Because Every Woman and Child Counts.

Scaling up maternity referral systems in three cities of Maharashtra, India, to promote access to quality health services for poor urban communities.

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Society for Nutrition, Education and Health Action
Background

Society for Nutrition, Education and Health Action (SNEHA, Mumbai, India) works in partnership with public health system to impact quality of care and influence urban health policies...

We work with vulnerable pregnant mothers and newborns living in the informal urban settlements to influence their health seeking behavior...
Urbanization in India is increasing at very high pace... 

Maharashtra state has the highest number of people in India living in urban slums.

Mumbai, the capital of Maharashtra records the highest number of slums among metros.

3 cities adjacent (Kalyan, Thane & Bhayander) to Mumbai are dependent on Mumbai Municipal System for their high risk maternity referral cases.
Establishing maternity referral system in public health facilities...
Rationale for establishing maternity referral system...

Maternal Mortality Rate (MMR) is a great concern.

MMR depends on the availability and accessibility of Emergency Obstetric Care (EmOC) services 24 X 7 uniformly distributed through the day and strong maternity referral system.
Maternal Health Beyond Boundaries: Establishing Maternity Referral Linkages between Health Facilities

Level III: TH (3)
Level II: GH (10)
Level I: MH (28)
Level 0: HP (187)

Level III: TH (Nil)
Level II: GH (2)
Level I: MH (Nil)
Level 0: HP (12)

Level III: TH (1)
Level II: GH (Nil)
Level I: MH (5)
Level 0: HP (25)

Level III: TH (Nil)
Level II: GH (1 unit GH)
Level I: MH (Nil)
Level 0: HP (8)

- Facility not available

Bhayander
Thane
Kalyan
Conceptual framework for scaling up maternity referral system

Underlying issues
- Lack of coordination in multi-tier municipal health system
- Suboptimal resources utilization
- Lack of capacity building of providers
- Lack of standardization, implementation, M&E and Feedback mechanism

Processes
- SNEHA Facilitation
- Scale up in 3 municipal corp
- Theory of Change
- Evidence building
- Demand gen by 3 mun corp
- Providers
- Decision makers
- Communication, Decision making, Standardization, Contextualization, Training, M&E and Feedback
- Evidence building, Credibility, Supportive supervision

Outcomes
- Improved maternity referral processes
- Established maternity referral system
- 1. Scaling up maternity referral system.
- 2. Evidence for contextualization of model in diverse resource constrained public health system.
Standardization of maternity referral systems and processes

2004-2010
- Need assessment of maternity referral services
- Participatory consultation with Mumbai health system
- Action Group & Review committee formation
- Developing and endorsing protocols
- Designing ref doc & M&E framework for evidence building
- Drawing up referral linkages
- Training to implement protocol and ref doc
- Piloting & Implementing referral model in 9 health facilities

2011-13
- Contextualization of referral protocol in entire Mumbai facilities (28 facilities)
- Contextualization of referral protocol in 3 municipal corporations adjacent to Mumbai
- Consolidating referral system model
- Scaling up referral model in entire Mumbai health facilities
- Continuous M&E and Feedback through regular ref meeting, submitting report based on evidence

2013-15
- Strengthening existing health Services
- Availability of 24x7 EmOC
- Accessibility of support hospitals
- Scaling up referral model in 3 municipal corporations
- Regular dissemination to Decision makers and stakeholders
- Continuous M&E, Feedback & supportive supervision for sustainability

M&E and Feedback
Example of Regional Referral System: Total 11 Linkages so far...

- **Level I**
  - MH 1
  - MH 2
  - MH 3
  - MH 4
  - MH 5

- **Level II**
  - GH 1 (Small GH)
  - GH 3 (Big GH)
  - GH 2 (Small GH)

- **Level III**
  - TH 1
SNEHA Maternity Referral Model – Currently Being Studied by WHO through Mixed Method Approach

- **Theory of Change**
- **Provider Participation**
- **Referral Linkages**
- **Customization of Clinical Protocol**
- **Obtaining buy-in from Administrative authorities**
- **Evidence Building**
Recommendation for effective scale up of model in public health system

- Adherence to referral protocols
- Contextualization
- Developing inter facility communication & accountability through ownership within public health systems
- Strengthening the existing health services
- Addressing availability of 24X7 EmOC
- Accessibility of support hospitals for high risk referrals
- Continued monitoring, evaluation and Feedback to Providers and Decision Makers
Impact of Maternity Referral System...

**Evidence Building**
- **87%** complete referral documentation in 4 municipal corporations at L-I & L-II health facilities

**Referral streamlining**
- **35%** increase in the utilization of referral linkages
- **76%** of high-risk referrals complied with protocols.
  (Mid-term evaluation)

**Potential to touch the lives of**
- Approximately **1,00,000** pregnant women with normal conditions and **22,111** with high risk or emergency conditions have been touched by SNEHA’s engagement with the systems (2013-15)

Source: SNEHA MIS
Thanks
• Back up slides
Why Are Maternity Referral Systems Needed?

Increasing demands for healthcare created by ever-growing population of Mumbai

Potential to streamline healthcare utilization through appropriate communication and coordination between higher and lower facilities

Multi-tier public health infrastructure offering varied levels of services

Over- and under-utilization of public health facilities at various levels
Appropriate and timely referral saves two lives...

- Rajani, a slum resident, suffered from Malaria* in her 8th month of pregnancy.
  - Hemoglobin level - 8.3 gms%, white blood cells – 3600/ C mm and the platelet count - 47000 c mm.
  - Approached Maternity Home (L-I), the doctor immediately referred her to secondary hospital (L-II) - appropriate documentation, communication and as per the protocols.
  - Treated for Malaria, was given platelets and was asked to come for delivery. L-I was communicated about her progress.
  - Delivered a full term female child with 2750 gms in secondary hospital (L-II).

* Malaria is a common cause of maternal mortality
Strengthening the existing health services in the 3 corporations

Indicator: Utilization of beds in public health facilities

Expected no. of women utilizing beds = 5377

Mar - May, 2014

Oct - Dec, 2014

Total Beds in 3 MCs = 239

Actual (N)
Availability of comprehensive emergency obstetric services (EmOC) 24x7 with uniform distribution

Indicator: Timing of conducting Caesarian

<table>
<thead>
<tr>
<th>Facility</th>
<th>Oct - Dec, 2014 (n)</th>
<th>8.00am - 2.00pm (6hrs)</th>
<th>2.00pm - 8.00am (18 hrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMC</td>
<td>485</td>
<td>392 (81%)</td>
<td>93 (19%)</td>
</tr>
<tr>
<td>KDMC</td>
<td>320</td>
<td>288 (90%)</td>
<td>32 (10%)</td>
</tr>
<tr>
<td>MBMC</td>
<td>37</td>
<td>35 (95%)</td>
<td>2 (5%)</td>
</tr>
</tbody>
</table>
Accessibility: Support hospitals used by each municipal corporation

Indicator: Inter-corporation regional referral linkage

KDMC+Kalwa hospital (TMC) first referral meeting was held on **21st Nov, 2014**

- **% of referred to Sion**
  - Before referral link (22nd Nov, 2013 to 20th Jan, 2014): 70%
  - After referral link (22nd Nov, 2014 to 20th Jan, 2015): 67%
- **% of referred to Kalwa**
  - Before referral link: 3%
  - After referral link: 13%
- **% of referred to others (Sion/Kalwa/KEM etc.)**
  - Before referral link: 22%
  - After referral link: 45%
- **% of referred to not mentioned**
  - Before referral link: 5%
  - After referral link: 5%

**Period:**
- Before referral link: 22nd Nov, 2013 to 20th Jan, 2014 (60 days)
- After referral link: 22nd Nov, 2014 to 20th Jan, 2015 (60 days)

**n:**
- Before referral link: 236
- After referral link: 180