Research Article

Assessment of maternal and child health services during Mamta days in urban areas of Surat City

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Abstract

Background: Mamta Divas is a fixed day, fixed site, preventive, and promotive health-care service center for mother and child population. Growth health checkup, immunization, primary treatment, referral, and counseling services are provided by FHW (Female Health Worker), ANM (Auxiliary Nurse Midwife) and AWW (Anganwadi Worker).

Objective: To study the reproductive and child health services during Mamta days among the beneficiaries of health-care facility centers.

Materials and Methods: It was a cross-sectional study conducted in 20 urban health centers of Surat Corporation Area from July 2012 to June 2013 by using pretested, semi-structured questionnaire for the assessment of maternal and child health services during the Mamta days.

Result: In all sites it was noted that vaccine vial monitor of vials was in stage I or II, freeze-sensitive vaccines were in liquid form, vaccines have readable label, all vaccines were within expiry date, and all providers knew which vaccine cannot be reused. Information about follow-up date was provided in 94.59% session sites, followed by family planning advice in 67.57%, and nutrition advice in 60.81%. Breast-feeding assessment and examination were not done by them. Abdominal palpation was not performed in 88.52% of session sites because of lack of privacy as separate rooms and curtains were unavailable.

Conclusion: Maternal and child health services were not provided satisfactorily in many session sites, therefore, training and retraining of health workers is required for better outcome.

KEY WORDS: Mamta day, urban health center, vaccination

Introduction

"Mamta Divas," a concept for interdepartmental convergence having desirable health outcomes for children below 5 years, is being introduced in the state of Orissa by the department of health and family welfare. This would provide the first point of contact for essential primary health care and would work as a common platform for convergence among service providers of health, ICDS (Integrated child development service), and the community.[1]

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Mamta Divas (health and nutrition day) was introduced in Gujarat by the health and family welfare department and the women and child development department to strengthen maternal and child service to reduce maternal mortality rate and infant mortality rate.[2,3] As we know that in India, child mortality and maternal mortality are key issues for policymaker, and Mamta Divas activity is one such measure taken by the State Government of Gujarat to address the above issues.

Unlike rural areas that have an organized three-tier health delivery structure, the health setup in the urban areas is ill-organized, which is further reflected in the poor health indicators

of urban areas. Urban health is an increasing concern, which is evident from the Government of India's National Population Policy 2000, National Health Policy 2002, 10th Five-Year Plan, and RCH-2 (Reproductive and child health); all of which reflect emerging priorities for providing assured and credible primary health services of acceptable quality to all urban areas.[4] Because of increased accessibility to health-care services in both urban and rural areas, an increase was expected in the utilization of the services; however, studies reveal low utilization of health-care services including MCH (Maternal & child health) services by different segments of the society.[5] Maternal and child health indicators among slum people show that their health is 2–3 times worse than those of in the urban areas.[6]

In 2001, the coverage evaluation survey (CES) was undertaken by the Institute for Research in Medical Statistics, New Delhi to find the immunization coverage in 90 districts of the country. It was observed that 63% of the children had received all the vaccines/doses; 27% of the cases had partial immunization, and 10% of children did not receive any immunization. The main reasons identified by CES for poor coverage were manpower attrition, inadequate community participation, inadequate IEC (Information, education & communication) activities, provider's fatigue, and so on.[7] It is very much disturbing for all public health individuals. The gains achieved so far might be reverted, if we do not sustain routine immunization coverage for UIP (Universal immunization program) vaccines.[8]

"Women are not dying because of a disease we cannot treat. They are dying because societies [are] yet to make the decision that their lives are worth saving," said by Mamoud Fathalla, president of the International Federation of Gynecology and Obstetrics, World Congress, Copenhagen, 1997. Maternal mortality and morbidity continue to be high despite the existence of national programs for improving maternal and child health in India. This could be related to several factors, an important one being nonutilization or underutilization of maternal health-care services, especially among the rural poor and urban slum population because of either lack of awareness or lack of access to health-care services. Understanding of the knowledge and the practices of the community regarding maternity care during pregnancy, delivery, and postnatal period is required for program implementation.[9]

This study was formulated against this background with an objective of studying the reproductive and child health services during Mamta days among the beneficiaries of health-care facility centers of Surat Municipal Corporation, as about 40% of the population in Surat resides in the slums.[10]

Materials and Methods

It was a cross-sectional study conducted in Surat Municipal Corporation area from July 2012 to June 2013 by using pretested, semi-structured questionnaire for the assessment of maternal and child health services during Mamta days based on Mamta day guidelines for health worker.

There are total 39 urban health centers (UHC) in Surat Municipal Corporation. Taking in to consideration the time constraint for data collection, 50% UHCs (20 UHCs) were selected by random number list generator software on a computer. During the period of data collection, each week one UHC on Monday/Thursday and one AW (Anganwadi) center (by random lottery method) were visited. Observation of the whole process of Mamta Divas was recorded in a predesigned study tool. Additional important findings were also noted.

Result

Out of total health facility centres, 32.5 % of centres are taken on rent and 7.5 % are donated (figure 1). This radar chart in figure 2 that 0.1 mL AD (Autodisable) syringe was available in 97.5% of session sites; BCG (Bacillus calmette guarine) vaccine was available in 95% of session sites; followed by hub cutters, blood pressure (BP) instruments, and stethoscopes in 90% of session sites. Measles, OPV (Oral polio vaccine), DPT (Diphtheria, pertusis and tetanus), and hepatitis B vaccine, tetanus injection, and 0.5 mL AD syringe were available in all session sites.

In all sites, it was noted that vaccine vial monitor (VVM) of vials were in stage I or II, freeze-sensitive vaccines were in liquid form, vaccines have readable label, all vaccines were within expiry date, and all providers knew which vaccine cannot be reused.

Incorrect Methods of Waste Collection for Disinfection and Disposal.

In 10% of session sites, waste was transferred from AWC to UHC and then cutting was done; in 10%, bags were not available; in 2.5%, there were problems with segregation; and in 2.5%, there were cutting hubs for used syringes after the session got over. All beneficiaries of the session sites were not asked to wait for half an hour after vaccination. In half of the session sites, open vials of BCG, measles, and OPV were kept over ice pack, and other vials were kept over the table [Figure 3].

In majority of sessions, pregnant women were weighed and weight was recorded. BP of pregnant women was measured properly and recorded in 65.57% of session sites. Advice for next antenatal checkup, health, and nutrition was given in most of the session sites. In 88.52% of session sites, abdominal palpation was not performed because of lack of privacy as separate rooms and curtains were unavailable [Table 2].

In majority of session sites, information about follow-up date, followed by family planning (FP) advice (67.57%), and nutrition advice (60.81%) was provided. In all session sites, breastfeeding (BF) assessment and examination was not carried out [Figure 4].

As shown in table 1, growth monitoring is not done in almost one third of children. Almost half of mother is not explained about weight and grade of malnutrition of their children.

Table 1: Distribution of children according to observation of examination (n = 80)

Observation	Yes (%)[a]	No (%)[a]	Not eligible (%)[a]
Vitamin A given	20 (25)	2 (2.5)	58 (72.5)
Growth monitoring done	48 (60)	32 (40)	0
Explain the mother about weight and grade of malnutrition and advice	9 (11.25)	39 (48.75)	32 (40)

[a]Figure in parenthesis is row-wise percentage.

Table 2: Observation of examination of ANC in session sites (n = 61)

Pregnant mothers	Yes (%)	No (%)
Abdominal examination	7 (11.48%)	54 (88.52%)
BP measurement	40 (65.57%)	21 (34.43%)
Weight measurement	56 (91.80%)	5 (8.20%)
Examination for anemia	22 (36.07%)	39 (63.93%)
Examination for pedal edema	16 (26.23%)	45 (73.77%)
Urine examination	30 (49.18%)	31 (50.82%)
Mother examine for high risk	18 (29.51%)	43 (70.49%)
Iron folic acid (IFA) tab given	54 (88.52%)	7 (11.48%)
Health and nutrition advice given	55 (90.16%)	6 (9.84%)
Advice for follow-up	55 (90.16%)	6 (9.84%)

ANC, ; BP, blood pressure.

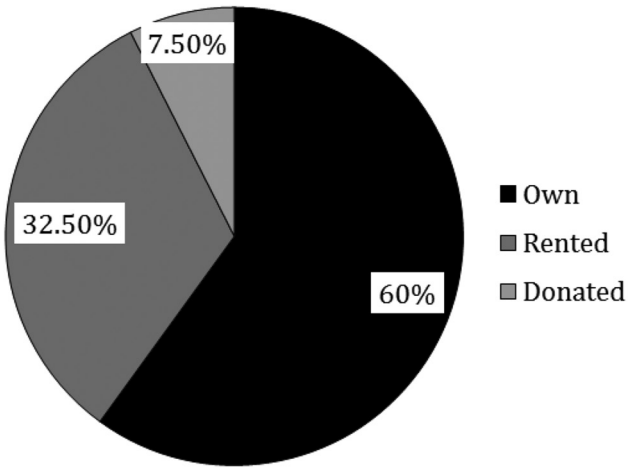

Figure 1: Distribution of health facility centers according to ownership (n = 40).

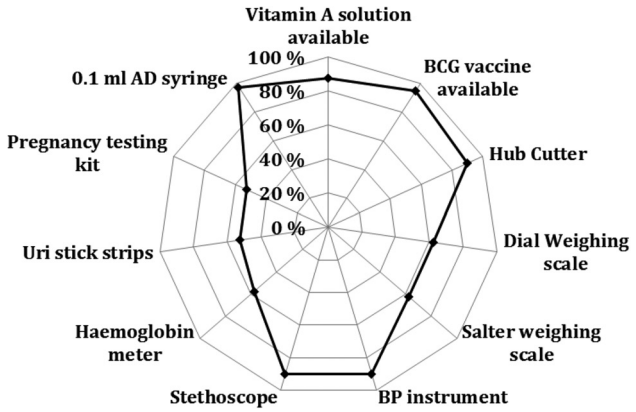

Figure 2: Distribution of sessions according to availability of vitamin A, BCG vaccine, and logistics (n = 40).

Discussion

As per this study, in 100% of session sites VVM of vials were in stage I or II and freeze-sensitive vaccines were in liquid form. In 32.50% of sites, time of reconstitution was not written on vial after the reconstitution of freeze-dried BCG vaccines and measles vaccines. In all session sites, ANMs were not asked to wait for half an hour after vaccination. In 32 (80%) session sites, vaccine vials and diluents were kept in zipper bag inside vaccine carrier whereas in 4 (10%) session sites, used syringes were collected in plastic bag to be cut at UHC after completion of session.

Patel et al.[11] reported in his study that with respect to cold chain maintenance, 98.8% of sites showed that VVM of vials was in stage I or II, and 98.8% of sites had freeze-sensitive vaccines in liquid form. In 28.5% sites, time of reconstitution was not written on vial after reconstitution of freeze-dried vaccines. A total of 97.2% of ANMs were asked to wait for half an hour after vaccination.[11] Sharma et al.[12] reported in his study that plastic zipper bags were used to place vaccines in 48 (96.0%) session sites. Time of reconstitution was mentioned on the vial (BCG/measles) in 82.0% of session sites.[12]

In this study, pregnant women were weighed and weight was recorded in 91.8% of session sites. BP of pregnant women was measured properly and recorded in 40 (65.57%) session sites. Advice for next antenatal checkup was given in

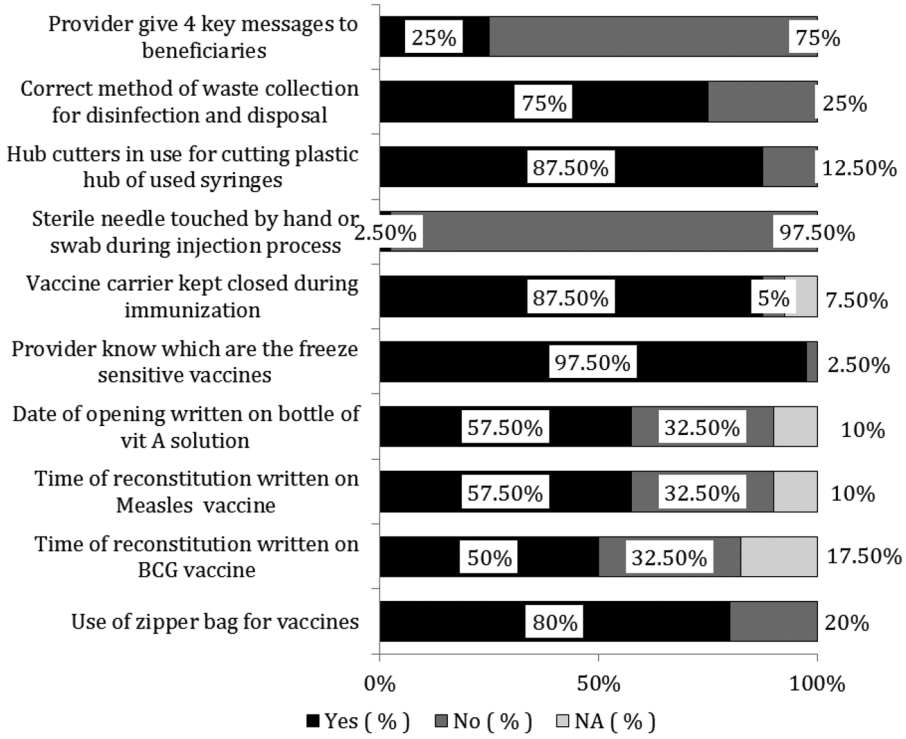

Figure 3: Distribution of sessions according to vaccination process monitoring (*n* = 40).

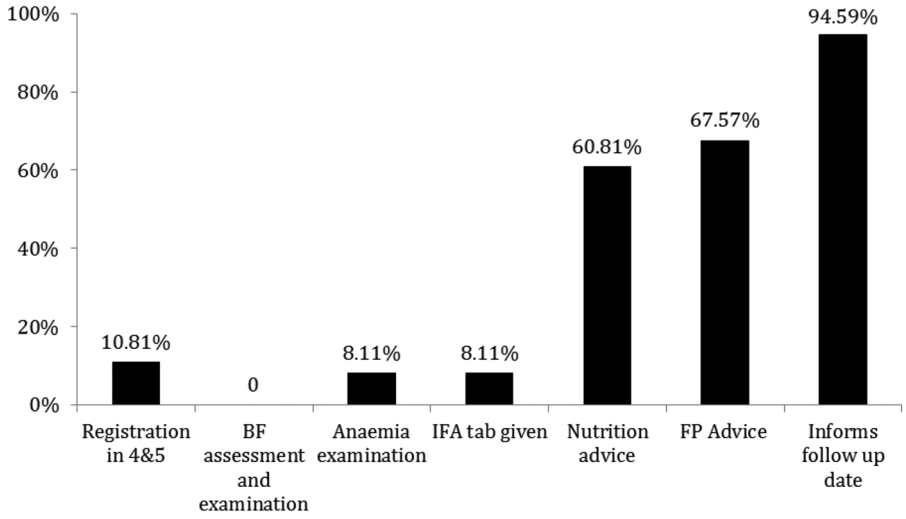

Figure 4: Observation of examination of lactating mother in session sites (*n* = 74).

BF, breast-feeding; FP, family planning; IFA, iron folic acid.

55 (90.16%) session sites. In seven (88.52%) session sites, abdominal palpation was not performed because of lack of privacy as separate rooms and curtains were unavailable.

Kotecha et al.[13] revealed in his study that in 95.6% sessions, pregnant women were weighed and weights were recorded. BP of pregnant women was measured properly and recorded in 90% of session sites. Advice for next antenatal checkup was provided along with dietary and relevant counseling in 63.3% of session sites. No session sites performed abdominal palpation.[13] According to National Family Health

Survey-III data, 63% had their weights measured, 64% had their BP measured, 72% of pregnant women had undergone abdominal examination, and blood and urine tests were conducted for 60% and 58% of women, respectively.[14]

In this study, growth monitoring was done in 48 (60%) session sites. Community growth chart monitoring was not seen in any AWCs. BF advices were given to lactating mothers in 23 (31.94%) session sites. FP advice was given to eligible women in 31 (43.06%) session sites. Kotecha et al.[13] reported in his study that only in 13.3% of session sites, few infants/children up to the age of 5 years were weighed and their weights were recorded. In 60% Anganwadi, growth charts were not updated. Community growth chart monitoring was not seen in any AWs. It was observed that BF advices were not given in any session sites. FP counseling was not provided to eligible women/couples in any session sites.[13] In the 2010 report of Multi Indicator Cluster Survey Vadodara Urban Slums, 32% of the children were weighed in the last 1 month. Weight was plotted on Mamta card in only 7% of all those weighed.[4]

Limitation

Because of time constraint, we could not collect data from all centers. Only 40 health facilities centers were included in this study. This study involved participants attending government urban health system; those attending private health sectors were not included in this study. So, the result cannot be generalized.

Conclusion

Satisfactory maternal and child health services are not provided in many session sites, therefore, training and retraining of all female health workers, ANMs, and Anganwadi workers at regular interval is required for better outcome. Regular supervision and monitoring of all sessions held at the health-care facilities is required according to the supervision plan. All channels of communication should be used to make Mamta Divas a highly visible public health activity for child survival, growth, and development.

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