

Cross Country

2017-2018

The Gavi Full Country Evaluations (FCE) are mixed-method, prospective evaluations in Mozambique, Uganda, and Zambia and funded by Gavi, the Vaccine Alliance. The second phase of the FCE (FCE2), implemented from 2017 to 2019, aims to identify drivers of vaccine coverage and equity with an emphasis on Gavi's contribution. Evaluation results are intended to support the ongoing learning and improvement of Gavi and national immunization programs. The implementation of FCE2 is guided by a number of principles to ensure the usefulness, relevance, and quality of FCE2's findings and of the sustainability and transferability of the platform beyond FCE2. FCE2 is implemented by a consortium of evaluators in collaboration with the national immunization programs in each country: Health Alliance International and Universidade Eduardo Mondlane (Mozambique); Infectious Diseases Research Collaboration (Uganda); University of Zambia (Zambia); and PATH (United States).



Photo: PATH

This brief summarizes the findings from the first report of Gavi FCE Phase 2 of Gavi FCE. Full reports are available at <https://www.gavi.org/results/evaluations/full-country-evaluations/>.

METHODS

The Gavi FCE triangulates multiple sources of data to answer predetermined evaluation questions. To generate the evidence and findings presented here, we used:

- **Process tracking**
- **Meeting observation**
- **Document review**
- **Key informant interviews**
- **Statistical analysis of DHIS2 and secondary data**
- **District case studies**
- **Policy analysis**

Key immunisation activities evaluated

- Routine delivery of vaccines, with a focus on coverage and equity.
- Slow scale-up of HPV vaccine.
- The structure and sustainability of national immunization programs.
- Implementation of Gavi's health system strengthening (HSS) cash-based support at national and subnational levels.
- Programmatic and financial sustainability of Gavi support and national immunization programs.

SUMMARY OF RECOMMENDATIONS

- 🎯 **Act now:** Gavi, partners, and Expanded Program on Immunization (EPI) stakeholders should invest in developing and implementing a financial sustainability plan to increase domestic financing for immunization, include diverse stakeholders, and align with broader health-sector financing reforms.
- ➡️ **Continue doing:** Gavi should continue to strengthen national-level leadership, management, and coordination (LMC) and should study where gaps in district-level LMC exist through the partners' engagement framework (PEF) targeted country assistance (TCA) process and the LMC strategic focus areas (SFAs), with a focus on financial management and evidence-informed performance management.
- ➡️ **Continue doing:** Gavi, partners, and country stakeholders should continue to invest in strengthening existing data quality and data systems with a focus on integrating administrative vaccine data with supply chain / logistics and health system performance data.
- 🔍 **Study further:** Gavi, partners, and in-country stakeholders should invest in and support microcosting studies to estimate how costs vary across geographic and population subgroups or other drivers of coverage and equity in order to inform the resource-allocation decisions necessary to improve coverage and equity.

The drivers of vaccine coverage

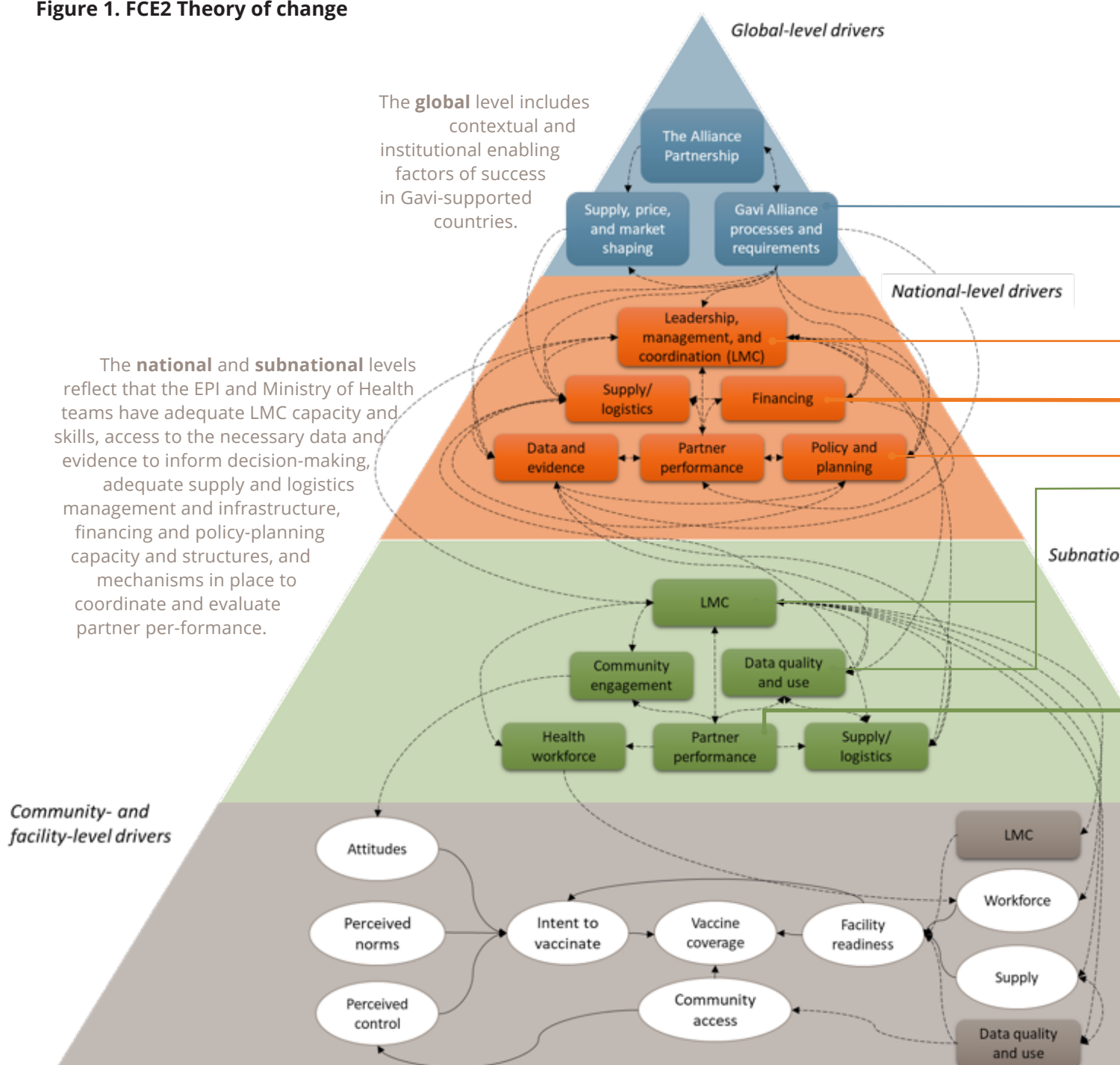
Vaccine coverage is influenced by multiple drivers at all levels of the health system.

The aim of the FCE2 theory of change (TOC) is to describe all potential drivers of vaccine coverage at all levels of the health system which result in whether or not a given child is vaccinated ("vaccine coverage" in the bottom level of the pyramid).

FCE2 FOCUS ON SUBNATIONAL LEVEL

FCE1 focused on the global and national levels, resulting in a wealth of information on drivers at those levels. FCE2 will collect more data at the district, facility, and community levels in an effort to explain why some districts perform better than others and how decision-makers and managers ought to prioritize actions to improve equitable coverage.

Figure 1. FCE2 Theory of change



Can HSS make a difference?

Gavi HSS is intended to address health systems and access barriers to vaccination, but its potential impact is limited by delays in disbursement and initial implementation, implementation challenges, and the channeling of funds away from government systems. Gavi guidance and processes have improved over time, but many challenges remain that constrain timely and efficient disbursement, implementation, reporting, monitoring, and adaptation of HSS funds. Can HSS make a difference?

Stronger human resources to implement HSS has improved grant execution in Mozambique; however, national processes continue to constrain the potential impact of the investments.

Suboptimal financial planning and management led to delayed disbursements or inadequate resources. This was exacerbated in Uganda with the creation of new districts.

Stronger performing districts in Uganda used data for performance management, which led to motivated staff and improved performance.

Effective and coordinated partners contributed to improved district-level performance in Uganda.

national-level drivers

- In Uganda, immunization stakeholders attribute the 2017 coverage declines in part to the delays in accessing HSS2 funds, which led to reduced frequency of operational activities.
- In Mozambique, persistent HSS implementation challenges due to suboptimal planning and alignment at all levels limit the potential impact of HSS.
- Mozambique used data to identify four “priority” low-coverage provinces, but those provinces received the smallest share of HSS funds based on need.
- In Uganda all districts will receive HSS funds in proportion to the district population.
- In Zambia the HSS districts are a mix of low- and moderate-performing districts.

“In my opinion, all factors that have previously hindered immunization coverage have remained the same—the only thing that has changed is the reduction in HSS.”
—National KII, Uganda

SUMMARY OF RECOMMENDATIONS

- 🎯 **Act now:** Related to HSS and other cash support, in line with the Board’s request to develop criteria for channeling funds back through country systems, Gavi should propose and monitor indicators that measure the ongoing capabilities of national financial management systems as well as other consequences related to effectiveness, efficiency, country ownership, and sustainability. These indicators would ensure that, even if funds are being channeled through partners, there are measurable improvements in strengthening country systems and outcomes and stakeholders could identify when countries have met the criteria for self-managing Gavi funds.
- ➡ **Continue doing:** Gavi should continue to strengthen national-level LMC and should study where gaps in district-level LMC exist through PEF TCA support and the LMC SFAs. These activities should include a focus on financial management and evidence-informed performance management.
- ➡ **Continue doing:** Related to HSS, Gavi should continue to ensure that Program Capacity Assessments and grant management requirements are leading to demonstrable and adequately resourced efforts to strengthen country systems, even if the decision is made to channel funds through partners.

Vaccination equity

Not all children have the same odds of being fully immunized.

District-level maps of DPT3 coverage show stark differences, even between neighboring districts. The blue districts in figure 2 have reached Gavi's benchmark of 80% coverage for DPT3, but pockets of underperformance exist.

- In Mozambique, the number of DPT1 and DPT3 doses administered continue to increase with lower dropout

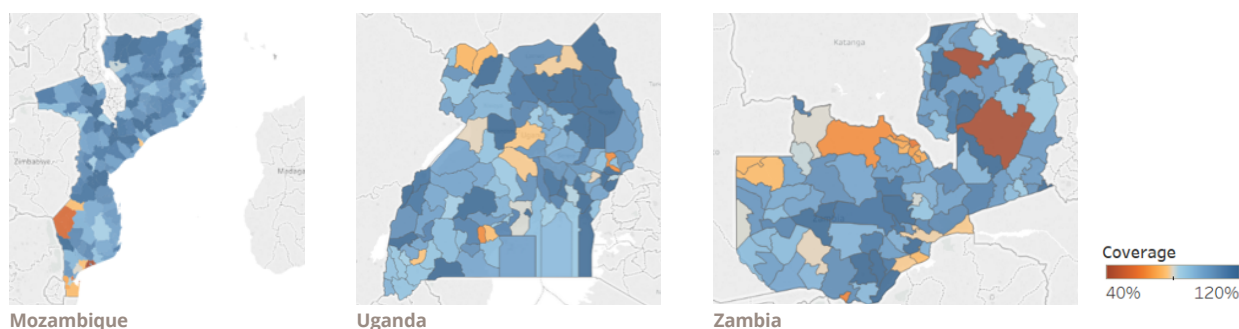
between those doses than in the other FCE2 countries. Additional gains in coverage are constrained by ongoing HSS delays.

- Stakeholders in Uganda attribute coverage declines in 2017 to the gap in HSS funds, more accurate data reporting as a result of the Data Improvement Team strategy, and more focus on new vaccine introductions compared to routine vaccines.

- In Zambia, the slowing upward trend in the number of doses administered for BCG, DPT1 and DPT3 is in part due to inadequate immunization financing.

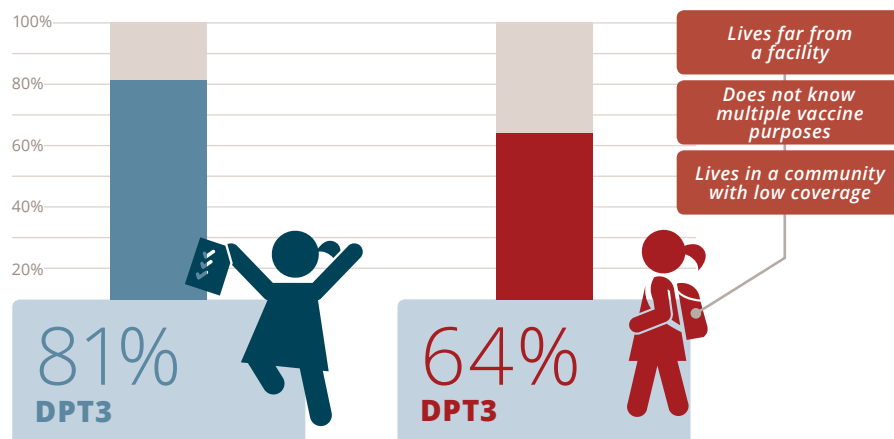
District-level targeting could have significant impact but often is not guided by data on "why" children are undervaccinated or by evidence of "what works."

Figure 2. 2017 DPT3 coverage by district in FCE countries, based on HMIS data.



Cumulative burden

In Uganda, children without any measured behavioral, access-related, or facility-related constraints had 81% DPT3 coverage in the 2016 FCE1 household survey. Children who faced three constraints had 64% DPT3 coverage. Resolving inequity means addressing health systems quality, intent to vaccinate, access, and other structural barriers.



RECOMMENDATIONS

- ➡ **Continue doing:** As part of the Data SFA or HSS funding, Gavi, partners, and country stakeholders should continue to invest in strengthening existing data quality and data systems with a focus on integrating administrative vaccine data with supply chain / logistics and health system performance data.
- ➡ **Continue doing:** Gavi and Alliance partners should consider the costs and benefits of introducing data systems that capture individual-level data on vaccine service delivery (e.g., an electronic immunization registry or electronic medical record) in order to provide granular data on which children to target to close the coverage gap.

Gavi policies

A trend towards cash disbursement to Alliance partners.

Across Gavi-eligible countries, over US\$658 million in cash support was disbursed to partners from 2010 to 2016, equivalent to 46% of all cash support during this period and 67% of cash support for the year

2016. This issue is of concern to the Gavi Board, who requested that Gavi should aim to channel funding through governments. A major reason why Gavi channels funds through partners is to manage

financial risk, but it poses different risks to long-term programmatic sustainability and effective transitions from Gavi support.

The 2016–2020 Gavi Strategy emphasizes equitable uptake and coverage of vaccines, and this focus has increasingly translated into Gavi's written guidance, policies, and grant frameworks.

Nearly all policies and frameworks developed during the current strategic period state improving coverage and equity as an objective

of the policy; in this way, they are well aligned with the overall 2016–2020 strategy (table 1). The updated language also encourages countries

to demonstrate how they will use Gavi funds to achieve coverage and equity targets.

Table 1. Extent to which Gavi Secretariat written frameworks and policies meet coverage and equity criteria.

	PEF (2016)	CEF (2016)	HSIS (2016)	GPF (2016)	Fragility Policy (2017)	JA Guidance (2017)	CCEOP (2017)	Application Guidelines (2018)
Strategic focus on equity								
Identified challenges, constraints or bottlenecks								
Provides guidance on implementing or achieving solution								
Provides access or links to further technical resources								
Includes monitoring and learning components								

Excellent Moderate Poor Criteria not applicable

RECOMMENDATIONS

Study further: As a resource for countries and an input into HSS and joint appraisal (JA) processes, Gavi and partners should synthesize the evidence on how to most effectively address common, underlying bottlenecks or causes of inequalities. This could lead to the development and use of decision-support tools to inform the design and targeting of the most cost-effective and high-impact interventions to address the root causes of inequitable coverage.

Financial sustainability

Immunization program expenditures are rising and are projected to continue rising.

Financing has kept pace with rising costs, primarily due to external donor contributions. However, external financing is stagnating and within-country operational expenditures on immunization are stagnating. As countries move towards transition, their ability to sustain gains in vaccination coverage and equity is at risk. Total expenditures on vaccine programs, including vaccine and immunization supplies and operational costs, have risen from 2010 to 2016:

- Mozambique: 14 million to 28 million.
 - Uganda: 13 million to 93 million.
 - Zambia: 23 million to 37 million.
- Projections envision continued increases in the costs of immunization programs:
- Mozambique: 80 million by 2019.

- Uganda: 115 to 185 million by 2021, dependent on new vaccine introductions.
- Zambia: 121 million by 2021.

The capital costs of new vaccines have heavily driven rising program costs. While currently subsidized by global donors, during accelerated transition countries will take on an increasing share of vaccine costs and will ultimately be responsible for financing 100% of all costs with domestic resources.

As costs for vaccines have risen, operational and recurrent costs have seen relatively modest budgetary increases (figure 3). We hypothesize that many program costs are currently underfinanced and that the incremental cost of immunizing the “fifth child” is greater than

current estimates of the cost of fully vaccinating a child. Microcosting data provide evidence that the operational costs for targeting hard-to-reach populations are associated with higher costs. Cuts to immunization budgets may disproportionately affect children in the hardest-to-reach communities.

“In 2017, we received about 10% of the operational budget. Activities like supervision, training, mentorship, outreach, printing child health cards, and data forms are not done especially at province and district levels because of funds.” —KII, Zambia

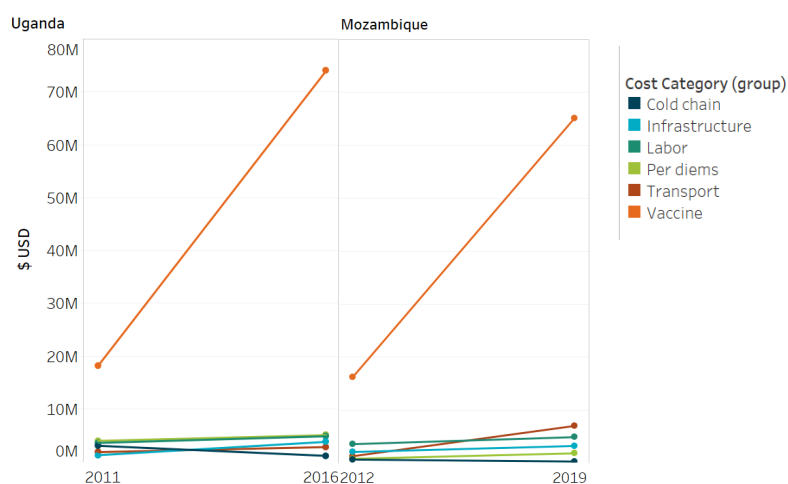
In Uganda, the gap in HSS funding negatively affected implementation of outreach, microplanning, and supportive supervision. These weakened program operations make it more difficult to reach the “fifth child.”

Operational or immunization delivery costs

These costs are extensive and include:

- Health worker time and training to administer vaccines.
- Planning, management, and supervision.
- Social mobilization.
- Surveillance and monitoring and evaluation.
- Outreach-based delivery.
- Supply chain and logistics.

Figure 3. Budget categories for projected resource requirements in Uganda and Mozambique



Source: cMYP's from Mozambique and Uganda.

RECOMMENDATIONS



Study further: Gavi, partners, and in-country stakeholders should invest in and support microcosting studies to estimate how costs vary across geographic and population subgroups or across other drivers of coverage and equity in order to inform the resource-allocation decisions necessary to improve coverage and equity.

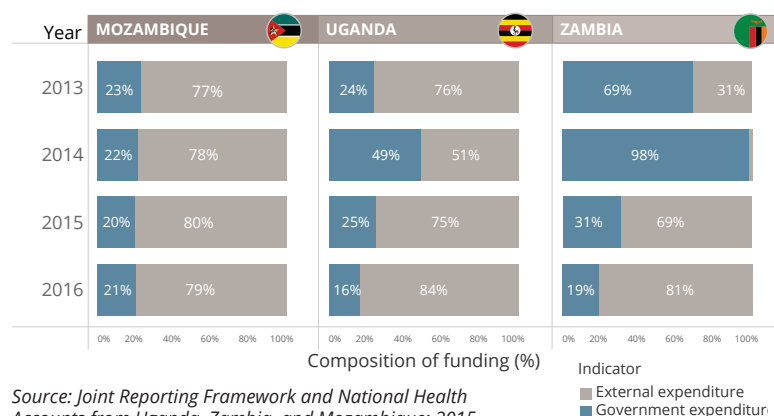
Domestic financing remains a small share of the total resource envelope.

Projected financing shows that Uganda and Mozambique expect to be able to meet nearly all of the increased resource requirements. Zambia's immunization program is projected to mobilize only half of the required funds and to operate with a funding gap in excess of 40% annually. While Uganda and Mozambique have mobilized external development assistance to meet the projected resource requirements, domestic financing has remained a small share of the overall envelope (figure 4).

Interpreting the current portrait of domestic health financing for immunization activities is complex as FCE2 countries are not yet required to inject additional domestic resources. However, feasibility of increased domestic financing for immunization can be inferred based on the projected resource needs as a share of the total government health expenditure (see figure 5 at right). Substantial domestic increases would be needed to absorb all immunization costs.

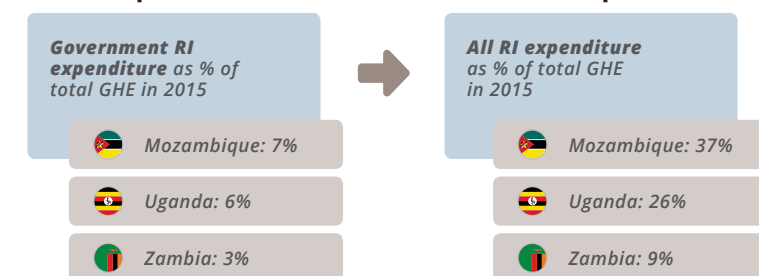
Gavi has increasingly focused on the financial sustainability of country immunization programs, with particular emphasis on new vaccine introduction (NVI) decision-making and transition planning through the JA process and Country Engagement framework, which has encouraged country discussion of long-term financing. However, there is still limited guidance on how—or to what level—countries should plan for programmatic and operational sustainability.

Figure 4. Composition of EPI costs by source.



While FCE2 countries are not expected to be self-financing at this juncture, this highlights the heavy reliance of country governments on external donor support to continue funding immunization programs.

Figure 5. Total government financing of immunization would require substantial share of health expenditure



ZAMBIA	UGANDA
<ul style="list-style-type: none"> Weak macroeconomic growth (projected 4.4% average). Low tax revenue potential. Concern that increasing public debt will require more resource allocation toward debt servicing. Decline in development assistance for the immunization program in recent years. 	<ul style="list-style-type: none"> Moderate macroeconomic growth (projected 6.9% average). Low domestic resource mobilization and increasing public debt. Immunization Act of 2016 creates an immunization fund to provide legal commitment for public funding. Development of financial sustainability plan.

RECOMMENDATIONS

- Act now:** Gavi, partners, and EPI stakeholders should invest in developing and implementing a financial sustainability plan to increase domestic financing for immunization. These efforts should include the highest levels of political and bureaucratic representation and should align where possible with broader health-sector financing reforms.
- Act now/Study further:** Gavi should expand their sustainability guidance beyond NVI to include a focus on operational and programmatic sustainability of vaccine delivery.

Conclusion

Despite tremendous global progress in improving access to and coverage of vaccines, progress in FCE2 countries is not equitable nor inevitable. Reaching the “fifth child” and achieving universal coverage requires new ways of doing business and new levels of resources and commitment. The underlying drivers of equitable coverage are complex and interdependent and require multistakeholder and multilevel action to address. We observe that current data systems and/or measurement approaches are insufficient for measuring and monitoring granular trends in inequalities. Decision-makers have inadequate information and tools to inform intervention design and resource-allocation decisions. While this has been a perennial FCE finding across our reports, we also observe (and have played a role in) success stories related to the production, exchange, and use of information to make better decisions.



Photo: UNICEF

NEXT STEPS

In year 2, the FCE team will continue to monitor and analyze the implementation and effectiveness of Gavi coverage and equity strategies and the impact of senior country managers and Gavi’s strategic focus areas on improving coverage and equity. The FCE team will continue to explore and quantify as many drivers of vaccination coverage and equity as described in the FCE2 TOC in the next data-collection period. The FCE team plans to expand the district case-study method to Mozambique and Zambia, further investigating district-level coverage trends and financial management, as well as challenges and barriers to LMC. We will continue to explore Gavi’s approach to financial and programmatic sustainability, monitoring funds funneled to TCA partners and the overall costs of vaccines (including program costs of new vaccines and operational costs funded by Alliance partners). The FCE team will also evaluate the implementation of JA processes in 2018, with a focus on how the tools and guidance provided by Gavi, including the grant performance framework, influence discussion and decisions related to identifying which children remain underimmunized and why, and how best to address the identified bottlenecks (EQ17).

ACKNOWLEDGEMENTS

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We thank the Ministries of Health and other government agencies for facilitating stakeholder consultations and workshops. We also acknowledge and thank the Gavi Secretariat Evaluation team and Gavi’s Evaluation Advisory Committee for providing critical feedback, advice, and guidance over the course of the evaluation.

