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.

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 Plan prioritizing 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
1.0 Background

The urban population in Indian cities is rapidly expanding (25.1% decadal growth – Census 2011). This urban poor population offers complex challenges of vulnerability for adverse maternal and newborn health (MNH) outcomes. Public health care provisioning for MNH in urban slums is mostly unstructured, fragile and with almost non-existent outreach. 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. This is compounded by socio-behavioral, spatial and economic inequities that define the context of disempowerment and constraint for this population. 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). The lack of formative information and disaggregated data impedes efficient urban health policy-making and programming.

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. I) 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.

3.0 Methodology

3.1 Sampling

Sampling for household assessment: 15 UPHCs, 2 UCHCs (BMC Hospital, Unit 4 Hospital), and district level (Capital Hospital) were assessed.

3.2 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 socio-demographic maps were studied in detail to understand the distribution of community resources and socio-demographic distribution of the residing population.

3.3 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; 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 Arogya 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.

**Table 1: Profile of the Households (HH) (N=592)**

<table>
<thead>
<tr>
<th>Religion</th>
<th>Participants and their HH (N=592)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hindu</td>
<td>91.4%</td>
</tr>
<tr>
<td>Muslim</td>
<td>7.1%</td>
</tr>
<tr>
<td>Christian</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median age of the women (Ranges)</th>
<th>24yrs (16-40yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cause</td>
<td>18% SC, 6.4% ST, 43.4% OBC, 32.2% Others</td>
</tr>
</tbody>
</table>

Access to flush toilet facility

| Access to piped drinking water | 86.7% |
| Access to flush toilet facility | 37.8% |
| HH with electricity             | 95.4% |

**Notification status of the slum of residence**

<table>
<thead>
<tr>
<th>Distance to nearest Public Health Facility (walking) (n=331)</th>
</tr>
</thead>
<tbody>
<tr>
<td>94.2% &lt; 30 mins Medan: 15 mins</td>
</tr>
</tbody>
</table>

**Duration of residence in the slum (Ranges)**

<table>
<thead>
<tr>
<th>Median/6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.6% in pucca, 70.8% semi- pucca</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of house</th>
<th>HHS with mobile phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.6% in pucca, 70.8% semi- pucca</td>
<td></td>
</tr>
</tbody>
</table>

| HHs with mobile phone | 89% |

**Husbands in case of nuclear family, and Mother-in-law (MIL) of RDWs across slums**

| 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 to 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.
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 visits 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.

Key Observations:
1. Registration of pregnancy was near universal (99%); however, there was a 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

Antenatal Counselling:

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

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.

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 birh preparedness measure to be able to bear the cost of transportation and other medicines and supplies.
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% of newborns were weighed at birth. About 9.6% (N=544) were of low birth weight (LBW; <2.5 kg); 1.3% 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%. Among institutional deliveries (N=533), 72% of the RDWs and 79.7% newborns experienced some complication during delivery with 25.8% reporting more than one complication. 40% of these had applied cord or not (73.3% RDWs could not recall), and whether anything was applied on the cord after cutting (N=574). 91.1% of the RDWs said that they had fed their first milk to the newborn.

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). 11.8% of the deliveries.

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—mostly common 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).

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).

Post Nal 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.

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

Fig. 11: Person accompanying at the Time of Delivery

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

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

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

Fig. 15: Components of Pre-discharge Counselling (N=592)

Fig. 16: Components of Pre-discharge Counselling on Breastfeeding (N=592)

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

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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.
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/urban PHCs).

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

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%) and 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.

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.

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 PRIMARY HEALTH CENTRES (UPHCs)

A total of 3 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.