

Ethiopia

Demographic

The population progressively increased from 108M to 123M from 2017 to 2022 as shown in **figure 1**. Infants aged below 12 months and those below the age of 5 years accounted for less than 7% and 15% of the entire population respectively.

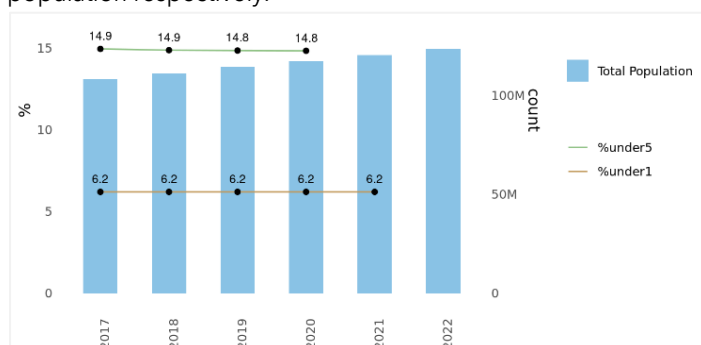


Figure 1: Population Trends in Ethiopia

Source: UNDP, World Bank, Analysis by Consultant

During the same period, the Human Development Index remained just below 0.5, a below average performance on individual longevity, education and income capabilities (**Figure 2**). The Human Capital Index was 0.4, which was below average in terms of the expected productivity of future generations owing to deprivations related to health and education. This implied that children born during the period would attain only 40% of their productivity potential. The life expectancy at birth remained constant between 65 and 66 years.

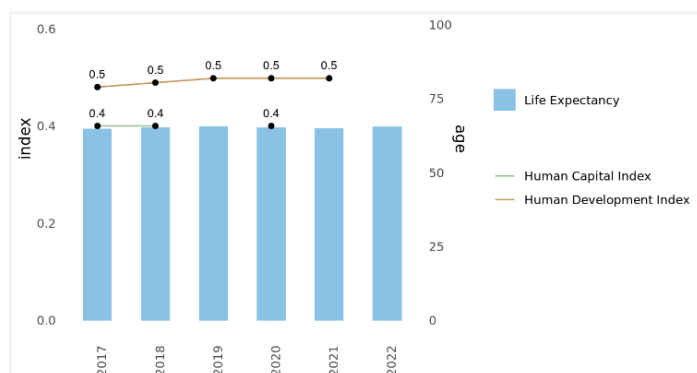


Figure 2: Development and Productivity Potential in Ethiopia

Source: UNDP, World Bank, Analysis by Consultant

Economic Context

The Gross National Income Per Capita progressively increased from USD 751 to USD 1021 during the period of analysis (**Figure 3**). This matched the initial self-financing transition phase for GAVI eligibility (GAVI, 2022). The Tax to GDP ratio declined from 8% to 6% implying an underperformance relative to the regional threshold of 15% for adequacy of financing public services. The Debt to GDP ratio declined from a high of 58% in 2018 to 46% in 2022, hence within the EAC regional threshold of 50% for debt sustainability and adequacy of financing public services beyond debt repayment.

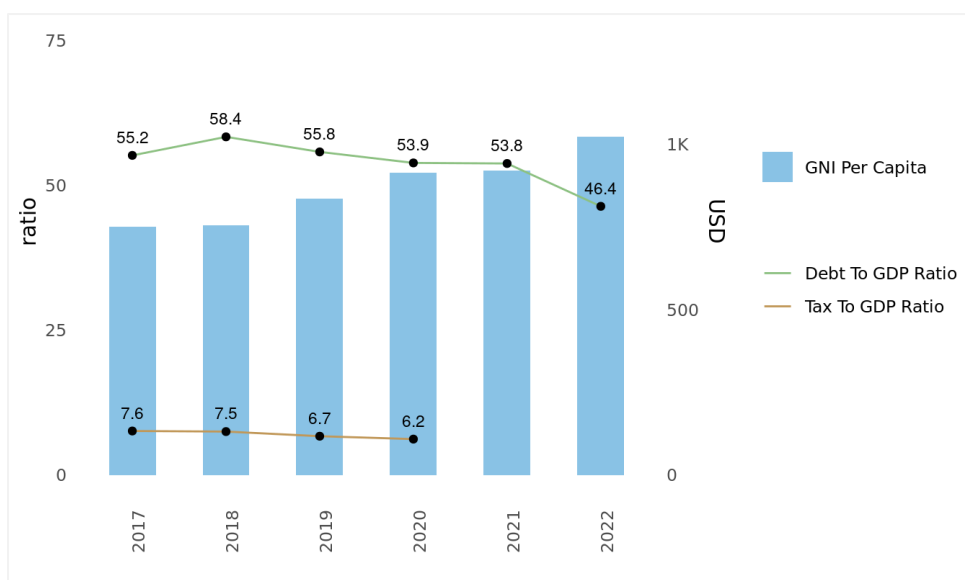


Figure 3: Economic Performance in Ethiopia

Sources: IMF, World Bank, Analysis by Consultant

Health System Context

The top 3 causes of death in the population were neonatal conditions, lower respiratory tract infections and diarrheal diseases. Preterm birth complications, neonatal sepsis, birth asphyxia, acute respiratory infections and diarrhea were the main causes of under 5 mortalities.

There was a steady decline in the Infant and Under Five Mortality Rates over the period of analysis. The Infant Mortality Rate (IMR) declined from 40 to 34 deaths per 1000 live births, while the Under Five Mortality Rate declined from 56 to 47 deaths per 1000 live births as shown in **figure 4**.

The UHC service coverage index in 2021 was 35% implying that only 35% of the population have access to essential health services including reproductive, maternal, newborn and child health, infectious diseases, and non-communicable disease services.

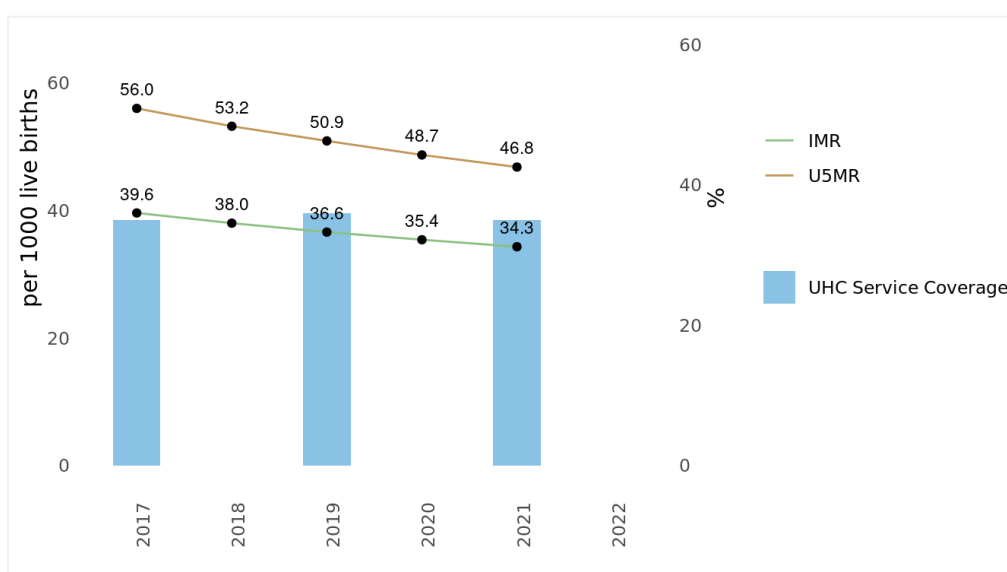


Figure 4: Health System Performance in Ethiopia

Source: WHO, World Bank, Analysis by Consultant

Health Financing Context

Government spending on health was at 1% of the GDP which was markedly below the minimum of 5% recommended for progression towards UHC(McIntyre et al., 2017). The per capita spending on health was between USD 25 and USD 30, which was substantially below the recommended per capita target of USD 86(McIntyre et al., 2017). Further, the government expenditure on health relative to other sectors ranged between 5% and 7% across the years, which was substantially below the 15% Abuja target **(Figure 5)**.

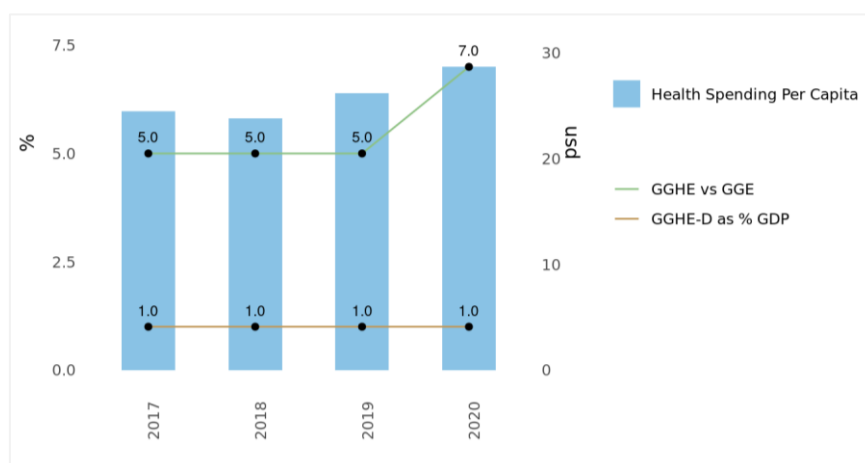


Figure 5: Health Financing Trends in Ethiopia

Source: WHO Global Health Expenditure Database

Out of Pocket Payments (OOP) and Donor funding were the largest sources of financing for health in Ethiopia between 2017 and 2020. OOPs accounted for between 33% and 38% of all health financing while donor funding accounted for between 34% and 36% **(Figure 6)**. This was followed by government funding which accounted for 23% to 28% of all health financing. Other sources accounted for less than 10% of health financing during the period.

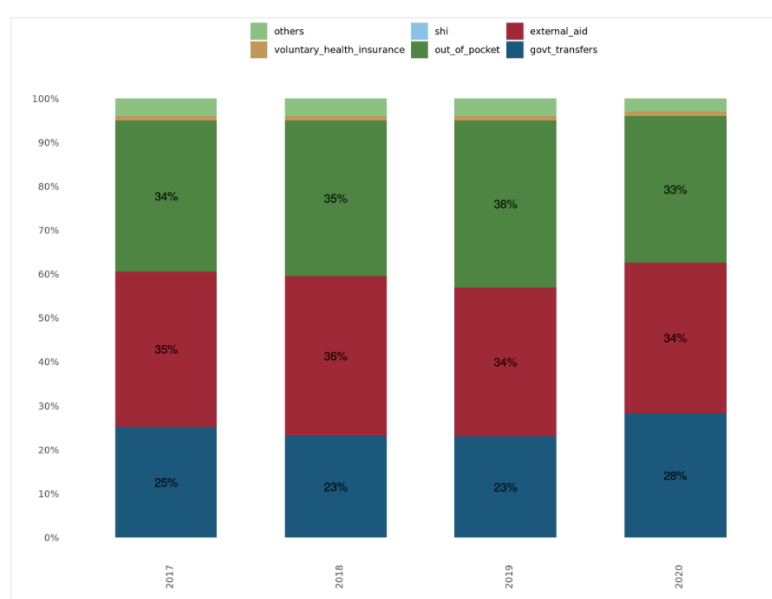


Figure 6: Health Financing sources in Ethiopia

Source: WHO Global Health Expenditure Database

Immunization Coverage

Overall, the national immunization coverage rates had stagnated below 80% (**Figure 7**) but declined further in 2021 likely due to contextual factors such as COVID-related restrictions and disruptions to service delivery.

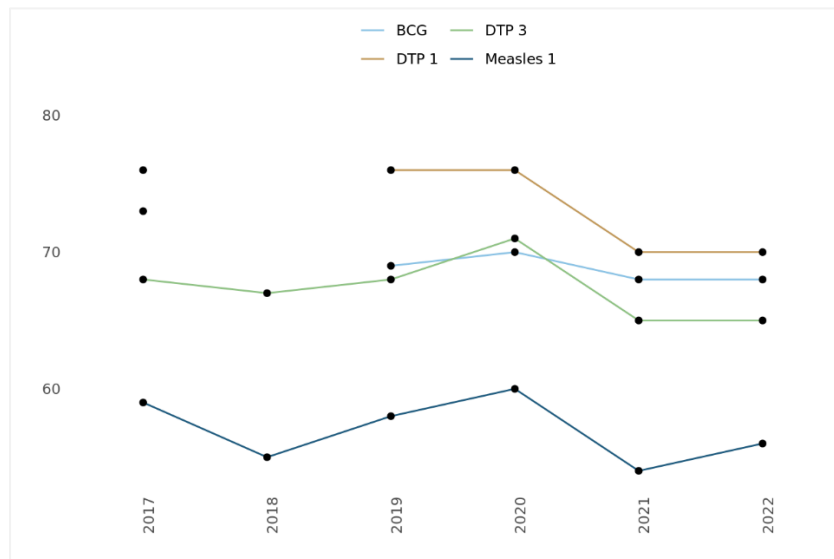


Figure 7: Immunization Coverage in Ethiopia

Source: WHO/UNICEF, Joint Reporting Form, Analysis by Consultant

Overall, lower income groups had higher under five mortality rates, higher zero dose children, and lower immunization coverage which indicate income related inequities (**Figure 8 and 9**). There was a gap of more than 20 deaths per 1000 live births among the under-fives between the wealthiest and poorest income groups.

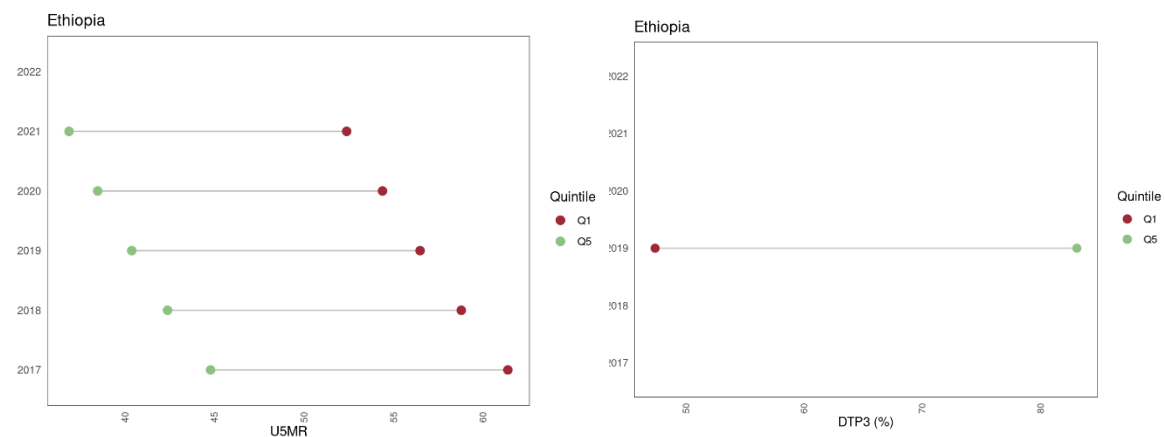


Figure 8: Equity analysis of U5MR and DTP3 Coverage in Ethiopia

Source: WHO, Analysis by Consultant

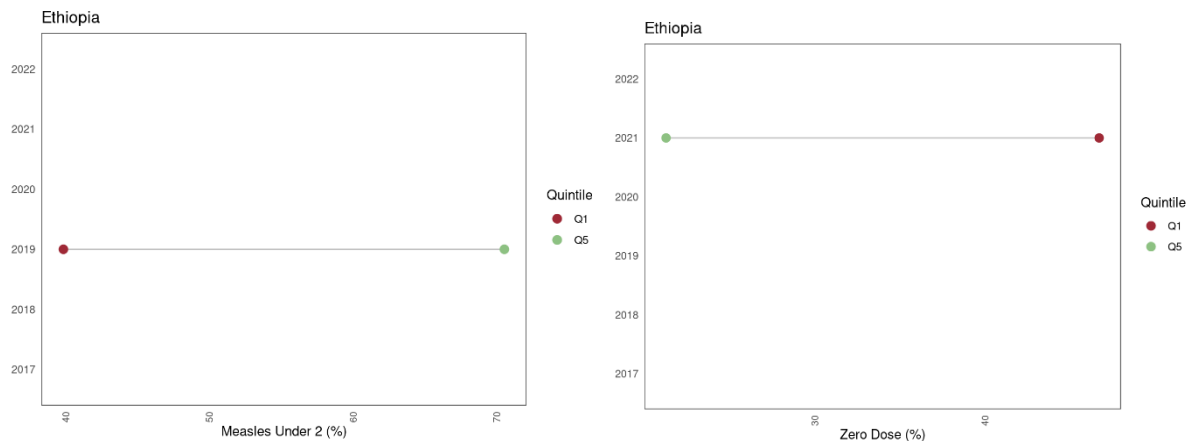


Figure 9: Equity Analysis of MCV 2 Coverage and Zero Dose children in Ethiopia

Source: WHO, Analysis by Consultant

The coverage gap for DTP3 and MCV2 was approximately 30 percentage points between the wealthiest and poorest income groups. Notably, the proportion of zero dose children for low-income households was higher than the high-income households by approximately 30 percentage points.

Immunization Financing

Expenditures on Routine Immunization in Ethiopia have been declining during the period of analysis. Routine immunization accounted for between 0% and 5% of the Current Health Expenditure; and between 10% and 21% of the Domestic General Government Health Expenditures between 2017 and 2020. Vaccine related expenditures while declining accounted for less than 4% of the CHE, and declined from 14% to 7% of the Domestic General Government Expenditures (**Figure 10**).

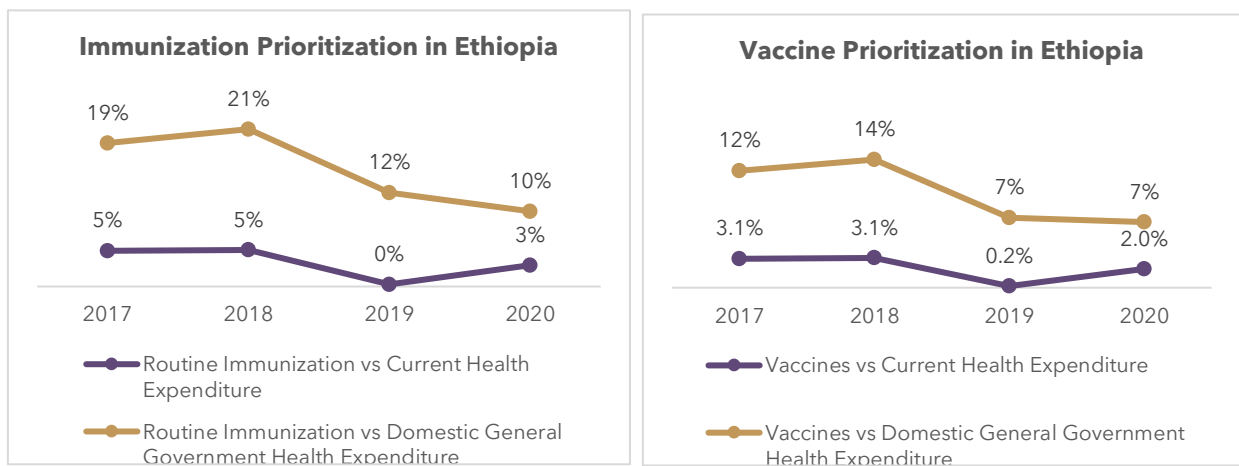


Figure 10: Prioritization of Immunization and Vaccines in Ethiopia

Source: WHO/UNICEF, Joint Reporting Form, Analysis by Consultant

Though declining, Government funding as a source of immunization financing accounted for between 29% and 43% between 2017 and 2020. This accounted for less than 2% of Current Health Expenditures and below 9% of the Domestic General Government Health Expenditure (**Figure 11**).

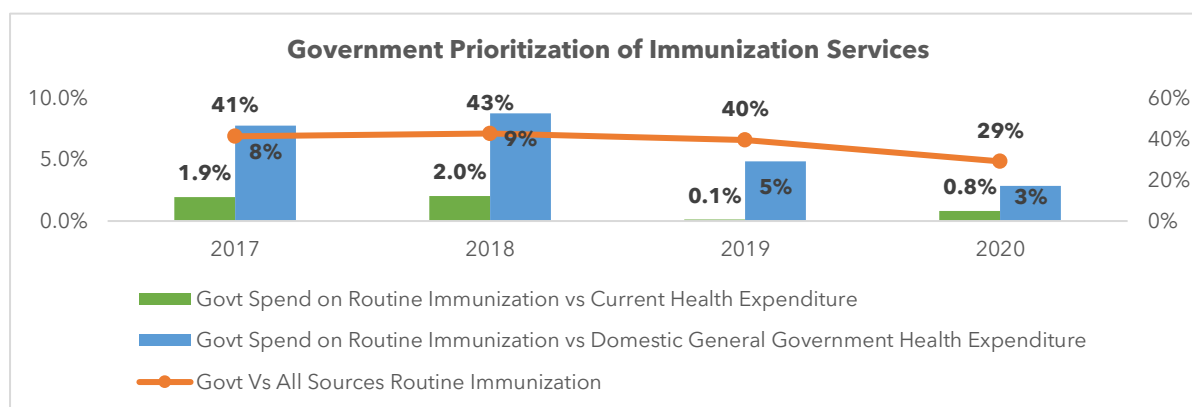


Figure 12: Government Prioritization of Immunization

Government funding as a source of vaccine financing accounted for between 3% and 18% between 2017 and 2020. This accounted for below 1% of Current Health Expenditures and below 3% of the Domestic General Government Health Expenditure (**Figure 12**).

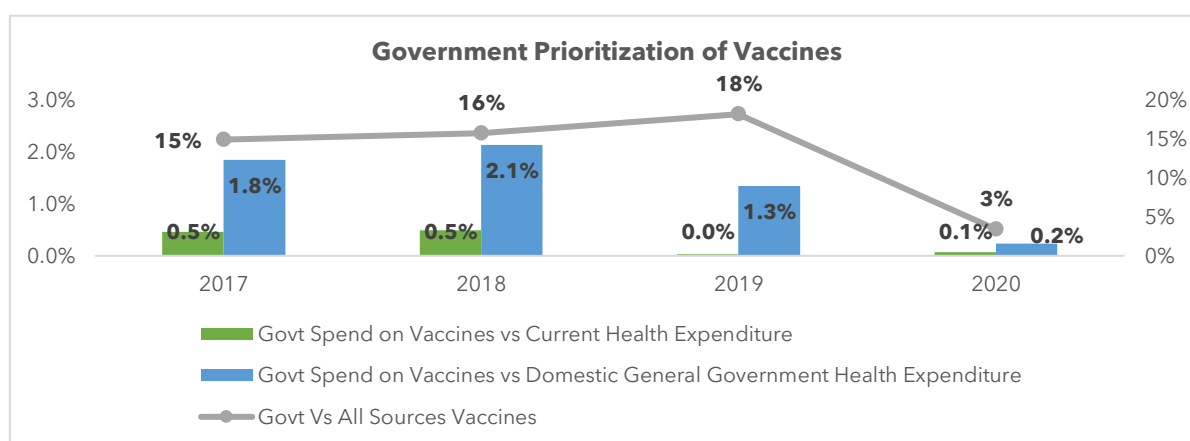


Figure 11: Government prioritization of Vaccines in Ethiopia

Source: WHO/UNICEF, Joint Reporting Form, Analysis by Consultant

Procurement of Vaccines accounted for between 38% and 41% of the immunization expenditures between 2017 and 2021 in Ethiopia (**Figure 13**).

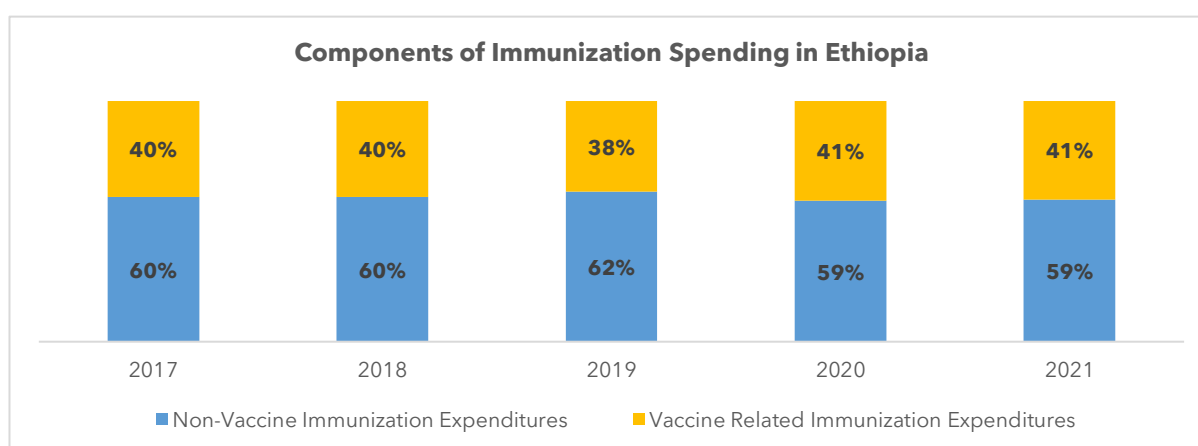


Figure 13: Components of Immunization Expenditures in Ethiopia

Source: WHO/UNICEF, Joint Reporting Form, Analysis by Consultant

Highlight

The declining prioritization of immunization financing by government in Ethiopia threatens sustainability of immunization services. Progressive increments in government financing of health and immunization will help mitigate against donor dependence and financial hardship among households as they seek for immunization services.

Immunization Challenges in Ethiopia

1. **Geographic Barriers and Logistical Challenges:** Ethiopia's diverse geography, including remote and hard-to-reach areas, imposes logistical challenges in delivering vaccines and reaching underserved populations.
2. **Healthcare Infrastructure Constraints:** Inadequate healthcare infrastructure, including healthcare facilities and trained healthcare workers, significantly hampers the efficient delivery of vaccines and immunization services.
3. **Vaccine Hesitancy and Awareness:** Some communities in Ethiopia exhibit vaccine hesitancy due to misconceptions, mistrust, and a lack of awareness regarding the importance of vaccines.
4. **Healthcare Worker Shortages:** Ethiopia faces a shortage of healthcare workers, including vaccinators, which has a tangible impact on the delivery of immunization services.
5. **Cold Chain Management:** Maintaining the cold chain for vaccines, particularly in remote areas, is limited by factors such as inadequate power supply which affects vaccine storage.
6. **Funding and Resource Constraints:** Budgetary limitations and resource constraints significantly affect the availability of vaccines and the capacity to conduct vaccination campaigns.
7. **Infectious Disease Outbreaks:** Ethiopia has experienced outbreaks of vaccine-preventable diseases like measles, straining healthcare resources and disrupting immunization programs.
8. **Political and Economic Instability:** Political instability and economic challenges significantly impact and disrupt the healthcare system, including immunization programs.

Challenges to Immunization Financing in Ethiopia

1. **Limited Domestic Resources:** Ethiopia heavily relies on external donor funding for its healthcare budget. The government's financial capacity to allocate resources to immunization is significantly constrained due to competing demands on the budget.
2. **Funding Gaps:** Despite progress, there are significant funding gaps for immunization programs, resulting in inadequate coverage and delayed vaccine procurement.
3. **Resource Allocation:** Limited resources may not always be effectively allocated to immunization efforts, leading to inefficiencies and disparities in vaccine coverage.
4. **Global Health Priorities:** Changes in global health priorities and shifting donor funding significantly impact the availability and stability of external funding for immunization programs.
5. **Data and Monitoring:** Accurate data collection, monitoring, and surveillance systems are crucial for immunization programs but require ongoing funding and capacity-building efforts.

Recommendations to Improve Immunization in Ethiopia

1. Reduce Geographic Barriers and Logistical Challenges

- Improve transportation and supply chain management to ensure timely delivery of vaccines to remote areas.
- Expand the use of mobile and outreach vaccination services to reach underserved populations.
- Partner with community leaders and organizations to support and promote vaccination in remote and hard-to-reach areas.
- Make vaccination services more accessible and convenient by offering flexible hours and locations.

2. Strengthen Healthcare Infrastructure, and Technology

- Invest in building and upgrading healthcare facilities in underserved areas.
- Leverage technology to improve the efficiency and effectiveness of immunization delivery.

3. Continuous Awareness Creation

- Conduct targeted awareness and education campaigns to address misconceptions and mistrust about vaccines.
- Engage with community leaders and religious leaders to promote vaccination and build trust in the healthcare system.

4. Increase investments in Healthcare Workers

- Invest in training and education programs to increase the number of healthcare workers, including vaccinators.
- Provide incentives for healthcare workers to work in remote and underserved areas.
- Optimize the use of existing healthcare workers by delegating tasks and leveraging technology.

5. Strengthen Cold Chain Management

- Invest in cold chain equipment and infrastructure, particularly in remote areas.
- Provide training to healthcare workers on cold chain management procedures.
- Develop and implement contingency plans to maintain the cold chain during power outages and other disruptions.

6. Improve preparedness for Infectious Disease Outbreaks

- Strengthen surveillance and early detection systems for vaccine-preventable diseases.
- Develop and implement contingency plans for rapid response to outbreaks.
- Ensure adequate availability of vaccines and other resources to respond to outbreaks.

7. Mitigate against immunization disruption due to Political and Economic instability

- Advocate for the prioritization of immunization programs in national and regional development plans.
- Build partnerships with civil society organizations and the private sector to support immunization programs.
- Develop and implement contingency plans to maintain immunization services during periods of political and economic instability.

8. Strengthen Data Management and Monitoring

- Invest in strengthening data collection, monitoring, and surveillance systems for immunization programs.
- Use data to track progress, identify gaps, and make informed decisions about immunization programs.
- Build the capacity of healthcare workers and public health officials to collect, analyze, and use immunization data.

9. Prioritize Immunization Financing

- Increase domestic government funding for immunization programs as a proportion of the overall healthcare budget.
- Explore innovative financing mechanisms, such as public-private partnerships, to generate additional resources for immunization programs.
- Improve the transparency and accountability of immunization financing to ensure that resources are used effectively and efficiently.
- Develop multi-year funding commitments for immunization programs, and to ensure that funding is aligned with national priorities.

References

GAVI. (2022). *Gavi Alliance Eligibility and Transition Policy Version 4*. <https://www.gavi.org/types-support/sustainability/eligibility>

McIntyre, D., Meheus, F., & Rottingen, J. A. (2017). What level of domestic government health expenditure should we aspire to for universal health coverage? *Health Economics, Policy and Law*, 12(2), 125-137. <https://doi.org/10.1017/S1744133116000414>

