WHO and Adolescent Immunization

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Expanded Programme on Immunization
World Health Organization
Geneva, Switzerland

VHPB Meeting, Ljubljana, Slovenia
March 15-16, 2007
Immunizations at WHO

Department of Immunizations, Vaccines and Biologicals (IVB)

Initiative for Vaccine Research (IVR)

Expanded Programme on Immunization (EPI+)

Quality, Safety and Standards (QSS)
WHO’s Global Immunization Vision and Strategy (GIVS)

Four strategic areas

1. Protecting more people
   - Expand immunization beyond infancy to older age groups

2. Introducing new vaccines & technologies

3. Integration with other interventions in health systems context

4. Global interdependence ...
URGE Member States:

(1) to meet immunization targets …

(2) to adopt the GIVS as the framework for strengthening of national immunization programmes between 2006 and 2015, with the goal of achieving greater coverage and equity in access to immunizations, of improving access to existing and future vaccines…

(3) to ensure that immunization remains a priority on the national health agenda…
The Evolving vaccine pipeline

Note the halos represent deaths currently being averted, and solid circles represent deaths estimated to occur (as of 2002).

Source: World Health Organization Initiative for Vaccine Research, August 2006
WHO/UNICEF Joint Reporting Form on Immunization

- Annual reporting from countries to WHO/UNICEF on immunization coverage and schedules
Countries using HepB vaccine in their routine national infant immunization system, 2005

Routine HepB implementation status

- **Yes** (154 countries or 80%)
- Yes in part of the country (4 countries or 2%)
- **No** (34 countries or 18%)

* 4 countries use HepB vaccine among adolescents

Source: WHO/IVB database, 2006
192 WHO Member States. Date of slide: 3 August 2006
Global Immunization 1989-2005,
3rd dose of Hepatitis B coverage in infants

global coverage at 55% in 2005

Date of slide: 4 September 2006
<table>
<thead>
<tr>
<th>Region</th>
<th>Country</th>
<th>Antigen (or nutritional supplement)</th>
<th>Description</th>
<th>Schedule</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMR</td>
<td>Argentina</td>
<td>BCG</td>
<td>Bacille Calmette-Guerin vaccine</td>
<td>birth, 6 years; 8 years;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTP</td>
<td>Diphtheria and tetanus toxoid with pertussis vaccine</td>
<td>2, 4, 6, 18 months;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DTPH-B</td>
<td>Tetavalent diphtheria and tetanus toxoid with pertussis and Hep vaccine</td>
<td>&gt;85 years;</td>
<td>and other risk groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HepA</td>
<td>Hepatitis A vaccine</td>
<td>1 year;</td>
<td>special cases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HepB</td>
<td>Hepatitis B vaccine</td>
<td>birth, 2, 6 months;</td>
<td>and postpartum</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Influenza</td>
<td>Influenza</td>
<td>&gt;85 years;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IPV</td>
<td>Inactivated polio vaccine</td>
<td>2, 4, 6, 18 months;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MMR</td>
<td>Measles mumps and rubella vaccine</td>
<td>12 months, 6 years;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MR</td>
<td>Measles and rubella vaccine</td>
<td>11 years;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OPV</td>
<td>Oral polio vaccine</td>
<td>2, 4, 6, 18 months, 6 years;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pneumo_conj</td>
<td>Pneumococcal conjugate vaccine</td>
<td>&gt;16 years;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Td</td>
<td>Tetanus and diphtheria toxoid for older children / adults</td>
<td>12 months, Part of country</td>
<td>and risk groups and travellers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>YF</td>
<td>Yellow fever vaccine</td>
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<td></td>
</tr>
</tbody>
</table>
Countries with vaccination in national immunization schedule targeting 9-20 year olds, 2004

Source: WHO IVB database, March, 2006

Vaccination in national immunization schedule between age 9-20 years (N=101)

Source: IVB/WHO database
Countries with Immunization Targeting 9-20 year olds in Schedule, by WHO Region (N=101)

Source: IVB/WHO database
Countries with Immunization Targeting 9-20 year olds in Schedule, by Income Level (N=101)

Source: IVB/WHO database
World Bank grouping by income status, July 2006
Countries with Immunization Targeting 9-20 year olds in Schedule, by Antigen (N=101)

Source: IVB/WHO database
Delivery of Vaccine to 9 to 20 year old Population

- Nearly all immunizations delivered to this age group (except for hepatitis B, and BCG in two instances) were booster doses, not primary series.

- Accessed through routine visits, campaigns and school-based activities.

- No coverage data collected at the global level.
Some Issues to Consider Regarding Adolescent Immunization

• Delivery approach
  - Routine
  - Campaigns

• Delivery options
  - Clinic-based
  - Community outreach
  - School-based

• Other issues
  - Legal (consent)
  - Temporal (coincidental) associations in adolescents that may raise safety concerns
    - Diabetes, asthma, thyroid disorders, rheumatoid arthritis, enteritis, GBS, etc.
  - Other
## School Attendance, by Country/Area

<table>
<thead>
<tr>
<th>Country/area</th>
<th>Primary school, male (%)</th>
<th>Primary school, female (%)</th>
<th>Secondary school, male (%)</th>
<th>Secondary school, female (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>63</td>
<td>59</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Eastern/Southern Africa</td>
<td>66</td>
<td>66</td>
<td>16</td>
<td>17</td>
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<tr>
<td>West/Central Africa</td>
<td>59</td>
<td>52</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>Middle East/North Africa</td>
<td>83</td>
<td>77</td>
<td>50</td>
<td>44</td>
</tr>
<tr>
<td>South Asia</td>
<td>81</td>
<td>75</td>
<td>54</td>
<td>48</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>--</td>
<td>--</td>
<td>53</td>
<td>55</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>89</td>
<td>89</td>
<td>44</td>
<td>51</td>
</tr>
<tr>
<td>Industrialized countries</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Developing countries</td>
<td>78</td>
<td>75</td>
<td>46</td>
<td>43</td>
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<tr>
<td>Least developed countries</td>
<td>64</td>
<td>59</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>World</td>
<td>78</td>
<td>75</td>
<td>46</td>
<td>43</td>
</tr>
</tbody>
</table>

Conclusions (1)

- Not all countries have immunization for adolescents in their national routine immunization schedules.
- Among poor countries, very few have included these immunizations.
- Practically all the immunizations given are boosters as opposed to primary immunization.
- From those, the majority of boosters are for tetanus and diphtheria.
- Coverage data for this age group has not been collected.
- School-based immunization is not/poorly documented.
Conclusions (2)

● Opportunities
  – Immunization of adolescents will contribute to WHO’s Global Immunization and Vision Strategy of “Protecting More”
  – Some countries are reaching adolescents through a variety of approaches

● Challenges
  – Extending the Expanded Programme on Immunization to age groups beyond infancy
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