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Family Health Survey Data Validation in Sabarkantha 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-mamta software.

Methods: The study was conducted in one village of the good and poor performing selected PHCs based on TT coverage in all the Talukas of Sabarkantha District. The family health survey check list was filled. The Data collected included all information regarding selected PHC/SC/Village and information regarding family health survey. The data was then entered and analyzed using Microsoft Excel.

Result: Total of 800 (6.8%) households having 4545 family members were surveyed in selected villages of Sabarkantha district. Majority (98.25%) of family members have been entered in family health record. 85.56% of data were registered in E-Mamta Software. There were approximately 30.75% wrong entries and 51% missed entries in surveyed villages.

Conclusion: The findings of the study suggest that there was almost 100% registry of the families in family health record and E-Mamta software in the surveyed villages of all selected PHCs of Sabarkantha district. The quality of work was quiet good but the missed or wrong entries in the forms can be corrected if the family health record is updated quarterly

Keywords: Family Health Survey, E-Mamta, Gujarat, Data Validation.

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 “Mamta 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 Mamta 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-Mamta Project ^[2].

E- Mamta 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-Mamta project involved four phases: Family health survey, mother and child registration, monthly workplan 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-Mamta 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- Mamta 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-Mamta 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-mamta 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.

Methodology

The study was conducted in different villages of selected PHCs of all the Talukas of Sabarkantha District. Sabarkantha

district has eight talukas. All the talukas of Sabarkantha district were included in the study. From each taluka, 2 PHCs (one best performing and the other poor performing) were selected on the basis of TT coverage in the year 2014-15. This criterion was chosen for identification of PHCs with 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 finally validated with the family health survey record of sub centre and E-Mamta software at the PHC. The family health survey check list was also filled for the PHC and family verification was conducted through house to house survey and analyzed accordingly. The data obtained from the filled forms of family was tallied with the entries in family health survey records and E –mamta 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 Sabarkantha district sixteen PHCs /Sub center/Villages were selected for the family health survey data validation. Randomly selected villages of all selected PHCs where survey was conducted for FHS data validation had total 11695 households and 48,575 family members. From the selected villages, total of 800 (6.8%) households having 4545 family members were surveyed in Sabarkantha district.

Table 1: Data Validation of Sabarkantha District

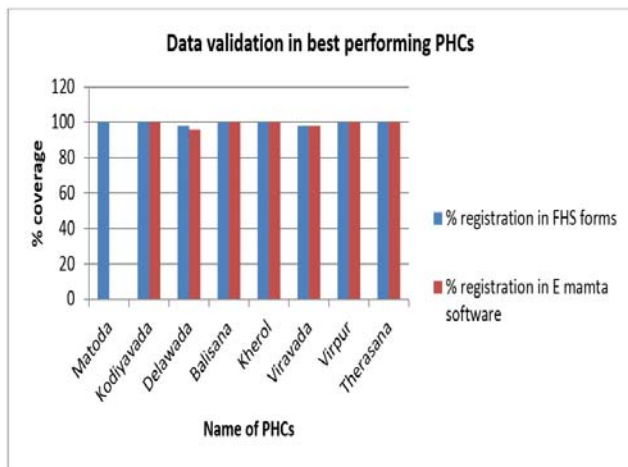
Sr.no	PHC	Village name	Surveyed HH	Total family member	Registered in family health survey record		Registered in E-mamta software		Wrong entry		Missed entry	
					No.	%	No.	%	No.	%	No.	%
1.	Derol	Khergadh	25	170	25	100	0	0	1	4	25	100
		Kherivav	25	158	25	100	0	0	25	100	0	0
2	Matoda	Aagiya	50	237	50	100	0	0	32	64	50	100
3	Sarsav	Sarsav	50	226	50	100	50	100	26	52	49	98
4	Kodiyavada	Kodiyavada	50	241	50	100	50	100	24	48	2	4
5	Ajawas	Chandrana	50	347	50	100	50	100	25	50	49	98
6	Delwada	Delwada	50	280	49	98	48	96	21	42	50	100
7	Moyad	Rupaji	50	274	50	100	50	100	5	10	5	10
8	Balisana	Amalani Muvadi	50	294	50	100	50	100	2	4	3	6
9	Aniyod	Aniyod	50	275	50	100	50	100	7	14	2	4
10	Kherol	Kherol	50	295	50	100	50	100	0	0	1	2
11	Viravada	Viravada	50	305	49	98	49	98	19	38	21	42
12	Ilol	Ilol	50	281	38	76	38	76	10	20	17	34
13	Virpur	Aroda	50	292	50	100	50	100	6	12	18	36
14	Chitroda	Netramali	50	297	50	100	50	100	10	20	25	50
15	Therasna	Therasna	50	293	50	100	50	100	10	20	46	92
16	Dobhada	Dobhada	50	280	50	100	50	100	23	46	45	90
Total			800	4545	786	98.25	685	85.56	246	30.75	408	51

The table 1 shows that majority (98.25%) of family members have been entered in the family health record. 85.56% of data were registered in E-Mamta Software. There were approximately 30.75% wrong entries and 51% missed entries in the surveyed villages of Sabarkantha district.

Majority of the PHCs have registered the data in Family health survey record, however the quality of data was very poor. The poor recording of data in E-mamta software were found in PHC Derol (0%) and Matoda (0%). Although there

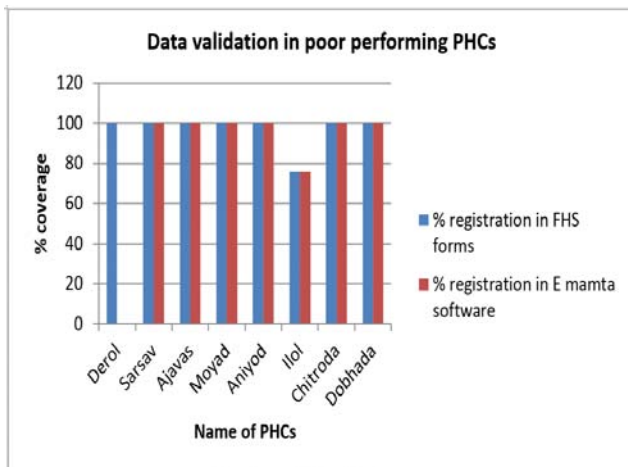
was almost 100% registration done in E-Mamta software in most of the PHCs but there were missed and wrong entries. Maximum missed entries in family health survey records were found in Matoda (100%), Delwada (100%), Sarsav (98%) and Ajavas (98%). Maximum wrong entries were found at PHC Matoda (64%) and Sarsav (52%). A better picture was observed in Moyad, Balisana, Aniyod and Kherol where very few wrong and missed entries were found (0-20%). On interviewing the health functionaries at the PHC, the reason 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 number and contact number.

Fig 1: Data validation in best performing PHCs



According to Figure 1 data validation of family health survey and E-Mamta software is depicted in best performing PHCs. It shows that in best performing PHCs the family Health survey registration was approximately 100% in all the PHCs. Whereas the E-Mamta software registration has not been initiated in Matoda PHC.

Fig 2: Data validation in poor performing PHCs



According to figure 2, in poor performing PHCs the family health survey registration was 100% in all the PHCs except Ilol where 76% registration was done. The registration in E-Mamta software was 100% in majority of the poor performing PHCs except in Derol PHC where it has not been initiated till date and Ilol PHC it was 76%.

Table 2: Monitoring Family Health Survey checklist for Sabarkantha 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?	10	62.5	6	37.5
2	Does the visited village have recent house list of all families according to house list of population counting 2011?	10	62.5	6	37.5
3	Does the survey worker have enough quantity of survey forms?	12	75	4	25
4	If updated from E-mamta database, was it arranged according to the recent/updated house list of census house list? Does the filled form have Sr. No. according to the house list?	10	62.5	6	37.5
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-mamta family database with family ID number?	10	62.5	6	37.5
6	Does the completed form have anganwadi code/ ration card / Aadhar card number / BPL card number written by health survey worker?	10	62.5	6	37.5
7	Does the completed form have bank account number, name of bank, branch address written by health survey worker?	4	25	12	75
8	Is 25% family's verification done by village level supervisor in the visited village?	14	87.5	2	12.5
9	Is 10% family's verification done by taluka level supervisor in the visited village?	14	87.5	2	12.5
10	Does the visited office's family health survey's 2% families verification done by District level supervisor?	11	68.7	5	31.25
11	Does the family health survey's work done by ANM/FHW?	14	87.5	2	12.5
12	Does the family health survey worker of visited office knew the deadline of date 28/02/15 to complete it?	11	68.7	5	31.25

The quality of work done regarding Family health survey was found to be good in Sabarkantha District. As shown in table number 2, majority (62.5%) of the PHCs has received the house list of the families from the concerned authority of the district and only 37.5% PHCs did not have the recent house list of the families. The reason given for the same was administrative issue and they think it was not required. 75% of the PHCs (12) had enough quantity of survey forms. 62.5% of the PHCs had arranged the forms according to the

recent /updated house list following the census house list. The arrangement of house list was updated in 12 PHCs and in 4 PHCs the data has been filled in the new forms. Out of total 16 PHCs where survey was carried out, 62.5% PHCs had arranged FHS forms according to house list and available with E-Mamta family data base. Out of the total surveyed PHCs, in 87.5% of the PHCs verification was done by village level supervisor. Taluka level supervisor did verification of 87.5% PHCs and 68.7 % of PHCs verification was done by district level supervisor.

Only 62.5% of the PHCs have completed form having all the details regarding Anganwadi code / Ration card code / Aadhar card number / BPL card number. Only 25% of the selected PHCs have completed forms having details regarding the Bank account number /name of the Bank, Branch address. The reason for not getting it updated was the unavailability of the beneficiaries and most of them being reluctant in giving their personal details. Majority (87.5 %) of the family health survey's work was completed by ANM/FHW and remaining 12.5 % work was done by ASHA. 68.7 % workers knew the deadline date for completion of work.

Discussion

Majority 98.25% of the population was registered in Family health record in rural areas however the quality of registration was poor. There was 85.56% data was registered in e-Mamta Software. There were approximately 30.75% wrong entries and 51% missed entries in the surveyed villages of Sabarkantha 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-mamta software.

A review case study by unicef by Syed S. Kazi [9] had finding of 30% data entry gap and in urban area poor data collection. 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-mamta software should be timely identified and verified at PHC and removed from the software after confirmation by Block health Officer. Regular use of E- Mamta in planning of Mamta 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 family health survey work done at the selected PHCs of Sabarkantha district was found to be good. Approximately 98.25 % of the families were registered in Family health record however the quality of registration was poor. 85.56% of the data were registered in E-Mamta software. Half of the entries done in family health register were missed and one third of the entries were found to be incorrect.

The quality of work done in poor performing PHCs was nearly same as that of the best performing PHCs. In E-Mamta software nil registration was found in Matoda PHC. According to the monitoring checklist 37.5% of the PHCs had neither received the house list nor the map of the area.

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-Mmata software. They were not able to update the data regarding migration, new birth, marriage of female members in the family.

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References

1. E - Mamta (Mother and Child Tracking System). Health and Family Welfare Department, Govt. Of Gujarat. <http://e-mamta.gujarat.gov.in>
2. E mamta initiative. available from <https://www.nrhm.gujarat.gov.in/e-mamta1.htm>
3. E-Mamta–Mother and Child Tracking application. <http://www.nic.in/projects/e-mamta-mother-and-child-tracking-application>
4. Dr. Neeta Shah, Ms. Monali Shah, Ms. Divya Doshiyad. E- Mamta Name based Mother and Child Tracking application. E-governance bulletin from Gujarat informatics ltd 2010; 7(11):1-13
5. E-Mamta User Manual. Department of Health and Family welfare, Government of Gujarat, 2010, June.
6. KK Panchal. e-mamta mother child tracking application. Gandhinagar health and family welfare department, government of Gujarat
7. India to emulate Gujarat in mother-child health tracking. Thaindian news. 2010
8. VS Mazumdar, RK Baxi, Bhavesh Shroff, Geetika Madan, Ajay Parmar. E-mamta data validation in Gujarat. NIHF. 2010; 33(3):135-144
9. Syed Kazi S, Ritu Srivastava. Mobile phones: A tool for social and behavioural change. New Delhi. Unicef, 2013, 31-32