



REPORT OF THE INDEPENDENT
REVIEW COMMITTEE TO THE
GAVI ALLIANCE ON THE REVIEW
OF APPLICATIONS



MARCH 2020

Contents

Executive Summary	3
Methods and Processes	4
Methods	4
Criteria for Review	6
Decisions	6
Key Findings and Recommendations	7
NVS and Campaigns	7
AEFI	11
Data Quality and Use	13
Supply Chain and Waste Management	13
Coverage and Equity	15
Budgets, Financial Management and Sustainability	17
Governance	20
Technical Assistance	20
Review Processes	21
Yellow Fever Diagnostics Support	22
Conclusions	24
Best Practices	24
Acknowledgements	25
Annex 1: List of IRC Members	26

List of Acronyms

2YL	Second year of life
AEFI	Adverse event(s) following immunization
AMC	Advanced Marketing Commitment
CCE	Cold-chain equipment
CCEOP	Cold-chain equipment optimization platform
CCL	Cold-chain logistics
CSO	Civil society organization
DHIS	District Health Information Software
DHS	Demographic and Health Survey
DSA	Daily Subsistence Allowance
EPI	Expanded Program on Immunization
EVM	Effective Vaccine Management
FIC	Fully Immunized Child
Gavi	Global Alliance for Vaccines and Immunizations
HPV	Human papillomavirus
HR	Human resources
HSS	Health System Strengthening
ICC	Inter-Agency Coordinating Committee
IP	Improvement plan
IRC	Independent Review Committee
JA	Joint Appraisal
LCA	Laboratory Capacity Assessment
M&E	Monitoring and Evaluation
MAC	Multi-age cohort
MCV	Measles-containing vaccine
MICS	Multi Indicator Cluster Survey
NGO	Nongovernmental organization
NITAG	National Immunization Technical Advisory Group
NVI	New Vaccine Introduction
NVS	New Vaccine Support
PCR	Polymerase chain reaction
PCV	Pneumococcal vaccine
RCM	Rapid Convenience Monitoring
RI	Routine immunization
Rota	Rotavirus vaccine
RRL	Regional reference laboratory
SC	Supply chain
SCM	Supply-chain management
SIA	Supplementary immunization activity
TA	Technical assistance
VIG	Vaccine introduction grant
WHO	World Health Organization
WUENIC	WHO/UNICEF Estimates of National Immunization Coverage
YF	Yellow fever
YF DS	Yellow fever diagnostics supplies

Executive Summary

The IRC could not hold a face to face meeting in Geneva as planned because of the COVID-19 outbreak. A virtual meeting was held 16th – 26th March with 14 IRC members, five of them new. The IRC members prepared draft reports of their assigned countries prior to the meeting. These reports were presented and extensively discussed, and the Secretariat and partners provided country-specific and other information needed to assist in determining the IRC recommendation of approval or re-review. The IRC members focused on the following specific tasks during the review period:

- Review of country specific funding requests and supporting documentation for applications for vaccine introductions and campaigns to support countries’ efforts improve coverage and equity.
- Production of country-specific review reports and recommendations.
- Development of a consolidated report of the review, including recommendations for improving funding requests and strengthening Routine Immunization.
- Recommendations to the Board and the Alliance partners on improving processes relating to Gavi policies, governance, and structure.

In addition to the desk review and virtual discussions of 11 NVS applications from 9 countries with full committee discussion, the IRC also remotely reviewed:

- Indonesia’s request for Pneumococcal vaccine (PCV) support through access to the tail price of the Advanced Market Commitment (AMC);
- the applications of 14 countries in the African Yellow Fever (YF) Belt for YF Diagnostics Support; and
- a request to comment on a proposed decision-making process for allocating additional supplies for YF testing in case of detection of an outbreak of yellow fever.

The remote reviews were without full committee discussion.

Table 1 presents the requests by countries and the review outcomes.

NVS and Campaigns			Remote Reviews		
Country	Support	Outcome	Country	Support	Outcome
Burundi	MR Follow Up	Approval	Indonesia	PCV AMC	Approval
Congo	YF Campaign	Approval	Burkina Faso; Cameroun; Central African Republic; Congo; Côte d’Ivoire; DR Congo;	YF Diagnostics Support	Approval
Côte d’Ivoire	MR2	Re-review			
	MR Follow Up	Re-review			
DR Congo	M1+2	Re-review			
Lesotho	HPV RI + MAC	Approval			

	MR Follow Up	Approval		Kenya; Liberia; Mali; Nigeria; Senegal; South Sudan; Togo; Uganda.		
Pakistan	MR1+2 + Catch Up	Re-review				
Sao Tome and Principe	MR Follow Up	Re-review				
Vietnam	Rota	Approval				

Key points to be noted:

- Seven of the 11 NVS/ Campaign applications were for MCV support. The quality of the proposals was relatively weak, with insufficiently tailored strategies to reach un- or under-vaccinated children and ensure sustained high coverage.
- Although some improvement in data quality and use was evident, weaknesses still remain, especially at the subnational level, where data is not being used to develop tailored strategies.
- The quality of budgets shows some improvement, although significant difficulties persist.

The IRC has recommended actions to address the above issues.

Best Practices include epidemiological analysis of the 2019 measles outbreak by Burundi; use of surveys to gather data on equity, and Knowledge, Attitudes and Practices (KAP) by Lesotho; slum mapping by Pakistan; allocation of additional funds by Lesotho to low-performing areas to help with micro-planning to help identify and reach groups with low coverage; and increasing use of WHO tools and guidance to increase coverage of underserved populations.

Methods and Processes

Methods

The IRC met 16th – 26th March 2020; this was supposed to be a Geneva-based face to face meeting but had to be held virtually because of the COVID-19 outbreak. Fourteen IRC members participated in this review round, including five new members who underwent a virtual induction training. Areas of expertise included Immunization Services; Measles Control; Health Development; Management and Evaluation of Health Services; Health Systems Strengthening (HSS); Human Papillomavirus (HPV); Outbreak, Epidemic and Emergency Response; AEFI Surveillance; Health Policy and Planning; Primary Health Care, Supply Chain and Waste Management; Epidemiology; Reproductive Health; and Immunization Financing, Budget and Financial Management.

The country applications and supporting documents were shared with IRC members about 10 days prior to the meeting. Based on these, IRC members reviewed, analyzed, and prepared draft reports of their assigned countries. The Secretariat provided clarifications and any additional documents needed.

The meeting started off with a brief induction training for new members; this included a session on the budget analysis tool recently developed by Gavi for the cross-cutting area of budget and financial management. Thereafter, the review continued with briefings and updates from the Secretariat and

Alliance partners on key topic areas relevant to this review round, i.e. Gavi policy overview; vaccine updates (for Measles and Rubella and HPV); program financing; and monitoring and evaluation.

Each country proposal was reviewed by at least 2 members, a first and a second reviewer (3 for the proposals from Pakistan (MR 2-dose schedule with catch-up campaign) and DR Congo (M1+2)). Each reviewed the applications and supporting documents independently and prepared separate, individual reports. Reviews for the cross-cutting issues of budgets and financial sustainability, and supply chain and waste management were conducted by two financial cross-cutters and 2 IRC members specializing in supply chain.

These reports were presented in daily plenaries, during which the initial findings were extensively discussed, with a final, consensual, outcome decision of approval or re-review. The Secretariat and partners supported the plenaries by providing information and clarifications when needed, especially in terms of country-specific background and context. The IRC decisions were not always agreed upon immediately after the plenaries; sometimes discussions were postponed in order to clarify some outstanding issues, or acquire additional documentation or information from the country, the Secretariat, or technical partners. Eventually, all decisions were taken jointly with the involvement of all IRC members. The first reviewers then consolidated the discussions, decisions and recommendations in draft country reports; these drafts were then finalized after editing, thorough fact and consistency checking, as well as quality review.

There were two review modalities during this review round, as presented in Table 2:

1. Desk review and virtual discussions of 11 NVS applications from 9 countries with full committee discussion; and
2. Remote reviews, without full committee discussion, of Indonesia's request for PCA support through AMC; the applications of 14 African countries at high risk for yellow fever outbreaks for YF Diagnostics Support; and a request to comment on a proposed decision making process for allocating additional supplies for yellow fever testing in case of detection of an outbreak of yellow fever.

Table 2: Country Applications by Type and Review Modality			
Countries	Application/ Support requested	Modality	No. of applications
Burundi	MR Follow Up	Desk (virtual)	1
Congo	YF Campaign	Desk (virtual)	1
Côte d'Ivoire	MR 2	Desk (virtual)	1
	MR Follow Up	Desk (virtual)	1
DR Congo	M1+2	Desk (virtual)	1
Lesotho	HPV + MAC	Desk (virtual)	1
	MR Follow Up	Desk (virtual)	1
Pakistan	MR 1+2 plus Catch Up	Desk (virtual)	1
Sao Tome and Principe	MR Follow Up	Desk (virtual)	1
Vietnam	Rota	Desk (virtual)	1

Indonesia	PCV AMC	Remote review	1
Burkina Faso; Cameroun; Central African Republic; Congo; Cote d'Ivoire; DR Congo; Kenya; Liberia; Mali; Nigeria; Senegal; South Sudan; Togo; Uganda	Yellow Fever Diagnostics Support	Remote Review	14

Criteria for Review

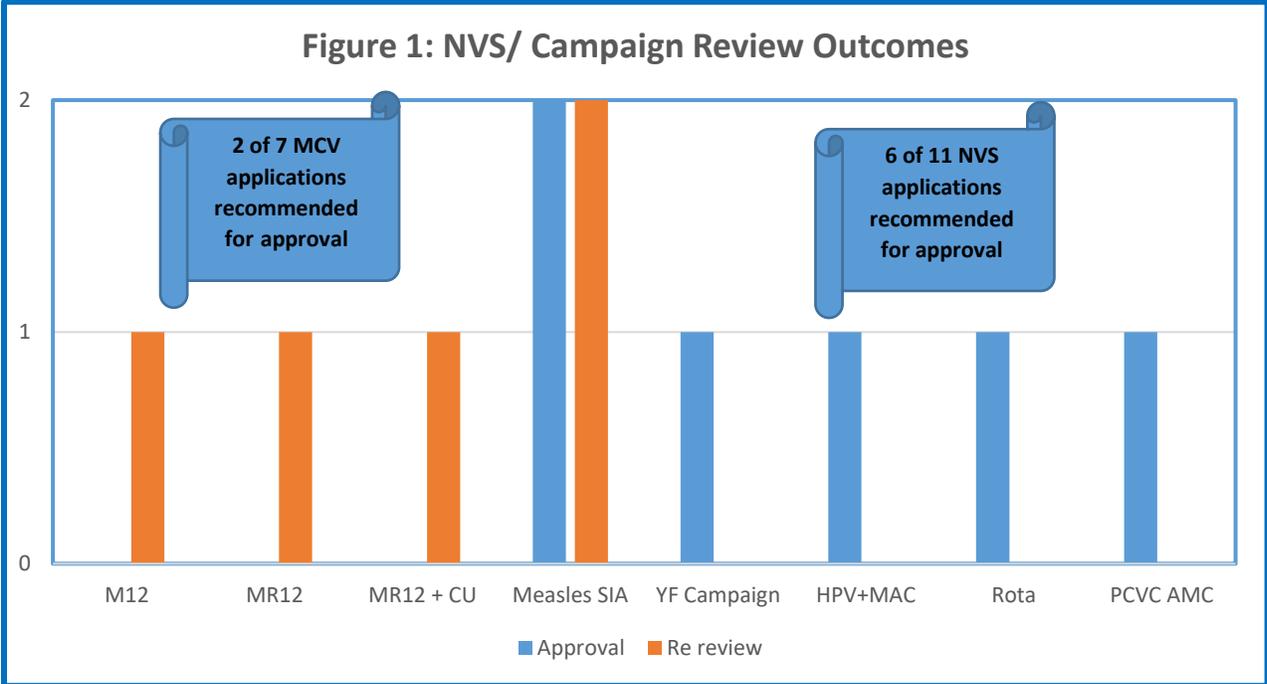
The review of the applications was guided by key concerns which are in line with Gavi’s mission. These include the justification for the proposed activities; soundness of approach; country readiness; feasibility of plans; system strengthening; programmatic and financial sustainability; and public health benefit of the investment. The IRC adhered strictly to these guidelines in a bid to ensure that the integrity and consistency of the transparent funding process is guaranteed.

Decisions

There were two Decision Categories, i.e. recommendation for:

- I. **Approval** when no issues were identified that require re-review by the independent experts; the issues raised to be addressed by the country in consultation with the Secretariat and Partners.
- II. **Re-review** for a situation where there are issues that require review by the independent experts; this will entail detailed revision of the application and re-submission to the IRC.

Figure 1 presents the summary of NVS/ Campaigns review outcomes, with 2 out of 7 MCV applications recommended for approval and 6 of all 11 NVS applications recommended for approval.



Key Findings and Recommendations

NVS and Campaigns

The IRC reviewed 5 applications for new vaccine introductions of which 2 were MCV2 introductions (Côte d'Ivoire, DRC), 1 rubella vaccine introduction with preceding MR catch-up campaign (Pakistan), 1 HPV introduction (Lesotho), and 1 Rotavirus vaccine introduction (Vietnam). The IRC also examined 4 applications for MCV follow-up SIAs (Burundi, Côte d'Ivoire, Lesotho, Sao Tomé et Príncipe) and a request for YF preventive mass campaign (Congo).

The quality of proposals for M/MR support remains variable, with continued general approaches and strategies, insufficiently tailored to reach un- or under-vaccinated children and ensure sustained high coverage. Figure 1 shows review outcomes per application type. Funds requested amounted to US\$ 67.5 million for M/MR SIA operational support and introduction grants, and the total approved amount relates to MR follow-up SIA operational support for two countries (Burundi, Lesotho) and amounts to US\$ 1.6 million.

Issue 01: Stagnating MCV2 coverage and lack of strategies to improve it

Four out of six countries applying for M/MR support have already established a routine two-dose measles vaccination schedule. The countries are still relying on SIAs to control measles although some introduced MCV2 more than 10 years ago (Lesotho in 2001, Pakistan in 2009), however, the low MCV2 coverage is the likely cause for this problem. In all countries there is a significant drop-out from MCV1 to MCV2: WUENIC MCV1 averaged 87% and MCV2 only 74% for the period 2015-2018 in these four countries. Moreover, MCV2 coverage plateaued in most countries, with an exception of Burundi which is showing an increasing trend but still reaching only 77% in 2018 (Figure 2).

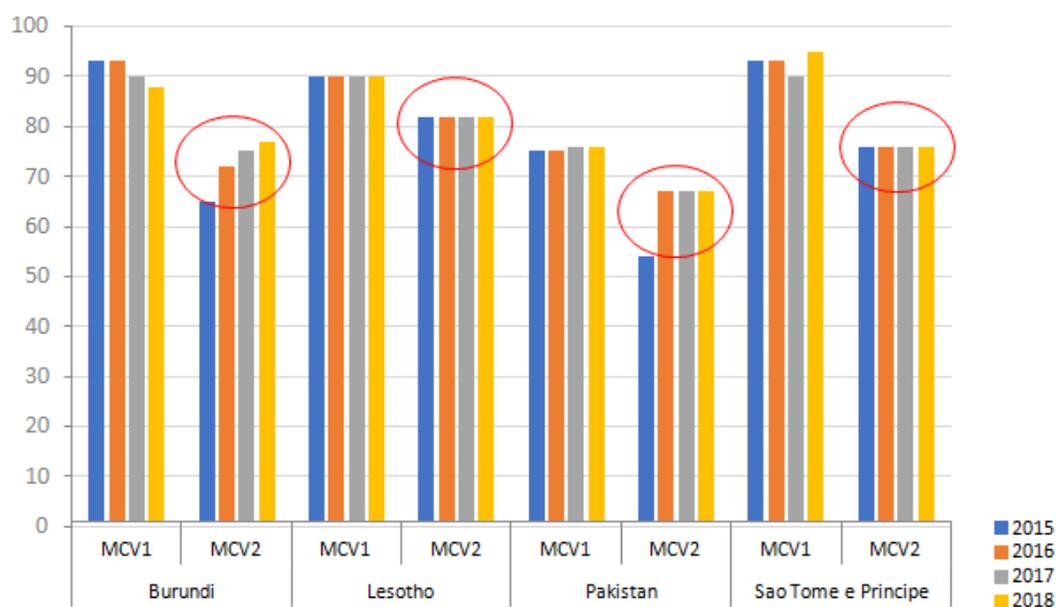


Figure 2: MCV1 and MCV2 coverage (WUENIC estimates 2015-2018) in countries with established 2-dose measles schedule

In their situational analyses, countries seldom reflect on their stagnating MCV2 coverage and appear to rely on SIAs to ensure needed doses of MCV rather than planning for well-performing essential vaccination services which would deliver two doses of MCV to all children. The proposals for follow-up campaigns contained limited information about reaching the chronically unreached children, actions which could also be translated into sustainable increasing routine immunization MCV coverage. Strengthening surveillance system capacity and performance as an SIA legacy was not discussed in the proposals.

Rubella vaccine introduction was not recognized as an opportunity to also strengthen immunization services in the 2nd year of life and as a means of sustainably increasing MCV2 coverage. Policies and guidelines limit the vaccinations to 2 years of age (Burundi, Lesotho), or to 27 months (Sao Tomé et Príncipe), or allow only one dose of MCV for those starting vaccinations after 1 year of age (Pakistan, however, up to the 10 years of age). It is also unclear how these policies are implemented in practice and how countries administer, record and report the late MCV1 or MCV2 doses. In spite of repeated IRC recommendations and clear WHO guidance, school entry checks for those who missed out on measles doses are still not considered and recognized as an opportunity to deliver missed doses of all EPI vaccines, including MCV.

Recommendation:

Gavi and partners should assist countries to evaluate strategies for achieving and maintaining high coverage of MCV2 and encourage them to allow for full implementation of WHO recommendations that all children receive two doses of MCV regardless of age. These strategies should include strengthening vaccination coverage through establishing and strengthening 2nd year of life platform, changes of policies to allow for providing missing doses regardless of age, clear guidance how to administer, record and report late doses, and guidance on activities such as school entry checks, paired with clear implementation instructions. Because these changes will increase multi-dose vials wastage rates in routine, GAVI should consider discussing with donors mechanisms to avoid forcing countries to pay for the additional wastage of multi-dose vials during routine.

Issue 02: Missing effect of SIAs on RI strengthening

The IRC has repeatedly raised concerns about countries' continued reliance on campaigns and missed opportunities to strengthen routine immunization services before, during, or after SIAs as advised by the WHO. Countries are required to include the routine immunization strengthening section in their plans of action when applying for the SIA support. To comply with this requirement, countries use WHO guidance and propose activities but mostly in general terms, without reflecting on programme realities, country context, and set targets. Also, countries do not report on possible disruption of routine immunization services during the SIA period and measures to mitigate it.

As it is expected that RI strengthening would result in higher vaccination coverage, the IRC examined the changes in MCV1 coverage following SIAs (follow-up and/or catch-up) for the period 2013-2018, in

countries applying for M/MR support in this review window (Figure 3). In spite of significant investments in these supplementary immunization activities, almost no effect on MCV1 coverage can be seen in countries conducting SIAs every 3 to 4 years.

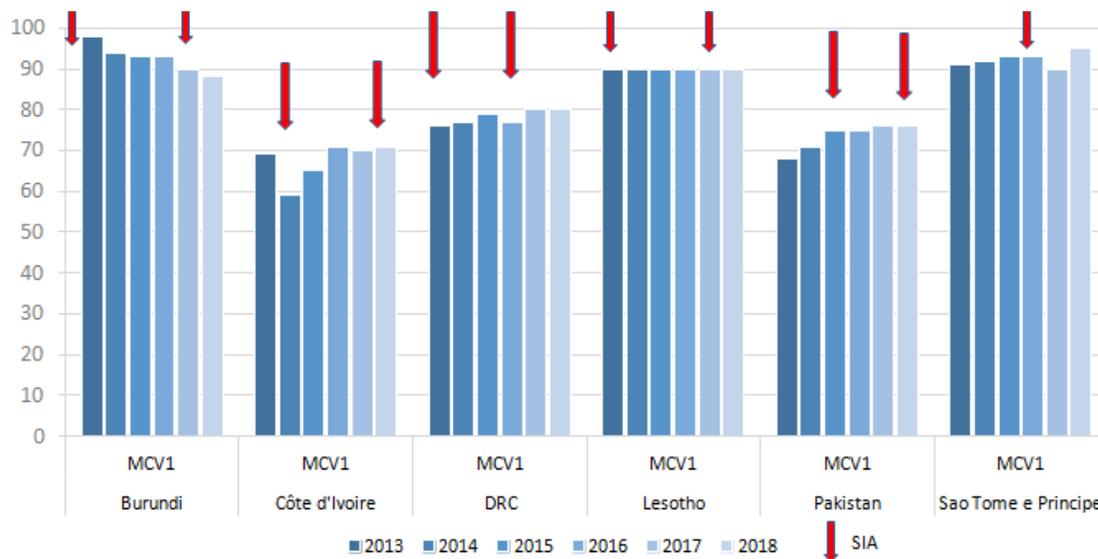


Figure 3: MCV1 coverage (WUENIC estimates 2013-2018) in countries relying on SIAs

Recommendation:

IRC encourages Gavi and partners to evaluate the improvements in routine immunization programmes as a result of SIAs in countries and assess the effectiveness of this requirement. When planning for the SIA, countries should be encouraged to assess different programme components and find the most effective ways to maximize positive impacts of SIAs through carefully identified opportunities/activities if feasible, and to minimize potentially negative impacts that SIAs may have on the delivery of routine immunization services. These activities should adhere to WHO recommendations and, where possible, leverage other resources/funding (such as HSS).

Issue 03: Applications for SIA continue not to take advantage of Gavi operational cost flexibility

Upon Gavi Board’s approval of operational cost flexibilities, following IRC recommendation, to encourage countries to strengthen routine immunization for MCV and reach 0- and 1-dose children, Gavi presented this opportunity to Burundi and Lesotho, applying for follow-up SIA in this review window. Despite their relatively successful routine immunization programmes, these countries (along with comparably successful Sao Tome et Principe) did not take advantage of the possibility to move away from conducting traditional follow-up campaigns and develop innovative strategies tailored to reach specific populations of children who had not previously received 2 doses of MCV. Although Gavi application guidelines include this Gavi Board decision, it appears that other countries in this round were not aware of this funding flexibility.

All three countries, Sao Tome et Principe, Burundi and Lesotho, had adopted a routine 2 MR dose vaccination schedule and had achieved and maintained average MCV1 coverage of >90%. For the period 2015-2018, MCV1 coverage averaged 93% in Sao Tome et Principe, 91% in Burundi and 90% in Lesotho. However, MCV2 coverage lagged significantly in all three countries. Indeed, for the period 2015-2018, MCV2 coverage averaged 82% in Lesotho, 76% in Sao Tome et Principe, and 72% in Burundi. Finally, all three countries had developed reasonably strong measles surveillance systems and appear either to have achieved or were approaching measles elimination.

A case in point was São Tomé and Príncipe (Figure 4). Since 2006, MCV1 coverage has been >90% since 2006, but MCV2 coverage had stagnated at 76% since being introduced in 2014. Moreover, the country conducted a follow-up measles campaign in 2012 and an MR catch-up campaign in 2016. Both of these campaigns achieved very high administrative estimated vaccine coverage, although no post-campaign coverage surveys were conducted. The last reported measles outbreak in the country was in 1994-95.

Based on the vaccination coverage achieved in routine combined with the recent SIAs, measles population immunity for < 5 children appears to be very high. Unfortunately, the country requested funding for a traditional follow-up campaign and did not provide information about the estimated number of susceptible children < 5 years of age, nor details about estimated vaccination coverage at sub-national levels. The IRC felt, based on the information provided, that a more appropriate and efficient strategy would have been to target those specific districts with relatively low MCV2 coverage for supplementary vaccination activities and routine strengthening support rather than to conduct another nationwide MR campaign. On the other hand, if significant immunity gaps are found among < 5 children nationwide, it would be appropriate to mix and match tailored strategies as needed, as per the Gavi operational cost flexibility guidance. However, information about the estimated total number of measles susceptible children < 5 was not included in the São Tomé and Príncipe proposal.

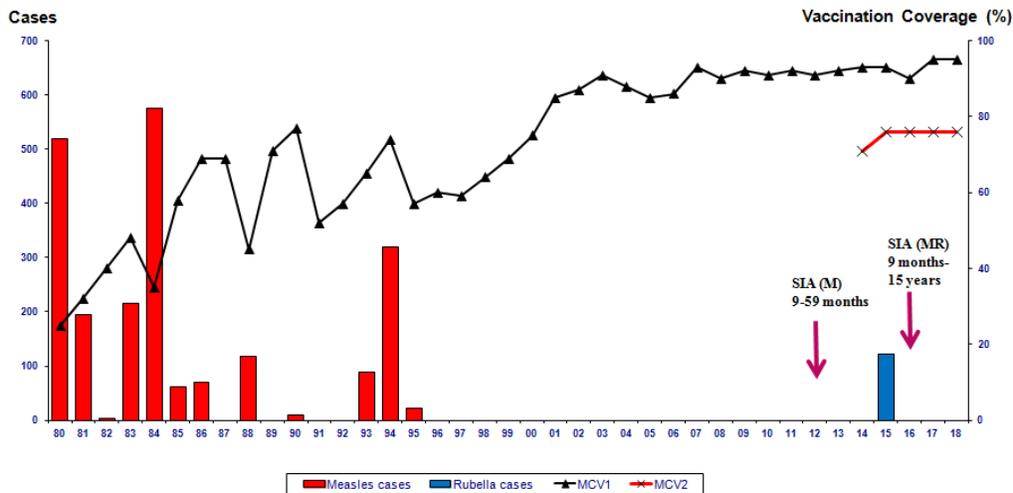


Figure 4: WUENIC MCV1 and MCV2 and reported measles and rubella cases in Sao Tome et Principe 1980-2018

Recommendations:

Gavi and partners should continue to work with selected countries to encourage them to use the operational cost flexibility to support targeted subnational efforts to reach zero-dose and one-dose children. By doing so, they could achieve and maintain high MCV1 and MCV2 coverage in all districts and obviate the need for periodic follow-up campaigns.

Guidelines are not clear as to when countries that have achieved high coverage with MCV1 should shift their strategy from relying on periodic follow-up campaigns to focusing on tailored strategies to sustaining high MCV1 coverage and increasing MCV2 coverage through routine EPI activities. Therefore, technical partners should review and update the guidance on measles follow-up campaigns to help reduce conflicting guidance to countries.

Issue 04: Countries continue to not report information from outbreak investigations and do not use these data for planning

The IRC continues to see measles outbreaks in countries with high estimated measles coverage and recurring follow-up SIAs, including Burundi, DRC and Côte d'Ivoire. This may be due to pockets of chronically missed children and overestimated national vaccination coverage. Measles outbreaks clearly show where many children have missed measles vaccination and reveal gaps which reflect suboptimal programme performance. Apparently, countries do not analyze these cases to determine the proportion of cases attributable to programme failure. In this review cycle, in spite of previous IRC recommendations, only one country (Burundi) reported on the recent outbreaks and provided the information on investigation and response. Specific areas affected with these outbreaks (refugee camps and an orphanage) were subsequently included in the plan for the follow-up SIA, but it remains unclear how these populations will be served with routine vaccinations.

Recommendation:

The IRC encourages Gavi and partners to assist countries with conducting and reporting on measles outbreak investigations. Outbreaks reveal gaps in routine and in SIAs, and while outbreak prevention remains important, outbreak investigation and response are critical to achieving sustained control and elimination of measles. Gavi should request countries to report on outbreak analyses, as this information should inform ways to fill gaps and strengthen routine immunization services.

AEFI

IRC has repeatedly emphasized the need for functional AEFI surveillance systems in all country contexts and for all vaccines. Strengthening of passive AEFI surveillance systems for vaccine pharmacovigilance (PV) activities remains an IRC recommendation. In countries where vaccines with established positive benefit-risk profile are being used and where adequate vaccine PV systems are in place, passive vaccine safety surveillance would suffice. However, for newly deployed vaccines and in particular where theoretical concerns related to a vaccine product exist, countries can consider additional surveillance. This also

applies to situations where possible community concern due to a case, falsely attributed to a vaccine or not, or due to rumours, can derail confidence in vaccines and vaccination programmes.

Issue 05: Introduction of new vaccine may result in higher than usual AEFI reporting: with rotavirus introduction, possible intussusception may be attributed to the vaccine and negatively affect the programme

In this review cycle Vietnam applied for support to introduce rotavirus vaccine into the routine immunization programme. The country plans to use locally produced vaccine for which clinical trial safety data are insufficient to draw conclusions on the risk of intussusception. While this is a rare adverse event following rotavirus vaccination, it is an identified risk for live-attenuated rotavirus vaccines, and it has created long-lasting hesitancy in some countries. Introduction of a new vaccine may result in higher than usual adverse events reporting as a part of routine AEFI surveillance. Because of the prior association of rotavirus vaccines with intussusception, intussusception cases unrelated to the vaccine may be erroneously attributed to it and derail the immunization programme. In order to manage this risk and maintain public confidence in its immunization programme, following earlier IRC recommendation, Vietnam plans to establish sentinel surveillance for intussusception in hospitals in provinces first introducing the vaccine.

Recommendation: Countries introducing rotavirus vaccine into their routine immunization programme, in the absence of data regarding background rates of intussusception, should consider establishing hospital-based intussusception surveillance to determine background rates in the population prior to introduction, and to allow for monitoring of the vaccine safety profile post-introduction. Gavi and partners should encourage countries in these efforts.

Issue 06: Monitoring targeted AEFI using active vaccine safety surveillance methods

Unlike passive surveillance, active vaccine safety surveillance is less affected by under-reporting or inappropriate reporting and can be used to estimate rates when the size of the population is known. Information is collected with defined objectives to monitor or investigate one or several adverse events that are of special interest, but not to identify unexpected or unknown AEFI. Events of interest may be selected using hypotheses generated from the passive safety surveillance, case reports, from the experience with similar vaccines, or may be linked to public concerns. A primary aim of active surveillance systems is to estimate the risk of a specific AEFI in a population exposed to a vaccine. Data can be collected through specially established sentinel sites (e.g. hospital-based), and various methodological approaches can be used. Among these are self-controlled case series techniques which have proved to be appropriate for acute events, do not require population denominators, implicitly adjust for all factors that do not vary with time, and are cost-effective in the resource limited settings.

Recommendation: Countries should be aware of active vaccine safety surveillance options for the events of interest within post-marketing surveillance for vaccines, such as sentinel surveillance using self-controlled case series techniques. Gavi and partners should encourage countries to monitor vaccine safety post introduction, particularly with regard to serious events, as the largest number of childhood vaccinations occurs in resource limited countries. This can provide important data on the risk of a particular adverse event among vaccinees and help the credibility of the immunization programme.

Data Quality and Use

While more data are becoming available from surveys, administrative data, and surveillance, there are still significant gaps in population data for denominators and deficits in the quality of administrative data. An ongoing problem is the generally inadequate use of data to design and tailor strategies.

Issue 07: Subnational data are often missing from applications or are not used

Many countries now have district or regional data on EPI coverage, especially those (e.g. Lesotho) that have moved EPI data to the DHIS2 platform, but these data are not used to tailor or justify strategic approaches to ensure equitable coverage. Detailed slum mapping, as has been done by Pakistan, is a good practice, but there was insufficient information about it and its use for their Plan of Action in the application itself. In general, data are not always included in the application, even in the Regional Profile form for HPV vaccine that explicitly asks for it, nor are the data analyzed to identify factors to account for critical disparities in coverage.

Recommendation:

Gavi should consider creating a specific section in the application--that applies to all vaccines--for discussion of subnational data and prompt for the use of the data in the rationale for the delivery strategy. In-country technical partners should encourage and support the countries in analysis of subnational data and its use in designing and prioritizing interventions.

Issue 08: Local enumeration of target populations

In this round there were several countries (DR Congo, and Lesotho for HPV) that mentioned they would carry out enumeration of target populations, due to the unreliable nature of national population data. This can be a resource-intensive exercise and may in the end still yield an undercount that causes vaccine stock-outs and overestimates of coverage. Until census data are updated or local jurisdictions are enabled to generate population estimates, local enumeration may be the only way to secure targets for microplanning.

Recommendation:

Gavi should consider commissioning an evaluation of different experiences with local enumeration to identify examples of efficient and accurate methods and disseminate them more widely. Meanwhile, Gavi and partners can continue to push for better population estimates and projections and raise awareness of the importance of population denominators.

Supply Chain and Waste Management

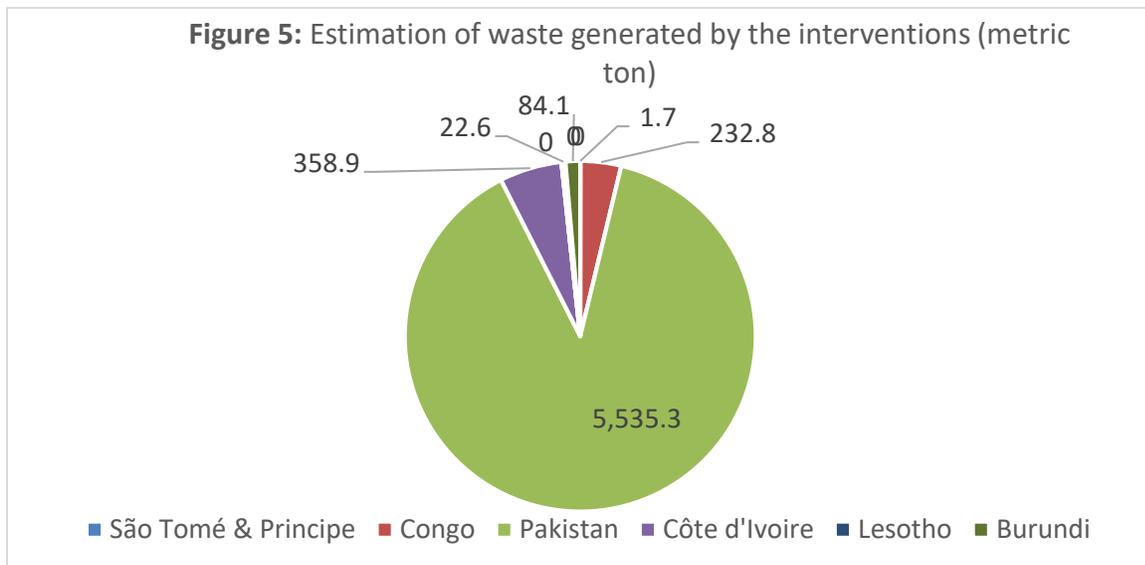
The IRC reviewed CCL aspects of applications for NVI and SIA for 8 countries.

Six out of 8 countries conducted a cold storage gap analysis. The possible reasons why 2 countries (Sao Tome and Principe, Lesotho) have not carried out an analysis are the insufficient capacity and skills of the teams that contributed to the development of the campaign plan, the lack of guidelines from Gavi Secretariat and the absence of a section covering these aspects in the HPV implementation plan template (Lesotho).

To face insufficient storage capacity, mitigation measures presented by countries include: splitting of deliveries and supplies; use of secondary depots; and deployment of new equipment financed by CCEOP,

government or other sources. The IRC noted that no country planned to use a mix of MCV presentations (i.e. 10 dose/vial and 5 dose/vial), probably due to a lack of information and policy and programmatic guidance for the choice and implementation of this option.

The total volume of waste to be generated during the supplementary immunization activities for which support is requested represents approximately 6,235 MT within a short period of time, requiring ad-hoc measures and budget. Two countries (Congo, Côte d'Ivoire) estimated the volume of waste generated by the MR or YF SIAs and Côte d'Ivoire provided a comprehensive plan for waste management based on thorough situation analysis. Two countries did not include waste management cost in their budget.



Issue 9: Cold storage capacity analysis are not meeting expectations

The quality of cold storage analysis remains questionable. Storage capacity data are based on recent CCE inventory, conducted for the development of the CCE rehabilitation plan and CCEOP request which indicates weaknesses in the logistics management information system. In most cases, CCEI do not take into account cold chain equipment newly procured with CCEOP, government or other funding. Cold storage gaps are estimated on the basis of volume calculations of the vaccines requested (Côte d'Ivoire, Pakistan, Vietnam), or on the basis of general assumptions (Burundi, Congo, DR Congo).

Lack of precision in cold storage analysis limits the accuracy of mitigation plan which can affect the availability of quality vaccines at point of use

Recommendations:

Countries should systematically use the WHO logistics forecasting tool informed with data from the updated CCE inventory and vaccine volume for the current schedule and additional vaccine to be introduced or used in SIA.

Mitigation plan should consider equipment deployment forecasts, and include measures such as revision of CCEOP OPD, revision of vaccine management policy and ad-hoc distribution plan.

Issue 10: Vaccine wastage control may impact vaccine coverage

Wastage rates vary greatly between countries for vaccines used in routine immunization activities (M/MR: 15% in Côte d'Ivoire and 40% in DRC). Although no rationale for wastage rate is provided by countries, they are likely based on country experience and vaccine delivery strategies. All countries have a “one size fits all” approach for measles containing vaccine vial. Five out of 6 countries applying for Measles or Measles Rubella vaccine support have selected 10 dose vial presentation as a first choice; one country (Lesotho) chose the MR vaccine in 5 dose per vial. Fear of high vaccine wastage can prevent health workers from opening a vial when a small number of children attend the immunization session, which can lead to missed opportunities and affect immunization coverage. Having multiple vaccine presentations gives opportunity for HW to open vial depending on number of children to be vaccinated at that session. Recent and ongoing investment in the cold chain, through CCEOP, HSS grants and other source increase cold storage capacity, in particular at service level.

Recommendations:

Countries are encouraged to monitor open and closed vial wastage and use data for implementing tailored measures for controlling vaccine wastage at all levels of the supply chain and for different settings, with the objective of reducing missed opportunities and increasing vaccine coverage. These measures may include having mixed dose per vial presentations depending on the attendance at vaccination sessions, vaccine supplies allowing for high wastage, and revision of vaccine management policies.

Gavi Alliance partners should provide guidance and technical support to countries for tailoring targeted wastage rates according to their vaccine delivery context by using existing tools such as the WHO vaccine wastage calculator, and opportunities such as vaccine dose per vial, increased storage capacities, revision of vaccine management and vaccine delivery policies.

Coverage and Equity

An encouraging sign in the current round of plans was the increasing use of WHO tools and SIA guidance, including the WHO SIA Field Guide, to ensure high coverage of underserved and disadvantaged populations. This includes, among others, microplanning at the local level, vaccination strategies steered towards reaching populations that are either indifferent to or refuse vaccination, Rapid Convenience Monitoring (RCM), and mop-up activities. Also, a few countries specifically allocated additional funds in their budget to low-performing areas to help them with microplanning to identify and reach groups with low coverage.

Issue 11: Failure to target low-performing districts

Several countries acknowledged in their equity analyses that they had districts with markedly lower coverage, but they failed to describe district or region-specific strategies to address the probable causes for the disparities. Perhaps it is meant to be addressed at the local level during microplanning, but that is not explicit. Further, it is not clear that local planners have the knowledge or experience to identify and address factors that are holding them back. Countries may also find it politically difficult to appear to favor or to call out particular districts or locales. Also, countries (e.g. Lesotho, Burundi) have recognized that, because local level population denominators may be inadequate, the use of administrative coverage to target underperforming areas may be insufficient.

Recommendation:

Since low-performing districts, by their nature, need more support, it is important for Gavi and partners to provide technical support and advocacy advice to EPI managers so they can appropriately identify low performing districts using all tools available, analyze what additional actions are needed for these districts, and generate community and political support for a district-differentiated strategy where needed. Clear indicators and careful monitoring of district-level performance are also needed to measure progress, target remedial action, and demonstrate success when it occurs. Because outreach activities often include per diem and other incentives, careful consideration should be given to the possibility of appearing to selectively “reward” workers from low-performing districts.

Issue 12: Budget allocation formulas may be undermining equity of access to immunization.

In some countries, geographic and socio-economic barriers, migration and poor knowledge of benefits of immunization continue to be key barriers to equity in immunization. To address some of these underlying causes of inequity, mobile outreach strategies are often used to reach minority ethnic groups and those living in remote areas. Despite these efforts, lower coverage rates among these populations point to continuing inequities. One of the underlying causes of this problem is the inadequate funding for operational costs provided by central governments to the provinces and districts. The budget allocation formula of the national budget to the provinces is often based on a per-capita allocation and does not take into account the socio-economic or geographic conditions of each province. As a result, provinces with greatest need receive the same allocation, per capita, as those which are better-off. This limited funding for operational costs in the most deprived provinces and districts means that the cold chain is not always maintained, and transport costs as well as human resources are not sufficiently available for mobile and outreach delivery strategies.

Recommendation:

Gavi should, in addition to ensuring that its funding is targeted to the districts most in need, advocate for more equity-sensitive budget allocation formulas.

Issue 13: Available data on under-vaccinated populations is not used to develop tailored strategies.

Applications in this round cited an abundance of data from various surveys (e.g., equity surveys, MICS, DHS) showing the socio-demographic characteristics of unvaccinated or under-vaccinated populations. Characteristics like mother’s education, urban/rural residence, gender, and family wealth were linked to coverage levels. KAP studies had been done or were planned to identify messages and preferred communication channels to reach specified segments of the population. But few plans included this information in strategies to reach unreached children.

Recommendation:

Gavi and technical partners should emphasize the use of equity and other survey findings, administrative data on zero-dose children, and local knowledge to guide the design of delivery and communication strategies that reflect the characteristics, barriers, and preferences of those most likely to be missed by standard EPI services.

Issue 14: Appropriateness of resource-intensive strategies for reaching the unreached.

As general rates of coverage improve, there is increasing attention (rightly so) to reaching children who are not yet reached, especially those zero-dose children who have not received any of the recommended vaccines. Some applications include resource-intensive measures which may seem “ideal” but are not realistic, sustainable or cost-effective; this includes outreach campaigns to remote areas for a single vaccine, extensive cascade training programs, and multiple copies of printed materials, banners and other awareness raising materials of unproven value. Balance is needed to ensure that such measures are not conducted at the expense of the routine program and that unrealistic expectations do not distract or discourage health workers if the goals are not fully achieved.

Recommendation:

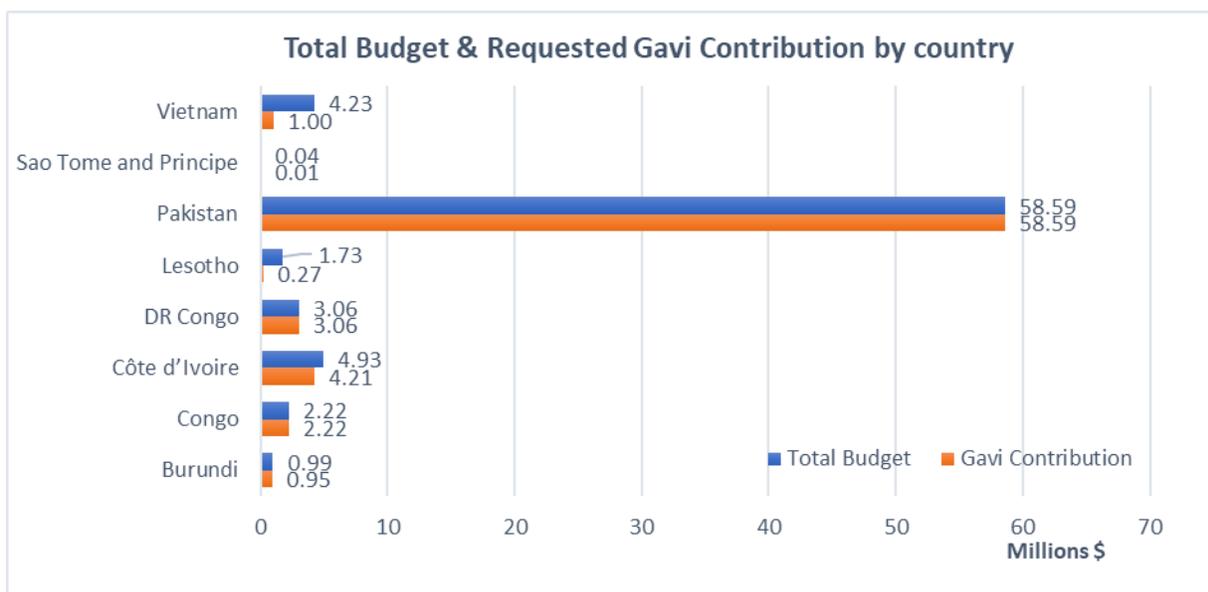
More information should be shared with countries and their technical partners on the cost-effectiveness of various approaches. For example, it is often more effective and resource-efficient to deliver vaccines to remote areas through mobile integrated teams that already make periodic visits to an area, whereby transport and human resource costs can be shared by EPI and other departments, and adverse climate or other conditions can be avoided. Findings from models and from costing tools that can be used locally may help decision makers refine their strategies to make the best use of available resources.

[Budgets, Financial Management and Sustainability](#)

Together, the eight countries reviewed in this round requested a total of \$ 70.3 million as a contribution to their planned immunization activities. The largest share of this total, or 83.3%, was requested by one single country: Pakistan, as shown in the graph below. GAVI contribution accounts for 93% of the total planned budgets, and governments contributions account for the remaining 7%. Other donor funding is generally not included in the proposed budgets.¹

Because of the widespread mis-categorization of costs and activities in most budgets, any discussion of the distribution of budgets between inputs costs and activities would be misleading at this aggregate level (see issues no.15. and no.16 below).

¹ Pakistan government contribution of \$10.8 million, mostly for regular staff salaries, was not included in the budget template, and as a result it is not included in the graph.



The IRC noted and welcomed the emergence of some good practices in budgeting. Both Lesotho and Vietnam used a 5-year budgeting period for the introduction of HPV and RV into routine immunization, which is critical for financial sustainability. In addition, Lesotho used the one-budget framework for both HPV routine and HPV MAC, ensured that no single activity or input cost is allocated a large share of the budget, provided significant funding for activities at the operational level, and allocated additional funding to low-performing districts to help identify areas and children with low coverage. Gavi should consider disseminating good practices such as this one to other countries as a contribution to their efforts to improve the quality of budgets.

The following are the main issues emerging from this IRC round:

Issue 15: Inadequate categorization of activities and costs resulting from categorization errors and from inadequate guidance within the budget template.

Cost categorization errors is a material issue observed in all applications. Some cost inputs such as per diems and transport are frequently mis-categorized in many applications. For example, in DR Congo, Burundi, and Cote d'Ivoire budgets, transport costs are sometimes categorized under HR costs, and HR costs are often categorized under transport, events, and program administration. As a result, some of these cost groupings tend to be artificially inflated, e.g. Cote d'Ivoire with 27% of the total budget classified as program administration.

The current guidance on categorization of inputs and activities may also be confusing to countries. Requirements are scattered in different documents: HR policy document, budget guidelines and budget template. A key issue is the confusion between inputs costs such as HR, transport and cold chain, and activity cost such as events and program administration, all of which are used as cost grouping categories. To overcome this problem, costs should be classified separately either as input costs or as activity costs, but not together as is currently the case.

Recommendation: Revise the guidance on Gavi classification of activity costs and input costs

Issue 16: The share of HR costs continues to be an issue in many applications, in some cases accounting for more than 50% of the budget. The categorization of HR costs in the budget template tends to vary among applications and indicates that countries may be interpreting the HR guidance and policy differently. Of importance is the question of whether per diems, allowances, and top-ups are considered as HR costs or not. Both the HR policy and the HR guidance in the budget template provide different answers to this question (see issue 15).

Recommendation: Clarify and update the guidance on HR costs

Issue 17: Lump sum allocations, missing budget calculation assumptions, inadequate justification of inputs and costs, calculation errors were present in most applications. For example, an inadequate exchange rate used in Pakistan application creates significant difference of about \$US 3.5 m. While the reviewer can often catch and correct calculation errors, there is little he/she can do when underlying assumptions are missing or the information provided is inadequate for understanding the programmatic rationale behind the budget calculations.

Recommendations:

Revise the budget template by making mandatory the completion of the column on budget assumptions. Pre-screen budgets for lump sum allocations, missing budget calculations, assumptions and calculation errors.

Issue 18: Funding sources are not always disclosed and included in the budget. In several applications, where essential activities are either unfunded or inadequately funded in the budget, the likelihood of achieving the POA objectives will depend on whether these activities will be funded from other sources. In other applications, where planned activities appear to be adequately budgeted for, there is still a risk that some or all these activities may be funded from different sources at the same time.

Recommendation: Pre-screen budgets to ensure that all funding sources are included in the budget.

Issue 19: Large share of the budget is allocated to a single activity (e.g. training) or a single cost (e.g. per diems), resulting in other essential activities being unfunded or underfunded. This was the case in the DR Congo application where training costs accounted for about 74% of the total budget and per diems accounted for almost 50% of the budget. Similar issues were found in the application from Vietnam where per diems, allowances and top ups accounted for 46% of the budget, and in Burundi where they accounted for 45% of the budget.

Recommendation:

Develop a quality control checklist to help with budget screening before submission to IRC. The tool should be used by both countries and Gavi Secretariat to ensure that:

1. The budget is aligned with the plan of action;
2. No single activity or input cost is allocated a large share of the budget and all essential activities are adequately budgeted for;
3. All funding sources are included in the budget;
4. Budget calculation assumptions and programmatic rationale for activity scale are provided;
5. No duplication of activities and costs is present in applications with more than one budget; and
6. Adequate amount of funding is allocated to activities at the peripheral level.

Issue 20: The alignment of the budget with the PoA remains an issue in several applications. This was the case in DRC application where the budget was largely misaligned with the PoA, and in Sao Tome & Principe application where a significant funding shortfall led to a serious misalignment between the PoA and the budget. However, in other applications such as those of Vietnam and Lesotho the PoA and budgets were well aligned.

Recommendation:

During the pre-screening, ensure that the activities listed in the PoA are properly reflected in the budget template and request the country to correct it or provide a detailed explanation in case of misalignment.

Issue 21: Significant duplication of activities, and costs, and calculation errors in applications with more than one budget. For example, in the Pakistan application, training and supervision activities were budgeted separately for MR routine and the catch-up campaign for a total of \$1.3 million. By integrating these activities, a saving of at least \$600,000 could be realized. In addition, a calculation error in the number of vaccinators teams needed for the catch-up campaign led to an over-estimation of the budget by \$7.3 million.

Recommendation: Same recommendation as for issue 19.

Issue 22: Budget review process

The budget pre-screening helped to identify and address several inconsistencies, but many issues and errors are not captured in this process and not addressed or corrected by countries before submission to IRC.

In addition, the budget template does not allow the addition of reviewer's comments to individual budget lines, which would be helpful for the budget review and for GAVI follow up with countries on important budget issues during grant negotiation. These specific remarks cannot be detailed in the IRC country report and may shorten the unnecessarily long budget validation process.

The "budget analysis tool", recently developed by the Secretariat, provides good insights to reviewers about past budget statistics and metrics. However, the reviewers were not able to use the tool and gain a better understanding of its strengths and limitations.

Recommendations:

Gavi should consider pre-screening of all budget submissions in all applications, regardless of the amount requested and allocate more resources to budget pre-screening process.

Gavi should provide access to IRC members to use the Budget analysis tool.

Gavi should revise the budget template by adding a column for reviewer comments.

Governance

Issue 23: The IRC noted that ICC review and endorsement of applications for re-review improve quality of the proposals.

All 8 countries submitting applications to the March 2020 IRC had an established ICC and provided ToRs (for DRC, just a PowerPoint presentation of the proposed coordinating structure). In three countries, the

ICC is integrated in a larger coordinating body addressing broader health issues (in Burundi, DRC and Sao Tomé & Príncipe). In all countries submitting ICC ToRs, membership included representation from NGOs and CSOs, though in Pakistan the only NGO represented is Rotary International.

7 out of 8 countries submitted the minutes of the meeting for the review and endorsement of Gavi application. Congo ICC endorsement of the re-submission, a new requirement by Gavi, was not included in the initial submission but was provided during the IRC meeting. Vietnam was also a re-submission and ICC minutes of February 2020 were provided, including a detailed presentation of the modifications made to the initial proposal and the summary of the discussion before ICC endorsed the new application. The IRC noted that Vietnam was again an example of how the full involvement of ICC in the re-review of a proposal and the endorsement of the application for repeated submission seems beneficial and can lead to a much-improved application.

The regular functioning of an ICC was demonstrated in eight countries that submitted the minutes of previous ICC meetings, though in three cases only the minutes of one previous ICC meeting were provided.

Only five countries reported having established a NITAG (Cote d'Ivoire, DRC, Lesotho, Pakistan, and Vietnam) with TORs submitted from two of them (Vietnam and Pakistan). NITAG reviewed the Gavi applications in only two countries (Cote d'Ivoire and Lesotho for HPV).

Recommendation:

The IRC welcomes the request by Gavi that ICCs review and endorse the re-submission of a proposal following an IRC recommendation for re-review. However, not all countries seem to be aware of or are complying with this new requirement. Since the ICC oversight will most likely result in increased participation of country stakeholders in the re-review and improved quality of the revised proposal, the Gavi Secretariat should ensure that all countries are informed of, and comply with this new guidance.

Technical Assistance

Issue 24: Gavi is generally not providing TA itself and relies on institutional partners and technical and financial partners (multilateral and bilateral agencies, national and international NGOs) of the partner countries. In most applications reviewed, the TA needs are poorly detailed and missing essential information (i.e. scope of work, duration of TA, source of support, etc.) which is often insufficient for a proper assessment of the relevance of the proposed TA support.

The IRC also noted a few best practices. Pakistan presented a well-designed and differentiated TCA plan with defined scope of work, clearly assigned tasks, and aimed at improving country capacity. In DR Congo, the approach of contracting a Fiduciary Agent in conjunction with the Global Fund with a capacity building component embedded within the government system can be considered an appropriate strategy in building national capacities for financial and fiduciary management.

The IRC also noted again a weakness in the TA provided to support the development of the Gavi proposals. In many applications there was a disconnect between a good, comprehensive introduction or campaign plan and the activities detailed and costed in the work plan/budget. Usually combined with incomplete and poorly costed budgets templates, these were often weak components in otherwise well-developed applications.

Recommendation:

Gavi should improve the guidance provided to countries (and country teams) on the definition of TA needs included in the application documentation. TA needs should be elaborated under country leadership and show how external TA gradually contributes to the country's institutional capacity development. Including in the application a separate, simple, and costed TA plan covering the full time of grant implementation could be recommended as best practice.

Review Processes

Virtual Review Process for the March 2020 IRC

The March 2020 IRC took place in the face of the COVID-19 pandemic. Because of restrictions on travel and lock-downs which affected members of the IRC, a virtual meeting using the WebEx tool was supported. Adjustments were made by the Gavi Secretariat to the provisional agenda and the operations.

Issue 25: Positive reflections of the virtual format of the IRC

Considering the crisis situation, Gavi and the members of the IRC were faced with, the virtual meeting with the WebEx tool made the review possible and the objectives of the meeting were achieved. Overall, the Chair was able to lead the discussions and allowed all members to make their contributions as needed. The schedule/agenda was effectively adapted to allow adequate time for the reviews. The support provided by the Secretariat was highly appreciated by the Committee.

Issue 26: Challenges and constraints

The virtual nature of the meeting meant that there was limited interaction between the IRC members and group face-to-face discussions were not possible or effective. The "Chat function" on WebEx was only effective for communicating basic messages and could not be used for technical discussions. Email was potentially the other effective way of communicating; however, IRC members were often not able to review their e-mails during the sessions. Informal contacts and exchanges between members were not possible. For the newly appointed members this was a major constraint, and the usual "Buddy" mechanism used by the IRC to help orientation of new members was less effective. Finally, time zone differences posed an additional challenge for effective full participation of committee members having a full 8 hours of discussions each day.

Overall comments/recommendations:

- The March 2020 IRC took place in the face of a pandemic. Thanks to existing technology and the tremendous efforts put in by IRC members and the Gavi Secretariat, and the participation of the technical partners, the objectives were fully met. This is an indication of commitment and appreciation of the importance of the IRC.
- The virtual review model, though it met the needs of this IRC, should not be considered a replacement for the traditional face-to-face format, which remains the most appropriate way for conducting IRC meetings.

Yellow Fever Diagnostics Support

Gavi recently established a window of support for procurement and distribution of yellow fever diagnostics focused on 26 African countries at high risk for yellow fever and eligible for Gavi support. At the November 2019 IRC, six country applications were approved for support. In this IRC review round, 14 additional countries applied for Gavi support.

Three IRC members reviewed applications from 14 countries. In addition to the applications, information was provided on Laboratory Capacity Assessments (LCA) that were conducted in 2018. Two of the 14 countries did not participate in the 2018 LCA, but information on the laboratory capacity was available from reports of a technical assessment by WHO in one country and in the other country by a supervisory technical assessment conducted by a national laboratory coordinating center.

The IRC was also requested to review and comment on a proposed decision-making process for allocating additional diagnostic and consumable supplies for yellow fever testing in the event of yellow fever outbreaks.

Issues 27: Contextual and epidemiologic information on yellow fever

Although the estimated requirements for diagnostic reagents and consumable supplies were based on the national laboratory experience in the past several years, the applications did not provide any information on the recent epidemiology of yellow fever in the country. Moreover, for the Regional Reference Laboratories (RRL), there was either no disaggregation or no indication of the number of specimens received from other countries for confirmatory testing. The applications did not also explain the differences between officially reported cases to WHO and RRL laboratory confirmed positive tests.

Financial and technical support for yellow fever diagnostic testing was mainly from other regional disease program initiatives, such as the Polio laboratory and measles surveillance network. Furthermore, there were no long-term financial sustainability plans for yellow fever diagnostic testing in any of the 14 applications.

Recommendations:

Applications should be accompanied by recent epidemiological information on yellow fever in the country (including explanation of differences between YF cases reported to WHO and number of RRL-confirmed positive test results). For requests from countries that serve as regional or subnational reference laboratories, the number of specimens received from other countries should be indicated.

Gavi and technical partners should work with countries to develop long-term financial sustainability plans for yellow fever diagnostics.

Gavi should provide standard performance indicators for laboratories in the report template.

Issue 28: Allocating additional laboratory supplies for yellow fever testing in case of outbreaks.

The IRC was requested to comment and provide recommendations on three questions regarding allocation of supplies in case of outbreaks. They were:

- 1) When should countries be allotted additional yellow fever diagnostic reagents and consumable supplies due to a yellow fever outbreak?
- 2) How much in terms of reagents and consumable supplies should countries be allotted when the criteria from question one are met?
- 3) What are the expected additional amounts of reagents and consumable supplies needed each year given the answers to questions one and two?

The IRC made the following comments and recommendations:

1. In the event of a WHO confirmed YF outbreak, country will likely immediately need additional reagents for surveillance and clinical diagnoses. Based on this, IRC would recommend the following rule:

“Immediately upon receipt of notification of a laboratory confirmed Yellow Fever outbreak by WHO or confirmation of an expansion of a YF outbreak by WHO, the Gavi Secretariat should alert UNICEF of that notification to trigger emergency allotments of additional yellow fever diagnostic reagents and consumable supplies to that country”.

2. In the event of WHO notification of a lab confirmed YF outbreak, country will immediately need additional reagents for surveillance and clinical diagnoses. Based on this, IRC would recommend the following rule:

“Each time that WHO notifies Gavi of a lab confirmed Yellow Fever outbreak or expansion of a lab confirmed Yellow Fever outbreak in a given country, that country will be immediately be eligible to request enough supplies to test an additional 900 samples beyond what the country was allotted for routine, expected testing”

3. Given that there is a very high level of uncertainty in projecting necessary amounts of YF reagents and consumables for national reference laboratories, as long as there is a time-efficient mechanism to very quickly obtain additional diagnostic reagents and consumables in the event that demand exceeds amounts in the buffer stockpile, The IRC proposes the following:

“Provide enough procurement funding for six additional allotments a year, each comprising of reagent bundles and other lab consumables to test another 900 samples (i.e., each additional allotment contains 3 reagent bundles, 1800 gloves, 100 masks, and two goggles). If the Gavi Secretariat, in consultation with WHO and UNICEF, determines that the demand for additional yellow fever diagnostic reagents and consumable supplies seems likely to exceed this amount, Gavi Secretariat has IRC pre-approval to procure up to an additional three allotments per year on an emergency basis.”

Conclusions

The conclusions focus on key areas and topics that emanated from the review that need to be emphasized.

MEASLES

Seven of the 11 NVS applications were for support for MCVs. This can be considered a manifestation of increasing interest of countries to control and eventually to eliminate measles. Many countries have still not been able to achieve the targeted 95% two dose coverage that will ensure herd immunity, and MCV 2 coverage has been stagnating in many Gavi eligible countries. Gavi, governments, and UNICEF should assure and reassure that vaccines are provided in sufficient quantity to allow full implementation of the WHO recommendation of 2 doses of routine measles vaccination, with vaccination of even one child at every contact and regardless of age.

Gavi should continue working with technical partners on guidance as to when countries that have achieved high coverage with MCV1 should shift their strategy from relying on periodic follow-up campaigns to focus on systems that ensure 2 MCV doses to every child regardless of age.

DATA QUALITY AND USE

The IRC noted some improvement in data quality and use in the countries reviewed, with countries increasingly conducting studies to obtain data for decision making. However, weaknesses still remain, especially at the subnational level, where data is not being used to develop tailored strategies. Gavi and partners should continue supporting countries to improve data quality and use.

BUDGETS

While the quality of budgets is generally improving, and some good practices are emerging, significant difficulties persist. Further improvements may require revision of the Gavi guidance on classification of activities and costs, clarification of the HR costs and policy, developing a quality control checklist for budget screening, and supporting and requesting countries to follow the revised guidance.

Best Practices

The IRC noted some best practices in key areas; these could be shared with countries in an effort to inspire and motivate them to focus on improving these key areas.

Data Quality

Burundi provided epidemiological analysis of their 2019 measles outbreak.

Countries are increasingly using surveys to gather data on equity, KAP (Lesotho - HPV), slum mapping (Pakistan).

Governance – Role of ICC and NITAG

Vietnam's re-submission of its RV introduction proposal showed substantial improvements despite a quick turnaround. The country reports the considerable involvement of the ICC, NITAG and partners in the revision of the application.

Budget

Lesotho submitted a high-quality budget with good justification of activities and costs, aligned with the PoA and covering a period of 5 years, thereby addressing issues of sustainability.

Technical Assistance

Pakistan's submission for MR 1 and 2 routine introduction with catch up campaign presented a well-designed and differentiated TCA plan with clearly assigned tasks, defined missions, and strategies for enabling national capacities.

Coverage and Equity

Lesotho allocated additional funds to low-performing areas to assist help with micro-planning to help identify and reach groups with low coverage.

Countries are increasingly using WHO tools and guidance to increase coverage of underserved populations (e.g. Rapid Convenience Monitoring, registration of zero-dose children).

Acknowledgements

To the GAVI Secretariat

The IRC will start by conveying gratitude to the Executive Team, especially the CEO and Deputy CEO, for their unflinching support for the IRC and continued responsiveness to key IRC recommendations.

Big thank you to the FD&R Team: Lindsey; Adrien; Verena, Sonia, Anjana - this review would not have been possible without your cooperation and assistance at every stage.

All SCMs, Focal Points; Finance Team Members – your pre-screening and comments during the plenary sessions were timely and invaluable, often providing the country level perspectives that were immensely useful, especially during the final decision-making steps. The IRC remains grateful for this, and looks forward to your continuing cooperation and assistance.

The IRC is grateful to the IT team that ensured that this first virtual IRC meeting could be successfully conducted.

To Alliance Partners WHO and UNICEF

Last but not least, immense gratitude to our key, dependable Technical Partners, WHO and UNICEF; you were always there, especially with clarifications on global policies and strategic issues.

Annex 1: List of IRC Members

#	Name	Nationality	Profession/Specialisation	Gender	French	Expertise
1	Caric, Aleksandra	Croatia	Independent consultant	Female	FR	Measles, AEFI surveillance and vaccine safety, programme management
2	D'Alva, Henrique *	Portugal	Independent Consultant	Male		Supply Chain and Logistics
3	Hersh, Bradley	USA	Independent consultant	Male	FR	Health policy, epidemiology, immunisation/NVS, outbreaks, campaigns, measles and rubella control
4	Izurieta, Hector *	USA/ Uruguay	GS15 Epidemiologist, U.S. Food and Drug Administration (acting as independent consultant)	Male	FR	Epidemiology of vaccine preventable diseases, vaccine effectiveness and safety. Control and elimination of measles, rubella, meningitis, cholera and other diseases.
5	Jaillard, Philippe	France	Independent consultant	Male	FR	Supply chain and logistics
6	Kamara, Clifford - CHAIR	Sierra Leone	Independent Consultant	Male		Health development, immunization services, recovery program, management & evaluation of health programs
7	Khrouf, Wassim *	Tunisia	Certified Accountant/ Independent Consultant	Male	FR	Budgeting, Financial Audit, Accounting, Management and International Donors' Grants, Governance
8	Lazzari, Stefano	Italy	Independent Consultant	Male	FR	Outbreak, epidemic and emergency response, HSS, monitoring and evaluation, grant management
9	Lymo, Dafrossa VICE-CHAIR	Tanzania	EPI Manager	Female		Program Management, HSS, RI, Surveillance, M&E
10	Nkowane, Benjamin	Zambia	Independent Consultant	Male		Measles, epidemiology, mass vaccination campaigns, technical support for field operations in risk areas
11	Oepen, Cornelius *	Germany	Independent Consultant	Male	FR	HSS, Private Sector in Health, Health Security, International Health Initiatives (GF, Gavi, WHO, World bank at various levels: country, implementer, board)
12	Tibouti, Abdel	Morocco, Canada	Independent Consultant	Male	FR	Financial and Budget Analysis, Health Economics, Health Financing Strategies, Program M&E
13	Tsu, Vivien	USA	Clinical Professor, University of Washington, Seattle	Female		Epidemiology, New Public Health Interventions, Women's Reproductive Health, HPV, JE
14	Wilkins, Karen *	USA	Independent Consultant	Female	FR	Routine immunization, measles, polio, surveillance, planning & evaluation

* New Members