Global Immunization Vision and Strategies (GIVS) 2006-2015

Vaccine Tender 2010-2012, Pretender Meeting, Copenhagen
10-11 December 2008

Dr Ahmed Magan & Dr Osman David Mansoor
Programme Division
UNICEF New York
Global Health Context

• Political momentum for global health & equity
  • 75+ global health partnerships

• Fragmented global health architecture
  • Rise of foundations & funds

• Technological advances
  • New vaccines and technologies

• Significant new funding / innovative financing

• Health systems foundation for all service delivery

• Global financial crisis
Global Immunization Vision and Strategies (GIVS) 2006-2015

1. Unifying vision of immunization main thrusts
2. Agreement on key strategies

- Reaching More: Unreached & older
- Add new vaccines
- Secure Quality & Affordable vaccines + consolidate Partnerships
- 20-25% Reduction of child mortality (MDG4)

GIVS developed by WHO, UNICEF and other partners:
Proven contribution

“More than half of the gains in reducing child mortality are attributable to immunization“

Latin America 1990-2005

(Millions deaths per year)

At current rate of progress MDG4 will be achieved in 2045!
Fewer than 10 million Children <5 Died in 2006

- Sub-Saharan Africa, 4.8 million
- East Asia and Pacific, 900,000
- South Asia, 3.1 million
- Middle East and North Africa, 400,000
- Latin America and Caribbean, 300,000
- Industrialized countries, 100,000
Global distribution of cause-specific mortality among children under five

Undernutrition is implicated in up to 50% of all deaths of children under five

Source: World Health Organization and UNICEF
Diseases preventable with current vaccines account for 25% of annual mortality in children under five (data from 2002).
Reaching More
Global Immunization 1980-2007, DPT3 coverage global coverage at 81% in 2007

Source: WHO/UNICEF coverage estimates, 1980-2007, as of August 2008 (193 WHO Member States)
Global coverage estimates, 1980-2006
BCG, DTP1, DTP3, Polio3, Measles HepB3 and Hib
24.1 million infants not immunized (DPT3), 2007 (birth cohort of 129 surviving infants)

Source: WHO/UNICEF coverage estimates, 1980-2007, as of August 2008 (193 WHO Member States)
India and 11 other countries with large unvaccinated children (in millions) (2006)

- India: 6.4
- Sudan: 0.3
- Niger: 0.4
- Angola: 0.4
- Bangladesh: 0.5
- Philippines: 0.5
- DR Congo: 0.6
- Pakistan: 0.7
- Ethiopia: 0.8
- China: 1.2
- Indonesia: 1.3
- Nigeria: 2.4
- Bihar: 1.82
- Uttar Pradesh: 3.27

Source: WHO-UNICEF Estimates
Measles Mortality Reduction
47 UNICEF / WHO Priority Countries
2007

Nation-wide second opportunity 2007 (44)
Partial implementation of second opportunity 2007 (2)
No second opportunity 2007 (1)
Global Measles Mortality
All Ages, 2000 – 2007 *

* Provisional data. High-low lines indicate uncertainty bounds

Source: WHO/IVB measles deaths estimates, September 2008
Introducing new
Number of countries introduced HepB vaccine* and global infant HepB3 coverage, 1989 - 2007

Source: WHO/UNICEF coverage estimates, 1980-2007, as of August 2008 (193 WHO Member States)
Hib in national immunization system, 1997 & 2008

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Source: WHO/IVB database, February 2008

193 WHO Member States.

Pneumo Vaccine Introduction in routine Infant Immunization Schedule (by Feb. 08)

In routine immunization schedule in 2007 (18 countries 9%)

Applied for GAVI support and not approved (2 countries or 1%)

Applied for GAVI support and were approved (3 countries or 2%)

Expressed interest for introduction (26 countries or 13%)

Source: WHO/IVB Database as of February 2008
For 2007, the data is provisional

Rotavirus vaccines: Where are we now?

Vaccine prequalification status:
- GSK’s Rotarix: 2 doses
- Merck’s RotaTeq: 3 doses

Need trial data on efficacy in Asia and Africa => new SAGE recommendation in 2009
Future EPI schedule

BCG, DTPHepBHib(?IPV) as base EPI vaccine (+HepB birth)
MR/MMR progressively replacing Measles
Pneumococcal conjugate vaccine (PCV)
  • Estimated ~800,000 deaths in under-five-year-olds
  • 3 doses in infancy > 16% reduction in deaths in Gambia*
  • Herd immunity/ single dose if age > 12 months
    • potential for greater impact in campaigns
Rotavirus vaccine (RV)
  • Estimated ~500,000 deaths in under-two-year-olds
  • Data from Africa and Asia on efficacy needed
  • Intussusception and age (>32w)
Regional/Special groups
  • MeningA, Japanese Encephalitis, Typhoid, Cholera
Older age groups
  • Booster doses of DTP/Td
  • Human Papillomavirus (HPV)

Linking with others
Integrated ITN Campaigns, 2002 - 2007

From 2002 - 2007, 32 million LLINs were delivered during integrated measles campaigns

Source: Measles Initiative 2008
Linking 4 Interventions During CHDs is Doable & Effective

Coverage %

Angola  Rwanda  Liberia  S. Leone  DRC

Measles  Vit A  MBZ  ITN
Vaccine as part of package

Rotavirus vaccines
Zinc treatment
Enhanced Diarrheal Disease Control
Sanitation/hygiene

Oral rehydration therapy/breastfeeding

Challenge:
Use new vaccine introduction to enhance other aspects of diarrhoea control

http://www.eddcontrol.org/
WHO-UNICEF Global Action Plan on Pneumonia

Case-management
  • antibiotics, oxygen, supportive care

Improved nutrition
  • breastfeeding, micronutrients, improved feeding

Risk factor reduction
  • indoor air pollution, hand washing, HIV prevention

Immunizations
  • Hib, Pneumococcal, Measles, Pertussis
Global interdependence
Development Assistance for Health By Source (2000-05)

Changing Environment for Immunization

• New planning and budgeting frameworks
  • PRSPs, SWAPS, MTEFs, etc.

• New financing mechanisms
  • GAVI: $2 billion, IFFIm: $4 billion, IDA Buy-downs: 175 million, AMC: 1.5 billion

• Paris declaration on aid effectiveness
  • New funding modalities: less direct project support, more sector and general budget support

• Constrained fiscal space
Domestic Financing for Immunization

National budget has line item for purchasing vaccines
- 71% (135) in 2000
- 86% (166) in 2006

Government funding of overall immunization expenditures
- 56% (107) in 2000
- 79% (153) in 2006

And 33 countries co-financing GAVI-supported vaccines in 2008
Costing, Avg. Financing, & Gaps 2006-2015

Cost per Capita
$1.0

- Campaign
  ($2.2 Bn, 6%)
- Vaccines
  ($11.5 Bn, 33%)
- Systems
  ($20.8 Bn, 61%)

Funding Gap
($12.9 Bn, 40%)

- Funding Gap
  ($0.32)
- GAVI / IFFIm
  ($4.9 Bn, 15%)
- External Donor
  ($5.7 Bn, 18%)
- Govt
  ($8.7 Bn, 27%)
Systems Costs of Scaling Up Coverage

Include:

- Cold Chain
- Waste Management
- Vehicles & Transportation
- Supervision & Training
- Social Mobilization (Media, IE&C, Advocacy)
- Monitoring & Surveillance
- Strategy Development
- Personnel
- Outreach
Vaccine Presentation and Packaging Advisory Group

To provide a forum for dialogue between the public sector and industry regarding product profile decisions
To facilitate improvements in presentation & packaging ("image") of vaccines for developing country markets
Establish optimal vaccine presentation & packaging guidelines in conjunction with different vaccination strategies

TORs and outputs to date available at
http://sites.google.com/site/vppagp
• Paper for TPP for Pneumo AMC
• HPV paper
Gaps in support for Low Middle Income Countries

Public Health issue:
- Combined 30M birth cohort

Strong immunization programs:
- Median DTP3 coverage (2006) = 93%;
- 97% introduced Hep B and 46% Hib

Equity issue with large population in need:
- More than 252M people living below the poverty line compared to 733M in 72 GAVI-eligible countries

Market issue - Financially sustainable:
- 94% have line item for vaccines;
- 97% government support for immunization program

KEY QUESTION: how can the issue of financing and pricing be most effectively addressed to enable MICs to add new vaccines for MDG4?
Summary and Conclusions

• Immunization continues to be a success story
  • Further progress depends on reaching most under-served & adding new vaccines => MDG4

• Immunization = essential primary health care
  • Affordable vaccines to address the broad range of diseases of public health importance

• Innovative integrated approaches yield results
  • Immunization provides infrastructure to target populations

• Health systems strengthening required

• Challenges and opportunities immunization financing, especially new vaccines
  • Impact of global financial crisis