ALLIANCE PARTNERSHIP STRATEGY WITH INDIA, 2016-2021

BOARD TECHNICAL BRIEFING
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1 December 2015, Geneva
Outline

• India’s Universal Immunisation Programme
• Gavi support to India to date and proposal for 2016-2021
• Market shaping
• The strategic partnership
India’s Universal Immunisation Programme
India: The largest Gavi-eligible country and leading contributor to vaccine-preventable disease burden

- **Birth cohort of ~ 27 million** (equivalent to the sum of 6 other largest Gavi-eligible countries*)

- **Over 1 million children under five die every year**, despite reduction in child mortality over the years

  ![Trend in under-five mortality rate](chart)

  *Nigeria, Pakistan, Indonesia, Bangladesh, Ethiopia, DRC

- **Share of global disease burden**
  - ~20% rotavirus, pneumococcal and measles deaths
  - >30% Congenital Rubella Syndrome cases
  - ~25% cervical cancer deaths
Indian states comparable to Gavi countries: size, income level and immunisation coverage

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Nigeria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5</td>
<td>3,203</td>
<td>66%</td>
</tr>
<tr>
<td><strong>Uttar Pradesh</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.5</td>
<td>793</td>
<td>59%</td>
</tr>
<tr>
<td><strong>Pakistan</strong></td>
<td></td>
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<tr>
<td>5.1</td>
<td>1,334</td>
<td>73%</td>
</tr>
<tr>
<td><strong>Indonesia</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>3,492</td>
<td>78%</td>
</tr>
<tr>
<td><strong>Bangladesh</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>1,903</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Ethiopia</strong></td>
<td></td>
<td></td>
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<tr>
<td>3.0</td>
<td>565</td>
<td>77%</td>
</tr>
<tr>
<td><strong>DRC</strong></td>
<td></td>
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<tr>
<td>2.9</td>
<td>440</td>
<td>80%</td>
</tr>
<tr>
<td><strong>Bihar</strong></td>
<td></td>
<td></td>
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<tr>
<td>2.9</td>
<td>682</td>
<td>73%</td>
</tr>
<tr>
<td><strong>Tanzania</strong></td>
<td></td>
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</tr>
<tr>
<td>2.0</td>
<td>998</td>
<td>97%</td>
</tr>
<tr>
<td><strong>Madhya Pradesh</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.9</td>
<td>1,133</td>
<td>62%</td>
</tr>
<tr>
<td><strong>Maharashtra</strong></td>
<td></td>
<td></td>
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<tr>
<td>1.9</td>
<td>2,561</td>
<td>82%</td>
</tr>
<tr>
<td><strong>Rajasthan</strong></td>
<td></td>
<td></td>
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<tr>
<td>1.8</td>
<td>1,443</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source:
Income: World Bank GDP per capita for all countries; India state data: Ministry of Statistics and Programme Implementation for Net State Domestic Product per capita.
Coverage: WUENIC for all countries; India state data: Ministry of Women and Child Development, Rapid Survey on Children (RSOC), 2013-14.
Immunisation coverage has improved over the years, but significant variance

- ~ 4 million children under-immunised with DTP (25% Gavi)*

* 4 million based on 2014 WUENIC DTP3 coverage data. 9 million if based on India’s “fully immunised children, FIC” definition, with DTP, BCG, OPV and measles vaccination.
Historically slow in introducing new vaccines; strong anti-vaccine movements also hinder progress

### Introduction of antigens in India’s Universal Immunisation Program

<table>
<thead>
<tr>
<th>Period</th>
<th>Vaccines</th>
</tr>
</thead>
</table>
| <1990         | • BCG  
|               | • DPT  
|               | • Measles  
|               | • OPV  |
| 1991-2000     | • Hepatitis B  
|               | • Japanese encephalitis *(in endemic districts)*  |
| 2001-2010     | • Hib  |
| 2011-2015     | • Hib  |

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**Antivaccine lobby resists introduction of Hib vaccine in India**

*BMJ* 2010; 340 doi: http://dx.doi.org/10.1136/bmj.c3508 (Published 29 June 2010)

Cite this as: *BMJ* 2010;340:c3508

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**HPV Vaccine: The Lethal Medical Failure That's Still Recommended by Your Doctor**

December 29, 2010 | 216,704 views

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**Study: Polio vaccine campaign in India has caused 12-fold increase in deadly paralysis condition**

Tuesday, April 17, 2012
However, great momentum now with significant public health achievements and positive political environment

- 2013: National Policy for Children and RMNCH+A strategy
- 2014: India declared polio-free

Prime Minister announced new vaccines

MISSION INDRADHANUSH launched

- 2015: Mission Steering Group approved IPV, rotavirus, and rubella introductions
  India eliminated maternal and neonatal tetanus
  NTAGI recommended PCV introduction

“The introduction of four new lifesaving vaccines will play a key role in reducing childhood and infant mortality and morbidity in the country.”

Narendra Modi, Prime Minister of India
Reaching every child is a national priority
Continued assessments and analyses reveal performance gaps and needs for future support.

Gavi support to India to date and proposal for 2016-2021
New vaccines support: Special arrangements with capped, time-bound support to initiate introduction and unlock domestic resources.

- Gavi initiated HepB introduction ($26m); India self-financing started in 2009.
- Gavi scales up pentavalent vaccine ($265m); India self-financing expected in Q1 2016 ($120m/year*).
- Gavi scales up IPV ($30m); India self-financing expected in Q4 2016 ($30m/year*).

Projected transition period 2017-2021.

* Estimated cost using current vaccine price.
Current catalytic HSS grant focuses on 12 high priority states and drives innovative approaches

**Thematic areas of HSS grant:**
- Vaccine logistics and cold chain management
- Demand generation
- M&E and research
- Applying polio learning to routine immunisation

**Supports national initiative on coverage and equity**
Commitments to India to date are proportionally much lower than that to other large countries.
In terms of Gavi investment per child, India ranks 72nd out of 73 Gavi countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI per capita (US$)</th>
<th>Gavi investments per child (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>470</td>
<td>260</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1360</td>
<td>170</td>
</tr>
<tr>
<td>Congo DRC</td>
<td>400</td>
<td>220</td>
</tr>
<tr>
<td>Nigeria</td>
<td>2690</td>
<td>80</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>1010</td>
<td>140</td>
</tr>
<tr>
<td>India</td>
<td>1560</td>
<td>18</td>
</tr>
</tbody>
</table>
Proposed multi-pronged Alliance partnership strategy

1. **Coverage and equity**
   - Increase immunisation coverage and equity in India through targeted support to strengthen the routine immunisation system

2. **New vaccines**
   - Maximise health impact by accelerating adoption of new vaccines in India

3. **Market shaping**
   - Maximise procurement savings and vaccine supply security by sharing information, coordinating tactics and building a long-term strategy that strengthens local public and private sector manufacturers

4. **Sustainability**
   - Ensure that vaccine programmes in India will be sustainable beyond 2021 by supporting the government to plan for the transition and advocating for increased domestic spending on immunisation
A range of investment options presented to PPC; recommended option can avert half a million future deaths

Financial investment options with indicative vaccine allocations and cash support (2016-2021)*

<table>
<thead>
<tr>
<th></th>
<th>(1) &lt;$300m</th>
<th>(2) ~$500m</th>
<th>(3) ~$650m</th>
<th>(4) ~$800m</th>
<th>(5) ~$1,000m (Country Request)</th>
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<tbody>
<tr>
<td>New vaccines support*</td>
<td></td>
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<tr>
<td>Rotavirus (routine)</td>
<td>20% cohort for 3 years for rota, or 2 years for PCV</td>
<td>20% cohort for 3 years</td>
<td>25% cohort for 3 years</td>
<td>25% cohort for 5 years</td>
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<tr>
<td>Pneumo (routine)</td>
<td></td>
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<td></td>
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<tr>
<td>MR (campaign)</td>
<td>2 out of 4 phases</td>
<td></td>
<td></td>
<td></td>
<td>All 4 phases</td>
</tr>
<tr>
<td>HPV (routine)</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Cash support</td>
<td>~$100m</td>
<td></td>
<td></td>
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<td>$150-200m</td>
</tr>
</tbody>
</table>

Health impact potential: Additional ~440-860,000 future deaths averted
What it means for Gavi and Government of India financing of new vaccines

Proposed Gavi catalytic investment on new vaccines and estimated domestic financing, 2016-2021 (US$ mil) based on indicative timelines*

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2021</th>
<th>Gavi</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rota and PCV</td>
<td></td>
<td></td>
<td>~$400</td>
<td>~$240</td>
</tr>
<tr>
<td>Measles Rubella campaign</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Vaccine introduction costs</td>
<td></td>
<td></td>
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<tr>
<td>Campaign operational costs</td>
<td></td>
<td></td>
<td>~$230</td>
<td></td>
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<tr>
<td>Injection safety devices</td>
<td></td>
<td></td>
<td>~$400</td>
<td>~$470</td>
</tr>
</tbody>
</table>

* Cost estimates based on amounts under the current Gavi policy on vaccine introduction grants and campaign operational support, and current vaccine and device prices. Timelines for introductions are tentative. Assumes Government of India sustaining the programmes at the same level at a minimum.

+ eventual $600m per year at nationwide scale for the 4 vaccines
Forecasted support to India versus other large countries, with proposed investments

Source: UNPD World Population Prospects: The 2012 Revision; Gavi commitments, as of 30 Sep 2015; Gavi financial forecast v11.0 Fa; GNI per capita, Atlas method, 2014

Current commitment

Current commitments + 2016-2020 forecasts

Projected total support for India with proposed level of support

India (GNI $1,610)

Pakistan (GNI $1,410)

Nigeria (GNI $2,950)

Ethiopia (GNI $550)

Bangladesh (GNI $1,080)
Market shaping
Proposed multi-pronged Alliance partnership strategy

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3. Market shaping
   Maximise procurement savings and vaccine supply security by sharing information, coordinating tactics and building a long-term strategy that strengthens local public and private sector manufacturers

4. Sustainability
   Ensure that vaccine programmes in India will be sustainable beyond 2021 by supporting the government to plan for the transition and advocating for increased domestic spending on immunisation
Marketing shaping component of the India strategy: Aligned with Alliance objectives

- Procurement savings by leveraging increased demand
- Short and long term vaccine supply security
- Strong local base of vaccine and CCE manufacturers
Gavi and India have shared interests in many vaccines

Refers to the first Gavi-supported introduction of each vaccine.
Manufacturers based in India are important suppliers of many vaccines

Refers to the first Gavi-supported introduction of each vaccine.
Procurement: 60% of Gavi-funded vaccine sourced from manufacturers in India

2014: 16 manufacturers* from 11 countries of production

* Includes 14 Gavi suppliers and 2 manufacturers of prequalified Gavi vaccines.
** One US manufacturer also produces in the Netherlands.

Note: Country of production represents country of national regulatory agency responsible for vaccine lot release.

Source: UNICEF Supply Division and WHO list of pre-qualified vaccines, 2014
Strengthened partnership with India: Information sharing and coordinating strategies can optimise...

- Procurement savings by leveraging increased demand
- Short and long term vaccine supply security
- Strong local base of vaccine and CCE manufacturers

Projected dose demand - 2018

- PCV*: 140 (Gavi), 20 (India)
- IPV: 61 (Gavi), 26 (India)
- Pentavalent: 171 (Gavi), 78 (India)

*based on average of scenarios
Source: SDF v.12, PPC paper
The strategic partnership
The Alliance in action, to implement the new partnership strategy
THANK YOU