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Original Research Article

Report on Family Health Survey Data Validation of Ahmedabad District

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ABSTRACT

Introduction: Family health survey is an initiative taken by Health and Family Welfare Department of Gujarat with the help of National Rural Health Mission that involves name based tracking of the family members. This project facilitates close monitoring and regular checkups of pregnant women, complete immunization of children, nutrition of pregnant women and children, adolescent friendly services, family planning services and health of the general population through E-Mamata software. Present project aims to validate the data already entered in the family health survey registers and e-Mamata software.
Methods: The study was conducted in different villages of selected Primary Health Centers of all the Talukas of Ahmedabad District. The family health survey check list was filled. The data was entered and analyzed using Microsoft Excel.
Result: From the selected villages 4195 (8.88%) family members were surveyed in Ahmedabad district. Majority (98.98%) of family members have been entered in the family health record. There was wide gap in case of entries in E-Mamata software; only 52.99% of data were registered in E-Mamata Software. There were approximately 22.54% wrong entries and 46% missed entries in Ahmedabad district.
Conclusion: The findings of the study suggests that although there was almost 100% registry of the families in family health record but the quality of the work was not up to the mark. In each of the filled forms there were either missed or wrong entries and it can only be corrected if the family health record is updated regularly.

Key words: family health survey, E-Mamata, data validation, Gujarat.

INTRODUCTION

Many researches in India have shown that small and affordable measures can significantly reduce the health risk that most of our population faces. Most maternal and child deaths can be prevented if they have access to appropriate health care during pregnancy, child birth and immediately afterwards. Similarly, morbidity and mortality among general population can also be reduced if proper tracking of the beneficiaries is undertaken and appropriate measures regarding health care are given in a timely manner. One such rewarding effort is the "Mamata divas" strategy that has been initiated and is being practiced in full spirits in most of the districts of the Gujarat state. [(1)]

The commencement of Mamata Divas in Gujarat for the last 5 years has

brought a renewed hope for well being of mothers and children in the state. In an attempt to improvise the ongoing venture by adding a few more elements and refining it further, Gujarat Health and Family Welfare Department, with the help of National Rural Health Mission and State's National Informatics Centre (NIC), had initiated E-Mamata Project. [(2)]

E- Mamata is an initiative that involves name-based tracking of pregnant women for antenatal care (ANC), Delivery, and postnatal care (PNC); children for immunization and nutrition; adolescents for reproductive and child health services (RCH) services; and eligible couples for family planning. [(3)]

The roll out of E-Mamata project involved four phases: Family health survey, mother and child registration, monthly work plan for grass root level and service delivery left and out tracking. [(4)] The system works in three phases. [(5)]

Family Health Survey: The mammoth first step in this regard, being Family Health Survey in rural & urban areas (slum and slum like) has been done by the health workers. The benefits of the unique family healthcare ID provided is to capture the migration details and prevent loss of cases due to migration. The family survey data is being validated through physical verification by ASHA/FHW/ MOs and other senior officials in order to ensure accuracy and reliability of the data.

Registration of pregnant mothers and children: All mothers who are pregnant and children of age up to 6 years are being registered and provided a unique Mother/child health ID

Tracking of healthcare services through monthly work plans: The services provided to the pregnant mothers including ANC, delivery, PNC and immunization are captured in this program.

Thus E-Mamata facilitates service delivery through, elaborate work plans prepared at Sub centres and given to ASHA/FHWs to provide services falling due to the beneficiaries.

E- Mamata incorporates several new features like Immunization Card by Child Health ID, Growth Monitoring Chart by Child health ID, Pregnant Women Heart Rate/Blood Pressure (HR/BP) chart by Mother Registration Number, Work plan for Anemia and Malnutrition, Monthly Inventory Stock and Forms 6, 7, 8, 9. [(6)] Gujarat's E-Mamata project has achieved national recognition. The software was demonstrated at a national workshop on NRHM organized in Bhopal, which was attended by the union health secretary and health secretaries and National Rural Health Mission (NRHM) mission directors of all the states. [(7)]

This project facilitates close monitoring of all beneficiaries. Its application is web based and accessed by unique identity through internet and linking it with Aadhar card / Ration card / BPL card. Present project aims to validate the data already entered in the family health survey registers and e-Mamata software. This would give an idea of the extent to which data is missing and identifying the bottlenecks so as various measures can be implemented for rectifying the same.

MATERIALS AND METHODS

The study was conducted in different villages of selected PHCs of all the Talukas of Ahmedabad District. From each taluka, 2PHCs (one best performing and the other poor performing) were selected on the basis of TT coverage in the year 2014-15, considering it to be a proxy indicator of RCH services. This criterion was chosen for identification of PHCs in a view to provide an average picture of the whole Taluka.

List of Sub centers was obtained from the selected PHC and one sub centre was randomly selected from the list. In a similar way one village was selected randomly from the selected sub centre and 5% / 50 households of that village were surveyed and the family health survey check list was also filled. The data obtained from the filled forms of family was tallied with the entries in family health survey records and E –Mamata software. Wrong entries as well as missed entries were then identified.

Statistical analysis:

The data so obtained was checked for its completeness, quality and internal consistency. The data was then entered and analyzed using Microsoft Excel.

RESULTS

From all eight Talukas of Ahmedabad district sixteen PHCs / UHC were selected for the family health survey data validation. Randomly selected villages of all selected PHCs / UHCs where survey was conducted for FHS data validation had total 8546 households and 47,238 family members. From the selected villages total 785(9.2%) households having 4195 (8.88%) family members were surveyed in Ahmedabad district.

Table 1: Data Validation of Ahmedabad District

Sr.no	PHC	Village Name	Surveyed HH	Total family member	Registered in family health survey record		Registered in E-Mamata software		Wrong entry		Missed entry	
					No	%	No	%	No	%	No	%
1	Manipura	Dhakadi	35	193	35	100	0	0	6	17.1	0	0
2	Viramgam	Parkotavari	25	126	24	96	0	0	8	32	25	100
		Verai Mata Na Chhapra	25	119	25	100	0	0	12	48	25	100
3	Rudatal	Marusahi	25	125	25	100	0	0	6	24	25	100
		Nathpura	25	114	24	96	0	0	21	84	4	16
4	Katosan Road	Suvala	50	277	50	100	0	0	10	20	1	2
5	Sitapur	Sitapur	50	237	50	100	50	100	4	8	3	6
6	Vitthalpur	Dathana	50	278	50	100	17	34	11	22	11	22
7	Zolapur	Zolapur	32	141	32	100	29	90.6	4	12.5	1	3.1
		Bakarana	18	92	18	100	18	100	7	38.9	17	94
8	Sanand,U	Sanand	50	247	50	100	25	50	10	20	14	28
9	Jetalpur	Jetalpur	25	162	25	100	25	100	0	0	0	0
			25	105	25	100	25	100	0	0	0	0
10	Bareja,U	Bareja	50	266	50	100	49	98	2	4	33	66
11	Chaloda	Keliavasana	50	286	50	100	49	98	4	8	1	2
12	Ganol	Kauka	50	303	47	94	49	98	14	28	35	70
13	Dholera	Vasana	50	211	48	96	36	72	35	70	50	100
14	Dhandhuka	Ward-2	50	371	49	98	0	0	5	10	50	100
15	Kavitha	Kavitha	50	282	50	100	44	88	6	12	17	34
16	Bavla,U	Bavla-2	50	260	50	100	0	0	12	24	50	100
	Total		785	4195	777	98.98	416	52.99	177	22.54	362	46

The table 1 shows that majority (98.98%) of family members have been entered in the family health record. There was wide gap in case of entries in E-Mamata software; only 52.99% of data were registered in E-Mamata Software. There were approximately 22.54% wrong entries and 46% missed entries in Ahmedabad district

Majority of the PHCs have registered the data in Family health survey record. However, the quality of data was not up to the mark. There was poor recording of data in E-Mamata software. The missed entries were found in Rudatal (100%), Dholera (100%), Zolapur (94.4%), and Ganol (70%). Maximum wrong entries were found at the Rudatal (84%) and Dholera (70%) PHCs. A better picture was observed in Jetalpur,

Chaloda, Sanand, Sitapur where very few wrong and missed entries were found (0-30%).

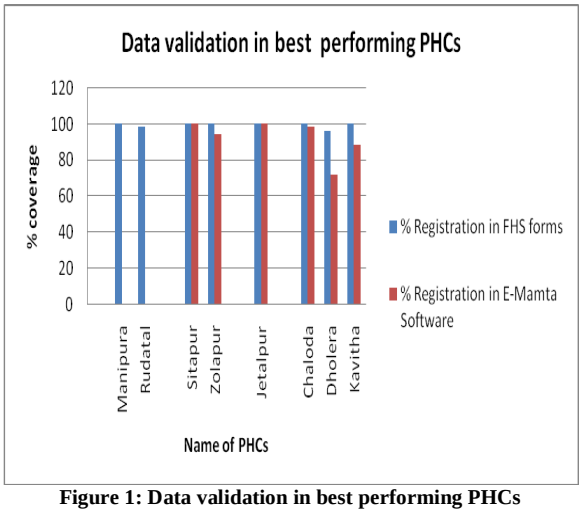

Figure 1: Data validation in best performing PHCs

In urban area of Ahmedabad district (Viramgam, Sanand, Dhandhuka, Bavla and Bareja) 100% of the population was registered in family heath record as compared to E-Mamata software where nil registration was done except Bareja where 98% of population was registered in E-Mamata software. All the Urban areas had 100% missed entries except Bareja where only 66% missed entries were found.

According to the above Figure 1, in best performing PHCs the family Health survey registration was 100% in all the PHCs. Whereas the E-Mamata software registration has not been initiated in Manipura and Rudatal PHCs and incomplete registration was found in Dholera and Kavitha PHC.

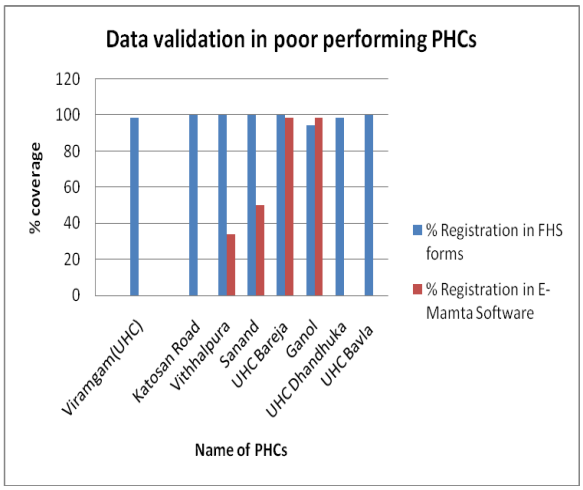

Figure 2: Data validation in poor performing PHCs

Table 2: Monitoring Family Heath Survey checklist for Ahmedabad district

Sr.no	Questions	Yes		No	
		No.	%	No.	%
1	Did the CDHO send the details of house list/map of population counting of 2011 from district census officer through TDO to PHC?	5	31.25	11	68.75
2	Does the visited village have recent house list of all families according to house list of population counting 2011?	5	31.25	11	68.75
3	Does the survey worker have enough quantity of survey forms?	13	81.25	3	18.75
4	If updated from E-Mamata database, was it arranged according to the recent/updated house list of census house list? Does the filled form have serial number according to the house list?	5	31.25	11	68.75
5	If the health worker has mentioned in new form then 1) Is the form arranged according to house list 2) Is the completed form available with E-Mamata family database with family ID number?	11	68.75	5	31.25
6	Does the completed form have anganwadi code/ ration card number/ aadhar card number / BPL card number written by health survey worker?	8	50	8	50
7	Does the completed form have bank account number, name of bank, branch address written by health survey worker?	6	37.5	10	62.50
8	Is 25% family's verification done by Village level supervisor in the visited village?	12	75	4	25
9	Is 10% family's verification done by Taluka level supervisor in the visited village?	11	68.75	5	31.25
10	Does the visited 2% families verification done by District level supervisor?	6	37.5	10	62.50
11	Does the family health survey's work done by ANM/FHW?	12	75	4	25
12	Does the family health survey worker of visited office knew the deadline of date 28/02/15 to complete it?	10	62.50	6	37.5

The quality of work done regarding Family health survey was found to be good. Majorities (68%) of the PHCs have not received the house list of the population from the concerned authority of the district so, did not have the recent house list of the families. The reason given for the same is administrative issue and they think it is not required.

81% of the PHCs (13) had enough quantity of survey forms. 50% of the PHCs had completed the forms having all the details regarding Anganwadi code/Ration card code/Aadhar card number /BPL card number. Only 37% of the selected PHCs had completed forms having details regarding the Bank account number / name of the Bank, Branch address.

DISCUSSION

Majority 98% of the population was registered in Family health record in both, rural and urban areas however the quality of registration was poor. There was wide gap in case of entries in E-Mamata software; only 52.99% of data were registered in e-Mamata Software. There were approximately 22.54% wrong entries and 46% missed entries in Ahmedabad district this findings are comparable to a study done at Baroda. The similar study done by Majmundar et al [(8)] showed that there was wide variation in the gap data collected and data present in family health record register. In that study, In rural areas, a gap of around 14% was found between the collected data and family health record register Similar finding of wrong entries and missed entries were found in case of E-Mamata software.

A review case study by UNICEF by Syed S. Kazi [(9)] had finding of 30% data entry gap and in urban area weak for data collection. In present study also found poor work in urban area.

The family health record register which is presently prepared once a year should be updated at least quarterly. Especially new births and deaths should be updated without delay both in the register as well as in the software. Wrong entries in the E-Mamata software should be timely identified and verified at PHC and removed from the software after confirmation by Block health Officer/ Urban Health Centre Medical Officer. Regular use of E- Mamata in planning of Mamata Day as well as recording of the services provided soon after will help in better understanding of the software and its utility for health managers and also lead to ironing out of small software issues.

CONCLUSION

Overall the quality of work done at the selected PHCs of Ahmedabad district regarding family health survey was found to be good. Approximately 98% of the population was registered in Family health record in both, rural and urban areas however the quality of registration was poor.

Only 52.99% of the data were registered in E-Mamata software. Half of the entries done in family health register were missed and one fourth of the entries were found to be incorrect. The quality of work done in good performing PHCs is better than the poor performing PHCs. The level of work done in urban area regarding E-Mamata software registration is alarming and quality of work is very poor except in Bareja area.

Better picture was observed in urban areas regarding family health survey registration as compared to rural area. The quality and percentage registration was less in those areas where ASHA had filled the forms. In E-Mamata software nil registration was done in almost all surveyed urban areas except in Bareja area.

On interviewing the heath functionaries at the PHCs, the reasons given for wrong and missed entries were, not

updating the age of beneficiaries, recent birth, death, migration, family planning and personal details of Aadhar card / bank account no. and contact no.

The quality of work is better in good performing PHCs. The reason for the better output is due to good supervision and work performance of the staff. In some of the PHCs the post of data operator was not filled because of which the quality of work has deteriorated .The reason for not getting it updated was the unavailability of the beneficiaries or their reluctance in giving their personal details. The medical officers admitted that they had problem in using the E-Mamata software. They were not able to update the data regarding migration, new birth, marriage of female members in the family.

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