Opportunities to Accelerate Measles and Rubella Elimination

SAGE Meeting
7 November 2012
Outline

• New policies
• Global Measles and Rubella Strategic Plan
  – 5 key strategies
• New partners and resources
• Questions for SAGE
Measles Position Paper (7/09)
- 2 doses of measles vaccine as a standard
- Criteria for introduction of routine MCV2
- Optimal timing for MCV1 & MCV2
- Need to continue SIAs until coverage >90-95% for both doses

Rubella Position Paper (08/11)
- Use measles delivery platform
- Use combined MR, MMR vaccines
- Preferred approach is to start with wide age range SIA combined with introduction in routine
- Need to achieve >80% coverage through routine and/or SIAs

"Every dose of single-antigen measles vaccine is a missed opportunity for protection against rubella"

..... Dr Ciro de Quadros
“With strong partnerships, resources and political will, we can, and must work together to achieve and maintain the elimination of measles, rubella and CRS globally”

Margaret Chan, DG, WHO
Anthony Lake, Executive Director, UNICEF
Timothy E. Wirth, President, UNF
Gail J. McGovern, President & CEO, ARC
Thomas R. Frieden, Director, CDC
Vision

Achieve and maintain a world without measles, rubella and congenital rubella syndrome
Targets

By end 2015:

• Reduce global measles mortality by at least 95% compared with 2000 estimates

• Achieve regional measles and rubella/CRS elimination goals

By end 2020:

• Achieve measles and rubella elimination in at least five WHO regions
Guiding Principles

1. Country ownership and sustainability
2. Routine immunization and health systems strengthening
3. Equity
4. Linkages
Strategies

1. High population immunity through vaccination with two doses of measles and rubella containing vaccines
2. Effective surveillance, monitoring and evaluation
3. Outbreak preparedness and response & case management
4. Communication to build public confidence and demand for immunization
5. Research and development
Population Immunity

• Routine immunization
  • Increase 1\textsuperscript{st} dose to >95%
  • Expand coverage with 2\textsuperscript{nd} dose

• High quality SIAs
20.1 million infants not immunized against measles (MCV1), 2011

Immunization Vaccines and Biologicals, (IVB),
World Health Organization.
194 WHO Member States. Date of slide: 13 September 2012.
Root causes of low coverage...

• Vaccine availability
• Physical access
• Missed opportunities
• Health worker KAP
• Caregiver factors
• Community/societal factors
## Health Worker Knowledge and Practice before vs. after Measles SIAs in India, 2011

<table>
<thead>
<tr>
<th>Category</th>
<th>Indicator</th>
<th>Before SIA</th>
<th>After SIA</th>
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</thead>
<tbody>
<tr>
<td>Vaccine safety</td>
<td>Health worker knows a child with AEFI should be given first aid; referred</td>
<td>70%</td>
<td>100%</td>
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<td>Health worker has AEFI contact information</td>
<td>65%</td>
<td>85%</td>
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<td></td>
<td>Health worker has working hub cutter</td>
<td>80%</td>
<td>100%</td>
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<td></td>
<td>Health worker kept Measles vial in hole of ice pack during RI session</td>
<td>20%</td>
<td>55%</td>
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<tr>
<td>Record-keeping</td>
<td>Health worker properly filled register, health card, tally at RI session</td>
<td>52%</td>
<td>84%</td>
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<tr>
<td>Cold chain</td>
<td>Health worker received cold chain training past 6 months</td>
<td>25%</td>
<td>58%</td>
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<tr>
<td>Waste management</td>
<td>Health worker received waste management training in past 6 months</td>
<td>45%</td>
<td>74%</td>
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<tr>
<td>Child tracking</td>
<td>Health worker received training on child tracking in past 6 months</td>
<td>20%</td>
<td>42%</td>
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</tbody>
</table>

Source: Dr Satish Gupta, UNICEF/India, presentation at 11th Partners Meeting
Countries introducing MCV2:

- **2011:**
  - Bolivia, Botswana, Djibouti, India

- **2012:**
  - Bangladesh, Burundi, Cambodia, Eritrea, Gambia, Ghana, Sao Tome, Zambia

- **2013**
  - Burkina Faso
  - Kenya
  - Tanzania
Routine MCV2: an opportunity to strengthen systems

- Provides a well-child visit at 15-18 months
  - Catch-up missed doses
  - Nutrition screening
  - Vitamin A, deworming
  - Malaria prevention

- Administer other vaccines:
  - 4th dose of pertussis
  - Pneumococcal vaccine
  - Meningitis A
  - Malaria vaccine
"Best Practices" Measles SIAs: Ethiopia, 2010-2011

- **Target:** 8.5 million (9 – 47 months)

- **Phased in 2:**
  - October 2010 (90.8%)
  - February 2011 (9.2%)

- **Integrated interventions:**
  - OPV (0-59 months)
  - Vitamin A (6-59 months)
  - De-worming (24-59 months)
  - Nutritional Screening (6-59 months and pregnant and lactating women)

Source: Dr Fiona Braka, WHO Ethiopia
How can SIAs strengthen routine immunization? Lessons Learnt from Ethiopia

Key Areas in planning phase:
- Micro-planning
- Training
- Logistics Management
- Advocacy and social mobilization
- AEFI monitoring and management
- Surveillance
- Monitoring and Evaluation

Source: Dr Fiona Braka, WHO Ethiopia
Strengthening Routine Services through Measles - Cambodia

1. Focus on high risk communities
2. Used **measles SIA opportunity** to identify HRC by checking children’s immunization cards [2011]
3. Improving EPI service delivery to HRCs [2012]
   - New micro-planning guidelines
   - Mobile phones for village volunteers
   - Using measles 2\textsuperscript{nd} dose introduction to monitor if child was fully vaccinated

Source: Richard Duncan WHO/Cambodia
To have an impact: *Plan, Fund, Supervise*

**Before SIA**
- Microplan with population estimates
- Training needs assessment
- Update Inventory-Distribute equipment for SIA

**During SIA**
- Identify high risk communities
- Health worker training including needed topics
- Inventory-Distribute equipment for SIA

**Post SIA RI Follow-up**
- Revise target pop. for RI sessions
- Reinforced through supervision
- Fuel to operate it for RI

**Lasting improvement**
- Improved reach of RI
- Improved quality of services
- RI improved reliability & quality

Source: Rebecca Fields, John Snow Inc.
Funds raised locally (in USD / child) for measles SIAs. 2011 – 2012. African Region

36% of countries meet target in 2011

67% of countries meet target in 2012

Source: Dr Balcha Masresha, WHO African Region
Projected Dates of Rubella introductions
GAVI and non-GAVI countries, by end 2018

<table>
<thead>
<tr>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<th>2018</th>
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Based on WHO Regional Office, UNICEF SD and PD, and GAVI Strategic Demand Forecast, November 2012 (subject to change)
India and Indonesia plans are uncertain

* rolling SIAs

Applied to GAVI
Surveillance, Monitoring and Evaluation

- WHO/UNICEF coverage estimates
- Annual and monthly aggregate case reporting
- Annual estimates of measles mortality
- Regional initiative to verify elimination
- WHO Measles-Rubella Laboratory Network
WHO Global Measles and Rubella Laboratory Network (LabNet): 2012

N= 690 labs

184/194 countries served by proficient labs

- National Laboratories
- Regional Reference Labs
- Global Specialised Labs
- Provincial Labs China
- Sub-National Labs Russia
Distribution of rubella genotypes, 2011
(data as of 03/08/2012)
Polio Legacy: Measles Outbreak Surveillance in 11 States in India

2011

- 199 Measles outbreaks confirmed
- 20 Rubella outbreaks confirmed
- 13 Mixed outbreaks confirmed

232 outbreaks

2012*

- 43 Measles outbreaks confirmed
- 23 Rubella outbreaks confirmed
- 2 Mixed outbreaks confirmed

68 outbreaks

*Outbreak confirmation for Measles: ≥ 2 cases IgM positive for measles, Similarly for Rubella
©Surveillance started from June, 2011 in Bihar and July 2011 in Assam and Jharkhand

* data as on 15th October, 2012
Outbreak Preparedness and Response

"Measles is the canary in the coal mine"

..... Dr. Seth Berkley

• Use outbreaks to strengthen routine
• Timely outbreak response
Timely Outbreak Response

• GAVI Support ($55 million)
• Purpose
  – To prevent measles deaths and limit spread
  – To enable rapid response
• Mechanism
  – To be managed by MR Initiative
  – Standard operating principles being developed
• Criteria
  • Confirmed outbreak of national or international public health importance
  • Field investigation/risk assessment
  • Plan to address causes
  • Government commitment

Reported number of measles cases reported by week and province, DR Congo, 2011-2012
Communication to build public confidence and demand

- Advocacy, risk communication, social mobilization, and community engagement
- Communications strategic plan (draft version)
- Understand the drivers of vaccine hesitancy
- Initiatives in the European Region
1. **Publications and PR materials:**
   - (Monthly Epi Brief, Immunization Highlights (annual), Euro Immunization Monitor (quarterly))
   - Web and internal communications

2. **European Immunization Week** (53 MS in 2012)

3. **Outbreak and crisis communications** support to MS
   - Pandemic, polio and measles outbreaks, narcolepsy-pandemrix etc.

4. **Vaccine Safety Communications**: Manual (2013) and training for EPI Managers

5. **Social media** platform development, blogger mapping and outreach strategy

6. **Pilot projects** (positive deviance approach, cultural considerations related to vaccine safety comms, community entry methodologies)

7. **TIP Toolkit** - a new tool for Tailoring Immunization Programme response
Research and Development

- Need for an active research agenda
- New tools for diagnosis
- New tools for vaccine delivery (e.g., aerosol)
- SAGE Working Group on Measles and Rubella
• **Update immunization strategies** (Dr Susan Reef, CDC/Atlanta)
  – Is vaccination of adults needed to achieve elimination?
  – Upper age range for MR and M campaigns
  – Guidance for outbreak response immunization
  – Booster doses for children on anti-retroviral therapy

• **Improve surveillance and monitoring** (Dr Natasha Crowcroft, HPA/Canada)
  – Broad area of work to strengthen field/lab surveillance
  – Verification framework (see next presentation)

• **Develop a research agenda** (Dr William Moss, JHU)
  – Methodology for prioritization
  – Short list of topics with highest priority
Welcoming New Partners

GAVI
>$700 million in next 5 years

Lions Clubs International Foundation
Advocacy and social mobilization

International Pediatric Association and American Academy of Pediatrics
Mobilizing pediatricians

Sabin Vaccine Institute
Sensitizing parliamentarians to the value of vaccine

European CDC
Increased focus on measles and rubella in Europe
Objective: to strengthen the impact of the comprehensive package of support offered by the GAVI Alliance partners to sustainably prevent measles deaths and rubella/CRS

- strengthen health systems to deliver routine immunisations
- improve the sustainability of national financing for measles immunization and other vaccines

- **MCV1** performance-based funding
  - Part of Health System Strengthening
- **MCV2** in routine ($21m)
- **Rubella introduction** ($554m)
  - MR catch-up SIA (9m-14y)
    - Bundled vaccine
    - $0.65 / child for operational costs
  - Introduction grant
- **Measles follow-up SIAs** ($107m)
  - in Afghanistan, Pakistan, Chad, DRC, Ethiopia, Nigeria
- **Measles outbreak response** ($55m)
Estimated Resource Requirements by Major Category of Activity, 2013-2015

- Adequately funded:
  - M, MR SIAs
  - Outbreak response
  - Technical assistance

- Shortfalls:
  - SIAs to strengthen routine
  - Surveillance/lab
  - Surveys
  - Research
  - Communications

A global partnership to stop measles & rubella

Estimated Funding Gap: US $96 million
Summary

• New Strategic Plan provides the road map
• 5 key strategies provide opportunities to **accelerate** progress while **strengthening systems**
• New resources and partners
• Components of the plan remain unfunded
Acknowledgements

• SAGE Working Group on Measles and Rubella
• Partners in the Measles and Rubella Initiative
• WHO country, Regional and HQ staff

Thank You
Questions to SAGE

• Is the programme on track to achieve global and regional targets?
• In areas where it is on track, what are the lessons to be learnt?
• In areas where it is not on track, what are the barriers and what can be done to overcome them?