scaling up
the delivery of life-saving vaccines

Status and the way forward

Jean Marie Okwo-Bele
Director
Immunization Vaccines & Biologicals

World Health Organization
Expanded Programme on Immunization
IMMUNIZE FOR A HEALTHY FUTURE

KNOW
Vaccines help keep you and your family healthy. Ask at your health clinic to know which vaccines you need.

CHECK
Check whether you and your family have all the vaccines you need.

PROTECT
Protect yourself: get the vaccines you need, when you need them.

World Health Organization
ISSUES ON SAGE'S HORIZON?

1. IMPLEMENTATION OF SAGE’s RECOMMENDATIONS
   - Yellow Fever
   - Hepatitis A
   - Cholera

2. WHERE ARE WE?
   - Progress towards DOV goals
   - Access to vaccines
   - Research

3. ISSUES ON SAGE’S HORIZON?
   - SAGE Working Groups
   - Issues on the horizon
3 key messages

- sustain momentum
- support implementation
- identify areas for collective efforts
IMPLEMENTATION OF SAGE’s RECOMMENDATIONS?

Yellow Fever
Hepatitis A
Cholera
A single dose of Yellow Fever vaccine is sufficient to confer sustained life-long protective immunity against YF disease; a booster dose is not necessary.
Follow-up on one dose recommendation for YF vaccine

Jan 2014 - 34th session of the Executive Board

Resolution EB 134.R10 and recommended the World Health Assembly (May 2014) to update relevant provisions in IHR (Annex 7) to reflect the life long protection of YF vaccine

The WHO Secretariat shared with Member States the proposed amendments (DG circular letter 1, 2014)
HAV be integrated into the national immunization schedule for children aged $\geq 1$ year - ONE DOSE if indicated on the basis of epidemiology and consideration of cost-effectiveness.

Countries using Hepatitis A vaccine, 2012
Roll-out of cholera vaccines.....at last

Stock-pile: July 2013

two million doses to respond to outbreaks
provisions made for humanitarian emergencies

Consultative meetings

EMR: Nov 2013
AFR: April 2014

Plan to vaccinate half a million people in Haiti

Discussions with partners

Assessing potential GAVI support for a larger stockpile
WHERE ARE WE?

Progress towards DOV goals
Access to vaccines
Research
In 2013, SAGE made 4 recommendations

1. Data quality improvement
2. Improving immunization coverage
3. Accelerating efforts to achieve disease elimination
4. Enhancing country ownership of national immunization programmes
22 Member States and 2 NGOS intervened.

Member States welcomed the SAGE recommendations. More specifically the need to:

- **improve data quality** to ensure that timely actions can be taken to improve national immunization programmes and monitor impact.
- **increase the use of new technology** as a tool to improve data quality at all levels (including reference to Electronic Registries).
- **ensure national vaccine supply chains and logistics systems** are up-to-date and are able to support and sustain efficient and effective vaccine delivery;
- **ensure middle income countries** that self-procure vaccines have access to affordable vaccines.
Turning GVAP into ACTION at regional level

**Western Pacific Region (WPR)**
RVAP discussed at RTAG Jul 2013. RVAP to be endorsed at RC 2014.

**South-East Asia Region (SEAR)**
Regional immunization plans being updated

**European Region (EUR)**
GVAP monitoring discussed at RTAG Oct 2013. RVAP to be developed RC endorsement by 2014

**American Region (AMR)**
GVAP monitoring - RTAG Jul 2013. RVAP will be aligned strategic plan by 2015

**EMR**
Regional immunization plans being updated
AFR-EMR Ministerial meeting on GVAP

**AFR**
Ministerial level meeting June 2014
Endorsement at RC (2014)
Polio eradication in India
South-East Asia Region certified polio-free

India’s last case was reported in West Bengal on January 2011. The victim, a girl named Rukhsar.
70 countries with Injectable Polio Vaccine in the national immunization programme; & planned introductions in 2014

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.

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Data Source: WHO/IVB Database, as at 05 February 2014
Map production: Immunization Vaccines and Biologicals, (IVB), World Health Organization
Date of slide: 05 February 2014
Number of reported measles cases and MCV1 coverage*

- MCV1 coverage: coverage with first dose of measles-containing vaccine up to 2012 as estimated by WHO and UNICEF
- Reported measles cases up to 2013
Proportion of countries reaching 90% coverage with the first dose of measles containing vaccine 2000-2012
110,600,000 infants received DTP3 in 2012

10,000,000 additional infants to immunize each year to reach 90%
DTP3 coverage in infants by WHO Region, 1980-2012

<table>
<thead>
<tr>
<th>Region</th>
<th>Additional number of infants to reach each year (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>8.9</td>
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</table>

Immunization Vaccines and Biologicals (IVB), World Health Organization.
194 WHO Member States. Date of slide: 27 August 2013.
DTP3 Containing Vaccine Coverage 2012 & 2013
Eastern and Southern African Countries
Re-positioning EPI as Priority Development Agenda in Ethiopia:

Factors Affecting Program Improvement

Routine EPI Coverage, 2006-2013, Ethiopia

Un and Under Immunized Children, 2010-2013, Ethiopia

Source: HMIS
To sustain momentum

We need to:

- **increase coverage by optimising use of existing contacts and health systems**
  - good governance-efficient supply chain
  - increased community demand
  - country ownership

- **link to other health interventions to expand routine coverage**
  - good governance-efficient supply chain
  - increased community demand
  - country ownership

- **maximize opportunity of outreach and campaigns to deliver integrated interventions**
Drop out rate between DTP1 and DTP3, 2012

Source: WHO/UNICEF coverage estimates 2012 revision, July 2013. 194
WHO Member States. Map production: Immunization Vaccines and
Biologics, (IVB), World Health Organization
Date of slide: 16 July 2013
Prevalence of missed opportunities for vaccination for any vaccine dose, persons 0-18 years of age in developing countries

--Each point represents a result for one study in one country at one time point
--SE Asia data all came from India

Source: AMP 2014 (unpublished)
## Ethiopia MNCH Scorecard

### National Priorities
- Skilled birth attendance: 20%
- Early postnatal care: 44%
- Contraceptive prevalence rate: 30%
- Measles immunization: 62%
- Low birth weight: 11%
- ARV prophylaxis: 25%

### Impact Indicators
- Maternal mortality rate: 67%
- Neonatal mortality rate: 86%
- Under 5 mortality rate: 11%
- Stunting: 86%

### Health System Indicators

<table>
<thead>
<tr>
<th>Region</th>
<th>Free MNCH in all health facilities</th>
<th>Maternal death notification</th>
<th>HDA Networks</th>
<th>Mobile to Contraceptive (NOD networks)</th>
<th>Functional</th>
<th>No Drug stockout rate</th>
<th>Data timeliness &amp; quality</th>
<th>Health budget</th>
<th>Contraceptive prevalence rate</th>
<th>ANC coverage</th>
<th>MNCT/Micon / ARV initiation</th>
<th>BCC/CHC/PSCH</th>
<th>Stillbirth and infant mortality rate</th>
<th>Postnatal care</th>
<th>Exclusive breastfeeding</th>
<th>Measles vaccine</th>
<th>IECM vaccine</th>
<th>Vitamin A</th>
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### Data Sources
- PMCH
- FMOH
- HMIS
- Health & Health-related Indicators
- HMIS
- Health & Health-related Indicators
- HMIS
- HMIS
- HMIS
- HMIS
- HMIS
- HMIS
- HMIS
- HMIS
- ECHIS
- HMIS
- HMIS

**Legend**
- Green: Target achieved or on track
- Orange: Progress but more effort required
- Red: Not on track
- Yellow: Data not available/Not Applicable

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27
197 million children vaccinated in 44 measles campaigns in 33 countries in 2013

36 of 44 campaigns integrated 1 or more other interventions

- Vitamin A – 14
- De-worming – 12
- Other interventions – 5
Ensure national vaccine supply and logistics change systems
Effective Vaccine Management assessments implementation status

Data Source: WHO
Map production: Immunization Vaccines and Biologicals, (IVB), World Health Organization
Update: 18 March 2013
The WHO/UNICEF Supply Chain and Logistics Hub

The why

Supply chain assessments in 70+ countries revealed that none meet the minimum WHO requirements of for effective vaccine management. Over 300 new vaccine introductions expected between 2014-15 and need to ensure supply chain country readiness. Need to streamline and coordinate technical support to countries given limited resources (financial and human) to tackle the challenges.

The what

Building on the 2020 Vision and Action Plan for Supply Chain Strengthening and GVAP.

From Global Guidance
- Guidance
- Policies
- Evidence

To Strategic Support
- Implementation
- Technical assistance
- Capacity building

The how

Building on the WHO-UNICEF approach to effective vaccine management (EVM) in countries.
High quality data for what purpose?

SAGE Report, 2013

“...to inform the proper management of the immunization programmes”

“...the right data available at the right time and at the right places for the effective and efficient implementation of their national programmes by making greater investments for the improvement of data quality as well as enhance data transparency.”

Theme: programme management at national and sub-national levels
High quality data for what purpose?

Operational decisions

Management decisions

Strategic decisions
Areas where WHO has an unique role

Establish norms, standards and best practice guidelines & quality assurance standards

1. Programme monitoring
2. Disease surveillance
3. Impact monitoring

Collect, analyse and disseminate/share global immunization data

Strengthen country capacity

1. Through developments of tools and guidelines
2. Facilitate training
Enhanced management of surveillance data
Improving data quality: activities, AMR/PAHO

Second Workshop to share lessons learned in the Development and Implementation of Electronic Immunization Registries (EIRs)

Carla Magda Domingues and Antonia Texeira, Ministry of Health, Brazil; Samia Samad, PAHO Brazil and Carolina Danovaro, PAHO, Washington DC

Location: Brasilia, Brazil

Date: 18-19 November 2013

Participants: Representatives from 17 countries of the Americas, including 21 participants from sub-national levels of Brazil; Albania; Angola; Ghana; Sri Lanka; Tanzania; the Open Source Medical Informatics initiative (IMeCA) for Latin America; Training programmes in epidemiology and public health interventions network (TEPHINET); PAHO; and WHO. BMGF, CDC, GAVI, UNICEF and other WHO regions received a Web link to follow the workshop online.

Coverage survey in Bolivia – operational study on source of vaccination data, plus photos of the card to assess legibility and other aspects
Rapid Convenient Assessments of coverage, MR campaign, 25th Jan. to 20th Feb. 2014, Bangladesh

<table>
<thead>
<tr>
<th>Legend</th>
<th>Number of Districts and City Corporation</th>
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<td>&lt;80%</td>
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<tr>
<td>80 - 89%</td>
<td>8</td>
</tr>
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<td>&gt;=95%</td>
<td>35</td>
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<tr>
<td>No RCA received from field</td>
<td>17</td>
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</table>
Ensure that middle income countries that self-procure vaccines have access to affordable vaccines.
Cumulative number of countries that have introduced new vaccines, 2000-2014
Routine introduction of PCV by income group

% of countries with PCV

% of global birth cohort by income group

- LICs: 6% (6%), 13% (13%)
- LMICs: 7% (7%), 36% (36%)
- UMICs: 9% (9%), 19% (19%)
- HICs: 8% (8%), 2% (2%)

Source: JRF 2013
To support implementation

WE NEED TO:

• Support stronger **governance** at country level

• Contribute to ensure **country ownership** of plans, actions, assessments...

• Make provisions to effectively and timely address the **special circumstances** in some countries
63 national Immunization Technical Advisory Groups (NITAGs) in 2012

Data Source: Joint Reporting Form, 2012
Map production: Immunization Vaccines and Biologicals, (IVB), World Health Organization
Date of slide: 17 October 2013

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.
166 countries reported having a national annual plans, 2012

Date of slide: 16 July 2013
## Countries with annual work-plans from cMYP by region (2014)

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of GAVI-Eligible Countries</th>
<th>No. of non-GAVI Eligible Countries</th>
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</thead>
<tbody>
<tr>
<td>AFR</td>
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<td>5</td>
</tr>
<tr>
<td>EUR</td>
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<tr>
<td>EMR</td>
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<td>SEAR</td>
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<tr>
<td>WPR</td>
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<tr>
<td>Total</td>
<td>13</td>
<td>6</td>
</tr>
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</table>
eLearning course

Immunization staff orientation course

Main objective: Provide all staff with a comprehensive overview of the VPD programmes based on the current context and key emerging priorities
Additional challenges in countries in conflict or under difficult circumstances
DTP3 coverage in EMR countries, 2012

countries in conflict or difficult circumstances
Improving coverage in the low coverage countries in EMR

- RED: outreach, mobile teams
- PIRI
- RED PIRI
- Child Health Days
- RED
- PIRI RED
- RED Improving accountability
2013 Insecurity in AFR

- **1960-2008**: 24 sub-Saharan African countries experienced armed conflict
- **2012**: 57 natural disasters in Africa affecting 38 million people
- **2013**: seven AFR countries experienced significant insecurity

* South Sudan was in EMR in 2013
Reported routine immunization coverage*, 2013

<table>
<thead>
<tr>
<th>Country</th>
<th>Country national OPV3 Coverage</th>
<th>Mean OPV3 Cov in Unsecured areas</th>
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<tr>
<td>Centrafrique</td>
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<td>Chad</td>
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<td>Mali</td>
<td>83.0</td>
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<tr>
<td>Nigeria</td>
<td>71.6</td>
<td>62.4</td>
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</tbody>
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* Data available in WHO/AFRO as of 15 March 2014:

Source: Administrative RI Data
Where can WHO's vaccine research contribute?

- Assess and/or develop strategies/approaches to expand coverage and impact and improve delivery of vaccines
- Generate and/or synthesize and appraise evidence for robust policy making
- Contribute to development/availability of new or better vaccines/delivery systems to address remaining BoD
The objective was to hold an open scientific to:

• Track the GVAP R&D agenda progress,
• Track progress and discuss obstacles related to priority vaccine R&D,
• Identify actions recommended to be taken by the R&D community in the area of vaccines and immunization research, and
• Create an opportunity for networking among the vaccine research and immunization community
ISSUES ON SAGE’S HORIZON?

SAGE Working Groups
Issues on the horizon
SAGE Topics: Oct 2014

Polio eradication
Measles and rubella
Vaccine hesitancy
GVAP progress report
Japanese Encephalitis
Hepatitis E

Hepatitis B schedules
DTP and TT schedules
Meningitis A vaccine impact
SAGE Topics: coming years
Cross cutting issues

Integrated approaches

DOV monitoring session

Additional contacts in the immunisation schedule

Older age groups vaccination

School aged/adolescents vaccination schedule

The immunisation manager of the 21st century

Pain and fever reduction after vaccination
## SAGE Topics: coming years
### Cross cutting issues

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<th>Accessibility to affordable vaccines</th>
<th>Global leadership for funding</th>
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<tr>
<td>Off label use of vaccines</td>
<td>NITAGs: strengthening</td>
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<td>Counterfeit vaccines</td>
<td>Pre-service curriculum</td>
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<td>Maternal immunization</td>
<td>Surveillance: data quality</td>
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<td>Private sector: medical organisations</td>
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<td>Communication: EPI</td>
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<td>Vaccination of immunocompromised</td>
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<td>SAGE Topics: coming years</td>
<td>Vaccine specific issues</td>
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<td>Measles rubella elimination: progress</td>
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<td>Maternal and neonatal tetanus elimination</td>
<td>HIV vaccines</td>
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Decade of Vaccines
Progress against 2014/2015 targets

Interruption of polio transmission by end of 2014
Stands at serious risk.
(IMB report Oct 2013)

Neonatal tetanus elimination
Interim GVAP milestone met but target is long delayed.

Measles elimination (4 regions)
Not on track

Rubella/CRS elimination (2 regions)
Not on track

DTP3 90/80 coverage
Not on track

Meet MDG-4
Not on track

Research and development
No targets for 2015, only for 2020
integrated strategies

governance                           data quality

supply chain                         maximize contacts

areas for collective efforts
Success comes from taking the initiative and following it up... persisting... systematically working together to express the depth of your commitment...