

# Peer networking to improve knowledge of child health and immunization services among recently relocated mothers in slums of Dhaka, Bangladesh

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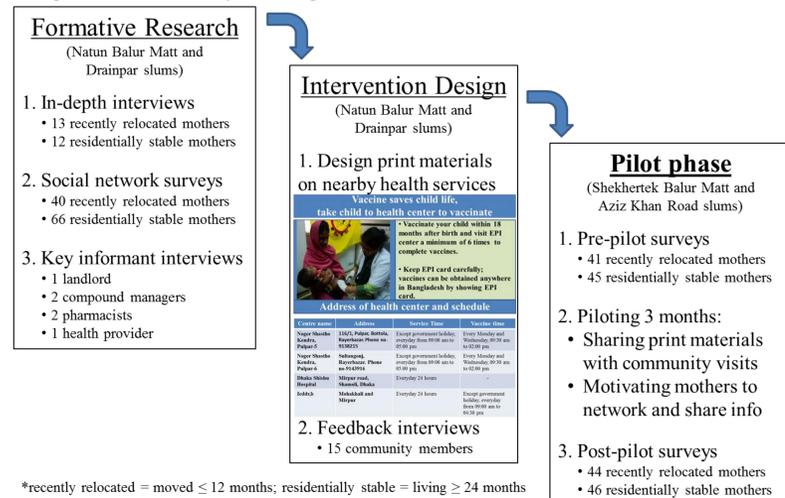
## BACKGROUND

- Over 1 billion people live in slums globally
- Child immunization in Bangladesh:
  - 82% nationally, 75% in Dhaka, but 43-67% in slums
  - Most people live <1 kilometer from health services
- Lack of knowledge about available services leads to less healthcare use, especially among recent migrants

## METHODS

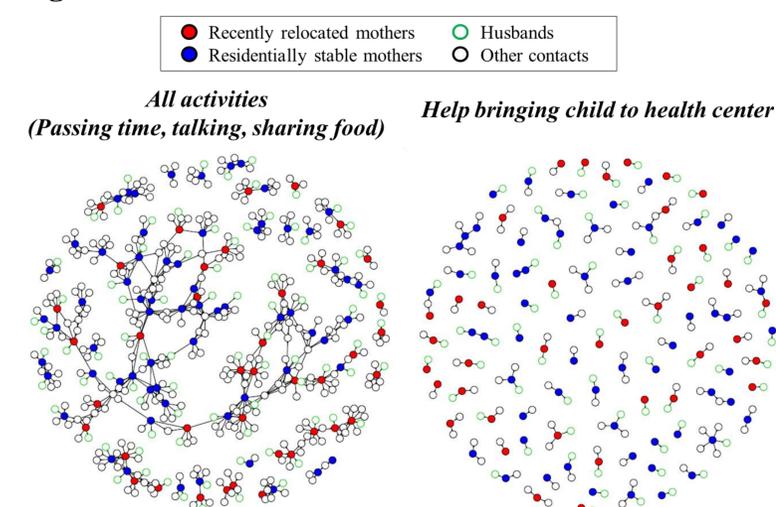
- Develop and test **peer networking intervention** in slums
  - Share print materials about nearby health services
  - Motivate mothers to network and share information

Figure 1: Study design



## RESULTS

Figure 2: Social networks of mothers

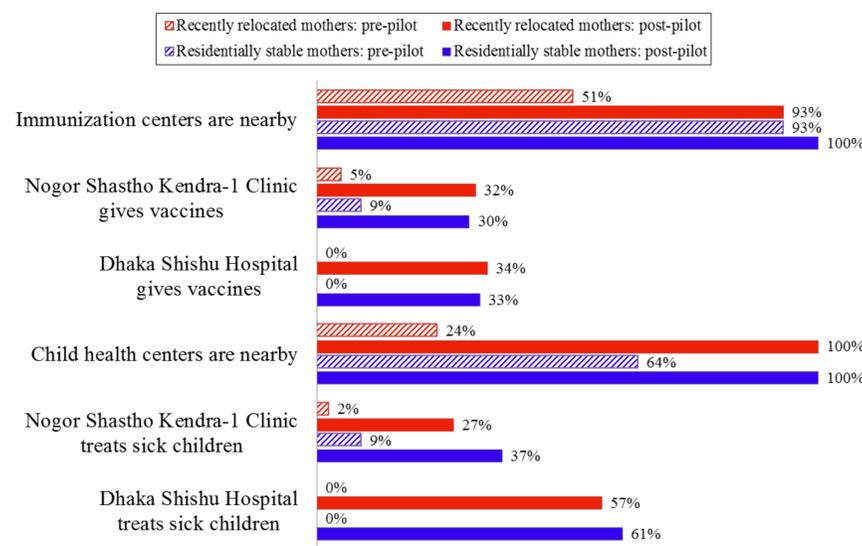


- Broader networks for routine daily activities, but limited contacts for health-related activities

## Results continued

- Barrier to healthcare use was *lack of accurate information* about locations, schedules, and services
- Mothers had multiple social contacts for information
- Mothers often relied on fathers to help with child health care, finances, and decisions
- High migration in intervention areas over three months: 21-28% out-migration and 25-44% in-migration

Figure 3: Knowledge about nearby health services



- Low literacy rates: 35% of recently relocated and 26% of residentially stable mothers had never gone to school
- Knowledge increased among mothers regarding:
  - Immunization centers
  - Child health centers providing acute care
  - Dhaka Shishu Hospital
    - Largest children's hospital in Bangladesh
    - Located within 3 kilometers of intervention areas
- Child vaccination increased among recently relocated households
- Visits to acute health services also increased, but mostly to local pharmacies

Table 1: Sources of information about health services

|                            | Recently relocated mothers |            | Residentially stable mothers |            |
|----------------------------|----------------------------|------------|------------------------------|------------|
|                            | Pre-pilot                  | Post-pilot | Pre-pilot                    | Post-pilot |
| <b>Vaccinations</b>        | (n=14)                     | (n=19)     | (n=14)                       | (n=14)     |
| Health worker              | 36%                        | 90%        | 36%                          | 93%        |
| Family                     | 14%                        | 47%        | 21%                          | 21%        |
| <b>Another mother</b>      | <b>36%</b>                 | <b>84%</b> | <b>7%</b>                    | <b>64%</b> |
| Neighbor                   | 43%                        | 32%        | 57%                          | 29%        |
| Landlord/manager           | 0%                         | 11%        | 14%                          | 7%         |
| <b>Acute care services</b> | (n=27)                     | (n=27)     | (n=35)                       | (n=30)     |
| Health worker              | 4%                         | 26%        | 6%                           | 7%         |
| Family                     | 52%                        | 82%        | 57%                          | 73%        |
| <b>Another mother</b>      | <b>7%</b>                  | <b>30%</b> | <b>9%</b>                    | <b>37%</b> |
| Neighbor                   | 26%                        | 48%        | 37%                          | 43%        |
| Landlord/manager           | 4%                         | 4%         | 6%                           | 13%        |

- Family, other mothers, and neighbors often shared vaccination and acute care information
- Communication increased among all mothers, especially for recently relocated mothers

## CONCLUSION

- Peer networking can improve knowledge about child health and immunization services among recently relocated mothers living in Dhaka slums
- Future research areas: find key communicators in social networks, sustain knowledge transfer between mothers, transform knowledge into health-seeking behavior

## References

- United Nations (UN). *World Urbanization Prospects* (2014).
- UN. *State of world population: Unleashing the potential of urban growth* (2007).
- Government of Bangladesh. *National Immunization Policy* (2014).
- Uddin MJ *et al. Health Policy & Planning* **25**:50-60 (2010).
- Perry H *et al. Bulletin of the World Health Organization* **76** (6):565-573 (1998).
- Fowler MG *et al. Pediatrics* **91**:934-940 (1993).
- Jelleyman T & Spencer N. *J of Epi. & Comm. Health* **62**:584-592 (2008).

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