

# Measles and Rubella Elimination

## Session Outline

- 1. Global update and progress on the implementation of recommendations from the midterm review.**
  - A. Dabbagh, WHO. 20 min. (Discussion: 30 min.)
- 2. Critical immunity threshold for measles elimination.**
  - S. Funk, LSHTM. 20 min (Discussion: 20 min).
- 3. Measles in infants less than 6 months of age and effectiveness and safety of vaccination.**
  - N. Crowcroft, Member of SAGE MR Working Group. 25 min (Discussion: 20 min).
- 4. Should an Additional Dose of MCV be Recommended for HIV-infected Adolescents and Adults?**
  - B. Moss, Member of SAGE MR Working Group. 10 min (Discussion 15 min)

# Proposed MR SAGE WG Recommendations

# Global Update

- The four proposed country categories are appropriate and provide a standardized approach to country categorization. RVCs are encouraged to use the proposed categories.
- In order to make further gains in reducing the global burdens of measles and rubella, it is urgent that measles and rubella elimination receive a high priority for transition of PEI resources.

# Critical immunity threshold for measles elimination

1. Achieving at least 95% immunity across all age groups, geographical regions and population subgroups through coverage of at least 95% of each birth cohort with 2 doses of MCV remains the primary goal for measles elimination.
2. To achieve this, countries ideally should assess age-group specific immunity levels to identify age-groups with levels of immunity below predefined thresholds to be targeted for vaccination

# Critical immunity threshold for measles elimination

3. Neglecting immunity gaps in children older than five years of age, adolescents and adults could make it more difficult and costly to achieve measles elimination.
4. Immunity gaps in school-aged children are important and could increase the disease burden and mortality among infants younger than 1 year of age as school-aged children are likely sources of measles virus infection within families (as siblings in school or in the future as parents). Therefore, the MR SAGE WG recommends that:
  - Countries conducting follow-up MCV vaccination campaigns should target school-age children 5-9 years of age whenever MCV coverage among this epidemiologically important age group is assessed to be significantly lower than 95%.
  - Countries should put into place school entry checks for vaccination as they are an important tool to help identify and address immunity gaps in school-age children.

# Measles in infants < 6 months of age and effectiveness and safety of vaccination

1. Data from the systematic review is insufficient to recommend vaccination under 6 months of age
2. Immunizing infants <6 months would not be a primary strategy as it is not as effective as protecting through herd immunity achieved by high coverage in older age groups
3. The current policy statement on vaccination of infants from 6 months is already broad and inclusive
4. No need to expand the current recommendations

# Measles in infants < 6 months of age and effectiveness and safety of vaccination

## Research Gaps

There is a need to:

1. Address the substantial information gap on transmission sources, disease burden and role of factors such as blunting and maternal immunity in infants under 6 months
2. Better understand the transmission drivers (e.g. young adults or parents) to enable more effective targeting
3. Identify ways to improve data quality and tools to be able to interpret data according to data quality, completeness of surveillance and other contextual factors at country and region levels.
4. Conduct clinical trials in infants <6 months to improve the evidence concerning effectiveness, safety and long term effects on the effectiveness of subsequent MCV doses (i.e. MCV1 and MCV2)

# Revaccination of HIV infected adults

1. Studies of measles seroprevalence and measles vaccine immunogenicity among HIV-infected adults do not support the need for an additional dose of measles vaccine following immune reconstitution with HAART.
2. Measles susceptible adults, whether HIV infected or not, may require targeted vaccination efforts to achieve regional measles elimination goals.