*"we do not have adequate support staff for 24X7 functioning of IPD…Paediatrician is not there, 5 doctors should be there we have 2….10 staff nurse should be there but we have only 6 (2 permanent – 4 deputation)"*

*"There is no data entry person.The previous one left for capital hospital… so pharmacist has to record data in the computer"*

- Medical Officer at Unit 4 CHC

*"20 beds allocated to the maternity ward but the same is not enough…due to scarcity of beds, many of them are getting treated just on the floor.*

- Medical Officer at BMC Hospital

## CAPITAL HOSPITAL:

*Overcrowding:* The hospital had a daily OPD attendance of about 2000 patients in OPD a day (60,000 patients a month). To cater to this, there were only 600 functional beds altogether. Deficiencies at the PHCs & CHCs had led to increasing patient load at the Capital Hospital over the years. However, the resources (medical personnel, paramedics and support staff, logistics and infrastructure) at the hospital had not increased commensurately. Incidents of delivering babies on floor or on mattresses had been reported.

Patient overcrowding had increased demands on staff time ("*more patients, more paperwork*") – resulting in long queues and significant waiting time.

Referral from all levels (including informal referral system lead by ASHAs, key influencers, community and local practitioners) were made directly and only to the Capital Hospital, surpassing all other health facilities available within the system. This combined with the usual patient load at the hospital, caused much overcrowding at the hospital and overwhelmed capacity and quality of care therein. Beneficiaries complained that ambulance services for accessing the hospital [Helplines: 102 *(Janani Express)* and 108] were inadequate.

*Availability of Drugs and Supplies:* The service providers expressed satisfaction with the availability of medicines at the Capital Hospital.

*"We have 100 beds in total for Gynaecology ward and 130 beds for paediatric and extra 20 beds in SNC ward. But that ward is always over crowded. 170-180 patients are in the ward always in this facility. So by compulsion we manage them on the floor."*

*"In order to manage the flow of patients daily, we need more doctors and more staff to manage the crowd of the patients.We need 30 more staff nurse, 14 pharmacists, 5 radiographers. Posts have remained vacant."*

*"Practically it (stock out) does not happen. We place orders sufficiently in advance. We are procuring about 101 items of medicines from outside source.The line department is providing 161 items of medicines to us."*

**-Service Provider at Capital Hospital**

## Working towards ….

Based on the study results, deliberations and a series of consultative meetings with the Bhubaneswar Municipal Corporation (BMC), Government of Odisha and the Urban Health Advisory Committee for Bhubaneswar city, Save the Children, BMC and the NHM, Government of Odisha are closely working together on the following:

a. Development of City Health Planprioritizing health system strengthening for MNH
b. Formulating a framework for the operationalization of City Health Plan
c. Developing a tool-kit for morbidity surveillance at the community level
d. Establishment of appropriate referral mechanism for delivering health services to mothers and newborns
e. Formulation of capacity building strategy and package for the health staff at the BMC

**Acknowledgements**

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Save the Children®

# Situation of **Maternal and Newborn Health** in Urban Slums of Bhubaneswar

# Summary Report 2016

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## 1.0 Background

The slum population in Indian cities is rapidly expanding (25.1% decadal growth – Census 2011).[1] This urban poor population offers complex challenges of vulnerability for adverse maternal and newborn health (MNH) outcomes.[2] Public health care provisioning for MNH in urban slums is mostly unstructured, fragile and with almost non-existent outreach.[3] Health service utilization is compromised due to limited capacity for decision making, negligent and delayed care seeking, issues to access and affordability, and the plethora of unorganized private providers.[4] This is compounded by socio-behavioral, spatial and economic inequities that define the context of disempowerment and constraint for this population.[5] The National Urban Health Mission (NUHM), launched in 2013, advises for improving the health of the urban slum populations through a needs-based, city-specific urban health care system that includes a refurbished primary care system, targeted outreach, equitable access, and involvement of the community and urban local bodies (ULBs).[6] The lack of formative information and disaggregated data impedes efficient urban health policy-making and programming.[7]

## 2.0 Study Goal and Objectives

Save the Children in collaboration with the Bhubaneswar Municipal Corporation (BMC) and the state National Health Mission (NHM) undertook this study in the urban slums of Bhubaneswar city (profile given in Fig. 1) to generate learnings for designing a city-specific public health approach to improve MNH services for the urban poor. The specific objectives were:

a) To understand the community needs, behaviors and perceptions for MNH in urban poor settings.

b) To explore various factors (both demand and supply side, and environmental factors) affecting care seeking for MNH.

c) To assess the preparedness of the urban health system for providing MNH services at various levels of care in terms of infrastructure, HR availability and capacity, logistics, drugs & equipment, referral, recording & reporting, supervision, governance and financial modalities.

**Fig. 1: Map and Profile of Bhubaneswar City**


**Demography** (Census 2011)
**Population:** 0.9 m
**Area:** 422 $km^2$
**Population Density:** 2.1K/$Km^2$
**Sex Ratio:** 892
**Literacy:** 91.7%
**Annual Population Growth Rate:** 3.0%

**Slums in Bhubaneswar**
**Number of Slums:** 377 (99 Notified)
**Population:** 36% of Bhubaneswar
**Density:** 6.2K/$Km^2$
**Annual Population Growth Rate:** 7.7%

**Medical Units**
1 Tertiary Hospital
2 UCHC
15 Urban PHC (UPHC)
3 Dispensaries
102 AWC
18 Balwadis
596 MAS
106 ASHA

[1] Primary Census Abstract for Slum, 2011. Office of the Registrar General & Census Commissioner, India. Accessed on 2016 Jun 13. Available from: http://www.censusindia.gov.in/2011-Documents/Slum-26-09-13.pdf
[2] International Institute for Population Sciences (IIPS) and Macro International. National Family Health Survey (NFHS-3), 2005–06: India: Volume I. Mumbai: IIPS. 2007.
[3] Madhiwalla N. Healthcare in urban slums in India. National Medical Journal of India. 2008; 20 (3): 113–114.
[4] 1. Gupta I, Guin P. Health Status and Access to Health Services in Indian Slums. Health. 2015; 7(2): 245–55.
[5] Hazarika I. Women's Reproductive Health in Urban Slum Populations in India: Evidence from NFHS-3. Journal of Urban Health. 2010, 87 (2): 264-277.
[6] National Urban Health Mission: Framework for Implementation. Ministry of Health and Family Welfare. Government of India. May 2013
[7] Ministry of Health and Family Welfare. Integrated HMIS Reporting Formats: Information – At a Glance (version 1.5). Government of India. Jul 2010.



**Fig. 2: Conceptual Framework for the Study**


## 3.0 Methodology

### Qualitative Component

| Method of Qualitative Data Collection | No. |
|---|---|
| **Transect walk** (for resource mapping) | 20 Slums |
| **Focus Group Discussions** | 26 |
| Influential persons from the community | 4 |
| Husbands of RDWs | 4 |
| Mothers-in-law (MIL; Not members of MAS/SHGs) of RDWs | 4 |
| Members of self-help groups (SHG) including MAS | 4 |
| Community Link Workers | 4 |
| ANMs/ AWWs | 6 |
| **In-depth Interviews** | 44 |
| Informal Doctor/ health provider from slum | 8 |
| Formal Doctor/ health provider from nearby primary public health facility | 8 |
| Private service provider | 8 |
| Key officials (NHM, BMC) | 10 |
| Health Facilities: Peds, O&G, MO, SNs | 10 |
| **Case Studies** | 7 |
| Family with sick newborn | 5 |
| Family of deceased newborn | 3 |

The slums were purposively selected [criteria used: population density (of RDWs), inclusivity of slums from across the city, proximity to health facility (public or private), notification status and coherence with the quantitative survey]. 3 notified (*Jokalandi, Dhirikutti, Gandamunda*), and 1 non-notified (Salia Sahi) slums were selected.

### Quantitative Component

***Sampling for household Interviews:*** Two-staged sampling was used to select the respondents. A total of 30 slum clusters were selected using Probability Proportional to Size (PPS) method: 6 were identified from amongst authorized slums and 24 from unauthorised slums. From each cluster, 20 recently delivered women (RDW; *who delivered within 0-6 months*) were selected using systematic random sampling following extensive house-to-house enumeration. Only one eligible woman was selected per household. 592 RDWs were identified (93 from authorized slums and 499 RDWs from unauthorized slums).

***Sampling For Facility Assessment:*** 15 UPHCs, 2 UCHCs (BMC Hospital, Unit 4 Hospital), and District level (Capital Hospital)were assessed.

**Data Management (Qualitative and Quantitative)**

All data was anonymized using unique identification numbers and codes. Quantitative data was managed and analysed using Epi-data version 3.0 and SPSS v11. Qualitative data was both inductively and deductively coded and thematically analysed using MS Excel 2010. The social-*cum*-resource maps were studied in detail to understand the distribution of community resources and socio-demographic distribution of the residing population.

**Period of Data Collection:** January and April 2016

**Ethics Approval:** Sigma Research and Consulting, India and Save the Children-US Ethics Review Committee

# 4.0 Study Findings

## *Overarching Situation in the Slums*

*Source: Transect walk*

The 20 slums examined had 200-1500 households (4 had >1000 households, 9 had 500—1000 households). Interaction with the slum dwellers suggested that annual population growth in these slums hovers around 5—10%. Major occupations among the slum dwellers were construction work (both men and women) and private sector jobs (men: driver, sweeper, etc.; women: domestic help). Households had access to multiple sources of drinking water; each slum had a minimum of one BMC water stand-post which served as the primary source of drinking water. The slums had poor drainage systems, bad roads and inadequate toilet facilities. Each slum had an Anganwadi Centre(AWC). ASHAs were working in 2 slums, 2 had allopathic dispensary, 1 had a homeopathic dispensary, and 3 had Mahila Aarogya Samitis (MAS). In times of medical problems related to maternal and child health, dwellers preferred to go to the Capital Hospital while they sought care from a various other BMC facilities and even local chemists and practitioners for general illnesses.

**Table 1: Profile of the Participants and their Households (HH) [N=592]** *Source: House-to-House Survey*

| | |
|---|---|
| Religion | 91.4% Hindu; 7.1% Muslim; 1.5% Christian |
| Median age of the women (Range) | 24yrs (16-40yrs) |
| Caste | 18% SC, 6.4% ST, 43.4% OBC, 32.2% Others |
| Education | No formal education: 14.9%<br>Upto 5th Grade: 24.5%<br>Above 10th Grade: 6.7% |
| Notification status of the slum of residence | Non-notified: 80% |
| Duration of residence in the slum (Range) | Median=36 months |
| Type of house | 18.6% Pucca, 70.8% semi-pucca |
| HHs with mobile phone | 89% |
| Access to piped drinking water | 86.7% |
| Access to flush toilet facility | 37.8% |
| HH with electricity | 95.4% |
| Distance to nearest Public Health Facility (walking) (n=331) | 94.2%: < 30 mins<br>Median: 15mins |

*Contact with Frontline workers (FLWs; ANM/ASHA/AWW/ Link Worker/ etc):* Majority of the RDWs (15.2%) had not been visited by any FLW at home in the last 6 months prior to the survey. Only 3.6% (N=21) of the RDWs (N=592) reported that they had ever attended an outreach health session in their slums. One-third (N=7) of the sessions reported had been organized by AWWs followed by *Mahila Arogya Samiti* (MAS) members (N= 5).

*Support System for MNH Care:* There seems to be dotted lines of a system established for providing support and facilitating maternal and newborn care among the urban poor of Bhubaneswar. While Self Help Groups (SHGs) members across slums reported to be engaged in providing economic support to its members and slum-dwellers in case of emergency, *Mahila Aarogya Samiti (MAS), and Ward Kalyan Samiti (WKS)* reported to focus more on ensuring sanitation in the slum and enrolment of children in the school. MAS and WKS members also reported to provide support in mobilizing communities to visit AWCs to avail services, and collectively keep a check on services provided at the AWCs. The FLWs however reported lack of concrete support by these groups, "*they have never provided us any kind of equipment or even the first aid box*", said ANMs. Also, not all MAS were active (e.g., in Jokalandi, a MAS had been constituted but some paper work was pending and the bank account was yet to be activated). Overall, it was realized that the MAS, WKS & SHGs were under-utilized in facilitating MNH care in the slums.

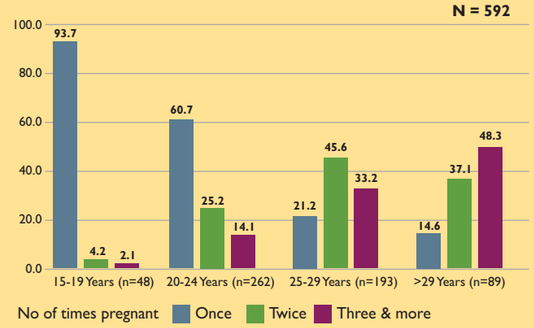
*Decision-making power (Source: FGDs with Husbands and MILs):* Husbands in case of nuclear family, and Mother-in-Laws (MILs) in joint or extended families were the key decision-makers with reference to maternal and newborn health. In both the cases, ASHAs appeared to have a major influence on decisions taken. While in nuclear families, the husband would usually consult with the wife and parents, MILs were more likely to be influenced by members of MAS and SHGs.

*Source of Information on Maternal & Child Health Services:* Interpersonal communication was considered most effective. A vast majority of respondents had also received MNH information from FLWs (commonly AWWs). Television and radio were also cited as common sources.

Of the 592 RDWs, 43.6% had been pregnant for the first time. Pregnancy at a young age was commonly seen with 6.3% RDW in the teenage years having already experienced more than one pregnancy (Fig. 3).

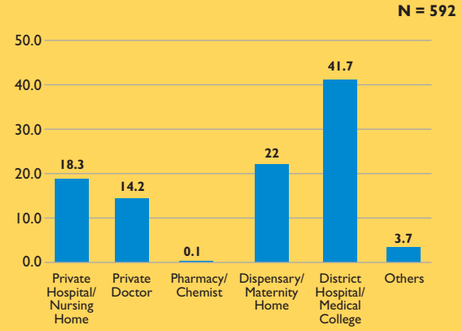


**Fig. 3: Number of times the RDWs in the study had been pregnant**



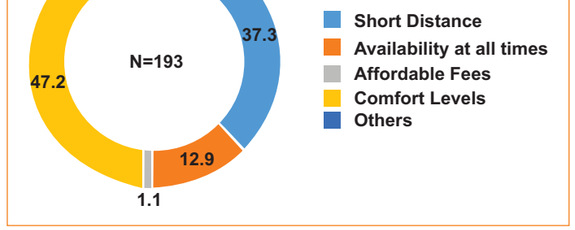

- By the age 24 years, over 39% RDWs have already had more than one pregnancy
- About 15% of the RDWs had first pregnancy beyond 29 year age

**Fig. 4: Preference among the RDWs regarding care seeking for pregnancy and delivery**




- About 42% of the RDWs prefer consulting at the District hospital for any pregnancy and delivery related condition.
- Almost 32.5 would seek care from a private doctor

**Fig. 5 : Reasons for Preference of Private over the Public facilities for MNH care**

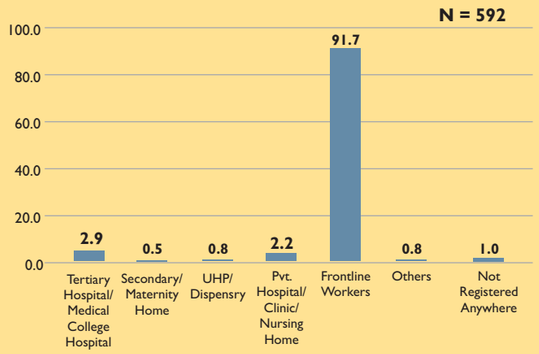



*Care Seeking for MNH (source: various FGDs and Quantitative Survey):* Care-seeking for MNH was mostly self-driven and conditioned by prevalent socio-behavioral beliefs and preferences (Fig. 4 and 5). In both notified and non-notified slums, the District Hospital (Capital Hospital) was the most preferred. However, husbands and mother-in-laws of RDWs across slums criticized it for the lack of infrastructure and services, apathy among nurses, lack of availability of beds, uncleanliness, long waiting time, and high out-of-pocket expenses (pathological and radiological tests, erratic availability of ambulances for transportation). MILs were found to be more critical and opined that treatment at Capital Hospital was dependent on personal references and contacts and to some extent on the presence of ASHA with the patient. Preference for private providers were seldom conditioned by distance and was more among RDWs with higher education level and residing in *pucca* houses (signifying relative affluence). Reliance on the RMPs was reported only for general ailments, and rarely for MNH related issues. The RMPs also reported to treat patients only for general illness and confirmed referring MNH cases to Capital hospital.

## *Antenatal Care Practices*

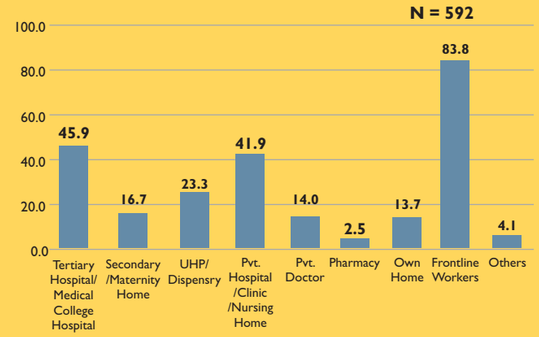
*Registration of Pregnancy:* Registration of pregnancy was near universal (99%), majority (96.1%) RDWs came to know about their pregnancy in the 1st trimester itself; 352 (59.5%) had registered their pregnancy in the 1st trimester (2.2% at private facilities; 92.9% by FLWs). Around 14.8% of the women got registered within same month when they came to know that they were pregnant, while 48.2% registered in the following month. Of the 6 RDWs who had not registered their last pregnancy, 5 of them were from non-notified slums, 4 of them had never received formal education, and all resided in semi-*pucca* houses. Though registration rates were reported high, ambiguity regarding the term 'registration' was observed. From people's perspective, the day ASHA wrote name of the pregnant woman in a register was considered as 'registration'. Besides procedural delays in registration, ASHAs reported to defer formal registration to be able to meet their monthly quota of registration. The delay reportedly helped ASHAs maintain an average number to be able to receive incentives towards registration and institutional deliveries. ASHAs also complained that pregnant women with two existing children tend to hide their pregnancies to be able to avail relevant government schemes and facilities.

**Fig. 6: Place of Registration of Last Pregnancy**




- Pregnancies were most frequently registered with the frontline workers (91.7%).

**Fig. 7: Type of Facility Visited for ANC Services**




- ANC services were commonly sought from FLWs (83.8%) and tertiary care public health facility (46%)
- RDWs accessed more than 1 facilities for ANC.

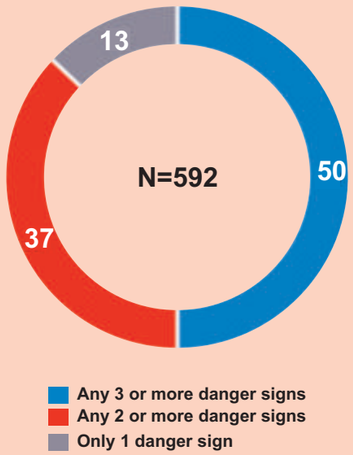
*Antenatal care (ANC) check-ups:* About 48% women received first ANC check-up in the 1st trimester; 99% had received at least one ANC by the end of the 2nd trimester. 70.7% had received at least 4 ANC check-ups.

*Role of FLWs:* About 90% RDWs reported that FLW (ASHA/ AWW/ ANM/ LW) had visited them at home during their last pregnancy. Of those who did, mean month of first visit was 4th month of pregnancy and an average of 3.9 times during the full course of pregnancy.

*Antenatal Counselling:* ANC counselling was mostly regarding place of delivery (71.8%) and early initiation of breast feeding (67.4%). About 37% had been counselled on maternal danger signs of which 65% had been informed on where to seek care for the same. Only 29% had received advice on neonatal danger signs of which about 72% had been counselled on where to go if any neonatal danger signs were found. Awareness among RDWs on danger signs in pregnancy has been depicted in Fig. 8.

Concerns regarding quality of ANC provided by the FLWs were also raised by the service providers at the public hospitals as they reported inadequacy in skills and trainings.

**Fig. 8: Awareness (%) of Danger Signs in Pregnancy among RDWs**

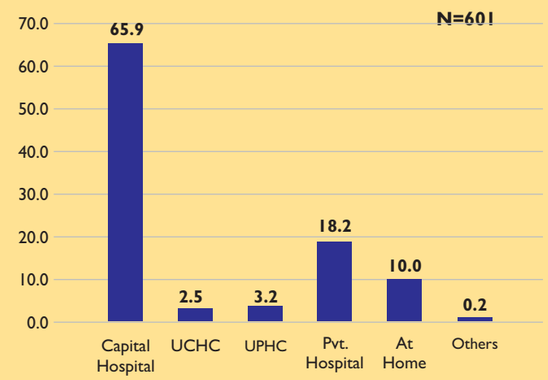



**Key Observations:**

1. **Registration of pregnancy was near universal (99%); however, there was time lag between woman knowing knowing about her pregnancy and her registration for ANC**
2. **FLWs were commonly involved in rendering ANC services**
3. **Quality of antenatal counselling and ANC services provided by the FLWs was questionable and danger signs (both maternal and neonatal) were usually ignored**

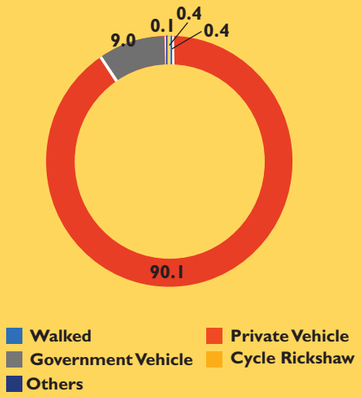


**Fig. 9: Place of Delivery**




- The population reported 90% institutional delivery rate.
- Home deliveries were majorly due to delay in identification of labor and miscalculation of Expected Date of Delivery; 17% of RDWs <20 years age had delivered at home
- About 92% of the home deliveries had skilled attendance
- 23% deliveries were Cesarean section (~Govt: 19%, Pvt: 40%); 64.5% of these conducted in Govt. facilities
- Retention rates from ANC to delivery for Private set ups was 76.9%.

**Fig. 10: Mode of Travel to Facility for Delivery (N=533)**




- Most (90.1%) of the RDWs had reached the institution for delivery using a private vehicle.
- 9% had used government ambulance services.
- Transportation for delivery was considered as a major out-of-pocket expenditure *(Source: FGD with beneficiaries)*
- Beneficiaries were frequently advised to arrange transportation on their own *(Source: FGD with ASHA)*

## *Delivery and Immediate Newborn Care*

*Out-of-Pocket expenses (Source: FGD with MILs and Husbands)*: The respondents spent about INR 4000-5000 on transportation and pathological tests in case of institutional deliveries at public facility. They reported that all other expenses were covered under various government schemes and entitlements. In private facilities, about INR 6000-8000 would be spent for normal delivery and up to INR 15000-20000 for caesarean deliveries.

*"We do not get money at that time and get it after months."*

*"I called the ambulance and they gave me the number of the control room. I rang to the control room and got reply that there was no ambulance and it would be late by half an hour. I waited, but it didn't come within half an hour. So, I was bound to hire a vehicle to go to hospital and that too, after much delay"*

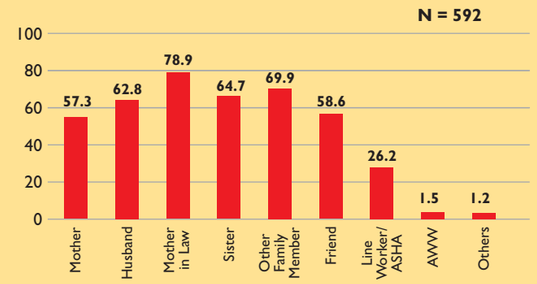
**- Husband of RDW**

*Access to Program Entitlements:* Dissonances were reported across groups in slums with respect to incentives and benefits provided under various government schemes such as JSSY, JSSK etc. Though many respondents reported to have received money in instalments, majority complained delay and difficulty in receiving it due to complex paper work, need to produce proof of identity and place of residence (especially for immigrants), and frequent transfers of appropriate approving authority.

Most beneficiaries reported having received food supplements such as egg, *sattu*, etc from the Anganwadi Centre (AWC) during ante-natal period. Unavailability of ambulance during delivery appeared to be one of the key disappointments among beneficiaries as it added considerably to their out-of-pocket expenses.

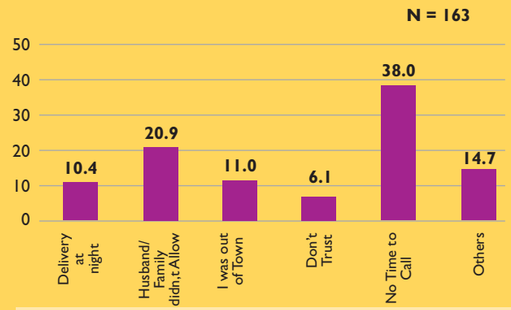
Respondents also reported inability to utilize cash benefits towards unforeseen caesarean deliveries and complicated cases due to delay in payments. In view of this, many respondents reported to save cash as a birth preparedness measure to be able to bear the cost of transportation and other medicines and supplies.

**Fig. 11: Person accompanying at the Time of Delivery**




- Several family members and acquaintances accompanied the RDWs at the time of delivery, the mother being the most frequent accompaniment
- Only 28% of the RDWs said that they had a frontline worker (ASHA/ AWW or a link worker from some NGO) alongside at the time of delivery to take care of the newborn

**Fig. 12: Reason for not seeking FLW escort during Labor**




- About 27.5% of the RDWs did not contact the FLW for escorting during labor.
- Among those who did not contact the FLW, 38% said that they did not have the time to call and 21% said that their husband/ family did not allow them to call.
- Of 592 RDWs, 28% said that the FLW did not inform them that they should call them for accompaniment for delivery

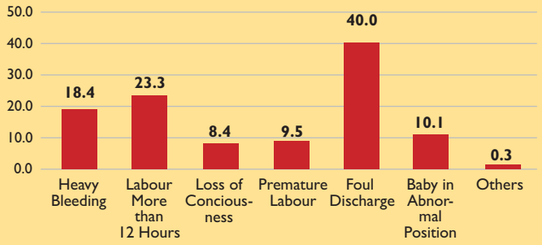
*Immediate Newborn Care:* The newborn was placed on the bare skin of the mother or someone else in 11.8% of the deliveries.

*Recording of the Birth Weight:* 91.9%newborns were weighed at birth. About 9.6% (N=544) were of low birth weight (LBW; <2.5 kg)*[13% from birth documents as available e.g., mother's card (N=223), 7.2% from recall by RDWs (N=321)]*. Incidence of LBW babies in RDWs from notified slums was 7.8% and from non-notified slums was 9.9%.

*Breast feeding:* Almost all (98.3%) the RDWs had ever breastfed their newborns (N=592). 92.4% had initiated breast feeding on Day 1 and 42.9% within the critical first hour after birth (early initiation) (N=574). 91.1% of the RDWs said that they had fed their first milk to the newborn.

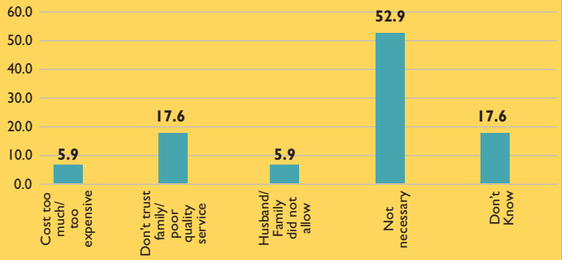
*Cord care:* Recall rates were poor when the RDWs were asked whether a new blade was used to cut the cord or not (73.3% RDWs could not recall), and whether anything was applied on the cord after cutting (23.8% suggested that something was applied— most commonly an ointment; 40.4% were unaware). About 53% said that they had applied something on the cord until it fell off (45.9% of these had applied ointment and 24.2% had applied oil).

**Fig. 13: Complications Experienced during Delivery (N=592)**




- About 64.8% (N=384) of the RDWs reported having experienced some complication during delivery with 25.8% reporting more than one complication.
- Foul vaginal discharge was reported as a frequent complication (40%) followed by labor lasting beyond 12 hours.

**Fig. 14: Reasons Cited by RDW for not going to the Referred Place for Complications during Delivery (N=17)**




- 29 (7.6%) of 384 RDWs with complications at delivery had received referral advice of which 17 did not comply.
- 53% felt that it was not necessary to follow the referral advice. Only 6% respondents mentioned costs as the cause.
- Distance to referred facility and lack of transportation did not emerge as important reasons.



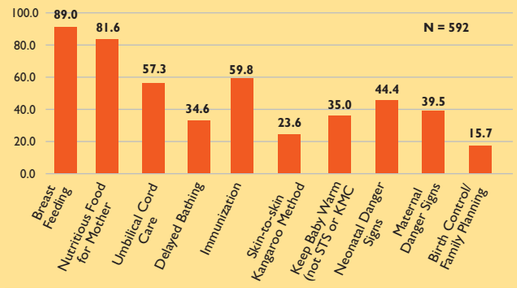
**Key Observations:**

1. **90% of the deliveries were Institutional. The remaining 10% mostly had skilled attendance at birth**
2. **Majority of the deliveries were being conducted at Capital Hospital and BMC Hospital with 20% in private health facilities**
3. **FLWs had accompanied RDWs for delivery care in 26.2% instances**
4. **Compliance to referral advice for delivery complications was poor**
5. **43% babies initiated breast feeding within 1 hour, 12% given skin-to-skin care immediately after delivery**

## *Post Natal Care (PNC)*

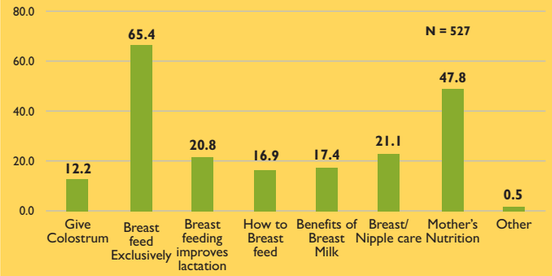
*Duration of stay in the health facility:* Of 533 institutional deliveries, 76.6% had stayed at the facility for at least 24 hours (70.4% for normal vaginal deliveries, 96.8% for caesarean deliveries). 3.4% had left the facility within 6 hours of delivery.

**Fig. 15: Components of Pre-discharge Counselling**




- 93.2% of the RDWs had received pre-discharge counselling (for home deliveries, advice given by FLW before she left the beneficiaries home post-delivery).
- Counselling was less frequently provided on family planning.

**Fig. 16: Components of Pre-discharge Counselling on Breast Feeding**




- Breastfeeding counselling included advice on exclusive breastfeeding in 65.4% cases.
- Only 16.9% had been educated on how to breastfeed and 12.2% had been told about need to feed the colostrum to the baby

*Pre-discharge check-up:* Among institutional deliveries (N=533), 72% of the RDWs and 79.7% newborns had received physical check-up before discharge, commonly by the doctor (in more than 90% cases).

**Fig. 17: Profile of Post-natal care for Mother**

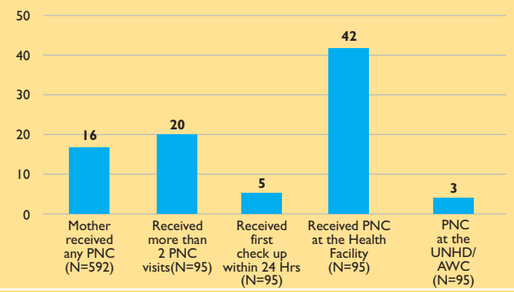



**Fig. 18: Profile of Post-natal care for Newborn**

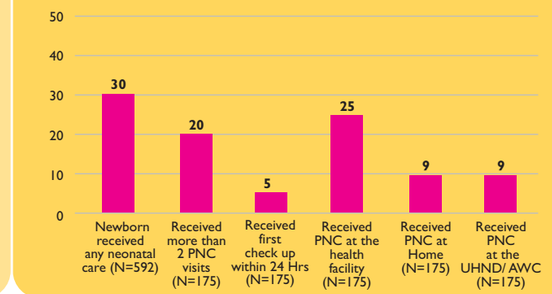



**Fig. 19: Components of Post-natal care for Mother**

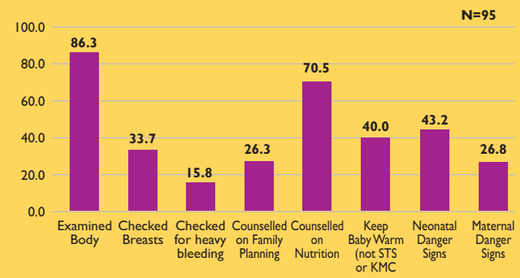
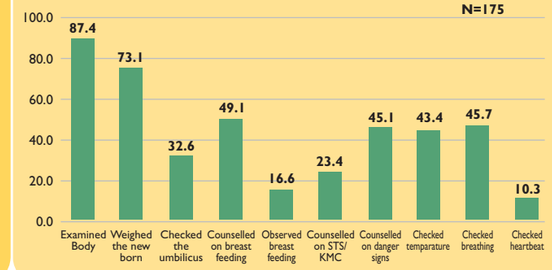



**Fig. 20: Components of Post-natal care for Newborn**



*Check up after discharge from the facility:* *Only* 16% of the RDWs and 30% of newborns had received post-natal health check-up after discharge (mostly at health facilities with negligible PNC at community/

**Key Observations:**

1. **Pre-discharge counselling was reported by 92.3% RDWs of which only 65.4% reported that they had been counselled on Exclusive Breastfeeding**
2. **Care was mostly centered around delivery – PNC was frequently overlooked**
3. **Only 16% of the RDWs and 30% of the newborns had received post-natal check up**

**Fig. 21: Awareness of Newborn Danger Symptoms among RDWs**

- Of 592 RDWs, 98.3% could mention of at least one danger sign in the newborn without probing
- Fever was the most frequently reported neo-natal danger symptom (87.7%)

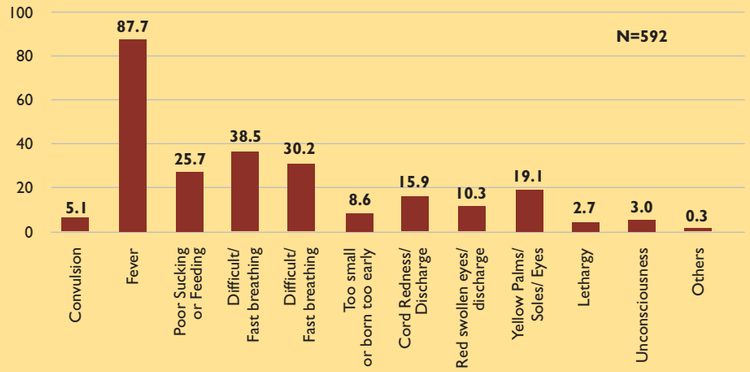



**Fig. 22: Symptoms in Sick Newborns as reported by RDWs**

- 25.3% of the RDWs reported that their newborn had at least one danger sign in the first month of life.
- Fever and poor suckling/ feeding were the most frequently reported.

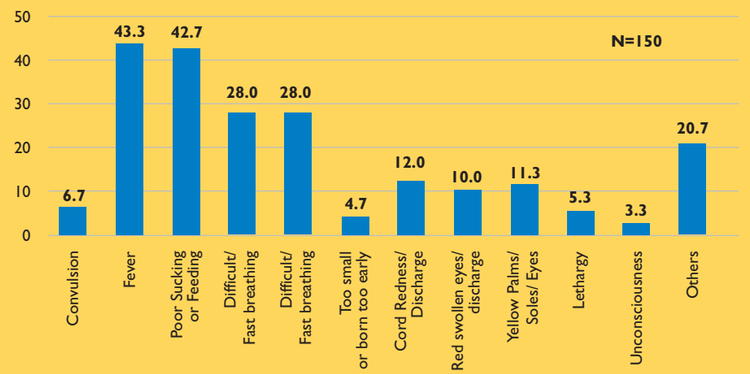
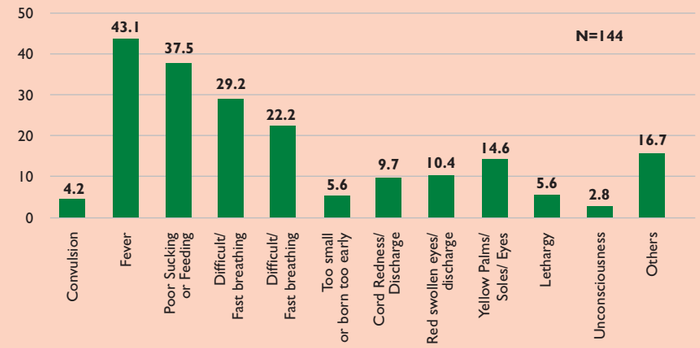





**Fig. 23: Profile of sick newborn who sought care**




Care had been sought for 96% of sick neonatal (Fig. 23). Newborns of three of the 592 RDWs were dead – one delivered at home and died on Day 1, 1 delivered in public facility and died on Day 2, and 1 delivered in a private hospital and died on Day 15 in a public facility.

*Care of the LBW newborn:* 8.3% of RDWs perceived that their baby was born smaller than average (n=41)/ very small (n=8). Of those who reported that their baby was very small (n=8), all reported that they had provided extra care to their baby viz., frequent breast feeding and skin-to-skin care (n=7) and newborn health check-up at a health facility (n=3); 2 had been visited at home by FLW.

## *Facility Survey (Source : FGDs and IDIs facility assessments)*

### URBAN PRIMARY HEALTH CENTRES (UPHCs)

*Constraints of Space:* Most PHCs operated in rented government residential quarters and lacked architectural suitability and space for patient care. Inconvenience and lack of privacy dissuaded clients.

*Unavailability of Specialists:* Specialists were either not posted or were not regularly available. Those available were limited in efficiency due to inadequacies in infrastructure, instruments and devices. Doctors had to see patients beyond their area of specialization.

*Issues Related to Human Resource Management:* Frequent transfers of Medical Officers reportedly hampered day-to-day management and created an image of service inconsistency among communities. Role rationalization, clarity on reporting lines, accountability frameworks and confidence in MNH care were lacking among PHC staff. The pharmacist was the one in all— clerical staff, managerial staff and data manager. IT personnel/data entry operators were not posted despite availability of computers. NHM officials highlighted shortage of staff nurses at PHCs.

> *"Earlier people used to complain that they had to wait outside and there were no chairs or benches. We have recently bought some but need more space"*
>
> *"The BP instrument and water filter are my own", said a service provider."*
>
> -Medical Officers at the PHCs

*High Referral Rates for Sick Newborns:* Care seekers were often referred to the Capital Hospital, adding to their out-of-pocket expenses and dissatisfaction.

*Unavailability of Essential Drugs and Consumables:* NHM officials expressed challenges with supply chains as Bhubaneswar was undergoing transition of drug management authority from the State Drug Management Unit to Odisha State Medical Corporation. Providers at the PHCs also reported inconsistency in supply of consumables such as needles and reagents, and laboratory instruments (urine pregnancy test, hemoglobinometry, blood tests, etc).

### URBAN COMMUNITY HEALTH CENTRE (CHCs)

A total of 4 CHCS have been planned to be set-up in the city. Two centres namely the BMC Hospital and the Unit 4 facility were upgraded in 2013-2014 as CHCs. Lack of space and shortage of beds was noted. Unit 4 had only 7 beds for IPD, while only 20 beds had been allocated in BMC's Maternity Ward. Stretcher and wheel chairs were not available in maternity ward. The BMC Hospital did not have Special Newborn Care Units (SNCU). Also, issues regarding ventilation, lighting etc were observed in PNC ward at BMC. The service providers also reported lack of necessary equipment and instruments to be able to provide MNH services. Inadequacy of critical personnel manpower including doctors, specialists, staff nurses made CHCs unattractive to avail MNH services. Lack of essential drugs and consumables was reported. Medicines were insufficient for the client load.