

**SUBJECT: MEASLES SUPPLEMENTARY IMMUNISATION ACTIVITIES**

**Report of:** Hind Khatib-Othman, Managing Director, Country Programmes

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**Agenda item:** 02d

**Category:** For Decision

**Strategic goal:** SG1 - Underused and new vaccines

## **Section A: Overview**

### **1. Purpose of the report**

- 1.1 This report is submitted to the Board following the recommendation of the PPC with respect to an extension of Gavi support for one additional measles Supplementary Immunisation Activity (SIA) for children under five years of age in each of Ethiopia and DR Congo, which are expected to be conducted in 2015-2016 at an estimated cost of US \$30 million. On 22 May 2015, the Audit and Finance Committee reviewed the financial implications of the requested support and confirmed that it can be approved by the Board in accordance with the Programme Funding Policy.

### **2. Recommendations**

- 2.1 The PPC recommended to the Gavi Alliance Board that it:

- (a) **notes** its decision to support, on an exceptional basis, measles SIAs in six large countries at high risk of measles outbreaks (Afghanistan, Chad, DR Congo, Ethiopia, Nigeria, and Pakistan) as taken at its meeting in June 2012;
- (b) **approves** an extension of Gavi support for one additional measles SIA for children under five years of age in each of Ethiopia and DR Congo, which are expected to be conducted in 2015-2016 at an estimated cost of \$30 million; and
- (c) **notes** that the possibility of additional Gavi support for measles SIAs will be considered in the context of a strategy with respect to Gavi's overall involvement in measles and rubella, to be discussed by the PPC in October for possible recommendation to the Board in December 2015.

### 3. Executive summary

- 3.1 The Gavi Board in June 2012 made a decision to support 6 large countries (Afghanistan, Chad, DR Congo, Ethiopia, Nigeria and Pakistan) at high risk of measles outbreaks with measles SIAs. Gavi Executive Committee (EC) in March 2013 confirmed the Board's decision to support, on an exceptional basis, measles SIA for children under 5 years of age in these countries. The Board and EC based its deliberation on a WHO forecast which assumed that there would be only one measles SIA needed for Afghanistan, DR Congo, Ethiopia and Pakistan, and two for Nigeria and Chad before they were able to introduce measles-rubella (MR) vaccine.
- 3.2 Rubella introduction has been delayed in these countries because of a desire to address gaps in measles control, as well as competing priorities and due to increasing concerns on these countries' introducing MR at low measles vaccine coverage, and hence, WHO has revised the forecast for when these countries will introduce MR, requiring additional measles SIAs until such time as they can introduce MR. See Table 1 for revised forecast.
- 3.3 Five of these countries (including Ethiopia in 2013 and DR Congo in 2013-2014) have now conducted or nearly completed their first measles SIAs.
- 3.4 Based on an analysis from WHO, Ethiopia and DR Congo, will need additional measles SIA support within the next 12 months. Both Ethiopia and DR Congo are countries with low routine measles vaccine coverage, so even after the last SIA, the number of susceptible children increases quickly (See Annex A for a rough analysis provided by WHO).
- 3.5 The cost for additional SIAs for these 2 countries would be approximately **US\$ 30 million** for children under 5 years of age.
- 3.6 Two other countries with revised forecast for MR introduction and requiring additional Measles SIAs are Chad in 2018 and Nigeria in 2017. The PPC noted that the possibility of additional Gavi support for measles SIAs will be considered in the context of a strategy with respect to Gavi's overall involvement in measles and rubella. The Secretariat is currently consulting with partners to define the components of the strategy, which will be discussed by the PPC in October for possible recommendation to the Board in December 2015.

### 4. Risk implication and mitigation

- 4.1 All of the 5 countries<sup>1</sup> that conducted measles SIA with Gavi support reported having achieved >100% administrative coverage, but the post campaign coverage survey results generally revealed <95% coverage (see Annex B) for results of the measles SIAs). In Ethiopia, the post campaign coverage revealed 91% coverage, lower than the required 95%. Suboptimal campaign coverage when coupled with low routine immunisation leads countries to continue facing measles outbreaks and requiring outbreak responses in addition to regular follow up campaigns. Adequate preparation is required and this implies fast tracking of the application review and approval process.

<sup>1</sup> Chad, DR Congo, Ethiopia, Nigeria and Pakistan

Country should also be provided with intense technical assistance from all technical partners to ensure a high quality campaign that achieves >95% coverage. Careful mapping of low coverage areas for both SIAs and routine immunisation will be critical to determine activities required following the SIA.

- 4.2 Gavi funding for planned measles campaigns in the 6 large countries at risk of measles outbreaks is limited to a population up to 5 years of age on the basis of WHO's initial advice and in accordance with Gavi's goal of mortality reduction. Investing in preventing deaths through vaccination of children under 5 years of age is however not sufficient to stop transmission in older age groups and spillovers into younger age groups. In parallel, as Gavi's support is for children <5 years of age, countries and other donors and partners should mobilise resources for the remaining cohorts.

## **5. Financial implications: Business plan and budgets**

- 5.1 An extension of Gavi support for one additional measles SIA for children under five years of age in each of Ethiopia and DR Congo, which are expected to be conducted in 2015-2016 will be at an estimated cost of US \$30 million.

## **Section B: Content**

## **6. Background and changes in forecast**

- 6.1 When the Board made the decision to support 6 large countries at high risk of measles outbreaks with measles SIAs, it based its deliberation on a WHO forecast which assumed that there would be only one measles SIA needed for Afghanistan, DR Congo, Ethiopia and Pakistan, and two for Nigeria and Chad before they were able to introduce measles-rubella (MR) vaccine. Pakistan and Afghanistan were assumed to be able to perform their MR transition without asking for Gavi support for measles SIAs. The initial forecast was revised and presented to the Executive Committee in March 2013 to include financial support for SIAs in Afghanistan and Pakistan once it became clear that those countries would not have immediately transitioned to MR.
- 6.2 Five of these countries have now conducted or nearly completed their first measles SIAs. While results so far have notably improved compared to the past (e.g. in Chad, DR Congo and Nigeria, a marked reduction in cases was seen in the year following the SIAs), some countries are still facing outbreaks (e.g. in Ethiopia, particularly in older age groups). For this reason, Ethiopia has requested support from Gavi to conduct an under 15 year old measles SIA in 2015. Originally, Ethiopia was forecasted to introduce MR in 2016. Consequently, Gavi informed Ethiopia that Gavi was not in a position to allocate additional funding for a second measles SIA.
- 6.3 Regardless of MR introduction plans, regular SIAs are necessary for countries to avoid measles cases and deaths. The 6 large countries supported are the most challenging countries for measles control. Additionally, rubella introduction has been delayed in these countries

because of a desire to address gaps in measles control, as well as competing priorities (polio eradication in Afghanistan, Chad, Nigeria and Pakistan, and IPV introduction / trivalent Oral Polio Vaccine (tOPV)-bivalent Oral Polio Vaccine (bOPV) switch). Also, many Alliance partners and the Secretariat have increasing concerns in countries introducing MR while the routine MCV1 coverage is low. Hence, additional measles SIAs are needed in the meantime to address the problem of the build-up of susceptibles.

- 6.4 As a result of those changes and evolutions, WHO has now revised the forecast for these countries in terms of the number of measles SIAs needed before the countries are able to introduce MR. Please see Table 1 for the revised forecast.

**Table 1:** Original forecast submitted to the Board in June 2012 vs. forecast submitted to EC in March 2013 vs. latest forecast:

Country	Original forecast submitted to Board in June 2012	Forecast submitted to EC in March 2013	Latest forecast <sup>2</sup> as of 10 March 2015 (in bold font are those not originally budgeted)	Approx. Cost implication (in US\$) for children under 5 years of age (includes bundled vaccine cost and operational cost)	Approximate target population to be vaccinated	Requesting Board Approval
Afghanistan	MR catchup in 2015	Measles follow up in 2015	Measles follow up in 2015 MR catchup in 2017			
Chad	Measles follow up in 2014 and 2016	No change	Measles follow up in 2014, 2016 <b>and 2018</b> MR catchup in 2020	3 million		
DR Congo	Measles follow up (2013-2015), MR catchup (2016-2018)	No change	Measles follow up (2013-2014), <b>and 2016</b> MR catchup 2018	16 million	14.5 million	√
Ethiopia	Measles follow up in 2013, MR catchup in 2016	No change	Measles follow up in 2013 <b>and 2015</b> MR catchup in 2017	13 million	12 million	√
Nigeria	Measles follow up in 2013 and 2015 MR catchup in 2016	No change	Measles follow up in 2013, 2015 <b>and 2017</b> MR catchup in 2019	30 million		
Pakistan	MR catchup in 2014-2015	Measles follow up in 2013	Measles follow up in 2014-2015 MR catchup in 2017			

- Note: changes in latest WHO forecast from original are in Bold

<sup>2</sup> Assumption based on timing of MR introduction, which has shifted due a desire to address gaps in measles control, as well as competing priorities such as polio eradication in Afghanistan, Chad, Nigeria and Pakistan, and IPV introduction and tOPV-bOPV switch.

- 6.5 The revised forecast is based on a rough assessment of the readiness of the countries to introduce MR vaccine and the need to continue the periodic measles SIAs until then. In 2014, a risk assessment tool was developed for measles and is now undergoing pilot testing. Countries in AFRO region continue to follow the 2005 Technical Advisory Group recommendations on periodicity of follow up campaigns based on the routine measles vaccine coverage. A risk assessment tool for measles to assess risk of measles outbreaks at sub-national level was developed by US-CDC and is now undergoing pilot testing.
- 6.6 Based on an analysis from WHO, Ethiopia and DR Congo, will need additional measles SIA support within the next 12 months before the new Gavi measles strategy is defined. Both Ethiopia and DR Congo are countries with low routine measles vaccine coverage, so even after the last SIA, the number of susceptible children increases quickly. The cost for additional SIAs for these 2 countries would be approximately **US\$ 30 million** for children under 5 years of age.

## **Section C: Implications**

### **7. Impact on countries**

- 7.1 Countries should conduct follow-up SIAs as soon as possible, given the accumulation of children susceptible to measles creates a significant risk.

### **8. Impact on Gavi stakeholders**

- 8.1 Gavi's technical partners may be required to provide intense technical assistance to both Ethiopia and DR Congo to develop applications, campaign planning, implementation and evaluation to enable the country to reach coverage equal to or above 95% and support the country in reaching children who are constantly missed.

### **9. Impact on Secretariat**

- 9.1 Depending on the board decision, it is anticipated that the Secretariat will work more closely together with partners over the coming months to ensure adequate preparation of the measles SIA campaigns. Additionally, fast tracking of the Gavi's application review and approval process will be required. The Secretariat will simultaneously be conducting consultations with partners as part of its development of a strategy with respect to Gavi's overall involvement in measles and rubella, to be discussed by the PPC in October for possible recommendation to the Board in December 2015.

### **10. Legal and governance implications**

- 10.1 There are no legal and governance implications.

## **11. Consultation**

- 11.1 Alliance partners will be instrumental in application, planning, implementation and evaluation stages of the measles SIAs.

## **12. Gender implications**

- 12.1 There are no gender implications related to this decision.

### **Section D: Annexes**

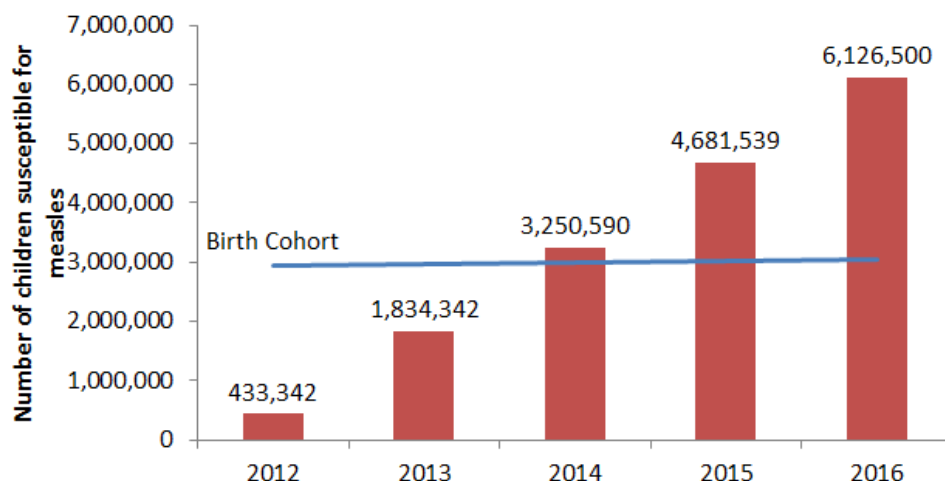
**Annex A:** rough analysis of children susceptible to measles and timing of measles SIAs in Ethiopia and DR Congo, source: WHO

**Annex B:** measles SIAs supported by Gavi and results, 2013-2014

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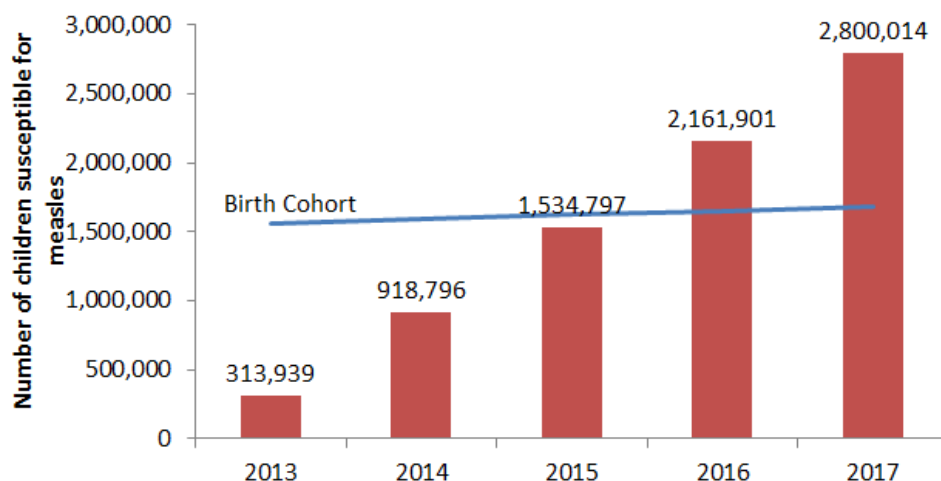
## Ethiopia

Cumulative estimated number of children born post-SIA susceptible to measles vs. size of birth cohort



## DR Congo, Provinces Targeted in 2014

Cumulative estimated number of children born post-SIA susceptible to measles vs. size of birth cohort





**Annex B:** measles SIAs supported by Gavi and results, 2013-2014

Country (year)	MCV1 coverage (2013 WUENIC est.)	Previous measles SIA coverage (Admin)	Coverage for SIA supported by Gavi (Admin)	Coverage result from post campaign coverage survey	Target age range for the SIA	Number vaccinated with Gavi support
Ethiopia (2013)	62%	106% <sup>3</sup>	98%	91%	9 months-5 years	11,609,484 (9 months-5 years)
Nigeria (2013)	59%	100%	104%	74.5%	9 months-5 years	30,579,666 (9 months-5 years)
DR Congo (2013-2014)	73%		101%	Coverage survey done for only first 2 phases	6 months-9 years	29,597,353 <sup>4</sup> (6 months-10 years)
Chad (2014)	59%	111%	103%	101.6% for October phase <sup>5</sup>	6 months-9 years	4,898,808 <sup>6</sup> (6 months-9 years)
Pakistan (2014)	61%		105%	84.5% (in Sindh, Karachi and Hyderabad)	9 months-9 years	14,026,013 <sup>7</sup> (9 months-9 years)

<sup>3</sup> Ethiopia: According to post campaign coverage survey for the 2010-2011 SIA, coverage was 88%

<sup>4</sup> 5 years-10 years was funded from other sources

<sup>5</sup> 81.7% for <5 year olds. 123.4% for 5-9 year olds

<sup>6</sup> 5 years- 9 years was funded by MRI using Gavi outbreak response fund

<sup>7</sup> Pakistan: Total vaccinated for 9 months 9 years. Gavi support was for 9 months-5 years. From admin coverage report