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# Facility level preparedness of Urban Primary Health Centres (UPHCs) for Urban Health and Nutrition Day (UHND) in Vadodara, Western India

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## Abstract

**Objectives:** Urban Health and Nutrition Day (UHND) is an important activity for providing quality maternal, child health care and nutritional services, carried out once a month in urban slum areas by UPHCs. The objective of this study is to evaluate all UPHCs of Vadodara city in Western India for their readiness to provide UHND activities.

**Materials and Method:** A cross-sectional study was conducted at all UPHCs of Vadodara city from April 2013 to March 2014. All 19 UPHCs were evaluated in terms of programme management of UHND and availability of vaccines/logistics/equipments and supplies. The checklist was based on the Guidelines of supportive supervision visit for facility assessment designed by the Health and Family Welfare Department, Government of Gujarat.

**Results:** With regards to human resources, medical officers were present at 19 centres while Health visitor, ANM and urban ASHA were present as per sanctioned norms at 8, 14 and 11 centers only. Microplan was present at all centres but not updated. Estimation of Beneficiary and injection load was calculated at 5 centres only. Functional ILR and DF were present at all centres. The majority of the vaccines, logistics and supplies were available in an adequate amount at all UPHCs but IFA tablets, zinc tablets, AEFI kit and functional hub cutter were not present at all centres.

**Conclusion:** The majority of the UPHCs have shown its readiness for UHND activities but still, some very essential components like IFA tablets, AEFI kit, microplanning and beneficiaries' estimation needs to be strengthened.

**Keywords:** Urban, Primary Health Care, Facility readiness, India

## Introduction

Nearly 28.6 crore people lived in urban India according to the Census report 2001.(1) This has reached to 37.7 crore constituting 31.16% of total Indian population according to the Census report 2011.(2) Although, there has been a progressive rise of urbanization in the country over the last decade, the urban health has received attention quite later as compared to rural health. Moreover, the health status of the urban poor population is also poor. According to National Family Health Survey (NFHS) 3, under 5 Mortality Rate (U5MR) in urban poor children is 72.7 which is quite high than the average of 51.9 in urban children; nearly half of the urban poor children are underweight and nearly 60% of them are not fully immunized.(3)

Hence, looking at such health statistics of the urban people, a national health programme focusing on urban poor population named National Urban Health Mission (NUHM) was launched in 2008 by the Ministry of Health and Family Welfare, Government of India.(4) Under NUHM, organizing urban health and nutrition day (UHND) is being considered as an important activity for providing quality maternal, child health care and nutritional services to the urban poor population. As per UHND guidelines, UHND shall be held once in every week at the UPHC and once in every month in all service delivery points like Anganwadi centres.(5) In order to provide comprehensive urban health care, the first step is to document the functioning of existing UPHCs and its preparedness to deliver the services for urban slum population as envisaged under NUHM. Some studies have documented the critical role of these centres in provision of family planning and primary health services to the urban poor population.(6-7) However, evaluation of these urban health centres for their readiness to provide urban health and nutrition day facilities has not been conducted. So, this research study was conducted with a specific objective to evaluate all urban primary health centres of Vadodara city located in the Western part of India for their readiness to provide urban health and nutrition day activities.

## Materials and Method

The current cross-sectional observational study was conducted in Vadodara city. It is the third largest city in the State of Gujarat in terms of population and it is located in the western part of India. In the year 2013-14, the health services of the Vadodara city was provided by a total of 19 UPHCs run by Vadodara Municipal Corporation which is urban local self-governance body. Every centre provides services to the different number of beneficiaries based on the varied population of that particular geographic area. The main beneficiaries for the services provided by UPHCs are the poor people either in slum or some semi-slum areas residing within its catchment area.

These UPHCs organize a health and nutrition day every weekly at the centre and once a month at the

designated anganwadi centres in slum areas mainly for children, adolescents and pregnant women. All 19 UPHCs spread across all 4 zones of the city were visited by single researcher during the study period from April 2013 to March 2014. These visits were done along with supportive supervision activities of the national health programme named Reproductive Maternal Newborn Child Health Plus Adolescent (RMNCH+A).

We have covered two components for the facility evaluation viz, the programme management of UHND and availability of vaccines/logistics/equipments/supplies at all the 19 UPHCs. The checklist was based on the Guidelines of supportive supervision visit for facility assessment for UHND specially designed by the Health and Family Welfare Department, Government of Gujarat. [8] We also checked the availability of the essential items, vaccines and other logistics at all centers for providing the services at UHND. While collecting this information it was decided that if any item is not available in sufficient quantity as per the demand it would be considered not available. Also, an item that is not functioning would also be considered not available.

During data collection, utmost care was taken not to disturb the implementation of ongoing services. On a day prior to the visit, the service providers at the service site were informed about the procedure of data collection in brief. Necessary permissions were obtained from the appropriate authority at the health branch of Vadodara Municipal Corporation prior to visit. Moreover, ethical clearance was also taken from local institutional ethics committee of GMERS Medical College, Gotri, Vadodara.

Microsoft Office Excel was used for data entry and analysis. This being a descriptive study it reports actual numbers and proportions in the form of percentages of the study variables.

## Results

The current study includes findings from the observation of a total of 19 UPHCs. In human resources, medical officer was present in 18 out of 19 (95%) UPHCs, health visitor was present in 8 out of 19 (42%) UPHCs, ANM were present as per sanctioned post in 14 out of 19 (73%) UPHCs whereas urban ASHA were present fully as per sanctioned post in 11 out of 19 (57%) UPHCs visited. All medical officers were trained for routine immunization before or within one year.

As seen in Table 1, microplan for UHND was available at all 19 centres. ANM roaster was mentioned in microplan at all centres but supervision roster was available at 5 centres only. Map of catchment area and planning for urban slums was observed at 13 and 8 sites only. Estimation of Beneficiary and injection load as per session site was calculated at 5 centres only. Routine immunization coverage chart was not prepared at any UPHC. Supervisory visits by health supervisors and health officials were carried out at 16 and 13 centres respectively. Although review meeting regarding UHND was done at all 19 UPHCs but intersectoral coordination meeting with ICDS/NGOs was not done at any centre.

**Table 1: Programme Management at UPHCs for UHND (n=19)**

| Programme management components | Number | Percent |
|---|---|---|
| Microplan availability | 19 | 100.0 |
| ANM roster in microplan | 19 | 100.0 |
| Supervision plan in microplan | 5 | 26.3 |
| Alternate vaccine delivery plan | 3 | 15.7 |
| Map of catchment area available | 13 | 68.4 |
| Plan for urban slums | 8 | 42.1 |
| Beneficiary load calculated/estimated | 5 | 26.3 |
| Injection load calculated/estimated | 5 | 26.3 |
| Routine immunization coverage chart prepared | 0 | 0 |
| Supervisory visits by health supervisors on UHND | 16 | 84.2 |
| Supervisory visits made by health officials on UHND | 13 | 68.4 |
| Review meeting conducted regarding UHND every month | 19 | 100.0 |
| Intersectoral coordination meeting with ICDS/NGOs | 0 | 0 |

Table 2 provides information regarding the availability of vaccines/logistics at all 19 UPHCs visited. Vaccines like BCG, Measles, OPV, Pentavalent, DPT and TT were available at all 19 centres while hepatitis B was available at 18 centres. Auto-disable syringes, 5ml syringes, vaccine carriers, icepacks were available in adequate quantity at all 19 UPHCs. BP apparatus, functional hub-cutter and cold box were available at 17 sites only. Vitamin A solution, Blank Mother and Child Health (MCH) cards, Paracetamol tablets, red and black bag for biomedical waste disposal were available at all sites while Iron Folic acid (IFA) tablets were available at 14 sites but Zinc tablets and AEFI kits were available at 10 sites only. Data entry of UHND in the E-mamta software was done at all sites but was updated

completely at 7 centres only. Adverse Event Following Immunization (AEFI) / Acute Flaccid paralysis (AFP) cases if any, then reporting was done at all 19 centres.

**Table 2: Availability of Vaccines/logistics/reporting at UPHCs (n=19)**

| Item | Number | Percent |
|---|---|---|
| Vaccines | | |
| BCG | 19 | 100.0 |
| BCG diluent | 19 | 100.0 |
| Measles | 19 | 100.0 |
| Measles diluent | 19 | 100.0 |
| OPV | 19 | 100.0 |
| Pentavalent | 19 | 100.0 |
| DPT | 19 | 100.0 |
| Hepatitis B | 18 | 94.7 |
| Tetanus toxoid | 19 | 100.0 |
| Equipments & instruments | | |
| Auto-Disable (0.1 ml) Syringes | 19 | 100.0 |
| Auto-Disable (0.5 ml) Syringes | 19 | 100.0 |
| Functional Hub Cutter | 17 | 89.4 |
| 5 ml syringes for reconstitution | 19 | 100.0 |
| BP apparatus | 17 | 89.4 |
| Adequate vaccine carriers | 19 | 100.0 |
| Adequate ice packs | 19 | 100.0 |
| Cold box | 17 | 89.4 |
| Functional ILR | 19 | 100.0 |
| Functional DF | 19 | 100.0 |
| Working Thermometer | 18 | 94.7 |
| Temperature log book | 19 | 100.0 |
| Weighing Scales | 19 | 100.0 |
| Supplies | | |
| Vitamin A solution | 19 | 100.0 |
| IFA tablets | 14 | 73.6 |
| Zinc tablets | 10 | 52.6 |
| Blank Mamta Cards | 19 | 100.0 |
| Paracetamol | 19 | 100.0 |
| Red and Black bag | 19 | 100.0 |
| Albendazole tablets | 18 | 94.7 |
| AEFI drug kits | 10 | 52.6 |
| Contraceptives | 19 | 100.0 |
| ORS Packets | 19 | 100.0 |
| Oral antibiotics (cotrimoxazole, amoxicillin) | 19 | 100.0 |
| Reporting | | |
| Data Entry of beneficiaries in E-mamta software | 19 | 100.0 |
| Updated data entry in E-mamta software | 7 | 36.8 |
| AEFI/VDPV/AFP cases entry and timely reporting | 19 | 100.0 |

## Discussion

The main beneficiaries of the urban health and nutrition day (UHND) popularly known as Mamta Day in Gujarat are pregnant women, lactating mothers, children below 5 years of age and adolescent girls. This study has focused on the facility based assessment of the urban primary health centres for their readiness to provide UHND activities in Vadodara city located in Western India.

As per the guidelines of UHND, microplan of the session site has to be prepared at every UPHC for proper implementation of UHND activities in the slum areas. There have been several components in the microplan like ANM roster, Supervision list, alternate vaccine delivery plan, a map of the catchment area and plan for urban slums. Microplan with ANM roster was observed at all centres visited but supervision plan, alternate vaccine delivery plan and a map of catchment area were observed in 26%, 15% and 68% of the UPHCs visited respectively. Similar findings were observed by Sharma et al in Kheda district of Gujarat state.[9]

It is very necessary to estimate the beneficiary load, necessary vaccine vials and injection load as per the population in a particular slum area. This will reduce vaccine wastage and improve cold chain status of the vaccines also as it prevents the unnecessary carriage of vaccine vials in large numbers. It can be easily calculated on the basis of workplan generated from the data entered in the online software of mother and child tracking system known as E-mamta in Gujarat. This calculation based beneficiary load, vaccine vial /injection load was observed at 5 (26%) centres only. Such practices of beneficiary and injection load were observed in 34% of sites observed by Sharma et al. in Kheda district.[9]

There should be 100% immunization coverage as per our targets set under the RMNCH+A programme. So to keep a track over the routine immunization coverage of the particular centre, it is necessary to maintain the record in the form of a chart which can be made easily visible in the UPHC medical officer cabin. None of the visited UPHCs had prepared such routine immunization coverage chart. Sharma et al have observed such coverage chart at 8% of total sites visited.[9]

Supervisory visits by the higher authorities are sometimes very helpful in sustaining the activities in the field. Nearly 70% of the UPHCs were visited by higher officials in last 2 months which was a good finding in this study. A study conducted by Sharma et al also mentioned that nearly 40% of the centres were visited by higher health officials in Kheda district.[9] One such important aspect is taking review meeting with all health care staff of the centre. All centres carried out review meeting regarding UHND activities once in every month which was again a good observation noted. But intersectoral coordination meeting with Integrated Child Development Services (ICDS)/ Non Government Organizations (NGOs) was not done at any centre. This is highly essential as UHND activities are carried out in the Anganwadi centres where the staff members are the Anganwadi worker and Anganwadi helpers from ICDS scheme and it is run by the Ministry of Women and Child Development. So, liasoning with ICDS department is highly required which was lacking in these centres.

Almost all vaccines were available in adequate quantity at all 19 UPHCs. BCG and Measles diluents were also present at all centres in adequate quantity. The stock register of the vaccine was updated at all 19 centres. Contradictory to this, Chander Shekhar et al reported the availability of vaccines at 60% of the centres visited in India. Since this survey has been conducted in the entire nation, there may be state-wise variation in the vaccine stock which may be the reason for such discrepancy in the vaccine stock in this survey and in our study.[10] Vaccine carriers to carry vaccines at outreach session site were present in sufficient quantity at all centres. Ice packs and cold box were also present in an adequate amount at almost all UPHCs. These findings are in line with the national level survey done by Chander Shekhar et al and Rajkumari et al.[10-11]

Auto-disabled syringes which cannot be re-used and 5 ml syringes used for reconstitution were also available at all 19 centres. Hub- cutter which is used to cut the hub of the syringes was available at all 19 centres but it was functional at 17 (89%) centres only. Chander Shekhar et al observed the syringes and needles in sufficient quantity at 60% of urban family welfare centres in the entire nation while Rajkumari et al observed sufficient syringes and needles at 80% of the urban centres in Hyderabad.[10-11] Blood pressure of all pregnant women has to be measured during their antenatal checkup. So functional BP apparatus (mercury sphygmomanometer) was present almost 89% of the UPHCs visited. Similarly at 78% of the urban centres in the entire nation had functional BP apparatus as per the national level report by IIPS.[10]

Vitamin A solution, Blank MCH Cards, Paracetamol tablets, Red and black bags for biomedical waste collection were available at all 19 (100%) centres in this study. MCH cards were available at almost 65% urban family welfare centres as per the national level report conducted by IIPS.[10] IFA tablets were available in sufficient quantity at 14 sites, while zinc tablets which have to be given for 14 days in cases of diarrhea were available at 10 centres only. In a case of any AEFI, the presence of AEFI kit is utmost essential which was present at 10 centres only. With regard to the record keeping and data entry, it was done at all centres but it was updated at 7 centres only which needs to be strengthened. AEFI/VDPV/AFP cases if any were entered at all sites. Even nil reporting of the same was done on monthly basis at all centres.

## Conclusion

From the study, it was observed that microplan was available at all UPHCs but it has to be updated with supervision plan, a map of the catchment area and alternate vaccine delivery plan. Immunization coverage chart needs to be prepared and displayed at all UPHCs visited. Intersectoral coordination meeting with ICDS/NGO needs to be conducted atleast once in a month along with review meeting of immunization activities. The majority of the vaccines, logistics and supplies were available in an adequate amount at all UPHCs but a regular supply of some of the essential items like IFA tablets, zinc tablets, AEFI kit and functional hub cutter are also to be ensured. Entry in software E-mamta needs to be updated at all UPHCs.

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