



Report to the GAVI Alliance Board

16-17 November 2011

Subject:	Review of Eligibility Threshold
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Agenda item:	B
Category:	For Information
Strategic goal:	Affects all strategic goals

Section A: Overview

1. Purpose of the report

- 1.1 The purpose of this paper is to inform the Board about the analytical work that has been done following the request of some Board members in July 2011 to explore the impact of raising the GAVI eligibility threshold from US\$ 1,500 to US\$ 2,000 Gross National Income (GNI) per capita.

2. Recommendations

- 2.1 This paper is for information only.

3. Executive summary

- 3.1 In July 2011, some Board members raised the question as to whether or not GAVI should consider raising the eligibility threshold to US\$ 2,030¹ due to successful replenishment.
- 3.2 Six graduating countries with a combined birth cohort of roughly 600'000 infants would regain eligibility under this revised threshold.
- 3.3 The expected financial cost implication for the GAVI Alliance, but also the additional health impact, is small as all six countries have already introduced pentavalent vaccines and most have been approved for introduction of pneumococcal and/or rotavirus vaccines.
- 3.4 Almost 90% of GAVI's additional financial outlay resulting from a revision of the threshold to US\$ 2,030 would not contribute to gaining additional health impact, but would result in lower country co-financing for countries remaining eligible longer.

¹ US\$ 2,030 in 2012 corresponds to the inflation adjusted US\$ 2,000 in 2011

- 3.5 Analysis shows that raising the threshold to US\$ 2,030 would neither serve the original policy objective of this option when presented to the Board in 2009 (i.e. to maintain the original size of the GAVI birth cohort), nor would it address the increasing concerns related to slow vaccine uptake in non GAVI-eligible LMICs.
- 3.6 Thus, rather than changing the eligibility threshold, the Secretariat proposes to explore options for how GAVI may provide other forms of support to lower-middle income countries that are not currently GAVI-eligible.

4. Context

4.1 Background

- (a) Between launch in 2000 and 2009, GAVI defined country eligibility by Gross National Income per capita (GNI per capita) \leq \$1,000 (initially using 1998 World Bank Atlas method data). During that time, GAVI revised the list of eligible countries only twice – it added Timor-Leste when it became an independent state in 2002 and it updated the list in 2004, using 2003 World Bank GNI per capita data.
- (b) In 2009 a thorough review of GAVI's eligibility policy took place. In November 2009, the Board was presented with two options for the new GNI per capita eligibility threshold for 2011 - US\$ 1,500 or US \$ 2,000. The former was chosen. While the US\$1,500 was roughly equivalent to inflation adjustment of the previous \$ 1,000 threshold set in 2000, the US\$ 2,000 would have roughly maintained the size of the GAVI birth cohort at about 79 million infants.
- (c) Many factors influenced the Board's choice of the US\$ 1,500 threshold, including:
- That donors with a poverty focus would be more likely to support GAVI if it chose the lower threshold;
 - That in the constrained economic climate at the time it made sense that GAVI retain fewer eligible countries; and
 - That, adjusted for inflation, US\$ 1,500 was roughly equivalent to US\$ 1,000 in 2000 (the year the eligibility policy and the \$1,000 threshold were first applied).
- (d) In July 2011, some Board members raised the issue as to whether or not GAVI should review its eligibility threshold due to successful replenishment. In particular, the question was raised as to whether the Alliance would again choose the US\$ 1,500 GNI p.c. threshold (over the US\$ 2,000) if the same decision were to be made today.

4.2 Impact of raising eligibility threshold to US\$2,030 GNI per capita

- (a) At today's GNI per capita levels, the choice of the higher threshold (now US\$ 2,030 with adjustment for inflation) implies that six countries – Bolivia, Bhutan,

Honduras, Kiribati, Moldova and Mongolia - representing a birth cohort of roughly 600,000 infants would continue to be eligible (see Annex 1).

- (b) In the 2009 Board paper, there were seven countries which fell between the US\$ 1,500 and the US\$ 2,000 thresholds. Their combined birth cohort was about 5 million. Four of these countries are now above the US\$ 2,030 threshold so are ineligible in both scenarios: Egypt, Kosovo, Philippines and Sri Lanka. The combined birth cohort of these countries is approximately 4.5m. Income levels of three out of the seven countries (Bhutan, Honduras, and Mongolia) have remained between the two thresholds and these countries would therefore become eligible under the US\$ 2,030 threshold. Three additional countries (Moldova, Kiribati, and Bolivia) not currently eligible under the US\$ 1,520 threshold would also become eligible if the threshold was increased to US\$ 2,030.
- (c) The combined birth cohort of the six countries that would become eligible with a US\$ 2,030 threshold today represents approximately 10% of the birth cohort of the seven original countries that would have been included in the higher threshold option in 2009. Thus, adjusting the threshold to US\$ 2,030 would no longer serve the policy objective of the original recommendation on the higher option, which intended to keep the birth cohort roughly similar to the birth cohort of the previously eligible countries. In order to meet that objective, the threshold would have to be increased to US\$ 2,340. Under this scenario, countries such as the Philippines, Sri Lanka, Iraq and Egypt would become eligible for GAVI financial support, which would require close consultation with industry due to their commercial importance.
- (d) The total expected financial impact for GAVI of raising the eligibility threshold to US\$ 2,030 would be approximately US\$ 26 million for 2012-2015 and US\$ 228 million for 2012-2020. Deaths averted would increase by 0.27% (+20,898), and cases averted by 0.05% (+39,541) in the period 2012-2020.
- (e) There are two drivers of the incremental cost to GAVI: first, the six countries that would regain eligibility would be allowed to apply for new vaccine support (and new cash based support²). New vaccine introductions expected from these six countries would imply a small additional cost (US\$ 7 million for new vaccine introductions between 2012-2015) and yield a relatively small additional health impact given that many of the countries concerned have already introduced or are approved to introduce key GAVI vaccines. Second, the main financial driver of the incremental cost would be that countries, which otherwise would have been progressing to 'graduating countries' status under the current policy, would remain longer in the 'intermediary' co-financing category. Thus, they would have reduced levels of co-financing. This represents an added cost of approximately US\$ 19 million in 2012-2015 and US\$ 208 million through to 2020. In sum, for every additional US\$ 10 spent as a result of the increased eligibility threshold, only US\$ 1 would contribute to

² For the purpose of this analysis, only the financial implications related to vaccines were considered. Vaccine introduction grants or other cash based support were not included.

additional health impact, while almost US\$ 9 would be used on supplemental country co-financing.

- (f) India was excluded from the cost-impact analysis because of the budget cap applied. Currently projected to cross the eligibility threshold in 2015, India's expected graduation would shift out by five years to 2020 under the US\$ 2,030 threshold. This would imply India's co-financing obligations for pentavalent vaccines between 2015 and 2020 would be reduced.

4.3 Recommended approach

- (a) Based on the analysis described above and in Annex 1, raising the eligibility threshold to US\$ 2,030 GNI per capita does not seem to provide the best solution for the following main reasons:
- Increasing the eligibility threshold to US\$2,030 would have little additional health impact and is no longer consistent with the intent of the higher threshold which was to maintain the size of GAVI's birth cohort.
 - Raising the threshold presumes that what countries with GNI p.c. between US\$ 1,520 and US\$ 2,030 need is GAVI's financial support for new vaccine introductions. Other potential ways for GAVI to support these countries (including non-financial and other types of financial support) have not yet been systematically explored by GAVI.
 - While raising the threshold may provide financial relief for six graduating countries, it does not provide a solution to the broader question of GAVI's role in support of lower-middle income countries³.
 - A threshold change would undermine the objectives of country ownership and sustainability recently reaffirmed by the Board in the revision of the co-financing policy, as it would increase the cost to GAVI due to reduced country co-financing.
 - The GAVI phase 2 evaluation noted that frequent policy changes within a short time undermine GAVI's credibility.
- (b) Thus, rather than recommending a change to the eligibility threshold, the Secretariat would explore other forms of GAVI support to LMICs and develop options for PPC and Board consideration. Options may include full or partial financial support, technical assistance in defined areas such as vaccine procurement, financing, regulation and advocacy, or support for some form of joint procurement or access to more affordable prices. All options will be presented with an assessment of likely impact, benefits, risks and projected financial implications.

³ Lower-middle income countries (LMICs) are defined by the World Bank as countries with GNI per capita levels between US\$1,006 and US\$3,975 (based on 2010 GNI data released in July 2011). Of a total of 56 LMICs, 21 are GAVI-eligible, 14 are GAVI graduating, and 21 are neither eligible nor graduating countries.

5. Next steps

- 5.1 The Secretariat will develop a series of options (including projected financial impact) on how GAVI may best support LMICs that are not currently GAVI-eligible. These options will be presented to the PPC, if appropriate to the AFC, and the Board in 2012.

6. Conclusions

- 6.1 Raising the eligibility threshold to US\$ 2,030 no longer serves the policy objective of this option as presented to the Board in 2009 (i.e. maintaining the birth cohort as at GAVI's inception). While providing additional and prolonged financial support to 6 graduating countries, an upward revision of the threshold would not address the raising concerns about slow vaccine uptake in other LMICs.
- 6.2 Rather than changing the eligibility threshold from US\$ 1,500 to US\$ 2,000, the Secretariat therefore recommends retaining the current eligibility threshold and to explore what other forms of support may be given to Lower Middle Income Countries (LMICs) that are not currently GAVI-eligible.
- 6.3 Options for GAVI support to LMICs should be developed by the Secretariat and with Alliance members, taking into account existing work identifying the needs of these countries. The options will be presented to the Programme and Policy Committee (PPC), if appropriate to the Audit and Finance Committee (AFC), and the Board in 2012.

Section B: Implications

7. Impact on countries

- 7.1 Raising the eligibility threshold to US\$ 2,030 would directly impact six graduating countries that would regain eligibility. These countries could apply for new vaccine and cash based support in future rounds and would co-finance already introduced vaccines at the 'intermediary' group level (rather than the 'graduating' group level).
- 7.2 All countries would graduate later than currently anticipated under the US\$ 1,520 threshold. This implies that countries would co-finance over a much longer period of time according to the 'intermediary' co-financing level (as all countries with GNI per capita between low-income country threshold – currently US\$ 1,005 - and US\$ 2,030 would fall into the 'intermediary' co-financing group).
- 7.3 A revision of the 2009 decision would require extensive communications to countries, with the risk of confusion of eligibility status potentially leading to delays in vaccine introduction. A revision of the threshold would also imply a change in co-financing requirements for some countries which may lead to confusion.
- 7.4 Under the US\$ 2,030 eligibility threshold (which will be updated annually for inflation) and current GNI projections, India is estimated to remain GAVI eligible until 2020. Nigeria is projected to stay eligible beyond 2030.

8. Impact on GAVI Stakeholders

- 8.1 A further revision to the eligibility policy that was approved by the Board in 2009 and came into effect as of January 2011 is likely to create some degree of confusion and uncertainty across GAVI stakeholders. Even if well communicated and justified, it is likely that some partners would perceive the frequent changes in policy direction as a lack of strategic determination and continuity. This may affect the credibility of other GAVI policies.
- 8.2 If the recommended approach is followed (i.e. no revision of the threshold, but exploration of LMIC support options), the impact on stakeholders will be assessed for each proposed option.

9. Impact on the Business Plan / Budget / Programme Financing

- 9.1 Cost-benefit analyses of the options available to the GAVI Alliance to support LMICs will be presented in the options paper to the PPC and Board in 2012.

10. Risk implications and mitigations

- 10.1 GAVI could be criticised for not extending its scope through an upward revision of the eligibility criteria in light of its successful replenishment. However, GAVI will mitigate against this by presenting to the PPC and Board in 2012 a series of options for potential GAVI support to those LMICs that are not currently eligible for GAVI's financial support.

11. Legal or governance implications

- 11.1 This paper is for information only and there are no legal implications at this stage.

12. Consultation

- 12.1 No consultations have been held for this initial analysis. To develop the options for potential GAVI support to LMICs, consultations will be organised with partners and other stakeholders (e.g. consultants involved in studies on the specific needs of LMICs).

13. Gender implications / issues

- 13.1 The development of alternative options for support to LMICs does not have specific implications on gender equality or on gender related barriers to access and utilisation of vaccines.

14. Implications for the Secretariat

- 14.1 Exploring policy options to support LMICs has been included in the 2012 workplan and budget.

Annex 1: Impact of raising eligibility threshold from US\$ 1,520 to US\$ 2,030

Table 1: Overview

Eligibility Threshold Scenario in 2011*	Number of countries	Total Birth Cohort 2010¥	Cumulative GAVI vaccine programme costs ⁺		Deaths averted [^]	Cases averted [^]
			2012-2015	2012-2020	2012-2020	2012-2020
Scenario 1: GNI per capita <= US\$ 1,520	57	73.68 m	US\$ 2.982 bn	US\$ 7.311 bn	7.79 m	73.38 m
Scenario 2: GNI per capita <= US\$ 2,030	63	74.26 m	US\$ 3.008 bn	US\$ 7.539 bn	7.81 m	73.42 m
Absolute increase	6	577,507	US\$ 25.84 m	US\$ 227.81 m	20,898	39,541
Relative increase	10.7%	0.8%	0.9%	3.1%	0.27%	0.05%

* Estimate based on most recent World Bank data.

¥ United Nations, Department of Economic and Social Affairs, Population Division: World Population Prospects, the 2008 Revision. New York, 2009

⁺ All NVS cost projections are in US dollars and are based on current demand (SDF V4.0) and pricing projections for four GAVI-funded vaccines (pentavalent, rota, pneumo, yellow fever) and the VIS portfolio (HPV, JE, Rubella and Typhoid) as of September 2011. The cost projections are for vaccines only (fully loaded cost) – no vaccine introduction grant or other cash based support included. The projections cover all eligible countries except for India, which has been excluded from cost and impact analyses because its budget caps will impact on the vaccine demand. In a scenario where we choose the higher threshold, which is adjusted annually based on inflation, India would be expected to graduate in 2020.

[^] Deaths and cases averted are calculated with the 2009 methodology for consistency in comparison.

Table 2: Six countries would regain eligibility under the US\$ 2,030 threshold

	Country	GNI p.c 2010 (US\$)	Total birth cohort (2010)	Projected year of becoming ineligible¥	Already introduced or (approved)	Expected new application (under US\$ 2,030)
1	Bolivia	1790	261,316	Post 2020	Penta, Rota, (Pneumo)	HPV
2	Moldova	1810	45,093	2016	Penta, (Pneumo, Rota)	
3	Honduras	1880	202,793	Post 2020	Penta, Pneumo, Rota	HPV
4	Mongolia	1890	50,665	2016	Penta	HPV, Pneumo
5	Bhutan	1920	14,873	2015	Penta	Pneumo, Typhoid
6	Kiribati	2010	2767*	2013	Penta, (Pneumo)	
	Total		577,507			

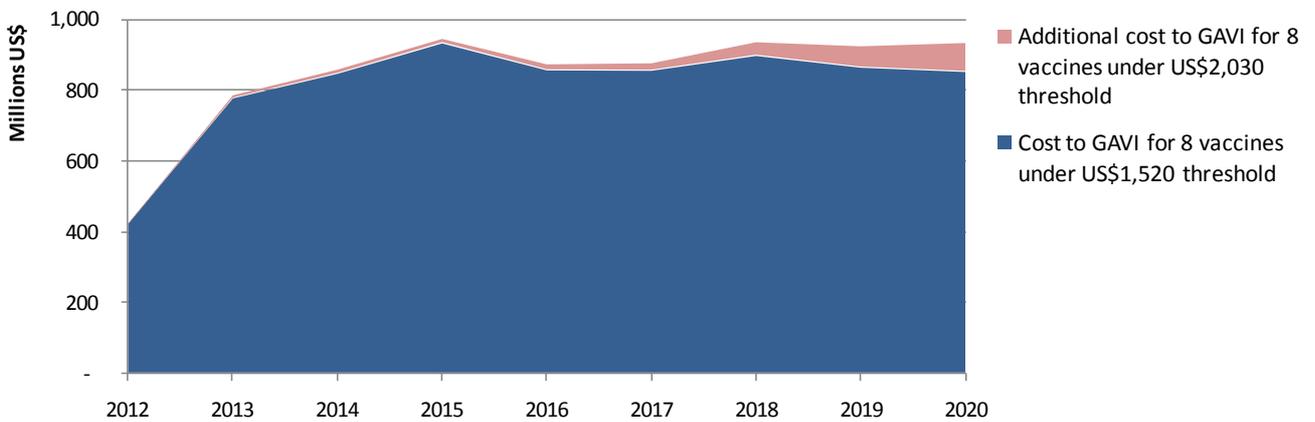
* Based on population estimates from UN Population Division (the 2008 Revision) and crude birth rate estimate for 2010 from WPRO Health Databank (2010 Revision)

¥ Based on countries' projected GNI growth and projected yearly inflation adjustments of eligibility threshold

Table 3: Projected yearly cost to GAVI under both scenarios (in US\$ million)

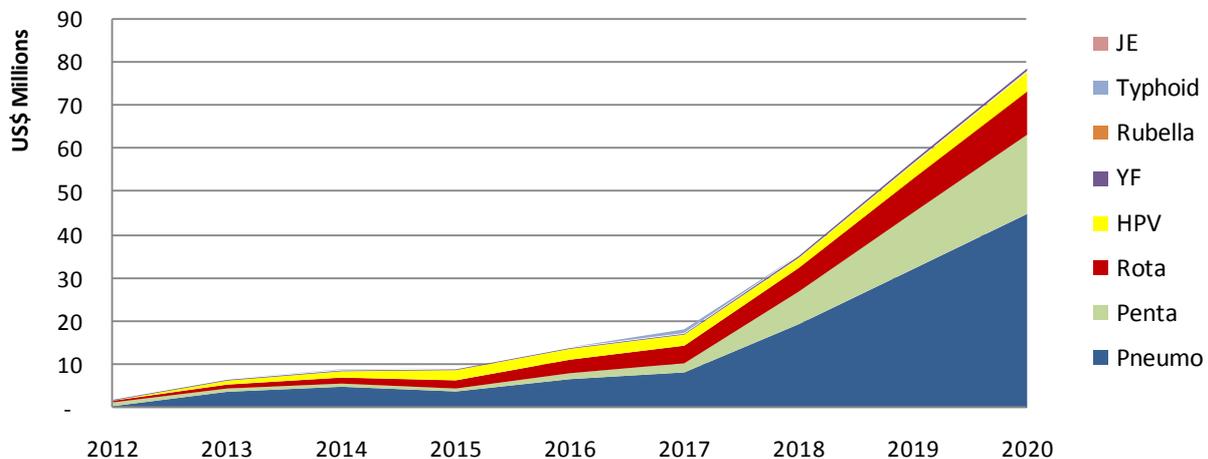
	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cost Scenario 1: Current eligibility	\$ 423	\$ 778	\$ 848	\$ 934	\$ 857	\$ 856	\$ 898	\$ 864	\$ 853
Cost Scenario 2: \$2,030 eligibility	\$ 424	\$ 784	\$ 856	\$ 943	\$ 871	\$ 874	\$ 933	\$ 922	\$ 931
Absolute increase	\$ 2	\$ 6	\$ 9	\$ 9	\$ 14	\$ 18	\$ 35	\$ 57	\$ 78
Relative increase	0.4%	0.8%	1.0%	0.9%	1.6%	2.1%	3.9%	6.6%	9.2%

Chart 1: Overview of total annual (and additional) cost to GAVI for 8 vaccines**



** 8 vaccines included in this analysis are pentavalent, pneumococcal, rotavirus, yellow fever, HPV, rubella, JE, and typhoid vaccines

Chart 2: Overview of drivers of additional annual cost for GAVI by vaccine



Main drivers of additional cost for GAVI

All 6 countries that would become eligible under the US\$ 2,030 threshold have already introduced pentavalent vaccines. Many have also introduced or just recently got approved to introduce pneumo and rotavirus vaccines with GAVI support (see Table 2). The additional demand for GAVI-supported vaccines would therefore be relatively small, and focus mainly on HPV (applications would be expected from Bolivia, Honduras and Mongolia) and pneumo (Mongolia, Bhutan). As a result of the relatively small birth cohort of these countries, the additional cost for GAVI (but also the additional health impact) to support introduction of new vaccines in these six countries is small.

By far the bigger driver of additional cost for GAVI (as displayed in Table 4 and Chart 4) would be the decreased level of co-financing these six countries and all other countries would be required to contribute over time. As all countries would cross the eligibility threshold later they would all remain for a longer period of time in the 'intermediary' co-financing grouping (where the co-financing is still relatively low).

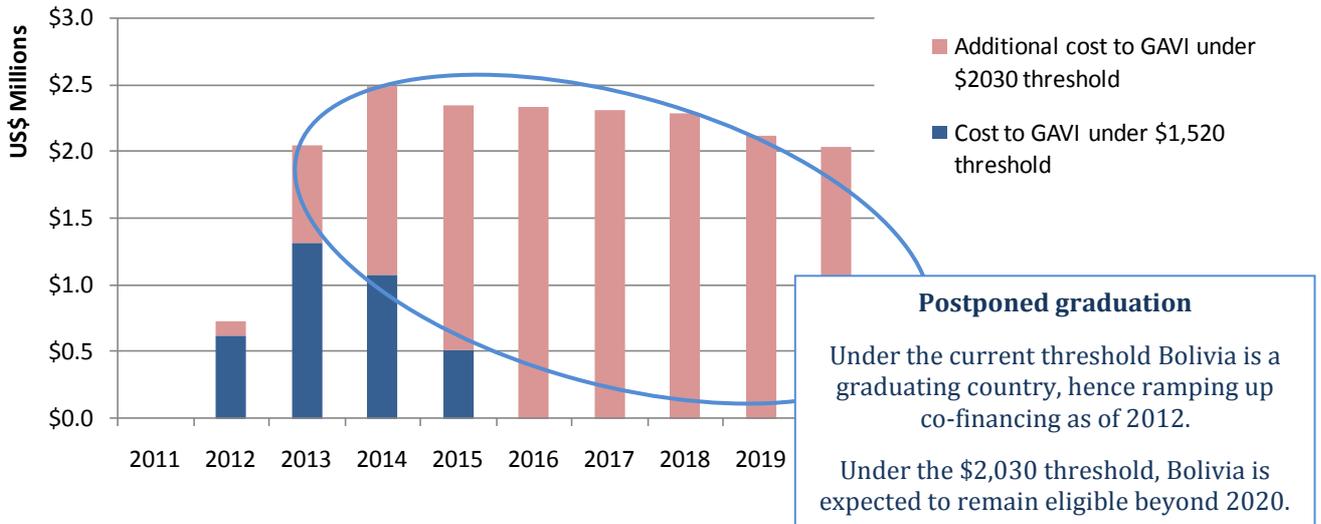
Table 4: Additional cost to GAVI under US\$ 2,030 GNI p.c. threshold by driver
(In US\$ million)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Additional GAVI cost due to new NVS applications from 6 countries in Table 2	\$-	\$1	\$2	\$3	\$3	\$3	\$3	\$2	\$2	\$19
Additional GAVI cost due to decreased country co-financing (all countries)	\$2	\$5	\$6	\$6	\$11	\$15	\$32	\$55	\$76	\$208
Total additional cost for GAVI	\$1	\$5	\$7	\$7	\$11	\$15	\$31	\$52	\$73	\$228

The additional cost for GAVI is due to two main factors. We can distinguish one primary driver and a secondary driver:

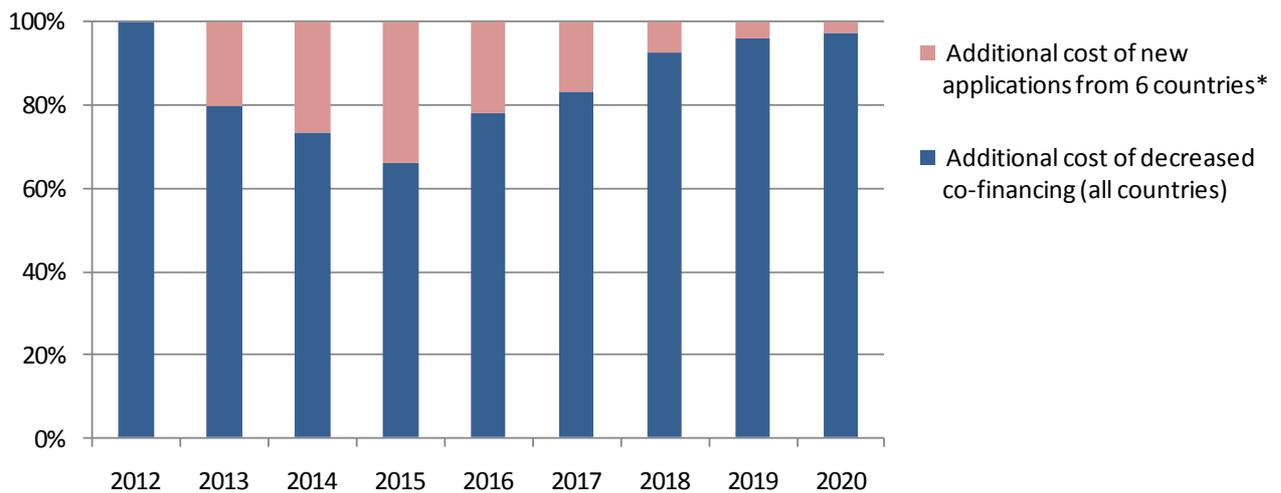
1. The primary driver (more than 90% of incremental costs to GAVI between 2012 and 2020) is that countries generally graduate later and remain longer in the intermediary co-financing group (where they co-finance US\$ 0.20 per dose with annual increase of 15%) → GAVI incurs additional cost in later years due to lower co-financing levels (see example in Chart 3).

Chart 3: GAVI cost implications for pneumococcal vaccines in Bolivia



- The secondary cost driver is that the six additional countries that would become eligible are expected to put in new vaccine support (NVS) applications for those vaccines not yet introduced in the national immunisation programme (e.g. HPV applications would be expected from Bolivia, Honduras and Mongolia – see Table 2). This factor accounts for roughly 10% of incremental cost to GAVI between 2012 -2020 (Chart 4).

Chart 4: Relative contribution of two drivers of additional cost (% of total additional cost)



*6 countries are those displayed in Table 2