Reaching the 5th Child: Addressing the challenges of Urban Immunization

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Bangladesh, Urban and Rural Populations, 1950-2050 (thousands)

Rural pop will peak at 112m in 2015-20, then fall.
Urban pop will equal rural in 2040-45 at 97 million each, but will keep rising at slower rate as rural pop falls.
Overall national pop will fall to 155m by 2100

Urban Population & Areas:
Urban population refers to people living in urban areas as defined by national statistical offices. In Bangladesh urban areas can be grouped into:

<table>
<thead>
<tr>
<th>City Corporations</th>
<th>Municipalities 12 Large Municipalities (324)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Dhaka North</td>
<td>1. Kishorganj</td>
</tr>
<tr>
<td>2. Dhaka South</td>
<td>2. Sirajganj</td>
</tr>
<tr>
<td>4. Rajshahi</td>
<td>4. Gopalganj</td>
</tr>
<tr>
<td>5. Khulna</td>
<td>5. Narshingdi</td>
</tr>
<tr>
<td>7. Sylhet</td>
<td>7. Mymensingh</td>
</tr>
<tr>
<td>8. Rangpur</td>
<td>8. Feni</td>
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<tr>
<td>12. Dinajpur</td>
<td>12. Dinajpur</td>
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</tbody>
</table>
In Bangladesh EPI was launched in 1979 and intensified from 1985;

Since intensification of EPI, more than 2 million deaths have been averted annually;

Vaccines provided – BCG, OPV, PCV, IPV Pentavalent (DPT-Hib-HepB), MR vaccine and Measles 2nd dose;

Every child should be fully vaccinated by his/her first birthday.
National EPI Objectives

Coverage Objective:
• At least 90% Fully Vaccination Coverage at National level and 85% Fully Vaccination Coverage at District level
• TT5 coverage among women of childbearing age at least 80% at National level and 75% at each district level

Disease reduction target:
• Maintain Polio free status
• Maintain MNTE Validation status
• Achieve national level 95% measles coverage and reaching measles elimination by 2016
• Achieve national level 95% rubella coverage and ↓ rubella disease by 90% by 2016 compare to 2010 (12,727 in 2010)
• ↓ Prevalence of Chronic HBsAg among 3-5 years children by 90% by 2016 compared to 2003 (150,000 in 2003)
• ↓ Mortality of <5 years Children by 90% due to Hib disease by 2016 compared to 2007 (25,000 in 2007)
• Achieve national level 90% coverage of Pneumococcal Conjugate Vaccine (PCV) by 2016
• Introduce single dose IPV along with three dose OPV by 2015 and achieve 90% coverage by 2016
Success of EPI..

• Reached 81% of children aged one year with valid doses of all antigens;
• Maintaining Polio free status since November 2006 and received Polio Free Certification along with 11 countries of the South East Asia Region in March 2014;
• Maintaining Maternal & neonatal tetanus elimination status since 2008;
• Successfully introduced new & under-used vaccine (Hep-B, Hib, MR, Measles 2\textsuperscript{nd} dose) in routine EPI and achieved > 90% coverage
• Successfully conducted nationwide MR (measles-rubella) campaign targeting 52 million children from nine months to under 15 years with coverage at over 90 %
• Pneumococcal Conjugated Vaccine (PCV) and Inactivated Polio Vaccine
Trends of national coverage: by antigen and fully vaccinated children by 12 months

Fully vaccination coverage in Urban is 79% by one year, still 21% children are yet to be fully vaccinated, means 1 in 5 children is missing!!!
Urban Health Care Delivery Systems

- Ministry of Health is responsible for catering of Essential Services Packages (ESP) nationally, however, in urban areas, Urban Local Bodies (City Corporations and Municipalities) are responsible by mandate to deliver Primary Health Care (PHC) including immunizations;

- Urban Health under MoLGRD&C does not have 5-tier health care delivery structure like that of MOH&FW in rural areas;

- Due to lack of infrastructure and capacity, MoLGRD&C provides health services including immunization mainly through partnership with NGOs in all CCs and in some large municipalities;

- EPI activities are coordinated by Chief Health Officers (CHOs) in City Corporations and Municipal Medical Officer (MMO) in municipalities;

- There are pockets of un-served urban areas due to inadequate coordination between LGD - NGOs and MOH&FW as well as some overlapping;

- There is no or scanty PHC including immunization provisions in the densely populated peri-urban areas, mainly due to incoordination between LGD (City Corp.) and District Health Office (MoH&FW.)
EPI Structure in City Corporations & Major Municipalities

- EPI HQ
- Zone
- Ward
  - NHSDP/UPHCSDP NGOs
  - Other NGOs
  - Vaccination Site
  - Hospitals

On day of vaccination

Fixed sites/RUN by NHSDP/UPHCSDP in City Corporations and major Municipalities
Crude & Valid Vaccination Coverage by 12 Months
(National, Urban, Rural, Dhaka Slums & Chittagong slums)

<table>
<thead>
<tr>
<th></th>
<th>Crude Coverage by 12 months</th>
<th>Valid Coverage by 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>89.7</td>
<td>81.6</td>
</tr>
<tr>
<td>Urban</td>
<td>88.3</td>
<td>78.8</td>
</tr>
<tr>
<td>Rural</td>
<td>90.1</td>
<td>82.3</td>
</tr>
<tr>
<td>Dhaka Slum</td>
<td>79.6</td>
<td>71.5</td>
</tr>
<tr>
<td>Chittagong Slum</td>
<td>71.5</td>
<td>62.1</td>
</tr>
</tbody>
</table>

Source: CES 2014 unpublished
Crude & Valid Vaccination Coverage by 23 Months
(National, Urban, Rural, Dhaka Slums & Chittagong slums)

Source: CES 2014 unpublished
Dropout Rate for Penta1-Penta3 and Penta1-MR 23 Months (National, Urban, Rural, Dhaka Slums & Chittagong slums)

<table>
<thead>
<tr>
<th></th>
<th>NATIONAL</th>
<th>URBAN</th>
<th>RURAL</th>
<th>DHAKA SLUM</th>
<th>CHITTAGONG SLUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dropout Rate of Penta1-Penta3</td>
<td>1.9</td>
<td>1.8</td>
<td>1.9</td>
<td>7.8</td>
<td>8.3</td>
</tr>
<tr>
<td>Dropout Rate of Penta1-MR</td>
<td>5.9</td>
<td>6.5</td>
<td>5.7</td>
<td>15.5</td>
<td>21.6</td>
</tr>
</tbody>
</table>

Source: CES 2014 unpublished
Incidence of Invalid doses of Penta 1, Penta 2, Penta 3, MR Vaccines by 12 Months
(National, Urban, Rural, Dhaka Slums & Chittagong slums)

<table>
<thead>
<tr>
<th></th>
<th>Invalid Penta1</th>
<th>Invalid Penta2</th>
<th>Invalid Penta3</th>
<th>Invalid MR</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>3.4</td>
<td>5.5</td>
<td>6.8</td>
<td>4.6</td>
</tr>
<tr>
<td>Urban</td>
<td>7</td>
<td>8.3</td>
<td>4.2</td>
<td>7</td>
</tr>
<tr>
<td>Rural</td>
<td>3.1</td>
<td>5.2</td>
<td>6.4</td>
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<td>4.6</td>
<td>7</td>
<td>6.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Chittagong Slum</td>
<td>10.7</td>
<td>10.4</td>
<td>6.9</td>
<td>7.7</td>
</tr>
</tbody>
</table>

Source: ES 2014 unpublished
Fully Vaccinated Children by Wealth Quintiles (12 months)

FVC by Wealth Quintiles

Source: CES 2014 unpublished
The Gaps are..

- Gaps between Valid and Crude FVC (83 % Vs 93% by 23 months)
- Gaps between coverage of slum and non-slum areas
- Incidence of high invalid doses
- Dropout rate from Penta1 to Measles still > 6% and in Slums > 22%
- Inequity exist coverage between upper & lower wealth quintiles
Challenges in Urban Immunization

**Socio-demographic:**

- Ever increasing urban population.
- One third of urbanites are slum dwellers.
- Urban population grows around 3% p.a. however, the slum population grows double the urban growth rate.
- Financial challenge & vulnerability.
- Complex social and cultural issues.
Challenges......

Administrative:

- **Primary Health Care including Immunization services** is mandate of Local Government and implement by City Corporation & Municipalities
- **Lack of coordination**: in major cities Immunization catered mainly by NGOs under two Projects:
  1. Urban Primary Health Care Service Delivery Project (UPHCSDP) under LGRD&C Ministry
  2. NGO Health Service Delivery Project (NHSDP) permitted by Health & Family Welfare Ministry
- **Gaps and overlaps in** services, little or no service provision for large peri-urban population
- **Inadequate human resource** in the City Corporation & Municipality’s health departments.
- **Lack of capacity** of the Urban Health Managers.
Challenges......

Operational:

• Multiple agencies/bodies under different ministries offer Immunization & health services.

• Inequitable distribution of the health facilities & immunization centres.

• Lack of governance.

• Private immunization service providers

• Lack of skilled human resources

• High turnover of NGO staff

• In adequate or weak HMIS.
Challenges......

- Service charges for vaccination taken by NGOs, although vaccines are provided free of cost by MoH&FW;
- NGO clinic hours not convenient for working mothers and garments workers;
- Migration & frequent change of residence: don’t know when & where to go for vaccination;
- Geographic pockets of non covered areas;
- Inadequate counselling regarding the benefits of vaccination and lack of follow-up visits;
- Working mothers afraid of child’s sickness following immunization, which might hamper their daily work schedule;
- Reluctance of affluent society for availing the services from “Routine vaccination Centres”.

Care seeking behaviors
Strategies to reach the 5th Child.....

• Endorsement & implementation of Urban component in National Immunization Policy
• Implementation of ‘Urban Immunisation Strategy’, under process of Government’s approval.
• Focused interventions for hard to reach children, such as street children, children of working mothers, children living in slums and children of marginalized groups
• Introduction of community based MIS system for default tracking and integrated it with DHIS-2
• Strengthen communication and social mobilization to create demand and change behavior for improved community & stakeholders’ participation
• Building partnership and networking with professional bodies, private sector and civil society organization for developing comprehensive annual action to reach the unreached.
Highlight of Urban Immunization part in National Immunization Policy (section 5)

- Vaccination services will be available at fixed sites on all working days
- Outreach services will be provided on a weekly basis in urban wards
- Vaccination at urban wards is the primary responsibility of the Local Government through the appointed service provider of the City Corporation, Municipalities or NGOs.
- Vaccination services provided through NGO sources will conform to the same cold chain vaccine management and injections safety policies as for the public sector elsewhere
- NGOs will provide routine immunization reports and surveillance reports to the Ministry of Health and Family Welfare as outlined in Part 1 of this policy
- It is the responsibility of Local Government (City Corporations and Municipalities) to mobilize human and financial resources to maintain immunizations services to national quality and safety policy and standards for the population within the administrative jurisdiction of the Local Government
Highlights of the Urban Immunization Strategy

- Development of long term **organisational development plans**;
- Establishment of a **unit of Public Health** in the MoLGRD&C and coordination with MoHFW;
- Development and implementation of **annual action planning systems** for City Corporations; One Plan, One Budget and One M & E framework;
- Development of **public health infrastructure**, including PHC centres in slum areas and other urban areas (1 centre per 20,000 populations);
- Relocation of **decentralised cold chain and logistics systems** in larger City Corporations and Municipalities;
- Development of SOPs and guidelines adapted for the urban context;
- Expansion of **surveillance networks** to Ward level;
- Development and implementation of **communication strategies**;
- Promotion of **universal health coverage**.
Way forward....

- Ensure the implementation of Urban Immunization strategy
- Identify unvaccinated children and ensure vaccination
- Develop and implement of Web based MIS system and integrate it with DHIS-2, ensure default tracking
- Address the gaps and equity in low performing areas
- Develop the human resource capacity for ensuring high quality service provision and adequate access to the immunization services
- Demand creation for most vulnerable and under-served populations including the urban floating population
Conclusions

Collaborate with GO, NGOs & partners and coordinate activities by: allocating geographical areas of intervention, proving logistic support will increase the EPI performance.
We are working together for this smile of mother to last forever by reducing child mortality & morbidity.