Overview of Gavi Full Country Evaluations Findings

Zambia

2013-2016

Summary of recommendations

General

- Utilize local evidence to validate vaccine demand forecasting, including population figures, wastage rates, and buffer stocks.
- Improve skills and capacity in costing and programme management to enhance the sustainability of the immunization programme and address major programmatic weaknesses.
- Greater investments are needed in monitoring and evaluation capacity and in reconciling data discrepancies between Central Statistical Office and headcount data in population estimates.

Ministry of Health

- Conduct or commission a comprehensive costing and expenditure tracking assessment to determine programme costs and assess funding gaps.
- Ensure functionality of the newly constituted National Immunization Technical Advisory Group to oversee programme sustainability assessments.

Government of Zambia

- Conduct a comprehensive costing exercise for human papillomavirus vaccine implementation, which in the future could be used for resource mobilization or advocacy purposes given the absence of reliable costing data.

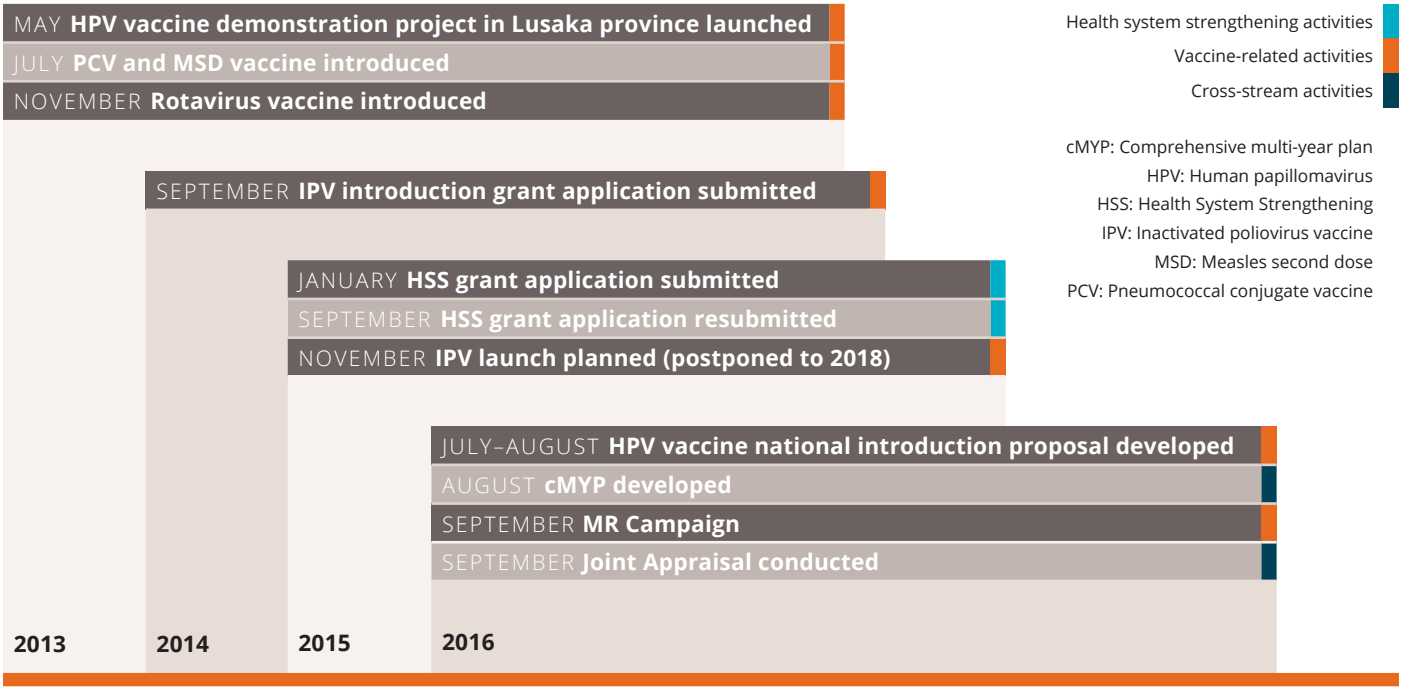
Expanded Programme on Immunization

- Evaluate, and look to scale, initiatives aimed at improving logistics management and data quality, such as Logistimo and the BID Initiative.

Gavi Secretariat

- Ensure that the country is consulted when preparing the Grants Management Requirement and that timelines are agreed upon, in keeping with Programme Capacity Assessment guidelines.
- With country partners, ensure that technical assistance is available to support sustainability planning in order to avert programmatic disruptions.

Key activities



cMYP: Comprehensive multi-year plan
HPV: Human papillomavirus
HSS: Health System Strengthening
IPV: Inactivated poliovirus vaccine
MSD: Measles second dose
PCV: Pneumococcal conjugate vaccine

Introduction

PURPOSE

The Gavi Full Country Evaluations (FCE) was a prospective study from 2013 to 2016 in four countries: Bangladesh, Mozambique, Uganda, and Zambia. The study aimed to understand and quantify the barriers to and drivers of immunization programme improvements, with a focus on the contributions made by Gavi, the Vaccine Alliance. This brief summarizes the key findings and recommendations from the 2013 to 2016 evaluation period in Zambia, with an emphasis on the 2016 recommendations that are most timely, relevant, and actionable.

GAVI SUPPORT

Zambia first received Gavi support in 2001. Over the next 16 years, Gavi provided funding for new vaccine introductions, health system strengthening, and other related activities (see Table 1).

TABLE 1: GAVI SUPPORT IN ZAMBIA, 2001-2017[1]

TYPE OF GAVI SUPPORT	PERIOD	TOTAL AMOUNT OF FUNDING ($US)
Pneumococcal conjugate vaccine	2012-2017	38,281,440
Pentavalent vaccine	2004, 2005-2017	60,781,335
Rotavirus vaccine	2013-2017	11,728,558
Measles second dose vaccine	2012-2014	615,018
Inactivated poliovirus vaccine	2016-2017	1,355,441
Health System Strengthening grant	2007-2019	15,337,174
Immunization Services Support grant	2001-2002, 2004, 2006	3,864,060
Injection Safety Support grant	2002-2004	689,237
Vaccine Introduction grant	2002, 2012-2013, 2016	2,875,183

New Vaccine Introductions

PNEUMOCOCCAL CONJUGATE VACCINE, ROTAVIRUS VACCINE, AND MEASLES SECOND DOSE VACCINE

JULY 2013 **PCV and MSD vaccine introduced**

NOVEMBER 2013 **Rotavirus vaccine introduced**

Lessons learned during the launch and expansion of pneumococcal conjugate vaccine (PCV) improved the delivery of this and the other vaccines, leading to faster scale-up. Adaptations included:

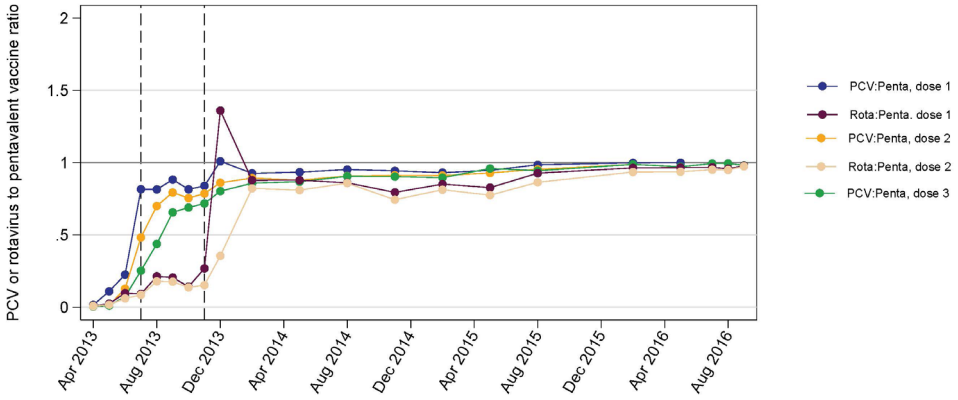
- Improved training on vaccine administration.
- Improved partner support and cohesion.
- Improved national logistics and management.
- Improved education and messaging.

> *The [forecasting and quantification] process needs to be more inclusive and should involve other players as well. The challenge is logistics management. More numbers and technical capacity for logistics is needed.*
>
> **— Key Informant Interview 2016**

Routinization of PCV and rotavirus vaccine were suboptimal until 2016, with reported doses administered falling to less than the reported doses of pentavalent, despite being administered on the same schedule (see Figure 1).

[1] *Source: http://www.gavi.org/country/all-countries-commitments-and-disbursements, accessed last November 21, 2016. Values shown represent Gavi commitments, those of which Gavi intends to fund over the course of the program, subject to performance, and availability of funds.*

FIGURE 1: PCV AND ROTAVIRUS VACCINE ROUTINIZATION IN ZAMBIA, AUGUST 2013–AUGUST 2016



The under-routinization resulted from:

- Discrepancies between vaccine consumption and official target population figures used to determine vaccine supply.
- Vaccine procurements less than forecast values, which more severely affected PCV. In 2015, only about 40% of PCV was procured and in 2016 only about 26% was procured.
- Government funding challenges that led to fewer than planned purchases of PCV and rotavirus vaccine.
- Inadequate data-capturing and recordkeeping at facilities.
- Inadequate logistics and communication to determine district and facility stock levels.

In 2015, measles second dose (MSD) vaccine coverage was 48% compared to 90% coverage for measles first dose vaccine during the same period. Causes for the dropout included:

- The target age group for the MSD vaccine does not follow the routine childhood immunization schedule, and caregivers were unaware of the need to bring in their children for this vaccine.
- Caregivers pay less attention to child activities in the second year of life, according to the Expanded Programme on Immunization (EPI).
- Low awareness of MSD vaccine.

2016 Recommendations

General: Utilize local evidence to validate vaccine demand forecasting, including population figures, wastage rates, and buffer stocks.

Expanded Programme on Immunization: Evaluate, and look to scale, initiatives aimed at improving logistics management and data quality, such as Logistimo[2] and the BID Initiative[3].

Expanded Programme on Immunization: Strengthen second year of life interventions including measles second dose (MSD) in order to improve vaccine coverage beyond the first year. Specifically, more intensive social mobilization efforts for children beyond age 1 is required.

HUMAN PAPILLOMAVIRUS VACCINE

MAY 2013 **HPV vaccine demonstration project in Lusaka Province launched**

JULY–AUGUST 2016 **National introduction proposal developed**

The human papillomavirus (HPV) vaccine demonstration project, not funded by Gavi, yielded lower than expected coverage rates in Years 1 and 2. These rates were due to:

- Challenges in coordinating school-based delivery with the Ministry of Education, resulting in missed vaccination opportunities.
- Limited government ownership due to an initial lack of clarity on whether the programme should reside within the Child Health Unit or elsewhere in the Ministry of Health, given the target age for the vaccine.

[2] *http://www.logistimo.com/.*

[3] *http://bidinitiative.org/.*

- Cultural and religious misconceptions associated with the vaccine that were insufficiently addressed by the social mobilization campaign.

HPV TARGET COVERAGE	Demonstration Coverage – YEAR 1	Demonstration Coverage – YEAR 2	Demonstration Coverage – YEAR 3
70%	59%	58%	72%

During Year 3, improved commitment and coordination led to improved coverage rates. Social mobilization was strengthened by giving responsibility to civil society organizations through the Churches Health Association of Zambia to address misconceptions and beliefs around the HPV vaccine. The demonstration also found that the school-based delivery model is not sustainable at national scale, though it will be used on a targeted basis during Child Health Week.

2016 Recommendation

Government of Zambia: Conduct a comprehensive costing exercise for HPV vaccine implementation, which in the future could be used for resource mobilization or advocacy purposes given the absence of reliable costing data.

As far as sustainability, cost, and delivery model, I think it is a good plan [to utilize the school-based model during Child Health Week]. The target group is mostly in school, hence the need to stick to the school-based model. The cost would be lower, as districts are funded during Child Health Week. They use schools as their posts and the plan is to have all schools covered. Sustainability will be helped by this as well.

—Key Informant Interview 2016

INACTIVATED POLIOVIRUS VACCINE

SEPTEMBER 2014 **IPV introduction grant application submitted**

NOVEMBER 2015 (POSTPONED TO 2018) **Launch planned**

Zambia postponed introduction of the inactivated poliovirus vaccine (IPV) until the first quarter of 2018 due to global vaccine supply shortages. Other potential challenges to introduction include:

- Mobilization of partner resources may continue to be difficult given lack of prioritization at country level.
- The original introduction budget may no longer be accurate given inflation and other factors.
- Lack of clarity on whether additional funds can be requested from Gavi.

Health System Strengthening

APRIL 2014 **HSS grant application process started**

JANUARY 2015 **Application submitted**

SEPTEMBER 2015 **Application resubmitted**

FEBRUARY 2016 **Application approved**

APRIL 2016 **PCA conducted**

JUNE 2016 **PCA finalized**

SEPTEMBER 2016 **GMR communicated**

Zambia sought health system strengthening support to reduce major health system bottlenecks inhibiting performance of the EPI in seven districts in the northern region of Zambia. The application process was complicated, time consuming, and strained existing capacity. Challenges included:

- An over-reliance on technical assistance provided mainly by short-term, external consultants during the proposal writing process, which in turn limited country stakeholder participation and affected the quality of the proposal.
- Limited representation from the Ministry of Health Monitoring and Evaluation and Planning and Budgeting units during the development of the initial application.

2016 Recommendations

Gavi Secretariat: Ensure that the country is consulted when preparing the GMR and that timelines are agreed upon, in keeping with PCA guidelines.

Given how the Health System Strengthening (HSS) grant application strained country capacity, in 2015 the FCE recommended that Gavi should consider ways to simplify application procedures and play a greater role in guiding the HSS proposal development process.

The Programme Capacity Assessment (PCA), a new Gavi requirement for which Zambia was one of the first implementing countries, also proved problematic.

- The country did not receive the PCA report.
- The Grants Management Requirement (GMR), detailing measures that the country must undertake before HSS grant funds will be released, was prepared and presented to the country without local input, challenging the intended participatory nature of the PCA process.
- The GMR was communicated much later than originally planned, giving the country little time to respond in preparation for the HSS implementation.

Cross-Stream Analysis

FINANCIAL AND PROGRAMMATIC SUSTAINABILITY

Despite the successful launch of new vaccines, and plans to introduce additional vaccines in the coming years, FCE findings suggest that there are increasing concerns among EPI stakeholders regarding the financial and programmatic sustainability of the EPI. Based on gross national income figures released in July 2016, Zambia will no longer enter accelerated transition in 2017 (and was notified of this by Gavi in September 2016). These questions of sustainability are related to the following factors:

- Government-approved allocations for vaccine and immunization supplies, cold chain, and EPI operational budget did not increase from 2014 to 2016 (see Figure 2).
- EPI total expenditure (from all sources) declined and the gap between secured funds and actual expenditure has increased (see Figure 3).
- Zambia's EPI is growing, and despite increasing budget commitments, is relying increasingly on external support, especially from Gavi and other donors, to meet the cost of new vaccine introductions—rather than additional domestic resources.

> ***The government needs to take more leadership on the issue of funding EPI in this country. The Programme has done a lot in terms of introducing new vaccines to prevent children from dying. But the continued success of these new vaccines requires funding. And the government is the only one which can guarantee funding because these are national programmes.***
>
> **—Key Informant Interview 2016**

- Over the evaluation period, Zambia has experienced declining fiscal space which has raised questions regarding the government's ability to meet increasing health expenditures related to the introduction of new vaccines.
- The comprehensive multi-year plan (cMYP), which is meant to support resource mobilization and priority setting, has a number of activities without committed funding and some donors have not fulfilled their commitments.
- Conversations between Gavi and the EPI about transition planning were delayed and once they started have been very limited.

FIGURE 2: GOVERNMENT-APPROVED ALLOCATIONS IN ZAMBIA (US$), 2011–2016

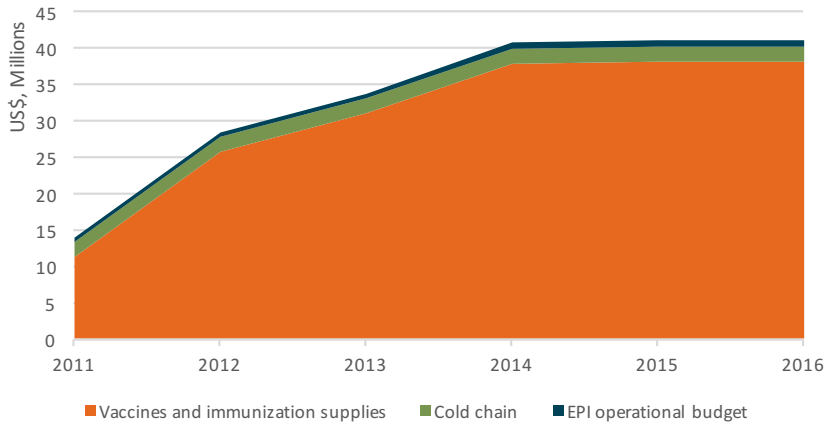
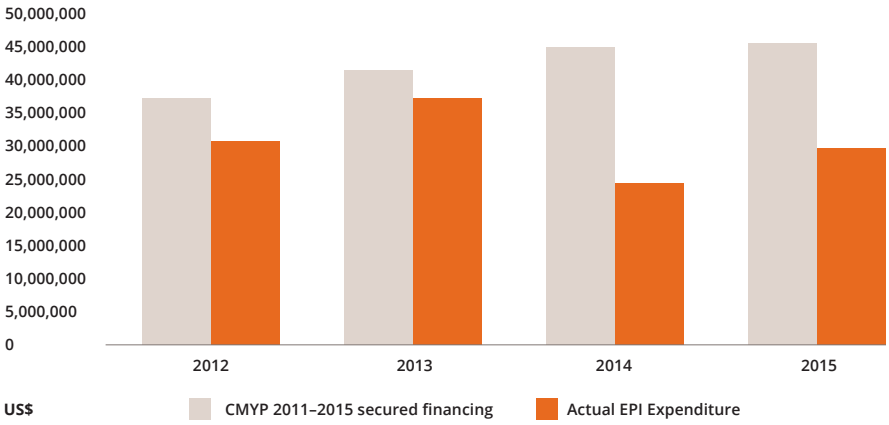


FIGURE 3: COMPARISON OF FUNDING SECURED FOR THE ZAMBIA EPI IN THE CMYP AND ACTUAL EPI EXPENDITURE (US$), 2012–2015



2016 Recommendations

General: Improve skills and capacity in costing and programme management to enhance the sustainability of the programme and address major programmatic weaknesses.

General: Greater investments are needed in monitoring and evaluation capacity and in reconciling data discrepancies between Central Statistical Office and headcount data in population estimates.

Ministry of Health: Conduct or commission a comprehensive costing and expenditure tracking assessment to determine programme costs and assess funding gaps.

Ministry of Health: Ensure functionality of the newly constituted National Immunization Technical Advisory Group to oversee programme sustainability assessments.

TECHNICAL ASSISTANCE

JUNE 2016 **JA preparatory meeting held**

SEPTEMBER 2016 **JA finalization workshop conducted**

Strained programmatic capacity in Zambia has led to reliance on technical assistance (TA) and support from partners. In 2015, TA was not optimally provided due to:

- Limited capacity-building resulting from TA provision.
- A restricted pool of TA providers that did not leverage local providers.
- Limitations in TA funding.

Improvements in the Joint Appraisal (JA) process from 2015 to 2016 are resulting in better identification of TA needs.

- In 2016, the Gavi senior country manager and EPI stakeholders were more actively involved in the Joint Appraisal meetings, allowing the discussions around capacity gaps and identification of TA needs to be more robust and detailed.
- There was greater recognition of the comparative advantages of each stakeholder and who was best suited to provide the various TA required by the EPI.

2016 Recommendation

Gavi Secretariat: With country partners, ensure that TA is available to support sustainability planning in order to avert programmatic disruptions.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