Building an Investment Case for Slum Upgrading and Health-Promoting Urban Environments

December 13, 2017
Forum on Microbial Threats
Urbanization and Slums: New Transmission Pathways to Infectious Diseases in the Built Environment
National Academies of Sciences, Washington D.C.

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Urban Health Resource Centre, India
• There are costs of not addressing infectious disease transmission in slums expeditiously
• Investing in infection prevention in slums critical
• Approaches/methods that could help mitigate infectious disease outbreaks in slums/informal settlements:
  - Qualitative action focussed risk assessment tool (building on UHRC’s slum vulnerability assessments in several cities, adaptation of WHO’s Urban HEART) can propel and persevere with action e.g. encourage households to build low-cost latrines, wash hands with soap and water.
  - Gentle Demand-side Negotiation through community petitions/requests for services e.g. water from capable slum community/women’s groups to Municipal Corporations, elected Ward Councillors.
  - Women’s empowerment through slum women’s groups and their social efforts
  - Children -youth groups emerge as the next generation of change agents
  - Slum-level Collective Social Needs Savings and Loans (Revolving fund of NUHM)
  - Enhance access to Govt. Voter ID as the political strength and also proof of address.
  - Spatial mapping, listing of all listed, unlisted slums
  - Disaggregating urban data is crucial to understand the real situation in slums
• Multi-stakeholder integrated approach to build non-perishable competencies among slum residents
• Glimpses of improvement across different sectors
Challenges of NUHM’s main target segment

Children on a temporary "bridge" across a drain - Jakarta

Competing for water

Sense of resignation

An iron-smith’s daughter on Kolkata pavement

Washing utensils on railway track - Kolkata

Rolling incense sticks to support family income - Indore
Physical Living Environment of the City’s Non-smart section

- Slum at the edge of large drain – risk of floods
- Wading through a large drain for daily transit - Indore
- Water enters low-plinth house after heavy rain: climate change
- Child filling water - Delhi
- Community toilet - pig; hard to keep clean
- Rehabilitation
Low Access to Services Despite Contributing Cheap Labour towards GDP

- The urban disadvantaged, including women contribute cheap labour towards GDP
- Construction site workers, labourers
- Brick kiln, Traditional Wanderers e.g. potters, iron smiths, other circular migrants
- Difficulties in accessing education, social-opportunities, and services in city: restrictions on freedom of movement; weak social-networks; little awareness of opportunities, services.
- Child-bearing migrant-girls faced particular risks.
Why is infection prevention in slums critical

- Current costs of not addressing infectious disease transmission in slums:
  - Less healthy and less nourished informal sector work-force
  - Pathogens thrive in sub-optimal neighbourhoods, so we need more healthcare expenditure

- Investing in infection prevention in slums critical:
  - Urban component of GDP is growing faster than the rural contribution in most developing countries
  - Health and social wellbeing inequalities harm the entire city or urban areas
  - Urban populations and slum/informal settlement populations are growing rapidly
  - Investing in slums is critical despite there being many unknowns hence “risky” for research and time bound funding
Infectious disease mitigation method #1

Qualitative Assessments on Adapted Urban HEART Indicators by women’s groups representatives

Basti women discuss, assess slums on qualitative indicators and denote situation with Red, Yellow, Green dots.
Infectious disease mitigation method # 2

Gentle Negotiation through Community Requests

Written requests to officers of Municipal Authorities, Nutrition Dept, Electricity Dept.

Inclusive Smart Cities require deprived communities to actively participate in governance: maintain paper trail, persevere with tact (including tea + biscuits, polite thank you) towards achieving “Right to the City”, use of Govt. allocation.
Infectious disease mitigation method # 3

Women’s empowerment enhances caring capacity of woman, family, lends social support

- Promote savings, girls education, help repay moneylender debt
- Community women’s groups contribute to a positive gender equation at family and society levels, provide social support to needy families
- Women’s access to resources and greater capacity to take timely care of themselves, children, and family helps the family and community
- In a patriarchal society, women’s groups help in increasing women’s autonomy in decisions on healthcare, children’s (including girls’) education, associated expenditure and promote savings.
- Prevent early marriages of girls in a society where some families considering girls unsafe and marry them early*
- Reduce number of alcohol vending, gambling joints

*In poorest urban quartile in India, 26% women age 20-24 were mothers/pregnant <18 years age, against 3% in richest urban quartile during 2005-06 (NFHS-3)
Infectious disease mitigation method # 4

Community revolving Fund for health exigencies: Building skills, self-reliance, confidence

(also for Child Education, toilet construction, starting small business, purchasing food grains, repaying money lender loan)

Realizing the importance of ready source of money, slum women save in a collective fund.

Women’s group’s money box with lock. Key kept with one member; box with another group member.

The rules regulations and all financial transactions are documented at group level.

Each women’s group member is given a “pass-book” recording her contribution, loan, repayment.

This approach has been recommended in Govt. of India’s National Urban Health Mission (Gazette Notified Jun 26, 2013) as ‘revolving community fund’
Infectious disease mitigation method # 5

Youth-children groups emerging as ‘Force Gen-next’

With continual mentoring, motivation Youth-children groups enhance self-esteem, improve their own lives; also contribute to their communities in tangible ways. More vigour and joy to ‘ignite the senses’.

There are 150 million youth 15-32 yr, 125 million 10-24 yr in urban India
Infectious disease mitigation method # 6

Increased Access to Voter ID, Govt. Address Proof

During Apr 15 - Mar 17: 20,000 persons (who previously did not have these) obtained Voter ID, Govt. proof of address + Picture ID.
Infectious disease mitigation method #7

Encouraging Women’s Livelihoods

Vocational Training - tailoring and stitching, selling vegetables in nearby market, slum convenience store

Vegetable seller

Slum convenience store
Infectious disease mitigation method # 8

Spatial Mapping of listed, unlisted slums

<table>
<thead>
<tr>
<th>SLUM</th>
<th>NUMBER</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LISTED</td>
<td>102</td>
<td>455923</td>
</tr>
<tr>
<td>UNLISTED</td>
<td>85</td>
<td>216935</td>
</tr>
<tr>
<td>TOTAL</td>
<td>187</td>
<td>672858</td>
</tr>
</tbody>
</table>

LOCATION OF SLUMS

Spatial city mapping of vulnerable clusters integral strategy of NUHM
This enables inclusion of small pockets, seasonal, recent migrant clusters
Spatial mapping of slums, health facilities
A significant proportion of slums are unlisted

967 Total slums

554 listed slums
(population 12,76,062)

413 unlisted slums (population 7,27,332)

City | No. of Listed Slums | No. of Un-Listed Slums
--- | --- | ---
Agra | 215 | 178
Dehradun | 78 | 28
Bally | 75 | 45
Jamshedpur | 84 | 77
Meerut | 102 | 85
Total | 554 | 413
Total population | 1276062 | 727332

According to Govt. of India - NSSO 65th Round (2008-09) 49 % slums are non-notified in India
Demonstrating uses of Neighborhood Mapping

Slum Women’s groups in slums use hand-drawn maps to

a) Ensure that no family is left out from lists used for housing, sewage system, toilets, entitlements;

b) Track access to health services e.g. Immunization and ANC, delivery, other health and nutrition services,

c) Help identifying recent migrants for linkage to services, entitlements
<5 Mortality Across Different States: Poorest urban quartile vs urban overall

It is crucial to break-down urban aggregate data

Source: Urban Health Resource Centre’s analysis of National Family Health Survey, 2005-06
Disparity in Living Space Density in Urban Areas

Among poorest quartile, **45.6%** households have a situation of >5 persons per sleeping room, as against **7.8%** among the richest quartile, while urban aggregate data suggests **27.1%**

TB prevalence among people living in houses with >5 persons/sleeping-room is twice as high as those living in houses with <4 persons/sleeping-room (423 vs 268 per 100,000).

Based on official urban poverty lines of countries
- For Bangladesh and India Quartiles of the urban sample as per wealth index have been taken
- For Nepal Deciles of the urban sample as per wealth index have been taken
- For Cambodia Octiles of the urban sample as per wealth index have been taken

Source: Urban Health Resource Centre’s analysis (2011) of DHS/National Family Health Survey, 2005-06
Inter-sectoral & Stakeholder Coordination for Multi-sectoral Efficiencies Towards Health, Nutrition, Environment and Well-being

Ward/Zone/Committee facilitated by Urban Local Body

Municipal Corporation (Zonal Office/City Office)

Urban Development

Elected Representatives

Private Providers

Local Resources (Local clubs, Schools, CBOs)

Health Dept

NGOs, Charitable Hospitals

Women & Child Development; Food Security

Ward or Zonal, Municipal level Committees, Urban PHC Committees could work depending on the city country
Policy Progress in India from 2004 to 2013
Glimpses of Improved Access to services in slums, informal settlements towards reducing infections and promoting health: utilization of Government resources
Improved access to Toilets, Sewer, Paved Streets

Dusty, Water-logged, Slum streets paved, Sewer-line laid, Connected to houses

Street paving, laying of sewerage system consequent to written community requests, reminders to Municipal Corporation and in-person coordination by women’s groups with Ward Councillor.
Cleaning of Garbage in Slums

Cleaning of garbage through coordination of women’s groups with Ward Councillor and garbage cleaning functionaries
Improved Water Supply

Water supply improved consequent to written community requests, reminders to Municipal Corporation and in-person coordination by women’s groups with Ward Councillor.
Formal electricity supply set up consequent to written community requests, reminders to Electricity Dept., motivation of families to obtain metered connections by women’s groups and children-youth groups.
Slum Women’s, Children-Youth Groups community requests to civic authorities over 5 years bring bridge over large drain

2010-2011: People from several slums had to cross this large drain filled with waste water. This made their access to schools, health facilities difficult and exposed them to ailments.

2013-2015: Determined women’s, children-youth group members continued to submit written requests to civic authorities and represented in person.

In Oct. 2011 women’s group members of New Jagdeesh Nagar, Jairaj Nagar submitted applications to civic authorities, but received no positive response. Determined women’s group members, other women and men volunteers with UHRC’s support built a temporary bridge with pipe, waste bricks and mud.

2010-2011: Women’s group members at Dist. Public hearing

August 2012: Rains washed away major part of the temporary bridge. Women’s groups and UHRC continued to follow-up with the civic authorities for a more permanent bridge.

October 2012: Courageous women’s group members of New Jagdeesh Nagar, Jairaj Nagar, other women and men volunteers with UHRC’s support re-built the temporary bridge with pipe, waste bricks and mud.

July 2015: After five years of follow-up in person by women’s, children-youth group members, UHRC and several written community requests, reminders to civic authorities, the more permanent bridge was constructed on bigger cement pipes.

Bridge over Large Drain Benefits 1,20,000 population
Let us Build Human Capability, Self-reliance of slum dwellers, help them voice their circumstances.

Let us translate words into real action towards Infectious disease prevention in Smart Cities.

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ALONE WE CAN DO SO LITTLE; TOGETHER WE CAN DO SO MUCH.

Helen Keller

SYMPHONY OF LOVE
PHOTO BY JULIÁF @ SXC.HU

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Trained Slum Women’s Groups Improve Healthcare, Knowledge including non-group member families

<table>
<thead>
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<th>Group member HH</th>
<th>Non Gp member HH</th>
<th>Non-Intervention HH</th>
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<tbody>
<tr>
<td>Availing Healthcare in Govt. facility</td>
<td>31%</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Knowledge of FP/birth spacing method</td>
<td>59%</td>
<td>61%</td>
<td>14%</td>
</tr>
</tbody>
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1. Availing healthcare in Govt. facility was thrice as high among group member families than non-intervention slums; twice as high as compared to non group-member families
2. Knowledge of Family Planning methods was four times higher among program slums than non-intervention slums
Trained Slum Women’s Groups Improve Living Environment including Non Group Member Families

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<tr>
<td><strong>Toilet in House</strong></td>
<td>60%</td>
<td>58%</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Appropriate Disposal of Garbage</strong></td>
<td>59%</td>
<td>61%</td>
<td>14%</td>
</tr>
</tbody>
</table>

1. Having toilet in house was twice as high among intervention slums as compared to non-intervention slums.
2. Appropriate household garbage disposal was four times higher among intervention slums than non-intervention slum families.