

BANGLADESH Findings from the 2015 Gavi Full Country Evaluations

















%РАТН

This report presents findings in Bangaldesh from the 2015 Gavi Full Country Evaluations (FCE). It was prepared by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington (UW) in collaboration with members of the FCE Team: icddr,b in Bangladesh; University of Eduardo Mondlane (UEM), Mozambique; Health Alliance International (HAI), Mozambique; Manhiça Health Research Centre (CISM); the Infectious Diseases Research Collaboration (IDRC), Uganda; the University of Zambia (UNZA), Zambia; and PATH in the United States.

This work is intended to inform evidence-based improvements for immunization delivery in FCE countries, and more broadly in low-income countries, with a focus on Gavi funding. The contents of this publication may not be reproduced in whole or in part without permission from the Gavi Full Country Evaluations Team.

Citation: Gavi Full Country Evaluations Team. *Bangladesh: Findings from the 2015 Gavi Full Country Evaluations*. Seattle, WA: IHME, 2016.

icddr,b GPO Box 128 Dhaka 1000 Bangladesh

Telephone: +8802 9881760, +8802 9827001-10 (Ext. 2546) Fax: +8802 9827039 Email: Md. Jasim Uddin, PhD jasim@icddrb.org

www.icddrb.org

PATH

Monitoring and Evaluation Department 2201 Westlake Avenue, Suite 200 Seattle, WA 98121 USA

Telephone: +1-206-285-3500 Fax: +1-206-285-6619 Email: Jessica Shearer, PhD jshearer@path.org

www.path.org

Institute for Health Metrics and Evaluation 2301 Fifth Ave., Suite 600 Seattle, WA 98121 USA

Telephone: +1-206-897-2800 Fax: +1-206-897-2899 Email: engage@healthdata.org

www.healthdata.org

Gavi Secretariat Monitoring and Evaluation 2, Chemin des Mines, 1202 Geneva Switzerland

Telephone: 00 41 22 9096542 Fax: 00 41 22 9096551 Email: Abdallah Bchir abchir@gavi.org

www.gavi.org

TIMELINE of major immunization events

We present an overview of major immunization events in country, indicating any relevant delays in implementation.

Figure 1: Timeline of major immunization events in Bangladesh

	PLANNED		ACTUAL
	2008	First tranche grant received in country for HSS-1	O 2010
		Joining of national coordinator	O 2011
		Start of HSS-1 grant implementation	O 2010
	2009	Second tranche grant received in-country for HSS-1	O JAN 2013
	2010	End of HSS-1 grant implementation	O DEC 2014
	2011	Government of Bangladesh (GoB) submitted application for new vaccine support (NVS)	\checkmark
	2012	NVS application approved	\checkmark
	2013	Decision letter for HSS-1	\checkmark
	JAN	-	
	FEB		
	MAR	Second decision letter for HSS-1 to approve no-cost extension to 2014	\checkmark
		GoB submitted the application for IPV support	\checkmark
	APR	_	
	MAY	GoB submitted the Expression of Interest (EOI) for HSS-2	\checkmark
	JUNE	Decision letter for New Vaccine Support (NVS) for routine IPV	\checkmark
	JULY	Assessment of cold & dry space for new vaccine introduction	\checkmark
4		Decision letter for NVS for routine PCV	\checkmark
2014	AUG	Information, Education, and Communication (IEC) meets to endorse PCV communication materials	O FEB 2015
	SEP	National Training of Trainers (ToT); divisional, district, and upazila PCV trainings	OCT 2014
		GoB submitted application for HPV demonstration	\checkmark
	OCT	Official letter to UNICEF regarding programmatic readiness (for PCV shipment)	O DEC 2014
	NOV		
	DEC	Second decision letter and internal appraisal for PCV with detailed budget approved by Gavi	\checkmark
		Revised decision letter for IPV	\checkmark
		National advocacy for PCV	O MAR 2015
		Concurrent launch of IPV with PCV introduction	O MAR 2015
	JAN	GoB submitted application for HSS-2 grant	\checkmark
2015	FEB	Implementation Plan of HPV demonstration program	O APR 2016
	MAR	National ToT; district and upazila trainings for IPV	\checkmark
		Decision letter for HPV demonstration program	\checkmark
	APR	-	r
	MAY		
	JUNE		
	JULY		
	AUG		
	SEP	GoB resubmitted application for HSS-2 grant	\checkmark
	OCT		
	NOV DEC		

Support streams evaluated in 2015 Pneumococcal conjugate vaccine (PCV) Health System Strengthening (HSS) Human papillomavirus vaccine (HPV) Inactivated polio vaccine (IPV) Other ✓ Implemented as planned/no delay Delay

2015 evaluation activities

Assessment of progress, successes, and challenges

- Collected and reviewed documents from various levels of the health system.
- Observed meetings, workshops, and trainings.
- Conducted fact-checking interviews (FCI) at the national and subnational levels to confirm factual information.

Key informant interviews (KII)

- Conducted 28 country-level KIIs with government of Bangladesh (GoB) personnel from national to subdistrict level.
- Conducted five KIIs with development partners from national to subdistrict level.
- Conducted 23 interviews at the global level with the Gavi Secretariat, Vaccine Alliance partners, and others.

Focus Group Discussions (FGD)

- Conducted one FGD with district maternal, child health, and immunization officers (DMCH&IO).
- Conducted two FGDs at subdistrict (upazila) level with the community-level Health Assistants.

Partnership survey for new HSS application development

- Conducted partnership survey with nine respondents including GoB stakeholders (6) and development partners (3).
- Information was collected on HSS-2 application development process from all partnership survey respondents, including one development partner and one civil society organization (CSO).

Health facility assessment

- Health facility assessment was conducted at facilities located in both rural and urban areas.
- Surveyed 123 randomly selected facilities, 55 of which provided vaccination services.
- Assessments focused on vaccine supply and delivery; staff, review of procedures and disposal; training and supervision; vaccine availability; storage of vaccines; and cold-chain equipment guidelines.

Health management information system (HMIS) analysis

• Analyzed HMIS data.

Small area analysis

- Compiled and analyzed all available household survey and census data sources.
- Estimation of national, divisional, district, and subdistrict (upazila) vaccine coverage and under-5 mortality.

Inequality analysis

- Compiled and analyzed all available survey data sources with information on household wealth and vaccination coverage.
- Estimation of vaccine coverage differences by wealth quintile and sex.

ANALYSIS of major challenges and successes

Each finding is accompanied by a ranking that reflects the robustness of evidence. The four-point ranking scale is summarized below:

Ranking	Rationale
А	The finding is supported by multiple data sources (good triangulation) which are generally of good quality. Where fewer data sources exist, the supporting evidence is more factual than subjective.
В	The finding is supported by multiple data sources (good triangulation) of lesser quality, or the finding is supported by fewer data sources (limited triangulation) of good quality but is perhaps more perception-based than factual.
С	The finding is supported by few data sources (limited triangulation) and is perception-based, or generally based on data that are viewed as being of lesser quality.
D	The finding is supported by very limited evidence (single source) or by incomplete or unreliable evidence. In the context of this prospective evaluation, findings with this ranking may be preliminary or emerging, with active and ongoing data collection to follow up.

In March 2015, the government of Bangladesh conducted a joint launch of the 10-valent pneumococcal conjugate vaccine (PCV10) and inactivated polio vaccine (IPV). The joint launch was opportunistic, made possible by the postponed introduction of PCV from 2013 and the prioritization of IPV introduction by the end of 2015 as part of the Global Polio Eradication Initiative (GPEI). The decision to introduce PCV adoption was based on surveillance evidence and public awareness of high burden of pneumococcal pneumonia in the country. The government submitted an application for new vaccine support (NVS) to Gavi in May 2011, which was approved the following year. For IPV, the government submitted the application on March 2014, and it was approved in June 2014.

FINDING 1

The joint introduction of PCV and IPV was a function of strong commitment of EPI personnel in completing training and advocacy within a short period and timely support from the partners, despite a number of challenges (delayed training, missed opportunity to integrate preparatory activities). While preliminary findings suggest that first and second PCV has been rapidly scaled up, delivery of third-dose PCV and IPV notably lagged behind.

Ranking: A

PCV has been rapidly scaled up, while delivery of IPV has lagged behind PCV.

• Routine HMIS data indicate an improvement in first- and second-dose PCV coverage, though IPV routinization lags (Figure 2).



Figure 2: PCV/IPV: Pentavalent ratio from HMIS data in 2015

Root cause analysis for the strong and timely commitment of the EPI personnel and support of the partners for joint introduction of PCV and IPV



RECOMMENDATIONS

- 1. Gavi should maintain periodic meetings or monthly conversation with the country stakeholders, including the Government of Bangladesh (GoB) and EPI traditional partners, regarding the country's vaccine needs and its availability in the global market, through the period of application development to the introduction phase.
- 2. The country should maintain closer communication with Gavi to remain informed of details about availability of

vaccines and decision letters so that they can better plan to avail mixed opportunity for integration of introduction multiple vaccines.

3. Based on the less-than-full routinization of third-dose PCV, a review should be conducted of the appropriateness of the additional visit of third-dose PCV at 18 weeks, taking into account demand side considerations, e.g. caregiver preferences, and vaccine coverage.

The PCV readiness assessment was completed successfully and largely as planned despite delayed training activities and political unrest that restricted access by WHO to upazila-level facilities for the assessment. This was facilitated by reminders and guidance from the Gavi Secretariat and UNICEF to the EPI.

Ranking: A

PCV readiness assessment¹ was completed successfully, despite delays (Figure 3).

• In spite of delayed training activities and political unrest that restricted access by WHO to upazila-level facilities for the assessment, the readiness assessment was better communicated and executed in Bangladesh than in the other three FCE countries.

Figure 3: Readiness assessment process



Gavi Secretariat and UNICEF country office sent timely reminders to Bangladesh to conduct the readiness assessment.

- Challenges experienced by other countries (described in the FCE 2013 report) encouraged the Gavi Secretariat to send reminders to Bangladesh and other countries slated to launch PCV10.
- Bangladesh received a reminder six months prior to the scheduled launch in Q4 2014.
- The UNICEF country office also reminded the GoB about the completion of the readiness assessment as a precondition to vaccine shipment.
- To meet the assessment, training at all administrative levels was completed by January 2015, and stickers were distributed to all the EPI vaccine stores for pasting on cold-chain storage equipment.

Political unrest necessitated an alternative approach to conducting the readiness assessment.

• Subnational key informant interview and focus group discussions revealed that due to political unrest, assigned WHO staff conducted the assessment at the Upazila Health Complex of two districts by inviting the districts' randomly selected Health Assistants, rather than by conducting the assessment by visiting EPI sessions.

RECOMMENDATION

Gavi and partners should continue to ensure robust communication, as was the case in Bangladesh, about the rationale and procedure for the PCV readiness assessment.

¹The objective of the PCV readiness assessment is to ensure sufficient health worker knowledge about the handling requirements for PCV10 and to verify availability of PCV fridge stickers outlining the handling requirements on all cold chain equipment.

Timely responses from the mid-level managers helped to overcome challenges related to delayed fund disbursement from the central to the subnational level for IPV orientation training.

Root cause analysis of Bangladesh overcoming challenges related to delayed fund disbursement for IPV orientation Ranking: A



RECOMMENDATION

During the planning phase, the GoB should give more consideration to the time needed to ensure that the budget provision aligns with the national health plan (e.g., cMYP). These issues should be resolved prior to the process of submitting an Expression of Intent (EOI) to Gavi.

FINDING 4

The country experienced challenges in successfully integrating IPV vaccine into routine EPI due to a shortage of IPV vaccines at all levels about six months after introduction. This was the result of higher than estimated wastage of the five-dose presentation of IPV and inaccurate subnational target population data when determining supply needs, later mitigated this by implementing a multi-dose vial policy.

Ranking: B

There were widespread IPV stockouts.

• The Gavi FCE health facility survey showed that 57% of facilities reported stockouts in the last quarter of 2015 (Figure 4).

Figure 4: Proportion of facilities experiencing different types of PCV and IPV stockouts²



² Duration varied from March to August 2015, based on time of data collection.

Stockouts are driven by high wastage of the five-dose IPV presentation.

- Health facility survey data show that wastage was higher for the IPV presentation than for PCV (Figure 5).
- Administrative data indicated that the wastage rate was 41% (up to the end of October 2015) in comparison to the projected wastage rate of 30% that was used to determine vaccine supply.
- Wastage rate of the five-dose IPV vial reduced to 37% from 41% by accelerating the multi-dose vial policy issued by WHO to mitigate the challenge of wastage.



Root cause analysis of challenges to successful integration of the IPV into routine EPI



RECOMMENDATION

Investments in data and methods are required to improve forecasting of vaccine wastage and accompanying supply to avoid stock-outs as experienced in the introduction of IPV in Bangladesh

Full Country Evaluation 2015

Figure 5: Discarded vaccine vial after at least one dose used, but before empty

HUMAN PAPILLOMAVIRUS = vaccine

After revision of the operational plan of Maternal, Neonatal, Child, and Adolescent Health (MNC&AH), Bangladesh submitted a revised application in September 2014. The chosen vaccine type for the demonstration project was the bivalent formulation of the human papillomavirus (HPV) vaccine, with the target age group being girls aged 10. Gazipur District was selected as the demonstration site, with a school-based delivery model chosen for testing.

FINDING 1

The first rescheduled date for the HPV vaccine demonstration project was chosen with limited coordination with the Ministry of Education (MOE), leading to a date that was incompatible with the school year. The proposed date of February 2016 was chosen accounting for the school calendar and the workload associated with the PCV and IPV introductions. However, considering the availability of HPV vaccine with appropriate expiry, the EPI HQ deferred the HPV vaccine demonstration program for two months to April 2016.

Root cause analysis for the government's management strategy to defer the HPV demonstration program from the initial plan **Ranking: B**



FINDING 2

The selection of the district for the HPV vaccine demonstration project was based largely on characteristics that would facilitate learning for national introduction. Our emerging findings suggest that the selection of the school-based delivery model was not based on a complete understanding of the importance of financial sustainability or a comprehensive understanding of the experience of HPV vaccine delivery in other countries.

Ranking: B

Our overall assessment is that there was strong rationale to select Gazipur District as the demonstration site to maximize learning for national introduction.

• Gazipur District has high vaccine coverage and school enrollment (as do most districts in Bangladesh), both urban and rural areas, and floating populations from the large number of garment factories to provide lessons for hardto-reach populations.

The evaluation identified tension between successfully implementing the demonstration project and facilitating learning opportunities for national introduction.

Selection of Gazipur District has so many rationales. One, it is near the capital as well as very close to EPI HQ, better supervision of our activities is therefore possible, coverage of the Gazipur District is very high, and infrastructure is good for delivery of vaccine. The cold chain capacity has already been assessed and found to be adequate. There are even no vacant posts for health staff. (National KII)

The HPV vaccine demonstration project will test a delivery model that is mainly school-based with supplemental activities from EPI outreach centers for out-of-school girls.

• Emerging findings suggest that country stakeholders did not consider financial sustainability and were not fully aware of the experiences from other countries when choosing the delivery model to be tested.

RECOMMENDATIONS

- 1. As the demonstration project proceeds, the government and partners should ensure an early assessment of financial sustainability of the chosen delivery model, and consider testing other delivery models (exclusively through routine EPI sites; and exclusively through school/educational institutions) over the course of the two-year demonstration project.
- 2. Gavi and partners should provide earlier and more comprehensive technical assistance in the design phase of HPV vaccine demonstration projects, including sharing other country experiences, to guide delivery model choices.

HEALTH SYSTEM == Strengthening

Bangladesh was approved for support through Gavi's Health System Strengthening (HSS) window in 2008. The overarching HSS operational aim is to ensure that Community Clinics (CC), which are the backbone of the new operational strategy for delivering primary health care, have the minimum functional capacities and infrastructure to deliver safe and effective services for maternal and child health and immunization.

FINDING 1

Comprehensive and prompt reprogramming accelerated the implementation of HSS-1 activities.

Ranking: A

A major cause of delayed implementation of Bangladesh's HSS-1 grant was that funds were not available to begin implementation.

• Gavi sent the decision letter in late 2008 indicating approval of the grant, but the first tranche of funds were disbursed to the country in 2010.

The root cause of delay was the protracted time required to complete the financial management assessment (FMA).³

• The FMA was part of the Transparency and Accountability Policy (TAP), which was introduced in its first iteration in

2009 and was a requisite before disbursement of funds to country. The implementation of FMA from the global level caused delays in all HSS-eligible countries.

- The sudden introduction of FMA was not reflected in the principles of donor alignment with national strategies of partner countries.
- The protracted period for completing the FMA had a number of other root causes, including political change and staff turnover (in particular, turnover of those who were involved in the original application and at WHO and UNICEF).

The second tranche of funds was also deferred by the government's delayed completion and submission of the external audit report to allow disbursement for HSS-1.

- Government stakeholders were initially unaware of the external audit reporting requirements, despite the IRC decision letter calling attention to potential delays in funds disbursement if the external audit report was not received in a timely manner.
- During a Gavi mission to the country in 2013, government stakeholders were reminded about the reporting requirement. The delay in availability of funds had obvious downstream consequences on the disbursement of funds to the designated Operational Plans (OPs), which is discussed in Finding 3.

³The objective of the FMA is described in greater detail in the full 2015 FCE Bangladesh report.

RECOMMENDATION

Early communication and corresponding support between Gavi, partners, and countries should accompany the recent 2016 guideline revision to clearly outline the time required for HSS processes such as the FMA.

FINDING 2 🗕

Delays in fund disbursement from Gavi to the country were experienced over the course of the HSS-1 grant. There was a two-year delay in disbursing the first tranche of funds for HSS implementation due to the protracted period required to complete the newly introduced Financial Management Assessment. The second tranche of HSS funds was also delayed due to delayed completion of external audit report requirements

Root cause analysis of accelerated implementation of HSS-1 activities after reprogramming

Ranking: A



RECOMMENDATION

There is no specific recommendation for this finding.

Funds were not disbursed to the implementers of HSS-1 grant activities due to the transition between the second Sector Wide Approach (SWAp) to the third SWAp, which led to a restructuring of HSS grant activities from one Operational Plan to three Operational Plans.

Root cause analysis of long wait period for receipt of funds from Gavi

Ranking: A



RECOMMENDATION

Gavi Secretariat, partners, and country stakeholders should begin dialogue prior to the application phase to ensure that submitted proposals are aligned with national health plans. This should be reviewed on an annual basis and contingencies planned for instances where there is delayed implementation (such as the delayed fund disbursement arising from the FMA process in Bangladesh).

FINDING 4

Completion of recruitment under HSS-1 grant took longer than planned due to lengthy recruitment process and high staff turnover.

Ranking: A

There was a delayed recruitment of staff by the Planning Wing of Ministry of Health and Family Welfare (MOHFW).

- HSS National Coordinator (HSS-NC). The recruitment of this person, tasked to manage the additional administrative requirements of managing the HSS grant and tracking the flow of HSS funds and implementation of activities, was completed in May 2011, rather than in 2010 after the HSS funds were made available.
- District Maternal, Child Health, and Immunization Officer (DMCH&IO). The recruitment of these 32 essential personnel began in 2012 but was completed in 2015. Delayed recruitment was due to high turnover of this post and misalignment of recruitment criteria with job requirements.

• **Community Maternal and Child Health and Immunization Worker (CMCH&IW)**. There were also delays in recruiting these staff members.

High turnover of key staff had a negative impact.

- Salary and other logistical support (e.g., vehicle, laptop, printer, and mobile phone) provided from the HSS fund were perceived as being inadequate by the DMCH&IOs and were reasons cited for the frequent turnover rate.
- DMCHI&Os cited poor communication and a lack of responsiveness to problems raised.
- Procurement issues (i.e., the lengthy process to approve procurement plans by the Ministry of Health) hindered efforts to provide adequate logistical support for DMCH&IOs. One national-level respondent reported that such procurement issues are in the process of being solved.

RECOMMENDATIONS

- 1. There should be enhanced dialogue, beyond guidelines, between country governments, partners, and the Gavi Secretariat to ensure that HSS operational plans and timelines accurately reflect the time required for required Gavi and in-country processes.
- 2. To avoid shortage of human resources under Gavi support, country should establish waiting lists for staff during recruitment process

FINDING 5

Infrastructure development activities were delayed due to a range of root causes, including lower priority given to a small volume of work by the Health Engineering Department (HED), limited coordination between HED and HSS implementers, and challenges associated with construction, including a lengthy bidding process and difficulties of implementation in hard-to-reach areas.

Root cause analysis for challenges of utilization of HSS-1 grant



RECOMMENDATION

As evidenced by the positive effect of new leadership, strong coordination and leadership is necessary for implementation of HSS grants given the diverse parties involved in implementation. This should be planned as part of HSS grant designs.

The absence of a monitoring and evaluation framework in the HSS-1 proposal format hindered the implementation of HSS-1 grant. Despite availability of a timeline for implementation, there was insufficient detail regarding the party responsible for implementing each of this activity.

Ranking: B

The Gavi HSS-1 grant was challenged by the absence of a log frame.

- The guidelines at the time, unlike the present HSS guidelines, did not require monitoring and evaluation framework to be included as part of the application.
- Reporting systems were not well-established for the Gavi HSS grant, which created problems in monitoring and evaluating the impact of the HSS grant on the existing immunization program.
- Although the HSS application included a National Coordinator, as stated earlier, to track and manage the flow and use of all HSS activities and funds, we noted that it was difficult for the NC to coordinate all 32 districts' activities. This was evidenced by discussion of the need for an assistant coordinator at PIC meetings. This has yet to be implemented.

Frequent turnover of DMCH&IOs hampered monitoring activities.

• DMCH&IOs are responsible for monitoring the HSS work at the field level and reporting to the National Coordinator for HSS.

• The insufficient vehicle support for DMCH&IOs was an obstacle for proper monitoring, as were insufficient monitoring tools for first-line supervisors.

The Health Facility Assessment revealed limitations of supervision and record-keeping.

- Results from the assessment revealed that the number of supervisory visits to health facilities was insufficient.
- There were limitations in the maintenance of recordkeeping as part of the health facility survey.

RECOMMENDATION

Our findings support the requirement that new HSS applications include monitoring and evaluation framework and plans to support assessment of the HSS grant. This should be accompanied by appropriate investments in human resources and logistics, such as vehicle, supervisory checklists, computer, printers, and internet connectivity through modems to support high-quality M&E.

FINDING 7

Observational data suggest that immunization coverage has improved more rapidly in Gavi HSS districts, particularly Phase I districts, in comparison to non-HSS districts.

Ranking: C

Despite the delays in implementation of Gavi HSS, a number of activities have the potential to improve immunization coverage and equity.

 Activities include infrastructure development (construction, remodeling, and repair of EPI store rooms) and human resource investment (hiring of CMCH&IWs and DMCH&IOs, along with supervisory training).

Small area estimates, which incorporate the country's most recent 2014 Coverage Evaluation Survey (CES), show widespread improvements in thirddose pentavalent vaccine coverage over this time period (Figure 6). Figure 6: Pentavalent vaccine coverage



• Improvements in third-dose pentavalent coverage are larger in Phase I HSS districts that were targets of Bangladesh's recently completed HSS-1 grant (Figure 7). It should be noted that this analysis is not a formal causal attribution analysis.

RECOMMENDATION

Continued evaluation and a more comprehensive understanding of why coverage has improved in some HSS districts and not other HSS districts will help to inform future implementation of Gavi HSS grants as well as other system strengthening activities.





FINDING 8

The application for Gavi HSS-2 support involved a broad group of stakeholders in the design of the proposal. Despite this, after receiving the initial application in January, the IRC asked for a resubmission. The root causes of this were a short preparation period, inadequate technical assistance, and insufficient consideration of alignment with national health plans. The resubmitted proposal focused on two activities (EVM and surveillance supported by WHO and UNICEF).

A positive aspect of the HSS application process was the participation of a broad network of stakeholders.

• FCE network analysis showed that for HSS-1 application development, the network of partners was dense and

diverse, with EPI, WHO, and UNICEF occupying central roles (Figure 8).

• Analysis of the degree of connection between partners showed that the EPI was not the most connected, which is not typically observed in immunization networks. Instead, key alliance partners and non-EPI MOH actors were more connected (Figure 9). Consultants hired to assist with the HSS-2 application (represented in "Researchers & Other") were at the margins of the network core, demonstrating that they were not perceived by other partners to be more central.



Root cause analysis for lack of approval of the initial HSS-2 application by the IRC

Ranking: B



RECOMMENDATIONS

- 1. As much as possible, countries should take a lead role in designing the HSS grant application. This would be facilitated by ensuring adequate preparation time for the development of HSS applications, noting the short time period available for the initial HSS application.
- 2. Where technical assistance is required, countries, Gavi, and partners should prioritize hiring of local consultants for better understanding of country context in developing the application instead. Orientation for local consultants around Gavi procedures is a critical element. Where external technical assistance is required, adequate time for consultation and orientation of country context should be built into application development plans.

CROSS-STREAM

Major point 1

There was strong adaptive management capacity of the EPI in handling challenges regarding repeated scheduling in the joint launch of PCV and IPV as well as the decision to postpone HPV vaccine demonstration.

Ranking: A

The EPI has displayed adaptive management in several instances.

- EPI managed repeated schedule changes in the joint launch of PCV and IPV.
- It decided to postpone HPV demonstration.

At multiple levels of the system, the EPI adapts to challenges and identifies solutions.

• The EPI faces a range of challenges from vaccine supply, competing demands from multiple support streams, funding delays, and various contextual factors such as chronic political unrest.

The FCE has noted various factors that likely contribute to EPI's management capacity.

• These include experienced government officials and EPI staff who have the facility to navigate challenges, a motivated health workforce at all levels of the health system, and strong partnerships at all levels.

RECOMMENDATION

The success of the Bangladesh EPI in adaptively managing the MR campaign and PCV/IPV introductions highlights the important of investing in and maintaining management capacity at multiple levels of the immunization system.

Major point 2

While TA and partnership have been highly effective for new vaccine introductions, our findings suggest that TA for HSS has been more limited.

Ranking: A

In Bangladesh, EPI has demonstrated largely successful introductions of multiple vaccines, including PCV and the MR campaign that was reported on last year.

- This was supported by a robust immunization system and noted motivation and enthusiasm of its workforce at all administrative levels.
- Traditional EPI partners have played a significant role in supporting the EPI program in launching new vaccines. This has included technical assistance for procurement and supply of vaccines and other preparatory activities, from training to social mobilization. This supports previous findings of strong partner involvement around the MR campaign in 2014.

In the context of HSS, however, technical assistance for preparation of the HSS application was found to be less optimal than what was previously experienced for new vaccine introductions.

- TA consultants had limited knowledge of country context and financial and budget issues, and, as we note, the WHO pre-review did not identify the issues that led to the need for resubmission.
- GoB stakeholders and partners postulated different reasons for the effectiveness of TA, which included contextual factors of time constraints, timing and duration of the proposal submission, transition of key staff (namely government officials), complicated HSS guidelines, and poor understanding of the correct design.
- There is potential for TA to reduce country ownership, particularly in the context of the bifurcated HSS proposal.

RECOMMENDATIONS

- 1. Lessons can be learned from the provision of TA from new vaccine introductions for HSS and other more complicated streams of support. A focus of TA should be on building capacity of EPIs to successfully introduce new vaccines and to strengthen systems through Gavi's HSS grant. EPI could benefit from an assessment of its strengths and weakness in application design to determine where to build capacity for designing and preparing the HSS application.
- 2. As in the first recommendation, EPI should take the lead in all aspects of the HSS grant application process and prioritize technical assistance from within the government or by in-country TA providers who are familiar with the country context and the health system. Internal technical assistance would likely strengthen the application design and local capacity, while also fostering country ownership of the preparation process.
- 3. Proactive and early planning on the part of EPI stakeholders could help to establish if and where external technical assistance is needed, to identify and recruit potential providers in a timely fashion, and arrange orientation sessions to familiarize them with the country context. External TA providers could also be partnered with local TA providers as a way to mutually build capacity.