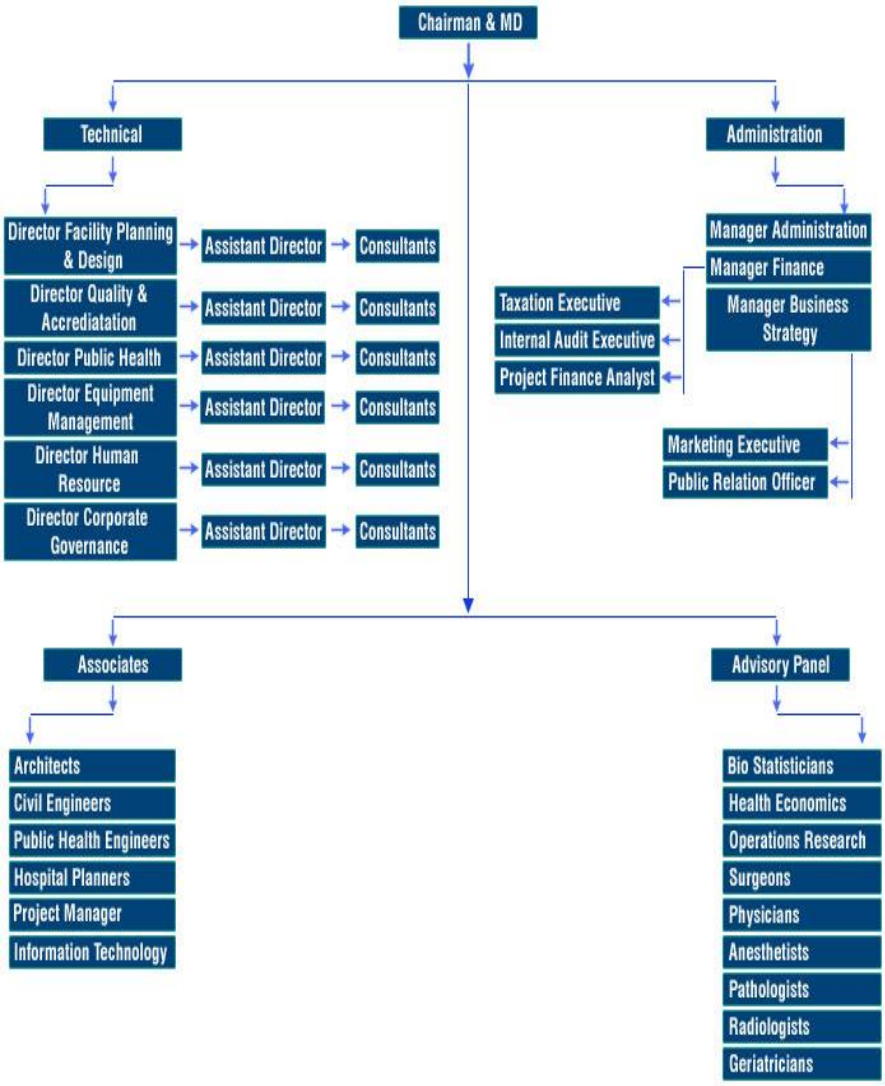
International Agencies:

- Clinton Foundation HIV/AIDS Initiative
- India HIV/AIDS Alliance
- PLAN India

Private Sector:

- Jaypee Group, NOIDA
- Sterling Addlife India Ltd, Gujarat

ORGANISATIONAL HEIRARCHY



Introspection:

I worked in Astron Consultancy as a management Trainee for a period of 4 months starting from December 17, 2011. In this time period I worked on this ICDS project which was concerned with data verification at Anganwadi level. During the period of my dissertation I was designated as Team leader and covered the whole Indore Division for the data collection activity. I coordinated and managed 8 researchers of y team who were responsible for data collection on field. I used to supervise their work along with that collected data from supervisors and CDPO a block level.

2 months of field work, gave me deep insight about the whole functioning of the ICDS program and I learnt a lot. I was able to figure out loopholes in the system which proved as a good learning. Anganwadi worker of different districts: rural, tribal and urban blocks, all of them had different kinds of challenges some were similar in nature some were diverse. So, in all in was a great opportunity to learn and to sharpen both technical and managerial skills which we inculcated during two year post graduate program.

PART -2

DISSERTATION REPORT

Acronyms

AWC	Anganwadi Centre
AWW	Anganwadi Worker
ANC	Antenatal Check up
ACDPO	Assistant Child Development Project Officer
CDPO	Child Development Project Officer
DPO	District Programme Officer
DWCD	Department of Women & Child Development
DLHS	District Level Household Survey
ICDS	Integrated Child Development Services Scheme
IFA	Iron & Folic Acid
IMR	Infant Mortality Rate
IYCF	Infant & Young Child Feeding
MIS	Management Information System
MPR	Monthly Progress Report
MUAC	Mid Upper Arm Circumference
MMR	Maternal Mortality Rate
PNC	Post Natal Care
SNP	Supplementary Nutrition Program
TT	Tetanus Toxoid
WHO	World Health Organization

Executive Summary

Maternal and Child Health Programs constitute a significant groundwork in determining the healthcare status of all the countries in the world, as they have direct impact on vital health indicators such as IMR, MMR, nutrition status, morbidity indicators etc. Ultimately, they have a shared impact on the country's economic growth and social development. Keeping in mind the importance of the above, Millennium Development Goals were formulated by UN in 2000, to reduce MMR, IMR, U-5MR and under-nutrition through commitment and cooperation of all nations. The aim is to reduce maternal mortality rate by at least three quarters and under-5 mortality rate by two-thirds (keeping the base year 1990), by the year 2015. However after so many efforts, maternal and child health still remains a matter of concern for almost all the developing countries.

To combat this challenge, Integrated Child Development Scheme (ICDS) was launched in India in October 1975. It one of its kind programmes in the world aimed to promote holistic development of the child in the country. The Department of Women and Child Development in Madhya Pradesh is primarily responsible for the delivery of health and nutrition services at the village level through 78,929 AWCs in the state.

In view of the geographical spread, prevailing socio-cultural milieu, vast population & coverage of beneficiaries as well as massive scale of ICDS functionaries in the state, monitoring and supervision activities pose a challenge at all levels in the state. The issues related to quality & integrity of data and its analysis in taking evidence based informed decisions to make required modifications/corrections in the ongoing programs to achieve set goals require a focused attention to improve program performance. The paucity of high quality and objective data generated from routine MIS impacts overall programme management.

Consequently, the study was undertaken with the following objectives:

General Objective:

- To undertake data verification of ICDS MIS data in 125 sampled Projects spread over 50 districts in Madhya Pradesh at the village Anganwadi level.

Specific Objectives:

- To undertake study of survey and service registers available at AWC.
- To evaluate consistency/inconsistency in data collected at Anganwadi level with beneficiaries.
- To identify components/ data heads with maximum inconsistency at Anganwadi level.
- To identify reasons of bottlenecks in the process of data collection at level of Anganwadi.
- To suggest recommendations to improve the quality of the data quality from the grass-root level.

1000 AWWs were covered in 125 projects of Madhya Pradesh. The representative sample is selected scientifically. The data captured was analyzed and is presented to suggest the level of inconsistencies, with possible reasons, suggestions and recommendations to overcome the challenges.

The review of 1000 AWWs revealed a general lack of training on basic topics related to ICDS. Short supply of proper printed registers resulting in to data capturing on loose bound blank registers was found resulting in to major data loss. Non- availability and non-functional weighing machines emerged as a major cause for inconsistencies in weight recording. Recording of weight suffers a setback mainly due non -availability of functional weighing machines. Constraints related to distance, transportation and high work load from non-ICDS activities also act as barrier these lack of resources comes out as major challenge.
Lack of regular training and lack practical approach and practice sessions does not build capacity of the AWWs to the fullest and they feel less confident of their scope of work.

Also, in spite of claims of regular home visits and regular and timely updating of registers, the data inconsistencies remain high thus belying these claims. Some reasons which came in light were: additional non-ICDS responsibilities of AADHAR (Unique Identification work), target of sterilization are given to them which doesn't leave them with time to make home visits and in

their absence helper does the work of distributing nutrition but recording of data and reporting does suffer.
Lack of appropriate supervisory mechanisms from the point of supervisors and CDPOs affect the quality of data generated at AWW level.

Data verification of AWC data vis-a-vis Adolescents (3000) studied revealed major inconsistencies in documentation of weight and age of the adolescent girls and supplementary nutrition received by the girls. The inconsistencies were also observed in the names of the persons who received THR from the AWW including name of respondent. The level of inconsistencies was more in rural projects followed by urban and tribal projects.

Matching between AWC data and direct Interactions with Pregnant women (4000), randomly selected for the study from rural, urban and tribal areas show a high degree of inconsistencies at the level of AWCs in significant data heads like date of registration at AWC, status of TT, distribution of IFA and date of ANC checkup, weight of women, and even date of delivery. Minor inconsistencies also surface on the status of SNP, number of deliveries, number of months of pregnancy and number of deliveries and present month of pregnancy.

Direct Interactions with Lactating Mothers revealed vital inconsistencies in comparison to AWC data in the data like age and weight of the children and age of the mothers. Other parameters like number of children, month when child was born, number of deliveries, name of women, and provision of SNP to the beneficiaries showed inconsistencies of a relatively lower percentage.

Mothers of child 0-3 years (4000) and AWC data analysis highlight major inconsistencies in vital datas like recording weight of the child in the Growth Monitoring Chart, grading the child for malnutrition, date of health checkup, status of immunization of the children, Vitamin A Dose, assessment of malnutrition by monitoring the weight of the child and graded for malnutrition. THR reflecting person, weight record, breakfast, lunch also show high level of inconsistencies between.

Direct Interactions with Mothers of child 3-6 years (4000) show major inconsistencies in data vis-à-vis AWC data in terms of vital components of data viz. weight of the child in the growth chart, grade of

malnutrition, date of health checkup, status of immunization of the children, Vitamin A administration, time when the child was weighed and graded for malnutrition and parameters on THR. Other inconsistencies observed were on date of birth and gender. Indicators that are specific for this particular age group like date of admission and leaving the pre-school also surface as inconsistencies.

Based upon the findings at AWW level, suggestions to improve the quality of data from the grass-root level have been suggested. On the basis of individual issues; short, mid and long-term recommendations have been made to address them.

INTRODUCTION

Maternal and Child Health Programs constitute the significant foundation in determining the healthcare status of all the countries in the world, as they influence the most important health indicators such as IMR, MMR, nutrition status, morbidity indicators etc. Eventually, they have a collective impact on the economic and social development of the country. Maternal and Child Health is of prime importance as it has proved that good health and nutrition of the mother contributes to infant survival and later ensures positive health of the child. Subsequently, healthy child can follow physical, mental, cognitive and social growth path in normal trajectory and contribute successfully to country's economic productivity and stability.

According to WHO data (2008), about 1000 women died each day due to complications related to pregnancy and child birth. Worldwide, almost two-third of under-five deaths was claimed by infectious diseases and poor management of disease. To this under nutrition contributes to more than one-third of all under-five deaths. In 2010, 103 million children under five years of age in developing countries were found underweight (source: WHO). The majority of child deaths can be prevented through exclusive breastfeeding up to 6 months of age, immunization, appropriate use of antibiotics, oral rehydration therapy and other simple methods.

Working towards achievement of the Millennium Development Goals formulated to reduce MMR, IMR, U-5MR and under-nutrition, all nations have committed themselves to reduce maternal mortality rate by at least three quarters and under-5 mortality rate by two-thirds, by the year 2015. In developed countries, a sustained focus by the government authorities on maternal and child health issues coupled with high literacy levels and awareness among the community has resulted in relatively better health outcomes among the mothers and children.

Though the world has developed far ahead in the domain of technological and medical advancements still maternal and child health remains a matter of concern for almost all the developing countries. South East Asia, WHO data 2009, indicates Infant Mortality Rate to be 45 per 1000 live births, under-5 mortality rate 59 per 1000 live births and maternal mortality rate 240 per 1,00,000 live births.

Improvement of these indicators being a major concern, governments of these countries are planning interventions that have a large scale & long term impact on health of the population. Consequently, developing countries like Pakistan, Nepal and Bangladesh have planned structured programs like Pakistan Initiative for Mothers and Newborns (PAIMAN), FP-MCH National Health Program (Nepal),

Health, Nutrition and Population Sector Program (Bangladesh) to combat the issue of IMR, MMR, under nutrition and low coverage of immunization.

The health indicators in India also follow a similar trend being far below average with IMR being 50 per 1000 live births, MMR 212 per 1, 00,000 live births - SRS 2010. This data varies grossly from state to state with IMR being highest in Madhya Pradesh (62 per 1000 live birth) and lowest in Kerala (12/ 1000 live births-(SRS 2011). MMR in Madhya Pradesh is 269 per 1, 00,000 live births (SRS 2011). NFHS-III data shows that only 40.3% children are fully vaccinated in the state and 60% under the age of 5 years are suffering from under-nutrition indicating less opportunity for the children in terms of overall health and development in their life.

In 1975 October, Integrated Child Development Scheme (ICDS) was launched to improve maternal and child health indicators. The programme is one of its kinds in the world. It symbolize India's commitment to holistic development of children by providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity and mortality, on the other. It also benefits mothers and adolescents girls under the same programme.

The Department of Women and Child Development in Madhya Pradesh is primarily responsible for the delivery of health and nutrition services at the village level through AWCs in the state. The state has a wide network of about 78,929 Anganwadi Centers and is implementing 453 projects (278 Rural, 73 Urban and 102 Tribal) across 313 blocks of 50 districts. There are 3164 Anganwadi Sectors across the state. One Sector covers approximately 25 Anganwadi Centers on an average. The smallest unit i.e. AWC provides structured services under the program. The services are directed to support 6 components of the programme: Supplementary nutrition, Immunization, Growth Monitoring, Health check-up and Referral services, Pre-school non-formal education, Health and Nutrition education. The beneficiaries of the program are children below 6 years of age, pregnant and lactating mothers, adolescent girls and women of age group (15 to 45 years).

As the focus of the program is the overall improvement in health and nutrition of mother and child, the service delivery indicators of the state require urgent attention in many areas, especially on the issues related to quality of services including their monitoring & supervision in general, and availability & accessibility of health & nutrition services in particular, with special emphasis on remote and hard to reach areas in the state. ,

However, in view of the geographical spread, prevailing socio-cultural milieu, vast population & coverage of beneficiaries as well as massive scale of ICDS functionaries in the state, monitoring and supervision activities pose a challenge at all levels in the state, especially with currently available monitoring information system and lack of proper field supervision in the Department of Women and Child Development of GoMP. Regular monitoring and supportive supervision activities at lowest level is weak.

Though there is established internal monitoring system, there is a paucity of high quality generated data about how services are provided, what is the level of service gaps (in terms of achieving target number and meeting needs of beneficiaries), good practices and service failures requiring immediate attention. Such data are needed on a periodic basis to inform local and state level management decision makers for corrective action to improve services, thus leading to improved program performance, such as issues related to child malnutrition.

This over/under-reporting of data on various parameters creates a data gap and compromise on quality of data being reported from field level.

Consequently, the study was undertaken to identify the gap area and to come with solutions to improve effective of the programme. The study was funded by Department of International Development (DFID) and was done along with Madhya Pradesh Technical and Assistance Support Team (MPTAST) for Women and Child Development Department (WCD)

RATIONALE:

Anganwadi centre is the first point of contact between the ICDS programme and its beneficiaries. Anganwadi centre is managed by AWW who is responsible for the data collection and compilation at the village level. This forms the basis of MIS of ICDS. Data generated at this level plays a crucial role as based on these data higher authorities at block district and state level does decision making and formulates future policies. Hence, quality of data becomes crucial. In June 2011, the WCD department installed web enabled system wherein at the level of supervisors data is fed into software but its efficiency and effectiveness is doubtful until and unless data from the grassroots level is correct and complete. The study aims to evaluate the consistencies and inconsistencies in the data system and to analyse the reasons for gaps at the AWW level and to come up with recommendations.

OBJECTIVES: The objectives of the study are allows:

General Objective:

- To undertake data verification of ICDS MIS data at the village (Anganwadi) level in 125 sampled Projects spread over 50 districts in Madhya Pradesh

Specific Objectives:

- To undertake study of survey and service registers available at AWC.
- To evaluate consistency/inconsistency in data collected at Anganwadi level with beneficiaries.
- To identify components/ data heads with maximum inconsistency at Anganwadi level.
- To identify reasons of bottlenecks in the process of data collection at level of Anganwadi.
- To suggest recommendations to improve the quality of the data quality from the grass-root level.

LICTERATURE REVIEW

1. NIPCCD Report 2006: The study was conducted in 35 states and highlighted that 49% AWCs had inadequate space and 50% had n storage space for registers and other resources. Secondly, they also linked that low education level of AWW affects quality of data. Majority of the AWWs (43.2%) were upto 10th, 23% were 12^{th} pass and 10% were graduate.
   Other finding of the study was that 60% of newborn and mothers are weighed at centre though it's better for 3-5 years old (83.3%) and only 68.9% pregnant mothers received IFA tablets.

2. Vrinda Dutta, 2001did a study on factors affecting job performance of AWW and found that infrastructure of training centers has not been improved from 20 years. 74% AWW mentioned that such trainings are useful but others felt theoretical trainings doesn't provide them with enough confidence.

3. Adarsh Sharma *et al (2005)* - The study was conducted in 2 districts of Uttar Pradesh to see impact of ICDS training on service delivery. It revealed that AWWS who received Job training were equipped in better way with 5 skills -Story telling, Narrating children's story, organizing creative activities, number and word game required for organizing PSE sessions with their counterparts who did not attended the training.

4. Centre for Budget study conducted a study in 2009 on ICDS and Child survival issues in M.P. which highlighted that some major findings. Monthly Progress report of Month May 2008 available on website of WCD shows that population of children under 6 years is 86.96 lakhs but as per as census 2001, population is 1.078 crore. It means 2.1 million children are out of focus. So gap between targeted population and actual coverage. Secondly, only 37% AWW (out of 65 sample size) were having their own building, other 63% lack their own edifice and are running centers in rented structures, Panchayat Bhawans or at residence of AWW or helper.

Thirdly, it was striking to find that only 24% of the AWWs are imparting PSE to the 3-6 years old.
Fourthly, functional salter machine and adult weighing machine were present only in 72% and 66% of the AWC respectively.

5. A study conducted in 5 states including M.P. by Swami Vivekanand Youth Movement, Mysore (2009) along with collaboration with MOH&FW and WHO revealed AWWs faces a lot of challenge due to too much of documentation work, poor infrastructure at AWC, irregular supply of resources, salary disbursements were irregular, periodic non-ICDS responsibilities decreases their morale and enthusiasm.
   Secondly, it was seen that AWC are taken more as feeding centers and components of pre-school education is often lacking.

6. World Bank Report 2002 highlighted that majorly in all the states AWWs do not maintain complete and correct household survey of the corresponding village. There are gross disparities in the actual services being provided and data recorded and reported. Various indicators are over/under reported and do not depict the true scenario of the state. Other finding disclose that growth monitoring though regular for attending beneficiaries remains weak in the absence of supervisors monitoring.

7. IIHMR, Jaipur (2000) conducted a study for world bank in 20 districts of Rajasthan, and the results were that only 24% pregnant women reported receiving IFA tablets and 29% reported receiving TT injections, 42% respondents mothers of children(6 months to 6 years) received Supplementary nutrition. But the data were indicating over-reporting of data and showed that all services are provided to majority of registered beneficiaries. Second finding, highlights that 51% of mothers of children in age group of 3-6 years were aware of AWC in their area.
   Thirdly, 30-40% of registered children in pre-school were found to be attending. Immunization survey registers were only present in 72% of AWCs which questions how do those centers, without registers are reporting on immunization status.

8. Anita Joshi et al (2001) did a study regarding Anganwadi workers Knowledge, Attitude and practices on Nutrition and found that about 95% urban AWWs weighed pregnant women correctly while only 65% and 60% rural and tribal AWWs respectively could weigh pregnant women correctly.

9. Chander Shekhar et al (2008) did a study in Madhya Pradesh and revealed that children of secondary and higher educated mothers are 1.9 times more likely than non-literate mothers to utilize services at AWC (like immunization) and keep a note on progress of their child. They keep track of child's growth and development and ensure attendance of child at AWC.

Research Methodology

The scientific reporting is a backbone of any development project. Similarly in ICDS, reporting of data does not just indicate progress of the programme but also forms basis for decision making. So it highlights importance of correct and timely reporting which can allow higher authorities to identify loopholes and take timely decision which can impact programme positively and can help India achieve its Millennium development goals. For that it is important that the data quality is of high value since the grass-root, i.e. Aganwadi level and AWW is the first contact person for the beneficiaries. Supervisors do check and correct/ modify data based on validation and sometimes assumptions which does not always reciprocate to actual data. So, precise data from the level of AWW is needed to ensure quality.

A.) Study Design: The research design is Cross-sectional descriptive study.

B.) Study Area: The study undertaken included collection of primary data and secondary data from the 50 districts of Madhya Pradesh.

C.) Study period: The complete time taken to complete the project was from 2nd January 2012 to 30th March 2012. The data collection period ranged from 4th January to15th February 2012.

D.) Study population: the study population included beneficiaries of ICDS programme:

1. Children (0-6 years old)
2. Pregnant women
3. Lactating women
4. Adolescent girls

E.) Sampling: The WCD department, MP and MPTAT directed us to cover 125 projects for this study. For sampling following steps were taken to select the sampling units scientifically.

Step I

There are 453 ICDS projects in the state of Madhya Pradesh across 50 districts. The distribution of these projects is: - Rural - 274, Urban – 78 & Tribal – 101.

Out of these 125 ICDS projects were selected using proportionate sampling technique keeping in view the prevailing ICDS proportionate distribution (U-17%, R-60%, T-23%).

Accordingly care was taken to select the required number of projects from each strata of urban, rural and tribal areas i.e. *U- 21, R- 75, T-29 = 125*.

A list of projects, district wise, was procured and with the help of PPS sampling technique (Proportionate to the population size) the projects were selected from each district.

Step II

From each of the selected project, two sectors were selected randomly with the help of simple random sampling technique maintaining a near equal representation of block and non block categories.

Step III

Four Anganwadi Centers were selected randomly from each sector again with the help of simple random sampling technique with varying distance from the block head quarters so as to have a representation of the entire block.

Step IV

From each of the selected Anganwadi Centers, eleven households were selected through simple random sampling technique to ensure the coverage of 19 targeted beneficiaries.

Sampling Size

Unit	Sample	Total
District	50	50
Blocks / projects	125 U-23, R- 74, T- 26	125
Sector	125*2 (2 sector/ project)	250
AWCs	4 AWC per sector	1000
House hold beneficiaries	19/ AWC	19000

The details of the selected sampling units are given in the following table.

Beneficiaries per AWC in households

Beneficiary category	**Total Beneficiaries**
Lactating Mothers	4
Pregnant Women	4
Adolescent Girl HH	3
Child (0-3 years)	4
Child (3-6 years)	4
TOTAL	**19**

The study includes both primary and secondary data collection to meet the objectives of the study. Primary data was collected from AWWs through IDI's and the responses were gathered directly from the beneficiaries for the purpose of matching. The secondary data sources were the survey registers and services registers which are managed by AWWs.

F.) Tools and Techniques-AWWs processes Monthly Progress Report is comprised of both health and non – health data against which services are provided under the ICDS scheme. Ideally speaking MPR indicators are a reflection of service registers, in which records of a series of health and non – health services provided to the beneficiaries are recorded.

The beneficiaries include pregnant & lactating mothers, children 0 – 6 years and adolescent girls. For interview purposes, the children under 6 years and adolescent girls were also taken as part of interview with the mothers.

From each selected AWC, the process of data verification was targeted at 19 beneficiaries.

In cases where the required sample was not available in a particular village, the sample of that category was compensated for in the next village/ project depending upon the availability of beneficiary category. This issue was faced especially among the sample of lactating mothers and pregnant women who had migrated to their parents place for delivery.

1. The matching Performa used for verification of the data collected both primary and secondary data from the field. The data coming from AWW registers was Secondary in nature and response of beneficiaries was primary data. Both the data were recorded to find whether the inconsistencies appeared or not.

DATA FROM REGISTERS	Household 1	Household 2	Household N	Verification of each household data with the survey register and service register	Inconsistency recorded (Between the household information and Register)

2. Interview formats were deigned to conduct In Depth Interviews s with AWWs focused on to gather information concerning 6 components of ICDS programme to attain in-depth understanding. The questions were aimed to evaluate understanding of AWW on the indicators and data heads concerned with ICDS programme, to identify the issues which act as a barrier for data collection, problems faced by AWW which affects her work directly, feedback on current MPR format and to capture her suggestions for future improvement.

G.) Data Analysis: Analysis is done using SPSS package.

Limitations faced: At the Anganwadi center level:

Delay in opening of AWCs for interaction with the research team, difficulty in reaching to AWCs as in rural and tribal area were in remote areas, inability to reach out to AWW through mobile as network was a problem, pre occupation of AWW with other health programs like LTT camps resulting in non availability of AWWs.

Communication was a challenge in tribal areas like Jhabua and Alirajpur. Non availability of survey and service registers at the AWCs, denial of showing the registers for matching the information with that of the beneficiaries, was experienced with some of the AWWs.

Inadequate availability of the required sample of beneficiaries especially pregnant women and lactating mothers, being a floating population and migrating to parents home for delivery. In such situations, the deficient numbers were compensated by covering pregnant women and lactating mother in the adjacent villages.

Incomplete documentation of data and difficulty in understanding handwriting in the registers resulting in wastage of time in tracking required information by the research team.

Interface of Data with Beneficiaries

…….. A critical review of AWC data with field responses

The Department of Women and Child Development in Madhya Pradesh with its prime responsibility towards improvement of health and nutrition of the mother and child provides services through a vast network of service delivery units at the door step of the beneficiaries by catering structured services under the program: Supplementary nutrition, Immunization, Growth Monitoring, Health check-up and Referral services, Pre-school non-formal education and Nutrition & health education. The beneficiaries of these services are primarily the adolescent girls, pregnant women, lactating mothers and children below 6 years of age.

In an effort to assess the quality of services being provisioned to its beneficiaries and strategically plan evidence based methodologies for program improvement, direct interaction was held with a statistically ***significant representative sample of 19000 beneficiaries comprising of 3000 adolescent girls, 4000 pregnant women, 4000 lactating mothers, 4000 children 0-3 years and 4000 children 3-6 years,*** across projects in M.P. distributed with the existing ICDS projects to ensure wide coverage of responses.

The information received from the beneficiaries was cross checked with the Nutrition; weight Growth Chart & Register, Pre-school registration, Immunization and THR Register,

A wide variety of data were reported at various levels ranging from status of heath checkup, record of weight and degree of malnutrition, immunization, status of SNP and THR, preschool education. In addition a wide disparity has been reported in the parity, status of ANC registration, immunization and distribution of IFA, months of pregnancy, antenatal checkup including weight.

Significant data collected like weight show a wide disparity between the weight recorded and entered in registers and that plotted on the growth monitoring chart.

The possible reasons for the inconsistencies noticed are; inadequate and sustained availability of appropriate documentation tools resulting in compulsive and adhoc compilation of information in varied, alternative, unconventional forms like loose sheets and dairies and hence delayed, incomplete and incorrect documentation.

Also improper clarity of action compounded with lack of regular monitoring and supportive supervision by the supervisory staff leaves a major gap between knowledge and practice among the AWWs. This results in to emergence of major disparities at the grass root level, hence the significant inconsistencies.

Inadequate understanding among the providers especially AWWs about the significance of the services provided under ICDS result into a gross inadequacy of follow up by the AWWs on the issues which are of prime.

Also the lack of understanding of the indicators, process of data collection and in adequate communication skills among the AWWs results in inability to create the need of services in beneficiaries and their families.

Also inadequate convergence of the ICDS with the health department (RCH), inadequate coordination within the working team and inadequate support to the providers for the delivery of services under the program also contribute to such inconsistencies.

At the level of demand, the low literacy levels, family and financial pressures, cultural issues, migration, inadequate awareness about the felt need of self follow up for their own wellbeing creates a level of inhibition among the beneficiaries for availing such services, impacting the open dialogue with the research team about the receipt of such services from the AWWs, which also contributes to the emergence of some of the inconsistencies.

Status of Inconsistencies in Data

…..Matching between AWC Data and Direct Interactions with Adolescents

In-depth interviews were conducted with 3000 adolescents on the services provided by the department and responses so given were matched with the AWC data entered in the registers corresponding to the services provided. Inconsistencies so observed by the research team have been tabulated below.

Table1: Verification of data in terms of correct/incorrect with the registers maintained by AWWs

ADOLESCENTS		TOTAL (N=3000)
NAME	CORRECT	2872 95.7%
	INCORRECT	128 4.3%
AGE	CORRECT	2546 84.9%
	INCORRECT	454 15.1%
WEIGHT	CORRECT	1927 64.2%
	INCORRECT	1073 35.8%

THR WAS RECEIVED BY ADOLESCENT	CORRECT	2613 87.1%
	INCORRECT	387 12.9%
WHO RECEIVED THR FROM AWW	CORRECT	2676 89.2%
	INCORRECT	324 10.8%

Data verification of indicators on the representative sample of adolescents (3000), in various projects highlights major inconsistencies in documentation of weight in 36% adolescents, followed by age of the adolescent girls. Inconsistencies in whether supplementary nutrition was received by the girl (13%), person who received THR from the AWW (11%) were also observed in addition to other inconsistencies in name (4%) and age the of respondent (15%).The level of inconsistencies was more in rural projects followed by urban and tribal projects.

The possible reasons for the inconsistencies could be

- Inadequate and sustained availability of appropriate documentation tools resulting in compulsive and adhoc compilation of information in varied, alternative, unconventional forms like loose sheets and dairies, hence delayed incomplete and incorrect documentation.
- Lack of adult weighing machine also adds up to data manipulation.
- Also improper clarity of action among the AWWs compounded with lack of regular monitoring and supportive supervision.

Status of Inconsistencies in Data

…..Matching between AWC Data and Direct Interactions with Pregnant Women

In-depth interviews were conducted with 4000 pregnant women on the services provided by the department and responses so given were matched with the AWC data entered in the registers corresponding to the services provided. Inconsistencies so observed by the research team have been tabulated below.

Table 2: Verification of data in terms of correct/incorrect with the registers maintained by AWWs

Pregnant Women		TOTAL (N=4000)
Name of the WOMEN	CORRECT	3670
		91.8%
	INCORRECT	330
		8.2%
AGE	CORRECT	2721
		68.1%
	INCORRECT	1279
		31.9%
No. of CHILDREN	CORRECT	3283
		82.1%
	INCORRECT	717
		17.9%
NO. OF DELIVERIES	CORRECT	3267
		81.7%
	INCORRECT	733
		18.3%

PRESENT MONTH OF PREGNANCY	CORRECT	3203
		80.1%
	INCORRECT	797
		19.9%
MONTH OF REGISTRATION AT AWC	CORRECT	2011
		50.3%
	INCORRECT	1989
		49.7%
STATUS OF TT	CORRECT	1992
		49.8%
	INCORRECT	2008
		50.2%
DISTRIBUTION OF IFA TABLETS	CORRECT	2254
		56.4%
	INCORRECT	1746
		43.6%
WEIGHT OF WOMAN	CORRECT	2174
		54.4%
	INCORRECT	1826
		45.6%
THR	CORRECT	3091
		77.3%
	INCORRECT	909
		22.7%
WHO RECEIVED THR	CORRECT	3539
		88.4%
	INCORRECT	461
		11.6%

Major inconsistencies in vital data of pregnant women which have a direct impact on the health and wellbeing of the expecting women along with fetus were observed during data verification of data on the representative sample of pregnant women (4000) randomly selected for the study. These data have direct linkage to MMR and IMR at the state and national level.

Significant data like date of registration at AWC (50%), status of TT (50%), distribution of IFA (44%), weight record of women (46%) show a high degree of inconsistencies at the level of AWCs.

Minor inconsistencies also surface on the status of SNP (23%), number of deliveries (18%), number of months of pregnancy (20%), name (8%), number of children and number of deliveries (18%), present month of pregnancy (20%), name (8.2%) and age (32%) of the respondent inferring the inadequate understanding among the providers about the significance of the same resulting into a gross inadequacy of follow up by the AWWs on the issues which are of imminent importance in this category, as this component of the service/program has been designed by the department to address to these issues.

Some of these inconsistencies are also a result of inadequate convergence with the health department. At the level of demand, the low literacy levels, family pressures, cultural issues, inadequate awareness about the felt need of self follow up for their own wellbeing creates a level of inhibition among the beneficiaries for availing such services.

Status of Inconsistencies in Data

…..Matching between AWC Data and Direct Interactions with Lactating Mothers

In-depth interviews were conducted with 4000 lactating mothers on the services provided by the department and responses so given were matched with the AWC data entered in the registers corresponding to the services provided. Inconsistencies so observed by the research team have been tabulated below.

Table3: Verification of data in terms of correct/incorrect with the registers maintained by AWWs

Lactating Mothers		Total (N=4000)
NAME OF WOMEN	CORRECT	3750 93.7%
	INCORRECT	250 6.3%
AGE	CORRECT	2605 65.1%
	INCORRECT	1395 34.9%
NO. OF CHILDREN	CORRECT	3388 84.7%
	INCORRECT	612 15.3%

AGE OF THE PRESENT LACTATING CHILD	CORRECT	3395 84.9%
	INCORRECT	605 15.1%
MONTH WHEN THE CHILD WAS BORN	CORRECT	3462 86.6%
	INCORRECT	538 13.4%
WEIGHT OF THE BABY	CORRECT	2679 77%
	INCORRECT	1321 33%
THR RECEIVED BY MOTHER	CORRECT	3613 90.3%
	INCORRECT	387 9.7%
WHO RECEIVED THR FROM AWW	CORRECT	3588 89.7%
	INCORRECT	412 10.3%

The data was verified on the representative sample of lactating mothers (4000) randomly selected for the study. Major inconsistencies were observed ion the data records to lactating mothers too. Age (15%) and weight of the baby (33%) which are most crucial parameters to measure under-nutrition in a child were appeared to be incorrect.

Other inconsistencies also surface on the status of SNP (10%), number of children (15.3%), lactating mother's name (6.3%) and age (35%)

At the level of demand, the low literacy levels, family pressures, cultural issues, inadequate awareness and migration to maternal home after delivery hampers beneficiaries from availing the services.

Status of Inconsistencies in Data…..

Matching between AWC Data and Direct Interactions with mothers of children 0-3 years

In-depth interviews were conducted with 4000 mothers of children 0-3 years on the services provided by the department and responses so given were matched with the AWC data entered in the registers corresponding to the services provided. Inconsistencies so observed by the research team have been tabulated below.

Table4: Verification of data in terms of correct/incorrect with the registers maintained by AWWs

Children **Age Group 0-3 years**		
		TOTAL (N=4000)
NAME OF THE CHILD	CORRECT	3604
		90.1%
	INCORRECT	396
		10.9%
GENDER	CORRECT	3672
		91.8%
	INCORRECT	328
		8.2%
DATE OF BIRTH	CORRECT	3232
		80.8%
	INCORRECT	768
		19.2%
OPV 0 DOSE AT THE TIME OF BIRTH	CORRECT	2728
		68.2%
	INCORRECT	1272
		31.8%
BCG	CORRECT	2728
		68.2%
	INCORRECT	1272

		31.8%
DPT-1	CORRECT	2768
		69.2%
	INCORRECT	1232
		30.8%
OPV-1	CORRECT	2744
		68.6%
	INCORRECT	1256
		31.4%
HEPATITIS-B-1	CORRECT	2744
		68.6%
	INCORRECT	1256
		31.4%
DPT-2	CORRECT	2760
		69.0%
	INCORRECT	1240
		31.0%
OPV-2	CORRECT	2736
		68.4%
	INCORRECT	1264
		31.6%
HEPATITIS-B-2	CORRECT	2740
		68.5%
	INCORRECT	1260
		31.5%
DPT-3	CORRECT	3116
		77.9%
	INCORRECT	884
		22.1%
OPV-3	CORRECT	2728
		68.2%
	INCORRECT	1272
		31.8%

HEPATITIS-B-3	CORRECT	2720
		68.0%
	INCORRECT	1280
		32.0%
MEASLES	CORRECT	2708
		67.7%
	INCORRECT	1292
		32.3%
VITAMIN-A 6-A	CORRECT	2716
		67.9%
	INCORRECT	1284
		32.1%
6-B	CORRECT	2972
		74.3%
	INCORRECT	1028
		25.7%
6-C	CORRECT	2956
		73.9%
	INCORRECT	1044
		26.1%
6-D	CORRECT	2952
		73.8%
	INCORRECT	1048
		26.2%
6-E	CORRECT	2960
		74.0%
	INCORRECT	1040
		26.0%
THR	CORRECT	3564
		89.1%
	INCORRECT	436
		10.9%
WEIGHT RECORDED	CORRECT	2760
		69.0%
	INCORRECT	1240
		31%

WEIGHT OF CHILD IN THE GROWTH MONITORING CHART	CORRECT	2204
		55.1%
	INCORRECT	1796
		44.9%
GRADE OF THE CHILD IN THE GROWTH MONITORING CHART	CORRECT	2604
		65.1%
	INCORRECT	1396
		34.9%
LAST HEALTH CHECK	CORRECT	2712
		67.8%
	INCORRECT	1288
		32.2%

Data verification of indicators on the representative sample of children in the age group of 0-3 years (4000), highlight major inconsistencies in vital data which have a direct impact on the overall growth and development of the child i.e. recording weight of the child in the Growth Monitoring Chart (45%), grading the child for malnutrition (35%), date of health checkup (32%), status of immunization of the children (30%), Vitamin A Dose (25%), assessment of weight of the child (31%) and THR was 11%

Emergence of inconsistencies in the data of this significant age group, which has a direct relation with the neonatal and infant morbidity and mortality, are critical as they infer the laxity in delivery of services by the department officials due to on the required services to the beneficiaries, inadequate skills of the providers resulting in a communication gap between the AWWs and beneficiaries, inadequate coordination within the team and inadequate support to the grass-root providers for the optimal delivery of services under the program.

Status of Inconsistencies in Data

…..Matching between AWC Data and Direct Interactions with mothers of children 3-6 years

In-depth interviews were conducted with 4000 mothers of children 3-6 years on the services provided by the department and responses so given were matched with the AWC data entered in the registers corresponding to the services provided. Inconsistencies so observed by the research team have been tabulated below.

Table5: Verification of data in terms of correct/incorrect with the registers maintained by AWWs

Children **Age Group 3-6 years**		TOTAL (N=4000)
Name of the child	CORRECT	3596 89.9%
	INCORRECT	404 10.1%
Date of Birth	CORRECT	3008 75.2%
	INCORRECT	992 24.8%

PRE SCHOOL ADMISSION DATE	CORRECT	2356 58.9%
	INCORRECT	1644 41.1%
DATE OF LEAVING AWC	CORRECT	2988 74.7%
	INCORRECT	1012 25.3%

WEIGHT OF CHILD IN GROWTH MONITORING CHART	CORRECT	2076
		51.9%
	INCORRECT	1924
		48.1%
GRADE OF THE CHILD IN GROWTH MONITORING CHART	CORRECT	2432
		60.8%
	INCORRECT	1568
		39.2%
LAST HEALTH CHECK-UP	CORRECT	2632
		65.8%
	INCORRECT	1368
		34.2%
OPV AT THE TIME OF BIRTH	CORRECT	2380
		59.5%
	INCORRECT	1620
		40.5%
BCG AT THE TIME OF BIRTH	CORRECT	2336
		58.4%
	INCORRECT	1664
		41.6%
DPT-1	CORRECT	2348
		58.7%
	INCORRECT	1652
		41.3%
OPV-1	CORRECT	2356
		58.9%
	INCORRECT	1644
		41.1%
HEPATITIS B-1	CORRECT	2364
		59.1%
	INCORRECT	1636
		40.9%
DPT-2	CORRECT	2380
		59.3%
	INCORRECT	1620
		40.7%

OPV-2	CORRECT	2388
		59.7%
	INCORRECT	1612
		40.3%
HEPATITIS B-2		2376
		59.4%
		1624
		40.6%
DPT-3	CORRECT	2380
		59.5%
	INCORRECT	1620
		40.5%
OPV-3	CORRECT	2384
		59.6%
	INCORRECT	1616
		40.4%
HEPATITIS B-3	CORRECT	2388
		59.7%
	INCORRECT	1612
		40.3%
MEASLES	CORRECT	2404
		60.1%
	INCORRECT	1596
		39.9%
VITAMIN-A 6-A	CORRECT	2608
		65.2%
	INCORRECT	1392
		34.8%
6-B	CORRECT	2692
		67.3%
	INCORRECT	1308
		32.7%
6-C	CORRECT	2724
		68.1%

	INCORRECT	1276
		31.9%
6-D	CORRECT	2744
		68.6%
	INCORRECT	1256
		31.4%
6-E	CORRECT	2764
		69.1%
	INCORRECT	1236
		30.9%
6-F	CORRECT	2776
		69.4%
	INCORRECT	1224
		30.6%
6-G	CORRECT	2800
		70.0%
	INCORRECT	1200
		30%
6-H	CORRECT	2804
		70.1%
	INCORRECT	1196
		29.9%
6-I	CORRECT	2800
		70.0%
	INCORRECT	1200
		30%
WEIGHT RECORDED	CORRECT	2528
		63.2%
	INCORRECT	1472
		36.8%

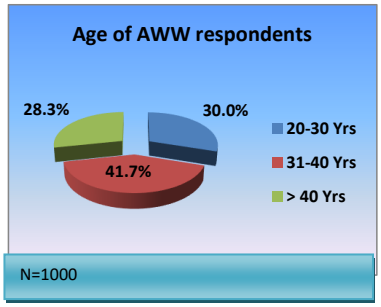
BREAKFAST	CORRECT	3216
		80.4%
	INCORRECT	784
		19.6%
LUNCH	CORRECT	3248
		81.2%
	INCORRECT	752
		18.8%

Some of the vital data which have a direct impact on the overall growth and development of the child were examined through the data verification study on the representative sample of children in the age group of 3-6 years was taken 4000. Major inconsistencies were highlighted in some of the studied vital data viz. weight of the child in the growth chart (48%), grade of malnutrition (29%), date of health checkup (34%), status of immunization of the children (40%) except Vitamin A (30%), weight of the child (37%) and parameters on supplementary nutrition (20%).

Data that are specific for this particular age group like date of admission (41%) and leaving the pre-school (25%) also surface as inconsistencies. These gaps though similar in nature with those emerging in the 0-3 years age group, but reflect a relatively higher percent inferring both a casual approach of service provisioning and uptake of services along with a lack of coordination, communication gap and follow up by both the AWWs and parents. Inconsistent supervision and monitoring by the managerial staff and verification of data is also resulting to this in congruency.

RESULTS of IDI's: In-depth interviews were conducted with 1000 AWWs across 125 projects identified for the study taking adequate representation of urban, rural and tribal projects. Informal and formal discussions were conducted with the grass root work force to take a feed - back on their capacity, systems and processes followed for data collection, compilation, and reporting. Gaps highlighted and suggestions given by the AWWs have been documented in this chapter.

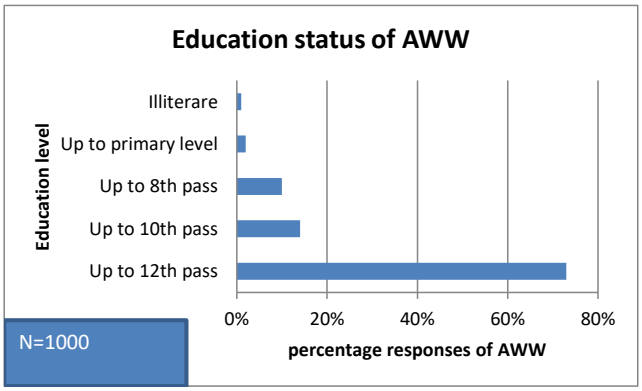
Graph – 1: Age of AWW Respondents



Majority of the AWWs, fall in the age group of 31 to 40 years, across all projects. However, almost an equal percentage of AWWs fall in the age groups below 30 years and above 40 years respectively.

Graph -2: Education of the respondents

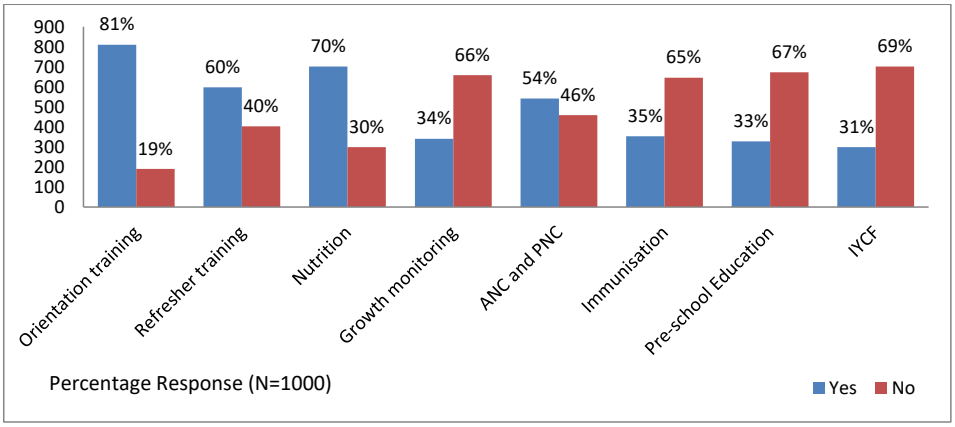
Majority (73%) of the AWWs are 12th standard pass. 14% of the AWW are 10^{th} pass, followed by 10% who are upto 8^{th} pass. Education levels of AWWs up-to primary level is 2%. A very small percentage (1%) still being illiterate but functioning as full-fledged AWWs.



Education level has a direct impact on the quality of any program is an important issue of concern. Though the percentage of illiterate AWWs is very small, but such minimally

empowered resource responsible for service provisioning can adversely impact the data collected, generated and reported, hence impacting the overall program performance.

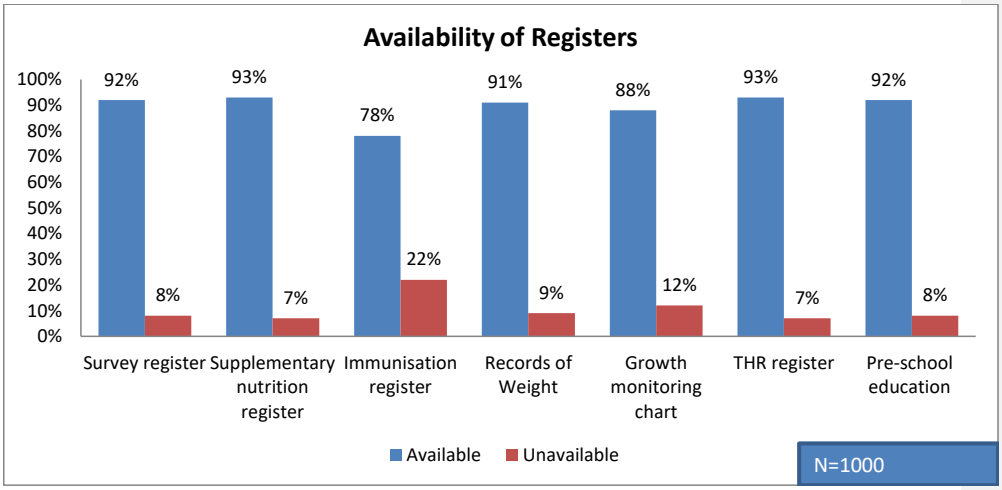
Graph 3: Status of Training of AWWs



Out of 1000 AWWs interviewed, majority (81%) responded that they went through orientation training while 19% said that were not. Refresher training or reinforcement trainings were given only to 60% of AWWs. Training on nutrition and growth monitoring which are vital subjects to reduce malnutrition were not given to 30% and 66% of the AWWs, respectively. Trainings on ANC, PNC and immunization also appear low with only 54% and 35% trained AWWs, respectively. Shockingly, trainings on pre-school education were even less than 40% indicating that the component is not really focused by the higher authorities too. Coverage of IYCF trainings is also significantly low just 31% AWWs are trained on the subject.

The trainings in the state do not follow any schedule or pattern. The duration and the frequency also differ. In the same sector, some AWWs are trained 2-3 times on a subject and some have not got the opportunity once. Similarly, for few training on the same topic was for 2days for some 5 days.

Graph4:Status of availability of registers



The availability of the registers at the AWC is crucial to the program as it forms basis of documentation and reporting. Survey registers, Supplementary nutrition register, weight records, THR records and pre-school registration records and attendance records were present in more than 90% of the centers. Though some of them were printed, some were self made. Immunization and growth monitoring records were available in 78% and 88% of AWC respectively.

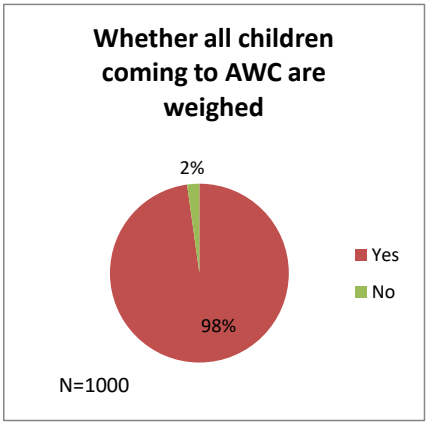
Condition of registers is also matter of concern as some registers were in poor condition. The pages were torn, the page numbers were missing, over-writing and scribbling at times makes it sometimes unreadable. Also, at some centers the registers were present but documentation was not up-to date. The data was missing and sometimes it was not correct which got verified through beneficiaries.

Table 6: Percentage of printed and self made registers out of total available records

Name of the Register	% of availability of Registers	% of Printed out of available registers	% of Non-printed (self made)
Survey Register	92	48%	52%
Supplementary Nutrition Register	93	49%	51%
Immunization Register	78	48%	52%
Weight Records	91	29%	71%
Pre-school registration register	92	33%	67%
Growth monitoring chart register	88	39%	61%

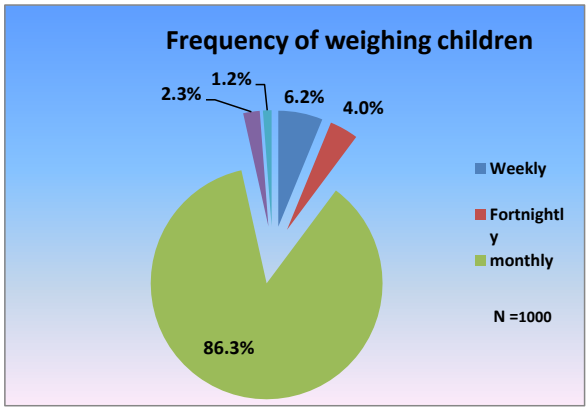
Surprisingly, all the 1000 AWWs interviews responded that the supply of printed registers is irregular. At some place they haven't got any printed and standardized register in last 2 years. More than 50 % of the registers are self-made by the AWW which means reporting of data is on the mercy of the AWW's convenience, knowledge about significance and understating of indicators and customizing the information according to the type of registers available from the market. Also a major cause of concern is less educated and skilled AWWs maintaining hand-made registers can obviously result into a wrong data entry. All these issues can result errors and data loss thus affecting data quality

Graph -5: whether AWW weighs all the children coming to AWC



Majority (98%) of the AWWs across all locations claimed that they weigh all the children coming to their centre. However only 87% of the AWWs were having growth register and 52% of the AWWs were having the 'Tulnatmak register'. *This infers the inadequacy of resource availability to match their documentation requirements, hence creating mismatch between knowledge and practice*

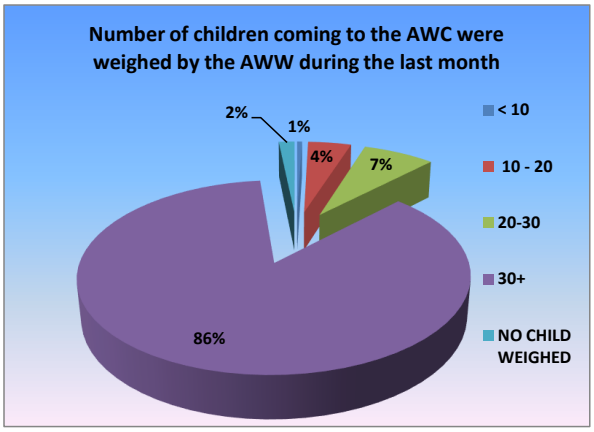
Graph 6: Frequency of Weighing Children



Weighing is one of the vital components of ICDS and a majority (86%) of the AWWs report weighing the children on monthly basis, which is appreciable.

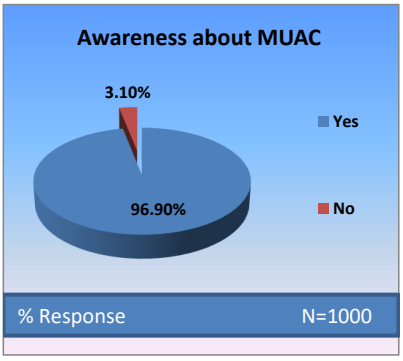
But on verification of data between household and AWC data, a 30%- 40 % inconsistency in recording the weight has been observed which indicates that even if the AWW weighs all her beneficiaries but either the process of doing the weight is wrong or the documentation of the same in the register is incorrect ultimately resulting into data aberrations. Also the weight plotted on the growth monitoring chart is not adequately communicated to the mother/ parents and the significance of weight and follow up of the same is not informed to the mother.

Graph – 7: Number of Children coming to the AWC were weighted by the AWW during the last month



86% of the AWWs report weighing more than 30 children, coming to their centre during the month, which is a very positive sign. However, a negligible percentage of Anganwadi workers have not weighed as many children during last month. But this negligible percentage will become huge number if we plot this against 97000 AWCs. The reason behind not weighing the children is mainly the non- availability and non-functional weighing machines, as told to the field researchers.

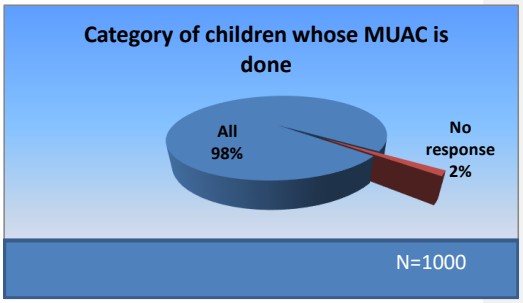
Graph – 8: Awareness about MUAC

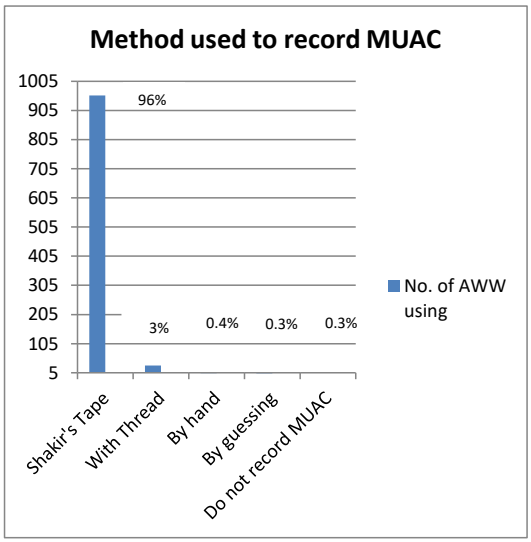


97% of AWWs are aware of MUAC. Though near total AWWs are aware about MUAC but in-depth knowledge about the same is significantly low as 40% inconsistency in grading the children for malnutrition has been detected while verifying the house hold information with the data register of AWC by the research team.

Graph -9: Category of Children who's MUAC is done

AWWs who are aware about MUAC, 98% report conducting MUAC for all categories of children. But technique of measuring mid upper arm circumference by Shakir's tape was wrong among majority of AWWs which was expressed by researchers who tested their skill in the field informally.

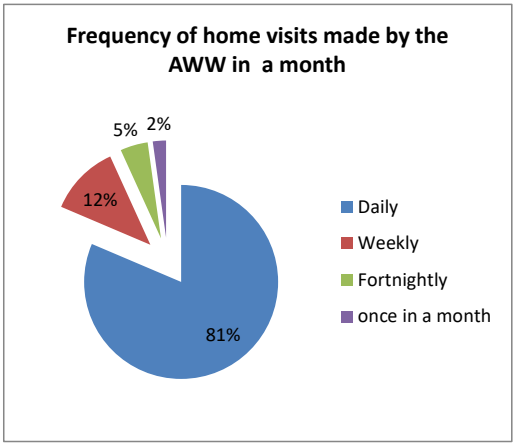




Graph -10: Awareness about the process of recording of MUAC

Though a near total AWWs are aware about the process of recording MUAC (96%), still an insignificant percentage of AWW due to lack of resources to measure MUAC, do it by measuring tape, hand or by observing the child. Also another <1% do not record MUAC at all inferring the lack of knowledge about their scope of work and significance of MUAC among children.

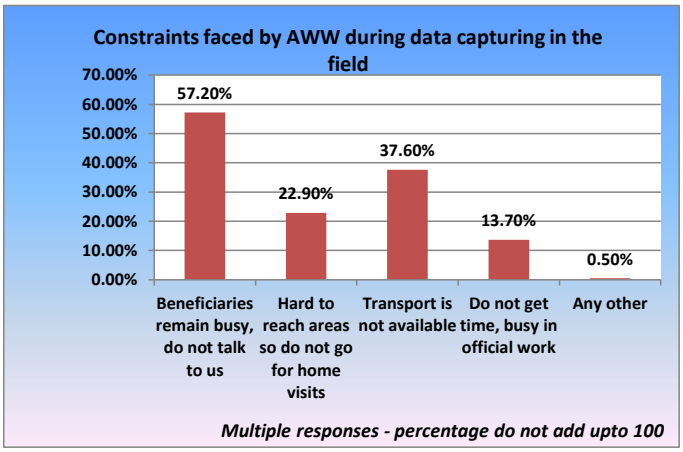
Graph – 11: Frequency of home visits made by AWWs during the month



Home visit is one of the vital components of ICDS program, where in each AWW is required to visit 5 house- holds/ day. The assessment was done based on urban, rural and tribal area as geographic terrains and transportation is a grave matter of concern in rural and tribal area so its assessment is needed to be done based on these categories.

Majority (81%) of the AWWs responded go for home visits daily, 12% said they make visits weekly and 5% said fortnightly and the reasons are generally duty in other program. even though a high percentage of AWWs claim to conduct the required number of home visits per day still a high number of inconsistencies observed between responses received from the households vis-a-vis the data in the registers, do not validate the claims made by them.

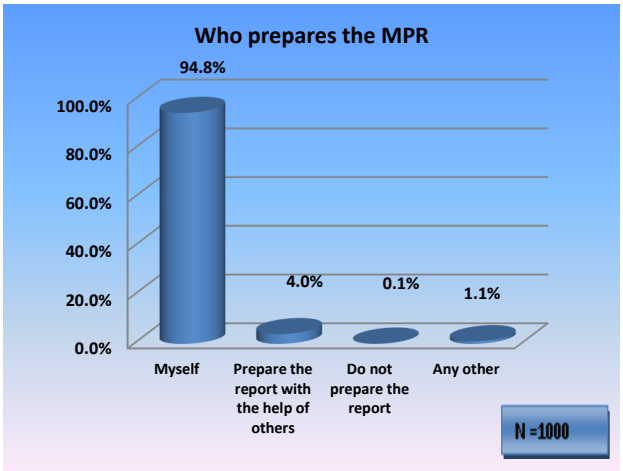
Graph -12: Constraints faced by AWW during data capturing in the field



Pre occupation of the beneficiaries (57%) though more in urban area, non -availability of transport (38%) are the two major constraints faced by the AWWs in conducting field visits. Other factors being hard to reach areas (23%), which is main problem in

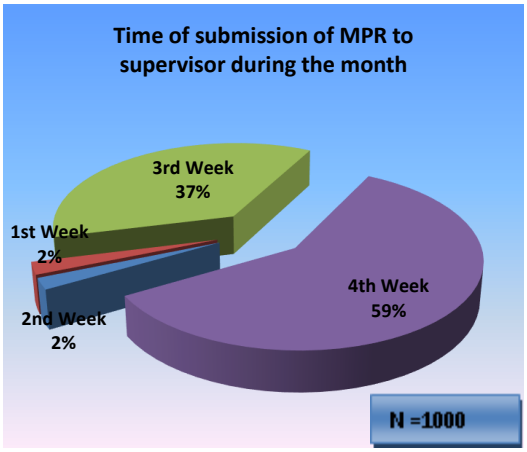
rural and tribal areas where there is no transport facilities, poor roads and inadequately lit areas. 14% AWWs suggested they do not get time due to busy schedule, adversely impacting the field visits.

Graph – 13: Who prepares the MPR



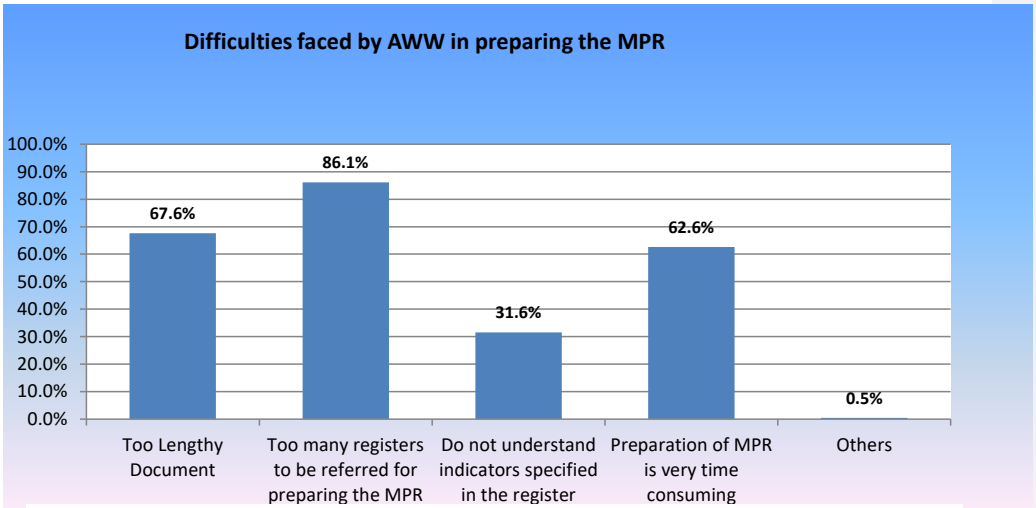
Most (95%) of the AWWs prepare the MPR themselves. About 4% seek support from others e.g. family members, adolescent girls in the neighborhood. Other 1% is illiterate or less skilled in preparing MPR so they do not prepare at all which creates an added opportunity for data aberrations, human errors and data loss.

Graph -14: Time of submission of MPR to supervisor during the month



Almost all the AWWs interviewed informed submission of MPR to the supervisor on the scheduled time, i.e. in the 3rd -4th week of the month.

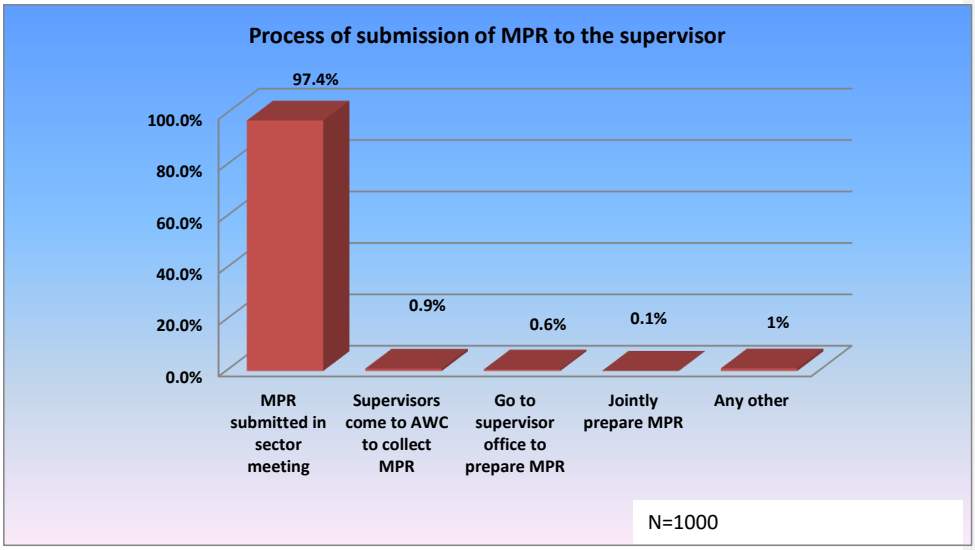
Graph -15: Difficulties faced by AWW in preparing the MPR



Multiple Responses, Do not add upto 100

A number of difficulties, which seem to impact the quality of data generated out of this report, have been projected by the user of the MPR document. A majority of the AWWs feel that they have to refer to too many registers for preparing the report (86%), reporting format is too lengthy (68%), preparing the MPR is very time consuming (63%), and a significant percentage also do not understand the indicators (32%).

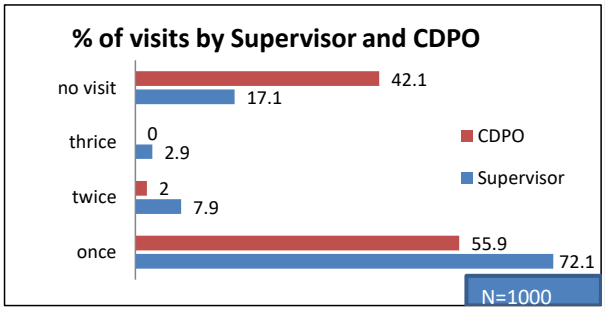
Graph – 16: Process of submission of MPR to the supervisor



Almost all AWWs (98%) have a uniform consensus on the submission of MPR in the sector meetings. However an insignificant percentage also goes to supervisor office to submit the MPR, supervisor comes to AWC to collect the MPR and they jointly prepare the report.

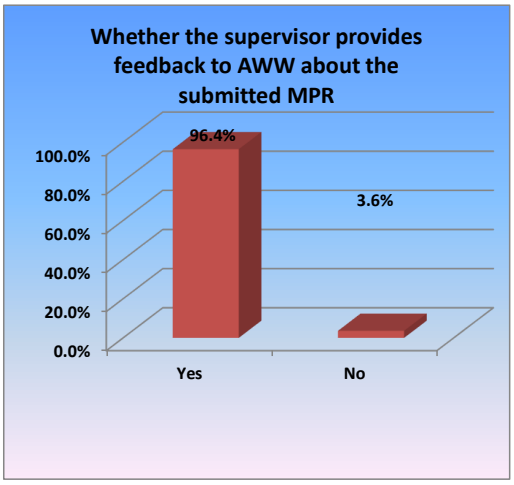
Graph17: Supervisory visits by CDPO and Supervisors.

72.1% AWW expressed that once a month they are visited by their supervisors who check their registers, go to field to talk to beneficiaries and guide them to correct their mistakes. While 55.9% AWWs agreed that CDPO visited them during that month. Twice and thrice visits in a month by CDPO hardly exist. Some AWWs close to city or if supervisors stays their twice a month visits were observed too



(7.9%). Interestingly there are 17.1% AWWs who were not visited by their supervisors in the previous month and 42.1 AWW expressed that there was no supervisory visit from CDPOs side.

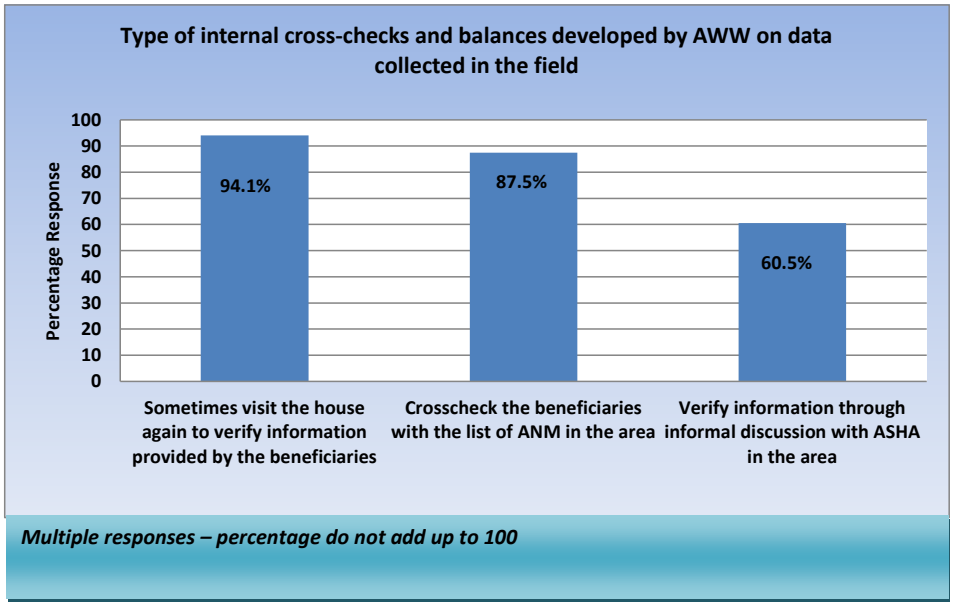
Graph -18: Whether the supervisor provides feedback to AWW about the submitted MPR



A majority of the AWWs (97%) also report that feedback on the MPR submitted by the AWWs is provided by the supervisor inferring the level of ownership of the manager in the program.

In line with the monitoring exercise almost all AWWs (98%) report, verification of the MPR by the supervisor and small percentage (2%) opines entry of the MPR without verification of supervisor. This activity generally takes place in sector meetings.

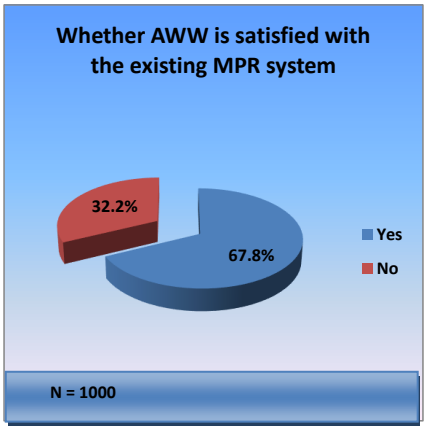
Graph -19: Type of internal cross checks and balances developed by AWW on data collected in the field



As a part of the internal control system the AWWs, for ensuring the quality of data, conduct random visits in the previously visited houses to verify the information provided by the beneficiaries (94%), utilize existing resources for verification through cross checking the beneficiaries with the list of ANM in the area (88%) and by informal discussion with ASHA (60%)

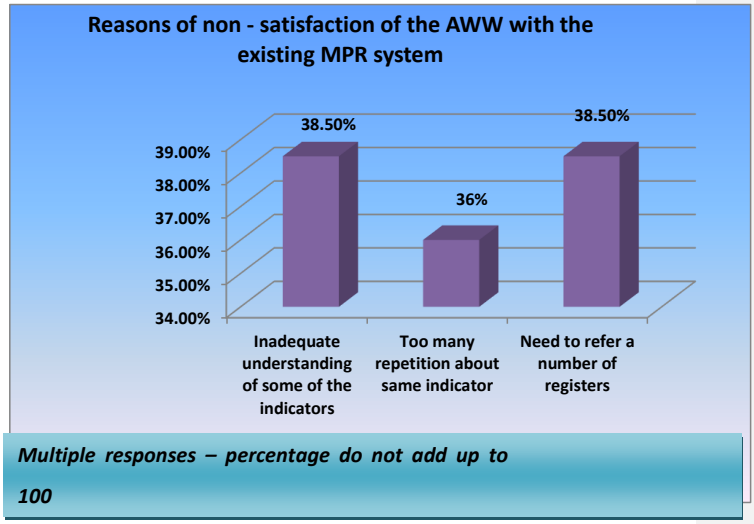
Immediate corrective actions as reported by the AWW are taken in case the cross verification does not ensure quality of data too. This could be due to improper guidance of the supervisors, lack of proper monitoring and supportive supervision.

Graph -20: Whether AWW is satisfied with the existing MPR system



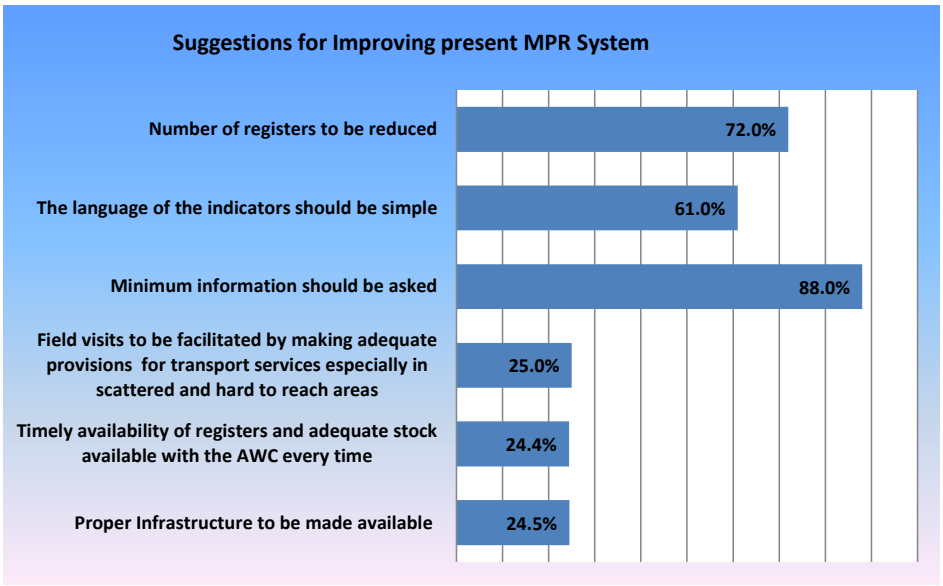
68% of the AWWs were satisfied with the existing MPR system while 32% expressed dissatisfaction regarding the same.

Graph 21-: Reasons of non - satisfaction of the AWW with the existing MPR system



Irrespective of the literacy, understanding level and status of training about 40% respondents have voiced their opinion about their non-satisfaction with the existing MPR system. Main reasons in order of priority being inadequate understanding of some of the indicators need to refer a number of registers and too much repetition about same indicator.

Graph -22: Suggestions for improving the present MPR system



(Multiple Responses, percentages do not add up to 100)

A variety of responses suggesting methodologies for improvement of the current MPR system have been received from an uniform groups of AWWs (25%), highlighting the need of proper infrastructure to be made available, timely availability of registers and adequate stock available with the AWC every time, field visits to be facilitated by making adequate provisions for transport services especially in scattered and hard to reach areas, minimum information should be asked, language of the indicators should be simple and number of registers to be reduced

In addition other suggestions being minimum information should be asked (88%) in the MPR, number of registers to be reduced (72%), language of the some indicators in MPR should be made simple (61%) are some of the other suggestions given by a majority of the AWWs, however about 25% opine field visits to be facilitated by making adequate provisions for transport services especially in scattered and hard to reach areas, and making available proper infrastructure for data entry and processing for improving the quality of data.

KEY FINDINGS: Highlighted issues relating to reporting and documentation in MPR which appear from the study results.

- Inadequate trainings: Significant numbers of AWW who have joined the cadre have not been inducted. Refresher trainings are not regular and trainings on important components like pre-school education, growth monitoring, IYCF are fairly low in number.

- Inadequate understanding at the level of AWWs: Some of the indicators, data needed to be captured for MPR are not well understood by the worker and repeatedly featuring (for data triangulation purposes), resulting in manual aberrations in reporting (over/ under reporting) due to lack of understanding of the significance and implication of the indicators e.g. Caste- wise, age- wise, gender- wise beneficiaries especially in SNP and Registration.

- Improper Monitoring of Data at AWW level: Inadequate field visits, delayed site monitoring resulting in delay in updation of raw data in MPR e.g. status of pregnant mothers remains unchanged i.e. Pregnant women become lactating.

- Data Inconsistencies: Based on the observations of the research team, major inconsistencies have been observed in almost all the key indicators i.e. Immunization of children and pregnant women, antenatal check up, Supplementary nutrition program, Take Home ration, weight of children and mothers, grading of malnutrition, Preschool education followed by name, age of beneficiaries.

- Non availability of tools for documentation and reporting. At certain locations, MPR formats are not available since a significant period of time. Yet other locations have reported availability of different type of formats for the same MPR within the same project.

- Inadequate Capacity of AWWs: Inadequate understanding of the indicators and data collection processes by the first level user of the service that are responsible for capturing and documenting basic, raw field data but are significantly devoid of the required skills e.g. a majority of AWWs are not trained in nutrition and growth monitoring. This inadequately assimilated data at source replicates multifold into the emergence of incorrect data at subsequent levels of reporting hierarchy.

- Inadequate understanding of certain technical terms in the MPR resulting in hesitation of documenting the required information, hence leaving a gap in the required data e.g. transition of grade, SNP caste wise, non-clarity between target and registration

- Inadequate supervisory visits: Overburdened block level officials with their additional duties, pre occupation with non ICDS work does not allow them to give quality time to make field visits. Pressure of timely entry/submission of data within the stipulated timelines prevents supervisors from reviewing MPR.

- Lack of resources such as adult weighing machine, Salter's machine, MUAC hampers the process of data collection.

DISCUSSION:

The findings of this study don't differ a lot from previously done studies. Though it has been observed that as the new cadre of AWWs has joined the programme the percentage of education level has one up. But skills of AWWs which are imparted in the trainings are still low as they fill the registers and growth monitoring charts incorrectly. Also, majority of the AWWs responded that they are not very comfortable with many indicators and data heads of MPR due to lack of training. Anita Joshi (2004) found while assessing KAP of AWW that around 60% of AWW in rural and tribal areas of state knows how to weigh pregnant women correctly.

A significant percentage of the cadre of service providers are still needed to be trained. About 20% AWW have not gone for orientation trainings and those who have been inducted on the scope of work, effectiveness of the trainings among those who have been imparted such trainings are directly related to the literacy levels of these AWWs e.g. Majority of the AWWs are not aware about the correct process of using MUAC tape and weight of the child which directly impacts the outcome of such significant indicators.

In addition the content, duration and methodology of training is also not uniform and structured across all districts Vrinda Dutta, 2001 also highlighted that condition of training centers have not changed in last 20 years. Also 1/4th AWW agreed that the tools are very old fashioned with no field exposure or practical application of knowledge.

Similar study done by MOH&FW and WHO in 5 states of India, reveals inadequate resource availability contributing adversely on the MPR at all levels is another significant issue. The matter is a major concern at the AWC level which captures the basic, raw data directly from the field and forms a vocal piece of information of the first level of project beneficiaries. Any anomaly at this level multiplies upwards in the reporting line resulting in the projection of deceptive information at the terminal point, hence impacting strategic decisions and project outcomes e.g. Printed registers, adult weighing machines in the AWCs, resulting in the adoption of compromised, alternate means of documentation to fulfill the required needs of reporting, hence capturing only limited indicators which are directly related to the understanding and mercy of the inadequately qualified AWW, consequently having a significant impact on the quality of data fed and generated in the MPR.

A thorough review of the available registers further revealed that generally all the registers were available; but percentage of printed standardized registers was fairly low. They were either devoid of page numbers or were torn. Some of them had been misplaced or were observed in a shabby, non- readable state. These logistical issues result in loss of valuable data, hence poor reporting to the next level of authority self made registers were lacking data which is otherwise there in standardized register. World Bank report also highlights absence of registers at AWC which thus making reporting of vital data a problem.

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In addition, AWWs and supervisors are also required to perform multitasking i.e. conduct non ICDS tasks like family planning camps & manage schemes like Ladli Laxmi Yojna, Usha Kiran Yojana and administrative tasks. This pressure of meeting the targets and deadlines sets in a significant degree of demotivation and leaves hardly any quality time to make field visits and impact their scope of work. The same finding was observed by WHO and M0H&FW that handing over of non-ICDS responsibilities lead to low morale of AWW which reflects on her core-work.

Also lack of congenial working environment in terms of hygiene in the centres (some AWCs function as cow shed in the evening and are transformed to AWCs in the morning), security at work (located near unwanted elements, poor AWC structures without a secure boundary), punitive actions, lack of appreciation and incentives, demotivates them taking major toll on performance of AWWs, thereby influencing the MPR.

Several reports of World Bank, NIPCCD also puts value on infrastructure which is important for functioning of AWC. Storage space for records, registers was felt. In this study, it was seen non availability of the required infrastructure for the basic functioning of AWCs forces to AWWs to operate services in basic minimum areas available in hired premises for a limited period of time. Also these locations usually lack the regular availability of the documenting tools as the AWW does not keep her registers in these centers owing to the risk of theft or carry her registers with her as a routine, resulting in delay in indicator entries in the available registers , hence pre disposing to high levels of human error in MPR.

Finally, these inconsistencies are also a result of inadequate convergence with the health department. At the level of demand, the low literacy levels of mothers also affect utilization of services negatively. Chander shekhar (2008) found that educated mothers are 1.9 times more likely to utilize service at AWC and health centre. Illiterate or less educated mother doesn't keep track of child's growth, which adds to the inconsistencies when asked about any information.

To improve the system of data collection at AWW level, some suggestions are needed to incorporate. Regular trainings based on needs assessment, monitoring activities, supply of resources, developing infrastructure, incentives for good performance should be made part of the system. They all are simple and old methods but they are required to be done correctly and perfectly.

CONCLUSION:

The research conducted in ICDS projects of 50 districts of M.P. with the aim to study the survey and services registers of AWW for inconsistencies and gaps. Second objective was to identify bottlenecks at the level of data collection and based on the findings to recommend solutions. The sample size taken included 125 projects, 1000 AWWs were interviewed and the data from their registers were cross checked with 19000 beneficiaries.

The findings of the study revealed that inconsistencies appear more or less in all registers of AWW which could be due low education level and irregular training program. Lack of resources like printed registers, non-functional weighing machines, lack of MUAC strips etc also hampers data collection and documentation. But as there is pressure of reporting from top data is recorded more on the basis of assumptions than evidence.

Communication gap between AWW and beneficiaries also add upto inconsistencies and don't improve utilization of services. AWW and supervisors duty in non-ICDs work results in less number of field visits and supervisory visits respectively. All these have direct impact on quality of data. The data recorded and reported by AWW has direct or indirect affect on health indicators such as Infant Mortality Rate, Maternal Mortality Rate, Neonatal Mortality rate etc.

These data are very important for the district and state level officials who are involved in decision making and policy making. So quality of data plays a vital role in any programme's success.

Better inter-sectoral coordination is needed especially between Health department and WCD as many services are over-lapping and they both work in similar direction to achieve MCH goals. AWW and ANM should work in close collaboration along with ASHA to mobilize the community to utilize the services.

In ICDS scheme, AWW being the most crucial pillar of the program, which is involved in data collection and reporting, needs to be focused on. Issues and gaps raised in the study needs to be addressed on priority basis. Some recommendations are as follows.

RECOMMENDATIONS:

A. Capacity Building:

1. Capacity building of AWWs on current MPR format should be conducted so that they can feel comfortable in filling data. Supervisors should also be aware to apply validation checks on MPR to improve quality of data.

2. Induction training should be amalgamation of classroom and hands on training on tools like Shakir's tape, weighing machine etc. Also, AWWs should be made to do document, record data during training programme so that their doubts could be cleared.

3. All AWWs should undergo orientation, refresher and other trainings of fixed number of days. The training pattern, frequency and schedule should be standardized.

4. Groups of AWWs can be formed (who stays close by), each group should have a skilled and educated AWW who can help in capacity building of less trained AWWs. This will reduce less trained AWW's hesitation to clear their doubts.

B.) Provision of resources: Resources which have direct impact on data collection and quality should be made available to AWW on priority basis.

1. Institutionalizing AWCs with adequate security, basic and required facilities e.g. Almirahs and permanent space so that they can keep registers and important documents safely at the AWC.

2. Standardized formats, printed registers with page numbers to be provided at AWW level. Importantly the supply of all the resources should be sustained.

3. Adequate maintenance of all equipment including calibration of weighing machine and ensure availability of the Shakir's Tape.

C.) MPR should be made **user-friendly** for better recording of data. The designing should be done keeping in mind knowledge and skill level of AWW.

D.) CDPO should ensure that supervisors are making regular visits to the AWC, minimum 50% centers in a month (ICDS guidelines), on rotation basis and are devoting right time to each centre for supportive supervision and monitoring.

E.) Clear job responsibilities should be chalked out for AWWs. Number of meetings, except sectoral/project level meetings should be reduced and burden of non-ICDS work should be removed as it affects core duties of AWWs.

G.) Incentives, appreciations and rewards can be handed by the supervisors/CDPOs to the well performing AWWs of their sector/block on quarterly or half-yearly basis to motivate them to work efficiently.

H.) In long term, recruitment systems should be made more stringent. The eligibility criteria should be set and it should not be negotiable. AWWs should not be substituted by helper.

I.) Use of technology like mobile can be used for reporting. It is under pilot testing phase in Chattarpur. But definitely technology calls for system and infrastructure development, also trainings will be needed.

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