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

JULY 2021

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List of Acronyms

ACSM	Advocacy, Communication and Social Mobilization
AEFI	Adverse event(s) following immunization
bOPV	Bivalent oral polio vaccine
CCE	Cold-chain equipment
CCEOP	Cold-chain equipment optimization platform
cMYP	comprehensive Multi-Year Plan (for immunization)
COVID-19	Coronavirus Disease 2019
cVDPV	circulating Vaccine-Derived Poliovirus
DSA	Daily Service Allowance
EPI	Expanded Programme on Immunization
EVM	Effective Vaccine Management
EYE	Eliminate Yellow Fever Epidemics
F-up (measles)	Follow-up – Measles Follow-up campaigns
GII	Gender Inequality Index
HSCC	Health Sector Coordinating Committee (or Council)
HPV	Human papillomavirus
HR	Human resources
HSS	Health System Strengthening
ICC	Inter-Agency Coordinating Committee
IMCI	Integrated Management of Child Interventions
IPV2	Inactivated Polio Vaccine 2nd dose
IRC	Independent Review Committee
MCV	Measles-containing vaccine
MR	Measles-Rubella Vaccine
NITAG	National Immunization Technical Advisory Group
NVS	New Vaccine Support
PCV	Pneumococcal conjugate vaccine
PCCS	Post Campaign Coverage Survey
PHC	Primary Health Care
POA	Plan of Action
PSC	Programme Support Costs
RI	Routine Immunization
SAGE	Strategic Advisory Group of Experts on Immunization
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SCM	Senior Country Manager
SIA	Supplementary immunization activity
TA	Technical assistance
TCA	Targeted Country Assistance
ToR	Terms of Reference
WUENIC	WHO and UNICEF estimates of national immunization coverage
YF	Yellow Fever

Executive Summary

The Gavi Independent Review Committee (IRC) met on 28th June – 2nd July 2021 and reviewed 5 applications from 5 Gavi-eligible countries. This was the fifth IRC meeting held virtually because of the COVID-19 pandemic.

Ten IRC members participated in this round, including three new members who underwent induction training. Areas of expertise included: immunization services; vaccine preventable diseases (VPDs); adverse event(s) following immunization (AEFI); health development and health systems strengthening (HSS); outbreaks, epidemic and emergency response; management and evaluation of health services; health policy and planning; primary health care (PHC); epidemiology and burden of disease; reproductive health, cold chain and supply chain management; health economics, health financing and auditing. Two members conducted in-depth financial reviews, and one member focused on cold chain and logistics issues.

During the review, the IRC members focused on the following specific tasks:

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

Review modalities included:

- Desk review and virtual discussion in plenary with the participation of the full committee of 5 New Vaccine Support (NVS) applications from 5 countries.
- Remote reviews of four additional IPV2 applications and Yellow fever diagnostics (addendum for allocation of PCR test kits), with consolidated reports discussed in plenary.

Results:

The IRC recommended approval of 4 of the 5 reviewed applications, with an overall approval rate of 80%. The total funding amount recommended for approval is US$ 10.56 million in support of the immunization of a target population of more than 12 million children. All remote IPV2 and YF applications were approved.

During the reviews, the IRC identified a number of relevant common issues, notably in relation to MCV and MR proposals that, if adequately addressed through technical support, could result in more robust applications and improved implementation.

These involve insufficient use of existing data sources, including gender equity data, to develop more effective strategies that could serve both campaign and routine immunization programmes. There remains a persistent under-specification of targeted interventions to identify and vaccinate zero-dose children, such as intra-campaign monitoring, mop-up activities, integration of other health interventions and detailed targeted social mobilization activities. This review found that the post-campaign coverage survey was not sufficiently considered to design evidence-based SIAs. It also reiterated the need to place continuous emphasis on improving budget rationale and budgetary assumptions to ensure critical interventions are funded and deliver value for money.

Finally, the IRC recognises that in the challenging context of the COVID-19 pandemic, countries should be further supported to maintain routine coverage, deliver high-coverage campaigns, and where relevant introduce new vaccines.

Methods and Processes

Methods

The Gavi Independent Review Committee met on 28th June– 2nd July 2021. This was the fifth meeting held virtually because of the COVID-19 pandemic. The virtual meeting went smoothly. The IRC met via Zoom as a large group or via small group communication outside the plenary sessions.

Ten IRC members participated in this review round, including three new members who underwent virtual induction training. Areas of expertise included: immunization services; VPDs (measles, rubella, Human Papillomavirus, and Pneumococcal disease); AEFI; health development and HSS; outbreaks, epidemic and emergency response; management and evaluation of health services; health policy and planning; PHC; epidemiology and burden of disease; reproductive health, cold chain and supply chain management; health economics, health financing and auditing. Two IRC members focused on in-depth financial reviews, and one member focused on cold chain and logistics issues. (see Annex 1 for the list of participating IRC members).

Country applications and supporting documents were shared with IRC members one week before the start of the meeting. IRC members reviewed and analysed these applications and prepared draft reports on their assigned countries. The Secretariat provided clarifications and any additional documentation as needed.

The meeting started off with an address by the Gavi Deputy CEO, Ms Anuradha Gupta. She welcomed participants, summarized the Board meeting's latest recommendations, Gavi response to the COVID-19 pandemic, and reminded the IRC about Gavi's priority of ensuring that specific activities to identify and immunize zero-dose children are included in all applications. Equally important are the emphasis on equity in the implementation plans and consideration of gender-related barriers in the proposed strategies.

The Secretariat then updated the IRC on the COVID-19 situation in Gavi-supported countries and on Gavi support to COVAX, including vaccine distribution and implementation. Thereafter, the briefings continued with updates from the Secretariat and Alliance partners on key topic areas relevant to this review round, such as vaccine updates on measles and rubella and PCV.

Each country proposal was reviewed by at least two IRC members, a primary and a secondary reviewer. Each IRC member reviewed the applications and supporting documents independently and prepared separate, individual reports. Cross-cutting issues related to budgets and financial sustainability and supply chain and waste management were reviewed in each application by one financial crosscutter and one IRC member specialized in supply chains. These reports were presented in daily virtual plenaries, during which the initial findings were extensively discussed, with a final, consensual, outcome recommendation of either approval or re-review.

Four remote reviews[1] of applications for IPV2 introduction in Cote d'Ivoire, Kyrgyzstan, Tajikistan and Uzbekistan were included in this round. Additionally, 21[2] Yellow Fever Diagnostics PCR addenda were reviewed remotely. For the remote reviews, two reviewers prepared independent reports which were

[1] IRC "remote review" is applied when the proposal submitted is of limited nature and complexity, with minimal documentation needed. In this case, the review by the full IRC is considered not essential and the assessment is limited to two IRC members.

[2] Cameroon, Central African Republic, Chad, Congo Republic, Democratic Republic of Congo, Ethiopia, Kenya, South Sudan, Sudan, Uganda, Benin, Burkina Faso, Cote d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, and Togo

consolidated before the IRC meeting. The consolidated reports and recommendations were shared with the IRC and final recommendations endorsed through consensus.

The Gavi Secretariat and Alliance partners supported the plenaries by providing information and clarifications when needed, especially on country-specific background and context. Most IRC decisions were agreed upon immediately at the end of the plenaries, though one required postponing the decision to clarify outstanding issues from the country, the Secretariat, and technical partners.

The first reviewers then consolidated the reports from the different reviewers and the outcome of the plenary discussion, including decisions and recommendations, in draft country reports. These drafts were then finalized after editing, thorough fact and consistency checking, and quality review.

The two review modalities during this round are presented below:

1. Desk reviews of 5 NVS applications from 5 countries with full committee discussions (Table 1).
2. Remote reviews by selected IRC members, with limited committee discussions, of IPV2 introduction and Yellow Fever Diagnostics PCR addenda.

Table 1: Country Applications by Type and Review Modality

Countries	Application/ Support requested	Modality	No. of applications
Niger	MCV follow-up campaign	Desk review (Virtual)	1
Somalia	MCV follow-up campaign	Desk review (Virtual)	1
Sudan	MR routine and catch-up campaign	Desk review (Virtual)	2
Tajikistan	PCV routine and catch-up campaign	Desk review (Virtual)	2
Uzbekistan	MR follow-up campaign	Desk review (Virtual)	1

Criteria for review

Review of the applications was guided by the IRC Terms of Reference and key criteria in line with Gavi's mission. These include justification for the proposed activities, soundness of approach, country readiness, feasibility of plans, contribution to system strengthening, programmatic and financial sustainability, and public health benefits of the investment. The IRC adhered strictly to these guidelines to ensure the integrity, consistency, and transparency of the funding decision.

Decisions

There were two decision categories:

I. **Recommendation for Approval** when no issues were identified that would require re-review by the independent experts. In this case, the minor issues raised by the IRC will be addressed by the country in consultation with the Secretariat and Partners.

II. **Recommendation for Re-review** when there were critical issues that required a new review by the independent experts; this will entail detailed revision of the application and a revised submission to the IRC.

Table 2 presents the review outcomes for this round. 4 of the 5 applications were recommended for approval and one was recommended for re-review, with an overall proportion of recommendations for approval of 80%. All remote IPV2 and YF applications were approved.

Table 2: Requests from Countries and Review Outcomes

Country	Application	Outcome
NVS and CCEOP		
Niger	MCV follow-up campaign	Approval
Somalia	MCV follow-up campaign	Approval
Sudan	MR routine and catch-up campaign	Re-review
Tajikistan	PCV routine and catch-up campaign	Approval
Uzbekistan	MR follow-up campaign	Approval
Remote Reviews IPV2		
Cote d'Ivoire	IPV2	Approval
Kyrgyzstan	IPV2	Approval
Tajikistan	IPV2	Approval
Uzbekistan	IPV2	Approval
Remote Reviews YF Diagnostics PCR addenda		
Central African sub-region	Cameroon, Central African Republic, Chad, Congo Republic, Democratic Republic of Congo	Approval
Eastern Africa sub-region	Ethiopia, Kenya, South Sudan, Sudan, Uganda	Approval
West Africa sub-region	Benin, Burkina Faso, Cote d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Togo	Approval

Thematic areas sub-committees

During the review, IRC members, organized in 5 sub-committees, identified specific findings and issues in the applications submitted that would be of general interest for Gavi and partners and could be addressed in the Secretariat's debrief session as well as in this report. The suggested issues were initially reviewed and agreed upon in a special plenary session held on the 28th of June. They were further discussed and finalized in a slide presentation on the 2nd of July to be presented by the interim Chair to Gavi Secretariat Senior Management, staff and partners on the final day of the meeting.

Secretariat debrief and closing session

The debrief of the Gavi Secretariat was held on the 2nd of July and included a summary presentation of the meeting's outcomes and key issues and recommendations from the IRC to Gavi and Alliance partners. This was followed by a brief discussion, questions/comments, and response.

During the closing session, Ms Anuradha Gupta, Gavi Deputy CEO, expressed her appreciation to the IRC members for the excellent work. She also expressed her gratitude to the vice-chair of the meeting, Dafrossa Lyimo, and the interim chair Sandra Mounier-Jack for agreeing to take on the responsibility of facilitating and managing the meeting.

Key Findings and Recommendations

NVS (Routine and Campaign support)

This IRC reviewed five applications from five countries for New Vaccines and Campaigns support. Three were for measles containing vaccine (MCV) follow-up campaign, one for rubella vaccine introduction and preceding measles-rubella vaccine (MR) catch-up campaign, and one for Pneumococcal conjugate vaccine (PCV) introduction and catch-up campaign. There were also applications from four countries for the introduction of second dose of IPV into routine immunization programme and applications from 21 countries for the allotment of PCR test kits and associated consumable supplies for yellow fever diagnostics, which were reviewed remotely. The 21 countries applying for PCR test kit allotments had previously been approved for yellow fever diagnostics.

PCV application

The PCV introduction into routine vaccinations in Tajikistan will be followed by a catch-up campaign. Tajikistan plans to provide integrated delivery with IMCI interventions. The communication and social mobilization activities implemented prior to PCV introduction and catch-up campaign, will include messages to improve community knowledge and promote healthy child feeding practices, breastfeeding and improve parental health care seeking behaviour. In addition, the campaign will offer opportunities to identify and vaccinate of zero-dose and defaulter children.

Measles and rubella applications

The measles applications included MCV follow-up campaigns (Niger, Somalia); MR follow-up campaign (Uzbekistan) and rubella vaccine introduction into an existing two-dose schedule (switch from Measles to MR vaccine) with MR catch-up campaign (Sudan). The applications from Uzbekistan and Sudan were complex in that for Uzbekistan, the country reports routine MMR coverage (administrative, WUENIC) of over 95% and yet faces measles epidemics in young children. There has been no recent survey to validate the reported high coverage. In addition, according to the national schedule, MMR1 is given at 12 months and MMR2 at 6 years of age, which does not align with the WHO recommended schedule for MCV2 and favours the accumulation of susceptibles. Sudan, an increasingly fragile state applying to introduce rubella containing vaccine in routine EPI in January 2023, has unreliable coverage estimates and is facing political instability, hyperinflation and currency devaluation which are severely impacting routine EPI activities. Furthermore, Sudan currently has measles outbreaks, cVDPV2 outbreaks since March 2020, with cases confirmed in nearly all states, and diphtheria and pertussis outbreaks annually, indicating population immunity gaps.

Overall, the applications provided good justification for the proposed interventions based on updated epidemiological data on measles and rubella, and immunity profile of the population at risk for disease. Niger and Sudan identified poor performing and high-risk districts through triangulation of case-based surveillance data, immunization coverage and outbreaks of disease. All four countries applying for support for measles/rubella campaigns identified urban and peri-urban areas of the large cities as high risk for spread of disease because of poor coverage during SIAs and/or routine EPI. The applications did not however propose clear strategies to address the “urban poor” who often make up a large proportion of susceptible children and zero dose children.

With regard to integration of proposed SIAs with other interventions, Sudan did not include any, Somalia only mentioned Vitamin A supplementation, and Niger and Uzbekistan planned to include Vitamin A supplementation, bOPV and deworming with Mebendazole. No details were provided on the approaches to maximize the effects of integration. All four countries had intra-campaign monitoring planned for the SIAs. Clear criteria for mop-up vaccination were provided for only one

country (Niger). No budget was allocated for the mop-up activities in any of the four countries. Coordination of proposed campaigns with other in-country programmes such as polio to ensure synergies during planning and implementation were described for Somalia. Cross-border synchronization in terms of planning or implementation should be considered, such as in the case of Uzbekistan and neighboring countries which have experienced regional measles outbreaks in the past.

Zero dose focus

With regards to targeting zero-dose children during NVS and campaigns, all countries provided some degree of analysis of the zero-dose situation though specific activities reflecting zero-dose focus were often under-developed. Somalia and Sudan provided data from recent surveys which estimated the proportion of children who were zero dose from 12-23 months (Somalia 60.0%, Sudan 7.9%). Niger identified regions with low coverage including areas in need of humanitarian assistance and designated time for active search of incompletely vaccinated and zero-dose children during SIA microplanning. Whereas Somalia gave estimates of the zero dose children by province and listed the barriers to be overcome, they did not determine and describe suitable delivery strategies to be used during the campaign. On the other hand, Sudan described detailed tailored activities to reach zero dose children in each different high-risk population, but the focus was inadequate and there was no specific budget for the tailored activities. Tajikistan and Uzbekistan were applications that provided adequate analysis of the zero-dose situations and had well described focused strategies and budgets for activities to reach the zero-dose children and defaulter tracing.

Issue 1: Reaching zero-dose children during NVS:
Countries applying for support for campaigns do not always triangulate information to identify where the missed children are and why they are missed, and do not determine and describe specific strategies that focus on reaching zero-dose children and their communities

Recommendation

- All applications for support for NVS and notably for campaigns should provide a detailed analysis of zero-dose children and describe delivery strategies to be used and budgets for the specific activities to identify and vaccinate zero-dose children.

Issue 2: Lack of strategies for urban high-risk populations:

Countries applying for support for campaigns identify urban and peri-urban areas of large cities as high risk because of socioeconomic factors and poor routine vaccination coverage and MCV SIA coverage. Proposed strategies are not sufficiently tailored to the setting and children are likely to be missed, while the role of private providers is rarely mentioned (Table 3).

Recommendations

- Plans of action must describe tailored activities based on information available or equity assessments and provide a budget for the activities.
- Private providers should be formally engaged in campaigns to include the "urban poor" and improve overall vaccination coverage.

Issue 3: **Integration of interventions in NVS campaigns**: **Countries mention integration of high impact childhood health interventions into campaigns in general and non-specific way and there is no prioritization of integrative approaches to maximize synergies**. Countries also note that integration is often programmatically challenging.

Table 3: Description of interventions planned for integration with planned NVS campaigns

Country	Interventions to be integrated
Somalia **Measles f-up**	Vitamin A supplementation
Niger **Measles f-up**	Vitamin A supplementation, bOPV administration and deworming with Mebendazole
Tajikistan **PCV intro & catchup**	Communication materials for parents (e.g. to improve community knowledge and promote child health, child feeding practices, breastfeeding, and healthcare-seeking behaviours)
Sudan **MR intro & catchup**	No specific intervention stated to be integrated other than mentioning integration is good.
Uzbekistan **MR f-up**	Integration of MR campaign with provision of additional doses of bOPV, Vitamin A and Deworming but not clear on funding modalities

Recommendations

- Countries should utilize NVS (Introduction/Campaign) opportunities to integrate services/interventions to optimize efficiency and uptake.
- At minimum countries should offer integrated interventions/activities with campaign in areas with infrequent contact with health services.

Issue 4: Failure to coordinate activities with in-country programmes and to synchronize SIAs with neighbouring countries or cross-border areas (when appropriate) is a missed opportunity in terms of epidemiological and programmatic benefits and in some case cost-efficiency.

Recommendations

- To maximize benefits of campaigns, countries should coordinate and share timelines with other in-country programmes. Gavi and partners should support coordination to maximize the integration of campaigns activities. This includes both co-delivery of interventions and coordination of activities such as coordinating bodies, microplanning, etc.
- When appropriate, countries should strongly consider synchronizing with neighbouring countries when planning introduction and campaign implementation of NVS (e.g. MCV SIAs).

Issue 5: Intra-campaign monitoring: Countries are not giving priority to intra-campaign monitoring. This may result in failure to take immediate remedial action (mop-ups) which is a missed opportunity to vaccinate zero-dose and defaulter children and refer them for follow-up. Though some countries are dedicating budget for intra-campaign monitoring, none is clearly allocating funds for mop-ups even when planned. (See Table 4)

Table 4: Intra- campaign monitoring and mop-up activities in the campaign Plan of Action

Intra-campaign monitoring activities in the Plan of Action	Niger MR Catch-up	Somalia MR F-up	Tajikistan PCV Catch-up	Uzbekistan MR F-up	Sudan MR Catch-up
Planned	Yes	Yes	Yes	Yes	Yes
Clear Criteria for mop-up	Yes	No	Yes	No	No
Additional zero doses focus during the campaign	No	No	Yes	Yes	No
Defaulter tracing strategy outlined	No	No	Yes	Yes	No
Budget included for Mop-ups	No	No	No	No	No

Recommendations

- Plans of action for the campaigns should provide details on criteria and appropriate strategies for mop-up vaccinations, and strategies to identify and follow-up zero-dose children and defaulters.
- Human and financial resources for mop-up activities need to be estimated and should be clearly included in the budget.

IPV2 Applications

Four countries (Cote d'Ivoire, Kyrgyzstan, Tajikistan & Uzbekistan) applied for support to introduce IPV2 into their routine vaccination programmes. Cote d'Ivoire and Tajikistan both reported cases of circulating vaccine derived poliovirus (cVDPV) in 2020. All four countries followed the WHO SAGE 2020[3] recommended schedule for IPV use in routine vaccination programmes. Cote d'Ivoire opted for the IPV early schedule (six weeks for IPV1 and 14 weeks for IPV2), while Kyrgyzstan, Tajikistan and Uzbekistan opted to use the WHO SAGE "preferred" schedule for IPV1 at 3.5 months, 3 months and 4 months respectively and IPV2 at 9 months. For the three Central Asian countries, there are no vaccinations currently scheduled at the 9-months (MCV is given at 12-months). The countries stipulate that the (new) 9 month visit will be used as an opportunity to "catch-up" with missed doses without waiting until the next visit at 12 months.

Issue 6. Introduction of IPV2 at the 9-months: Because in Kyrgyzstan, Tajikistan and Uzbekistan, no vaccinations are given at 9 months, introduction of a new vaccination contact may pose programmatic challenges.

Recommendation

- Countries introducing IPV2 at the new vaccination contact at 9-months should plan for and allocate resources for communication and demand generation activities to support the introduction.

[3] https://apps.who.int/iris/bitstream/handle/10665/337100/WER9548-eng-fre.pdf

Yellow fever diagnostics (addendum for allocation of PCR test kits)

During 2020 and 2021, 21 African countries applied for Gavi support for yellow fever diagnostics procurement. The IRC approved all applications for Gavi funding. As part of those applications, each country's national yellow fever reference laboratory (as part of the WHO yellow fever laboratory network) estimated the number of samples they would need to test for yellow fever over a 12-month period. These estimates included the number of samples that might be appropriate for molecular testing with PCR. At the time, however, no validated molecular test kits were commercially available, so WHO, UNICEF, and Gavi staff were unable to estimate how many PCR kits and related consumables were needed for molecular testing of expected samples. In 2021, the Eliminate Yellow Fever Epidemics (EYE) laboratory technical working group validated a PCR kit made by *Altona Diagnostics GmbH* as appropriate for use in the WHO African yellow fever laboratory network. In addition, Gavi alliance technical partners assessed the proficiency of the laboratories in the 21 countries for PCR molecular testing and for their logistics capacity to clear reagents and equipment through customs in a timely manner.

The IRC reviewed the expected number of annual samples and the supply of PCR test kits and consumables and concluded that the estimates made by the Gavi Secretariat and alliance technical partners appeared reasonable. Based on the laboratory proficiency assessments, 12 (57%) laboratories demonstrated proficiency in performing YF molecular testing and only 10 (48%) demonstrated sufficient logistical capacity to receive test kits, reagents and equipment through customs in a timely manner. When these two criteria were combined, 6 (29%) of 21 national YF reference laboratories were recommended to receive a full allocation of PCR test kits and reagents, 4 (19%) to have probationary access to the allocations depending on resolution of customs clearance delays and other logistical challenges, and 11 (52%) were recommended to receive test kits and reagents for training purposes only. In addition, of the three Yellow Fever Regional Reference Laboratories (RRL), Senegal and Cameroon performed well in both areas of the assessments, but the Uganda RRL had significant issues in getting kits and reagents through customs and was given only probationary access for its allotment for test kits and reagents.

The IRC noted that because of the COVID-19 pandemic, the overwhelming majority of national YF reference laboratories are hosted in institutions that have gained extensive experience over the past year in conducting PCR for confirming suspected cases of SARS-CoV-2 virus. This experience should be extremely helpful in enhancing molecular testing for YF and other antigens in most African national YF reference laboratories.

However, data from the laboratory assessments suggest that most national laboratories are not currently fully prepared to perform high quality molecular testing for yellow fever. The IRC also notes that while the contributions of the Gavi Alliance in providing test kits and reagents are necessary, they are clearly not sufficient to assure high-quality YF confirmatory testing in a timely manner in all countries that are at high-risk for yellow fever.

Issue 7. There is currently low proficiency in PCR molecular testing and challenges with logistics capacity for clearing kits and consumables through customs and relevant authorities:

Recommendation

- There is urgent need for the African YF laboratory network to continue to work with the Gavi Alliance technical partners to strengthen capacities of national reference laboratories to conduct high quality YF molecular testing and to advocate for expediated import of test kits, reagents and testing equipment including through customs and relevant authorities. Major capacity needs include training of laboratory technicians, quality assurance & quality control, certification of laboratories, logistics strengthening and electronic data management.

Coverage, Equity and Gender

IRC has repeatedly emphasized the importance of quality post-campaign coverage surveys and has requested that they be included in the budget and allocated adequate funds. Of the five applications requesting follow-up or catch-up campaign support, only one of the five countries (Niger) conducted a post-campaign coverage survey (PCCS) of their last campaign. One country (Sudan) was unable to conduct a planned PCCS on the last national SIA due to political unrest. Another country (Tajikistan) did not see the need to plan for a PCCS, stating the past administrative and survey coverage rates were similar and validated by independent monitoring from a 2017 polio and measles SIA. For the four countries (Uzbekistan, Niger, Sudan, Somalia) which now included a PCCS in the current applications, the IRC noted a wide range of budget allocations without explanation to allow for assessing the adequacy of the amounts to cover necessary activities. None of the countries indicated timelines of planning and preparation for the PCCS in their plans of action.

A PCCS is an important monitoring and evaluation process of a costly campaign, which measures actual coverage rates reached during the campaign. Importantly, it also formally assesses what was missed, who were missed and why, and what communication channels informed the population about the SIA. A well conducted PCCS should provide subnational coverage data and for those areas with insufficient coverage, it can help identify better practices to bring into routine immunization services. On the flipside, it can identify how the campaign may have negatively affected routine health services or defaulter rates and help avoid ineffective or disruptive practices moving forward. The capacity of surveys to provide subnational quality data depends mainly on resource availability and timely planning.

The PCCS should bring into sharp focus more opportunities in reaching zero-dose and under-vaccinated children, with a deeper analysis on equity issues, including identifying and examining the sociocultural contexts and gender inequalities which affect access to health services.

Objectivity is paramount, as the survey is an independent review of campaign performance. Thus, it must be conducted by an independent team of trained evaluators who were not involved in the campaign or within EPI, to enhance the confidence in the results of the survey. WHO recommends using cluster survey methodology, and that plans form the SIA evaluation including the PCCS should be finalized 9 to 6 months before the campaign. The preparations for the survey should start well in advance, at the same time as campaign preparations, to be able to conduct the survey as soon as possible, ideally 1 to 3 months, after the SIA.

Insights from the PCCS need to be acted on, to strengthen routine immunization programmes and inform future SIAs. Past PCCS findings should strongly feed a consolidated list of lessons learned with concrete actions, including more district-specific strategies. The current applications described past lessons learned but were fairly generic, sometimes not aligned with the documented previous PCCS findings, and without adequately specified and contextualized activities to improve the new campaign and improve coverage and equity.

Issue 8. The post-campaign coverage survey is not consistently included or allocated sufficient budget in country applications. The value of a well conducted PCCS remains under recognised.

Recommendations

- A post-campaign coverage survey should be adequately budgeted for, planned early and conducted 1 to 3 months after the campaign.
- The survey should be conducted by independent, trained evaluators with adequate resources. The findings should be well disseminated and should improve strategic planning to reach more

zero-dose children. This is particularly important for measles SIAs, where high coverage is crucial.

Equity issues, including gender analyses, are either absent or cursorily described in applications (coverage rates comparing rural vs urban, maternal education level, gender of child and wealth quintile), without clear operationalization of these factors into strategies, planning, evaluations and lessons learnt. The IRC has raised this issue in past reports and continues to highlight that gender inequity is not prioritized in country applications, or used as an entry point to understand marginalization and disadvantage in relation to vaccination and/or other health services. Gender inequity is particularly weakly described, and efforts from HSS grants are not provided. The analysis on demand as well as on the supply side is scanty, and countries do not articulate how gender relations affect individual, household, community, health facility and ultimately health policy level dynamics that affect uptake and delivery of immunization and other health services. Ideally, such analysis should be done before planning an intervention, in order to inform the design of implementation strategies and/or evaluate the existing ones. Beyond health, there was no indication from applications that countries are considering service integration across sectors, for example health interventions with education or economic empowerment services, to address related dimensions affected by gender inequity.

Globally, the average score on the Gender Inequality Index (GII) is 0.492, reflecting 49.2% losses in achievement across three dimensions from gender inequality: reproductive health, empowerment and the labour market. The highest regional average loss of the GII is 61%, in Sub-Saharan Africa. In this round of reviews, of three Sub-Saharan countries (Niger, Somalia, Sudan), only one, Sudan, referred to its GII of 56% in its 5-year measles-rubella elimination plan. However, GII considerations were not fully brought into Sudan's plan of action. The plan describes an established practice to select female volunteers as far as possible from local communities, and notes female health workers have limited mobility, with certain cultural norms limiting contact between genders.

There is no prioritisation for more efforts or innovative practices to address disparities. Somalia's application referred to advocacy, communication and social mobilization (ACSM) activities targeting the male head of household to address vaccine hesitancy, but again, other measures were not described. In the case of Niger, equity studies attempted to identify underprivileged populations, bottlenecks to vaccination services and corrective actions but entirely lacked a gender lens (i.e. high percentage of child marriages, lower mean time spent at school for girls and cultural norms preventing mothers from taking their children for vaccination). Clearly, much more work needs to be done to prioritize, identify the issues and go beyond descriptions of gender inequity to reduce the gap in accessing immunization services, and IRC will consistently ask countries to carefully analyse how these inequities affect health, what constraints there may be for reaching the target, and how this will be reflected in strategies to help achieve and sustain impacts of intervention.

Issue 9. The lack of a gender lens in strategic planning continues to be a major barrier in reaching disadvantaged populations. Addressing inequity is not yet a built-in practice.

Recommendation

- Gavi and partners should consider recommending a standardised tool to assess gender inequity, with a consistent gender lens, in developing and evaluating proposed strategies.

Effective ACSM efforts are crucial in reaching out to caregivers of zero-dose children. Low awareness of measles vaccination is often reported as the most important reason for non-vaccination in surveys

on barriers to accessing immunization services. A substantial number of caregivers are found to be unaware of the campaign or where to get vaccinated. It is also important to validate communication messages for clarity and acceptance. From the applications, there was wide and inconsistent emphasis placed on ACSM activities, in developing and validating the right messages, the right messengers and details in providing adequate outreach to caregivers of zero-dose children. These special groups can vary widely, for example, by ethnicity, languages, cultural norms and structures, and geographic movements.

The budget allocations for these activities showed a wide variation (Table 5). It is remarkable that Sudan had planned almost no funded activities while it has many high-risk populations, such as nomadic populations, different ethnic groups as well as school and out of school children.

Table 5: Proportion of budget allocations for requested ACSM activities requested for Gavi support.

	% Total Budget				
Activities	**Tajikistan**	**Uzbekistan**	**Niger**	**Somalia**	**Sudan**
ACSM	**39%**	**8%**	**12%**	**7%**	**0.3%**

Issue 10: Zero-dose and incompletely vaccinated children - Tailoring ACSM for hard-to-reach populations need to be given adequate planning and prioritisation in routine immunization and in campaign budgets, particularly when hard-to-reach populations account for a large percentage of the target population.

Recommendations

- Countries should ensure that ACSM activities are prioritized in planning, validated for clarity and acceptance and support strategies to improve reaching zero-dose children. These should involve and engage local community partners and representatives of targeted disadvantaged subpopulations.
- Resources for ACSM activities need to be adequately estimated and included in the budget.

Data Quality and Use

Countries mainly base their immunization target population calculations on national administrative coverage estimates or WHO and UNICEF Estimates of National Immunization Coverage (WUENIC). Although data quality and use has been the focus of IRC recommendations, the efforts to triangulate more recent and more granular information to improve accuracy and planning of routine delivery or SIAs are still lacking. It is necessary to work across sectors to access relevant data and harmonize denominators, for example in vital statistics or urban planning surveys. Reviewing and harmonizing WUENIC, administrative data and survey estimates is important, recognising each estimate has its own methodology and limitations. Low true coverage is masked when official figures continue to rely only on administrative data for monitoring, ignoring more granular, discordant coverage surveys.

Currently some countries use crude denominators based on estimates taken from the last national census data and the average annual population growth. The last census may be more than a decade old, as in the case of almost all the applicant countries. Looking at the subnational data for Penta3/DTP3, three of five countries show a variable number of districts with Penta3/DTP3 coverage higher than 100%. This may be due to inaccurate district target population estimates and/or data quality issues. Using district coverage estimates in order to identify underperforming areas and the unreached can be difficult. Therefore, it becomes even more important to update and recalibrate denominators and geomapping through more recent survey data for hard-to-reach and mobile populations. As an example, though only in Gavi supported districts, Somalia is working to estimate

its target populations more accurately through the use of geomapping and referring to newer enumeration data from urban immunization projects in the main cities.

A major consequence of the status quo in data use is that outdated or poor administrative estimates and denominator issues will affect planning and give false reassurances from overestimated coverage rates. For example, in the absence of local surveys, some districts choose to use DTP1 coverage as the denominator. This leads to DTP3 coverage appearing very high, given the likelihood of reaching the same children who received DTP1. These very districts appearing as high performing may be the ones with the most concern, because there are no recent local surveys.

In several countries, Data Quality Assessments are outdated, and annual data desk reviews are generally not done.

Besides data use, another key area of concern is data management and the ability to retrieve and consolidate many sources of data and surveys. Immunization programme planning can be enabled with an electronic registry system, along with a common dashboard. Countries would benefit moving towards electronic records and data storage systems. The COVID-19 pandemic may accelerate this progress by acutely highlighting this need for electronic systems, and efficient planning and delivery of emergency-use vaccines.

Issue 11. Countries are not fully leveraging existing subnational data from multiple sources, such as urban surveys, outbreak reports, post-campaign coverage surveys, and equity analyses, to inform planning and improve strategic programming to reach un- and under-vaccinated.

Recommendations

- Countries need to triangulate all available data, especially local or subnational data, acknowledging limitations of routine coverage estimates, to update and improve strategic planning to identify and reach disadvantaged populations, harmonize denominators and address data discrepancies.
- Gavi and alliance partners should further support the countries towards stronger electronic health information management systems to save and retrieve data sources and provide common platforms e.g. dashboards, and move towards electronic records and data storage systems.

Supply chain and waste management

IRC noted that some countries (2/5) have outdated Effective Vaccine Management (EVM) assessments. Restrictions related to the COVID-19 pandemic explain delays in updating the assessments. Despite these challenges, Niger and Sudan managed to conduct EVM assessments in 2020 with the new EVM 2.0 tool and should be commended.

Countries still fail to provide a comprehensive cold-chain equipment (CCE) gap analysis especially for passive devices. The lack of CCE gap analysis is made more complex because of concurrent funding streams for supply chain procurement with large volumes of COVID-19 vaccine also expected over the next few months. Waste management is still poorly described and in some countries these activities are not budgeted for or indicate any progress in practices. Some countries are using non-recommended practices such as the use of such as the use of ice blocks instead of frozen and conditioned water-packs (Sudan), and several countries continue to use open burning of waste instead of incineration.

Issue 12. There is increased complexity of CCE gap analysis for NVS and SIAs - in the context of multiple investments streams from CCEOP, COVAX additional capacity and HSS and expected large supply distribution of COVID-19 vaccine.

Issue 13. Countries do not always allocate adequate funds in NVS and SIAs budgets to implement good waste management and vaccine management practices.

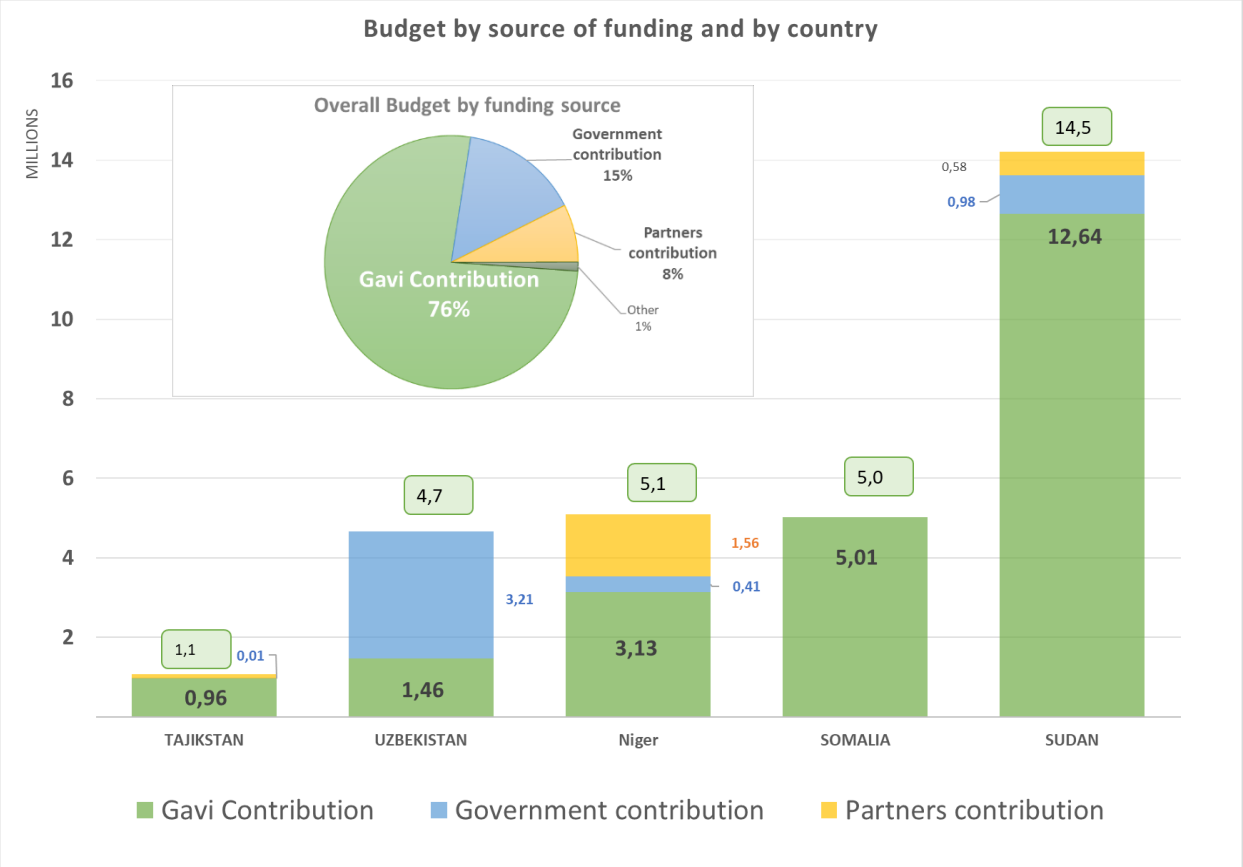
Recommendations

- Cold chain technical assistance is needed to support countries to carry out timely CCE gaps analysis in advance of, introducing NVS or conducting campaigns, and those with limited CCE capacity.
- Countries should stop old and harmful practices of waste disposal and vaccine management and follow WHO recommendations. Waste management of large campaigns should be timely and adequately planned and included in the budget.

Budgets, Financial Management and Sustainability

In this round, five budget applications for support totalling US$30,388,887 were reviewed. The requested Gavi contribution of US$23,200,692 constituted 76% of the total planned budget, with governments and partners contributing 15% and 9%, respectively. As shown in Figure 1, Tajikistan, Niger, and Sudan showed partners' contributions in their budgets.

Figure 1: Overall budget requested by country and by source of funding.



Of the total requested Gavi contribution, 55% accrued to Sudan, 22% to Somalia, 13 % to Niger, 6% to Uzbekistan and 4% to Tajikistan. The share of the Gavi contribution by antigen was 61% (US$ 14.1

million) for Measles-Rubella, 35 % (US$ 8.14 million) for Measles, and 4% (US$ 0.96 million) for PCV. OPC budgets accounted for 94% of the total Gavi requested contributions.

a. Campaign staffing requirements

Tajikistan and Uzbekistan did not request Gavi contribution for HR costs. For the other countries, the level of HR costs as presented in the applications was 26% of the total, but after re-classification adjustments and application of HR guidelines the level of HR costs would have reached 43% in Niger and 36% in Somalia. No data were available for Tajikistan.

The staffing campaign assumptions and calculations were one of the major HR costs drivers and a recurrent issue from several IRC rounds. Staffing requirements also impacted on other related cost inputs (transport, events, equipment, and supplies). Countries tended to give too few details, which often led to inconsistencies and contributed to inflating HR costs.

In Table 6, we analyzed team composition figures to determine workload ratios (workload/ team / day, number of staff per team and staff level per child vaccinated).

Table 6: Vaccination team analysis and workload ratios (source: budget)*

	Target Population (a)	days of campaign (b)	# of teams (c)	Workload/ day / team (d)= (a)/(b)/(c)	# of team members (e)	number of staff/ team (f)= (c)/(e)	Man days (g) = (b) * (e)	man days/ 1000 child (h) = (a) / (g)
Uzbekistan	4,799,378 (i)	6	6,825	**117**	13,506	**2,0**	81,036	**17**
Sudan	20,636,295	6,4 (ii)	19,776	**163**	78,460	**4,0**	503,434	**24**
Niger	4,842,314	7	5,409	**128**	21,819	**4,0**	152,733	**32**
Somalia	2,832,151	5	4,578	**124**	27,465	**6,0**	137,325	**48**

*(i) Including the > 59 Mo children; (ii) Average number of days as there are different duration for each delivery strategy; *Tajikistan is not included because data were not provided*

There were wide differences in the ratios. Sudan presented the highest workload ratio which may present a risk of not reaching this standard during execution. Somalia presented the highest level of staff need per child vaccinated (almost 3 times than Uzbekistan) due to the high number of team members. This led to inflated quantities and budgets. There were also large differences in the ratios used for supervisors to team members (Table 7):

Table 7: Vaccination supervisors staffing analysis

	# of teams	# Supervisors at all levels in budget	# supervisors / team
Uzbekistan	6 825	1 046 (i)	15%
Sudan	19 776	1 372	7%
Niger	5 409	3 416	63%
Somalia	4 578	1 780	39%

(i) Weighted number as the 3,138 supervisors will work for 2 days and the campaign is for 6 days.

We used the number of all supervisors at all levels. The number of supervisors seem too low for Uzbekistan and Sudan and very high for Niger and Somalia. No data was available for Tajikistan. These differences show that there are issues in staffing assumptions and calculations.

Overall, countries still provide few details on team numbers and compositions, assumptions, and the same for supervisors. For example, Tajikistan did not provide any information in the PoA and the budget on the number of teams involved in vaccination. Uzbekistan presented the total number of teams and staff involved and not the rationale for calculations, so it was difficult to reconcile other expenses and possible underestimation of expenses. Sudan has budgeted for 1,372 supervisors but the rationale for deploying the number of supervisors for 19,776 team members was not stated. Assumptions are also provided but not fully justified in Somalia which is conducting an integrated campaign and did not explain the rationale of the 6-team member composition.

We also observed inconsistencies between PoA and budgets: For Niger, differences between vaccination ratio per day and the number of team members may lead to a budget overestimation of the number of staff by 5,211 persons out of 21,819 (31%) if PoA ratios were applied. Inconsistencies were also observed in Niger in supervisors' calculations where different ratios were applied leading to an excess of about 19% supervisors. In Somalia, low rates of vaccinators were used in the PoA that were not reflected in the budget.

Issue 14. Inadequate presentation and calculation of vaccination staff lead to unclear justification for budget costs.

Recommendations

- Countries should explain HR strategies and daily norms to support their applications.
- Gavi should create a mandatory section in the PoA to explain the rationale for staffing and a unified assumptions table to avoid errors and inconsistencies.

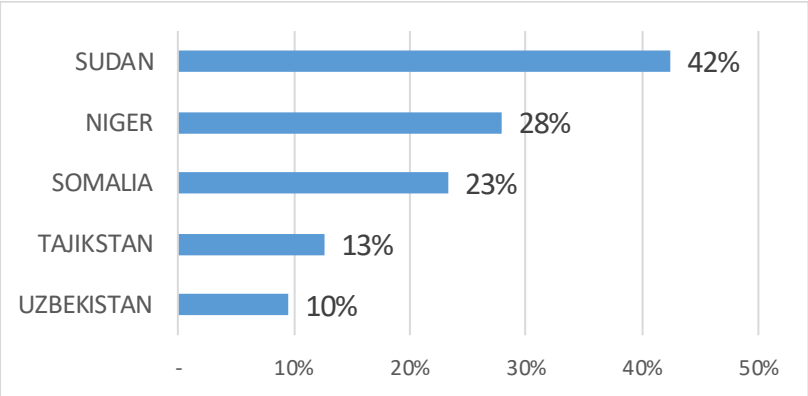
b. Transport costs

Transport costs is a sensitive item as its budgeting is complex and the expenses can be easily misused. As highlighted in Figure 2, the average level of transport costs in this round was high (33% for all countries on Gavi contribution) with three vast geographical countries. Sudan allocated a large part of its budget to transportation. Costs were driven by high quantities and possibly inflated unit costs. Sudan described renting 6,880 vehicles with high unit costs averaging US$ 780 per vehicle while Niger included a high and explained number of vehicles (1,027 cars for US$414k and 1,715 motorbikes for US$ 115k). Somalia used a high standard of one vehicle per supervisor.

There were insufficient assumptions on fuel utilization and quantities in the three countries and also in Tajikistan's budget. All countries failed to present a reconciliation with available vehicles and vaccination needs. Sudan did not integrate transport activities between the VIG and OPs grants in order to reduce transport hiring costs.

While transport is high in the above-mentioned countries, Uzbekistan did not include teams transport costs, which may have a serious impact on implementation if these important costs are not funded.

Figure 2: Transport cost in % of total Gavi budget Contribution



Issue 15. Variable and high transport costs poorly justified

Recommendations: Gavi and partners need to sustain ongoing efforts to implement past IRC recommendations including:

- Gavi and alliance partners should ensure greater focus in pre-screening on transport costs assumptions.
- Gavi and alliance partners should promote integration of activities when several grants are involved for cost efficiency (eg. Sudan).

c. Non-Gavi contribution budget items

Three countries presented budget items on other donors' contributions, which is a good practice that improves completeness and analysis, but this presentation was not comprehensive as several donors financed activities that were not presented in the budget. For example, Uzbekistan presented the Government contribution but with no details on its calculations and ratios.

Issue 16. Missing non-Gavi contribution items in the budget may lead to over or under estimate of budgetary needs.

Recommendations

- Countries should make use of the provided spaces for the provision of other support other than Gavi funds to disclose other funding and make the budget more complete for analysis.
- Gavi and alliance partners should ensure completeness of non-Gavi funded activities especially for TA.

d. Input quantities and unit costs

While there was some improvement in quality in the presented budgets, there were still several recurring issues such as lack of details in input quantities, unit costs, and lump sums.

The lack of details in both the budget and the PoA hindered validating assumptions and accuracy. For example, Somalia's quantity assumptions were not provided for some items such as flip charts costing US$27,000, and printing costs amounting to US$25,000. Uzbekistan did not provide an official document related to DSA, transport and accommodation rates so it was not possible to confirm the rates used.

Inconsistencies in the assumptions were also commonplace: In Uzbekistan's application there were inconsistencies in the number of regions' and districts' calculations of different activities. Niger's plan had inconsistencies in the number of vaccinators between different activities. In Uzbekistan, the district level training involved 5,725 participants while there were 3,637 vaccinators and 3,637 "registrars". Uzbekistan and Tajikistan used inconsistent rates for DSA costs such as in Uzbekistan (DSA rates for national level activities varied from US$38 to US$50 and travel costs from US$38 to US$95). Additionally, translator fees ranged from US$50 to US$400 per day.

Lump sum costs were found in several instances including for communication costs in Uzbekistan (*development of videos budgeted at US$5,000 against US$2,000 in 2020 and radio programs at US$5,000 against US$2,000 in 2020*). A lump sum of US$ 65,955 was used for community engagement activities in Tajikistan and in Somalia for supply chain costs (US$ 25,000).

Foreign exchange rates used were not aligned to current rates: due to volatile currency fluctuation, Sudan' s budget used an exchange rate of SDG 400 to the US Dollar instead of current rate of SDG 440. This could free up over US$ 1,000,000 were the current rate used. For Niger the exchange rate of 520 XOF/ to 1US$ did not align with the 2021 exchange rate, currently at 550 XOF to 1US$, and created a difference of up to US$170,000. These differences could be re-directed to include omitted components of their budgets.

Issue 17. Errors, lack of details and inconsistencies in quantities and unit costs

Recommendations: Gavi and alliance partners should sustain ongoing efforts to implement past IRC recommendations including to:

- Request countries to provide a single calculation tab containing the most important assumptions to avoid inconsistencies and to make simulations and facilitate controls.
- Ensure greater focus during pre-screening on quantities, unit costs and assumptions.

e. Standards and guidelines application

Misapplication of Gavi standards and guidelines is a recurring issue. It is the most common issue but less significant than in other rounds. We also observed errors related to Programme Support Costs (PSC) calculations.

Misclassification: At least 3 out of 5 countries budget presented misclassification issues in activities and/or cost inputs. in Niger, the "service delivery activity" category was underestimated by at least US$758,527 that were classified under "capacity building" category. The "HR" cost input was also underestimated by at least US$ 527,317 that were classified under "Program management". In Somalia, "HR costs" were overestimated by US$ 209,000 of "consultant services". In Uzbekistan, misclassifications were due to budget items that contained heterogeneous costs (Transport costs that contains some HR costs, consultants' services included in communication and events costs etc.).

PSC calculation errors were found in Somalia, Uzbekistan, and Tajikistan. In Somalia, the PSC of 8% for UNICEF is also calculated also on the cost of vaccines and in-country bank charges which increased the amount about US$129,000. Tajikistan based its PSC calculation on total cost instead of programme cost resulting in an over charge of US$ 4,693. In Uzbekistan, the WHO PSC calculation was overestimated by US$ 17,000. Sudan did not include PSC in the budget although WHO and UNICEF manage Gavi funds.

Issue 18. Several errors in applying standards and guidelines.

Recommendation: Gavi and partners should continue ongoing efforts to implement past IRC recommendations including:

- Pre-screening budgets for misclassifications of activities and errors in PSC calculations.

f. Sustainability

The applications submitted in this round comprised some sustainability issues. Information related to sustainability was scattered. Funds will be managed by alliance partners for 4 out of 5 countries, indicating that country financial management procedures are not adequate. Only Niger relies on its governmental management unit.

Countries presented updated financial sustainability projections in their cMYP apart from Niger whose plan ended in 2020. Uzbekistan and Somalia presented plans in draft version. These plans showed that countries were committed to co-funding their plans and no default was reported. However, Niger relied heavily on international donors for its NVP funding and Uzbekistan has a 23% gap of secured funding for the 2021-2025 period after eligibility for Gavi support ends. Somalia will not be able to fund its co-financing requirements and received a confirmation of commitment from UNICEF.

Only Tajikistan and Uzbekistan presented budgets with significant government financing to HR costs. Other countries rely on Gavi contributions to fund these expenses, which represents a serious sustainability issue.

Issue 19. Financial sustainability and management remains challenging for countries

Recommendations

- Gavi and alliance partners should provide further long-term technical assistance to countries to improve financial management of grants.
- Gavi and alliance partners should request from countries to demonstrate more efforts in their plans to improve their immunization programme's financial sustainability and management.

Governance

All 5 countries submitting applications this round reported a functioning Inter-Agency Coordinating Committee (ICC) and Health sector coordination committee (HSCC) for Sudan and all had endorsement of their steering committee. Governance structures in Somalia were reportedly complex, with two coordination committees, one for each governance area, and meetings chaired by EPI managers.

Four countries reported having an operational NITAG, except Somalia which used technical working groups. NITAGs discussed the application, except in Niger, which included a partial report of a teleconference. The IRC noted a lack of clarity on NITAG and ICC decision-making for rationale for using Gavi flexibility for MCV follow-up SIAs. For example, Uzbekistan indicated it had considered but rejected a selective campaign and the decision-making process lacked transparency. Similarly, it was not clear whether other countries had considered the flexibility option.

Issue 20. Decision-making for considering the flexible funding option for Measles/MR follow-up campaigns should be more transparent and evidence-based

Recommendations

- Gavi should request countries to provide more transparency on ICC/NITAG decision-making around choice of national strategy for SIAs, including consideration of flexible funding for campaigns.
- Gavi and alliance partners should to continue providing guidance to countries on evidence-based decision-making on flexible modalities.

Technical Assistance (TA)

Of the 5 countries reviewed in plenary, 4 requested TA, but most seemed to rely on existing targeted country assistance (TCA) under PEF. While countries appeared to provide more detail on TA needs and plans in this round, TA requests remained general, and dependent on traditional partners WHO and UNICEF. TA was often mentioned with one word which described the area of activities, which made it challenging to assess. For example, Niger requested 12 consultants, including 8 nationals and 3 internationals deployed to districts without providing details on what technical expertise these would provide.

Issue 21. TA support is critical for ensuring high quality but often poorly specified

Recommendations

- Gavi should request countries provide clarity and specific detail on what TA consultants will actually do.
- Gavi should request countries to specify whether TA is budgeted through TCA.

Review Process

In this round, we observed a significant improvement of the quality of the pre-screening, which supported high-quality reviews by the IRC. Four countries were excluded from the IRC review as they did not meet the minimum quality requirements during the pre-screening process. However there remained some challenges for the appraisal such as assessing the level of HR cost in relation to Gavi ceiling guidelines due to misclassifications of those costs; lack of clarity of flexibility for campaign budgetary ceiling for fragile countries; and the late submission of applications supporting documents.

Issue 22. Application of HR costs ceiling guidelines

Despite some improvement, the cost categorization remained often incorrectly classified, leading to complex calculation of the HR component and the evaluation of these costs against Gavi guidelines. This led the IRC to make specific recommendations for two countries (Niger and Somalia) for which HR costs were significantly above the 30% ceiling.

Recommendation

- Gavi should help to clarify HR categorization guidelines and provide assistance during application development to reduce errors and align with Gavi guidelines.

Issue 23. Flexibility for financial ceiling for operational costs for fragile countries

The IRC is supportive of Gavi's fragility, emergencies and refugees' policy, which allows countries to adjust its support and processes to better meet their specific needs. This allows benefiting countries to request a budget that is above the ceiling for operational costs per child, i.e. above US$0.65

per individual within the target population. However, the IRC notes that there is no clear benchmarking of these costs at the moment. For example, Somalia is requesting in this round an amount of US$1.54 per child targeted, which is above the previous rate of US$ 1.32 requested for the 2019 measles follow-up campaign.

Recommendation

- Gavi and partners should request countries to present actual expenses in a clear format – once the campaign has been implemented, with a view to better understanding appropriate funding level and to develop benchmarking standards.

Issue 24. Documents submitted late by countries

While the IRC notes some improvements compared to previous round as POA and budget were submitted appropriately and timely, this IRC received late some supporting documents during this round, making the review more challenging and in some case unnecessarily protracted. Many of the delayed documents in this round were related to additional evidence on outbreak investigations and responses.

Recommendation

- Gavi to continue coordinating with WHO to ensure that information about measles outbreak investigation and responses are provided in advance of the IRC meeting.

Best Practices

The IRC noted some commendable practices described by countries in their applications. These best practices could be shared with countries.

- **Somalia** included geo-mapping of nomadic migration to plan strategies to target high-risk populations with specific strategies to reach them.
- **Niger** is piloting an electronic immunization register as well as updated a national vaccination policy that stipulates that there would be no age limit for Measles second dose.
- **Niger and Sudan** both updated their EVM Assessments in 2020 despite challenging circumstances, which will be useful to prepare for COVID-19 vaccine supply management.
- **Uzbekistan** included in its application a table that allowed cross-checking the consistency between plan of action and budget, so that all planned activities are included in the budget**.**
- **Tajikistan** included a specific strategy to engage Roma communities and dedicated a corresponding budget to support this outreach strategy.

Conclusion

While this round was comparatively small in terms of the number of applications submitted, the overall funding amount requested was large. Several applications required lengthy reviews and discussions, as reflected in the issues raised in this consolidated report.

Countries are commended for developing successful applications, notably because several of these countries are fragile, and additionally affected by the COVID-19 pandemic. Approval rate for this round was 80%, while remote reviews were all approved. This reflects more in-depth and higher-quality pre-screening reviews, as well as the Secretariat increasing the quality threshold to submit country applications to the IRC.

Nevertheless, the analysis did identify a number of recurrent issues and weaknesses with MCV and MR proposals that, if adequately addressed through technical support, could result in more robust applications and improved implementation. These involve insufficient use of existing data sources, including gender equity data, to develop more effective strategies that could serve both campaign and routine immunization programmes. There remains a persistent under-specification of targeted interventions to identify and vaccinate zero-dose children, such as intra-campaign monitoring, mop-up activities, integration of other health interventions and detailed targeted social mobilization activities. This review also found that the importance of the post-campaign coverage survey was not sufficiently recognised, with most countries having failed to conduct an independent national PCCS, and thus not being able to build their application on lessons learned.

The review also found a need to place a continuous emphasis on improving the budget rationale and budgetary assumptions in order to ensure that support includes all planned activities and effective value for money.

Finally, the IRC recognises that COVID-19 presents deep challenges for countries to both respond to the pandemic but also to recover and maintain their routine immunisation programme. This is true for all countries in this round and particularly so for those that are set in a fragile context and thus at increased risk in particular of measles outbreaks. It is therefore important that targeted TA support is provided to these countries to maintain routine coverage, deliver high-coverage campaigns, and also where relevant introduce new vaccines.

Acknowledgements

The IRC would like to thank the Gavi Executive Team, especially the CEO and Deputy CEO, for their continuous support and responsiveness to key IRC recommendations. The IRC is also extremely grateful for the invaluable support provided by the FD&R Team. Lindsey, Verena, Sonia, and Anjana made this review possible and were always there to assist and support us through every stage of the review process.

Our sincere thanks go to all the Gavi Secretariat, SCMs and country team members, Focal Points, and Finance Team Members in particular. Their timely and informative pre-review screenings and the inputs during plenary sessions, often providing country-level perspectives, were particularly useful during plenary discussions and final decision-making. We are also very grateful to the Gavi IT team for ensuring the smooth conduct of this virtual IRC meeting.

Finally, we wish to recognize the essential contribution of our key technical partners, UNICEF and WHO. Their support to countries in preparing the applications, and their valuable contributions to the IRC reviews with timely contributions and clarifications on global policies and strategic issues, are always greatly appreciated.

Annex 1: List of IRC Members

#	Name	Nationality	Profession/Specialisation	Gender	French	Expertise
1	Aleksandra Caric	Croatia	Independent consultant	Female	FR	Measles, AEFI surveillance and vaccine safety, programme management, and primary health care
2	Natasha Howard	Canada/UK	Associate Professor, NUS School of Public Health and LSHTM, Singapore	Female		immunization service delivery, HPV, HSS, Fragility, Emergencies, and Refugees
3	Sandra Mounier-Jack ***- Interim CHAIR***	France/UK	Lecturer in Health Policy at the Faculty of Public Health and Policy of the LSHTM	Female	FR	HPV, measles, immunisation programmes, HSS, health policy and health financing
4	Dafrossa Lyimo ***- Vice CHAIR***	Tanzania	Independent consultant, Tanzania	Female		Immunisation campaigns, programme and health systems management, disease control, RI, surveillance
5	Benjamin Nkowane	Zambia	Independent consultant	Male		Measles, epidemiology, mass vaccination campaigns, technical support for field operations in risk areas
6	Tcha Landry Kaucley	Benin	National EPI logistics manager	Male	FR	Cold Chain, vaccine logistics, EPI monitoring & evaluation, public health management
7	Wassim Khrouf	Tunisia	Auditing and Consulting Worldwide, Partner	Male	FR	Financial & budget analysis, audits, project assessment
8	Tippi Mak*	Canada	Independent consultant	Female		Vaccinology and scientific reviews for immunisation policy, safety and regulation. Late-phase vaccine development. Epidemiology and primary care
9	Teklay Desta*	Ethiopia	Measles elimination advisor to Ethiopian Ministry of Health	Male		Managing immunization program, Vaccine Preventable Disease surveillance and outbreak investigation, NVS introduction and data management
10	Alex Nartey*	Ghana	Independent consultant	Male		Health financing, public financial management, project management, funds and grants management

* New member