**KEY POINTS:**

- To recover vaccination rates, expand access to new vaccines, and equip public health systems to address emerging infectious diseases, immunization programs require new financing.
- While most countries have managed to maintain baseline funding for routine national immunization programs, funding sources are strained by the current pandemic’s impact on health systems and the economy.
- Temporary emergency approaches to financing COVID-19 vaccination will be insufficient beyond short-term needs. A more comprehensive vision and sustainable approach to immunization financing is needed to strengthen current program access and performance and to address existing and new public health needs.
- As countries allocate resources to roll-out COVID-19 vaccination programs, there is an opportunity to optimize the use of these resources and to move towards sustainable financing. Specifically, policymakers should:
  - Ensure short-term investments strengthen immunization systems and access overall.
  - Secure sustainable financing options to fortify immunization programs and ensure they can meet tomorrow’s public health needs.

**WHY WE NEED TO INVEST IN IMMUNIZATION SYSTEMS URGENTLY**

Vaccination is one of the most cost-effective public health interventions and provides important social and economic returns that go beyond the individual.¹ With the exception of safe water, no other intervention has had a greater effect on overall mortality reduction and population health to date than immunization.² Vaccines save 2 to 3 million lives globally each year by reducing the incidence rates of more than 26 infectious diseases.³ Vaccination can lower costs to the health care system through reduced hospitalizations.⁴ Every dollar spent on vaccination programming in low- and middle-income countries (LMICs) results in $44 in returns.⁵ A strong public health infrastructure, including routine immunizations, is foundational for global health security.

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¹ Ozawa et. al, 2016
The COVID-19 pandemic has revealed that immunization programs have long been undervalued and underfunded. Before the current pandemic, only 11% of public spending on health was for prevention in LMICs, and only 3% in countries belonging to the Organization for Economic Co-operation and Development (OECD). Median spending on immunization over the second half of the last decade was 0.3% of health budgets across countries in Europe. Underinvestment contributes to gaps in the roll-out COVID-19 vaccines and the maintenance of routine vaccination services during the current pandemic.

COVID-19 has significantly disrupted immunization programs, creating a risk of resurgence of vaccine preventable diseases. The COVID-19 pandemic uncovered gaps in immunization systems and the capacity to maintain routine programs while responding to an emergency. Due to the current pandemic, vaccination campaigns were halted and postponed, vaccination staff were reallocated to the COVID-19 response, and supply chains have been disrupted. School closures delay school-based vaccination programs. Following social distancing recommendations, individuals are avoiding health centers and missing their vaccinations. In 2020, global coverage rates lost 25 years of progress.

To recover vaccination rates, expand access to new vaccines, and equip public health systems to address emerging infectious diseases, immunization programs require new financing. Recovery requires new strategies to increase access and promote uptake, including expanding points of vaccination and increasing the number and type of health care professionals that can vaccinate. Such strategies require new financing strategies. In addition, addressing future health needs, whether vaccines in development for current diseases or preparing for emerging infectious diseases, requires investment to ensure rapid access and protection.

Investment is needed:

1. To recover and maintain routine immunization programs
2. To expand access to COVID-19 and other vaccines across the life-course
3. To prepare for future emerging infectious diseases
Country's continue to fund and deliver routine national immunization programs, though funding sources are strained by the pandemic's impact on health and economic systems. The following funding sources have been impacted by the pandemic and its resulting recession.

- **Public government funds** have been hit by the “scissor effect” in many countries.\(^1\)\(^{,\text{xii}}\) Revenues decrease as economies function at lower levels. GDP growth rates were negative across all regions in 2020, impacting public budgets in the short term.\(^{,\text{xii}}\) In tandem, healthcare costs are higher due to COVID-19. Some countries, particularly MICs, are at greater risk depending on their fiscal vulnerabilities (i.e., debt levels, inflation) and their integration into the global economy.\(^{,\text{xiii}}\)

- **Individual insurance contributions**, leveraged by some public health insurers, have been negatively impacted by the COVID-19 pandemic because the recession has put many people out of work, raising unemployment rates.\(^{,\text{xiv}}\)

- **Donor funding** is projected to drop globally. Though support for healthcare is likely to be maintained or even grow in response to the COVID-19 pandemic, donors now have an expanded list of priorities.\(^{,\text{xv}}\) Donor funding will be stretched as the global community works to recover and respond to the pandemic and may not be a sustainable or reliable resource.

Countries, donors, and development banks are mobilizing temporary funding for COVID-19 vaccination efforts.

- **Governments** are unlocking temporary funds and reallocating existing funds to respond to the current pandemic, including COVID-19 vaccination. Some countries, like China, Korea, and the Philippines have drawn on national emergency reserves. Indonesia and Thailand have temporarily reallocated other public program funds towards immunization.\(^{,\text{xvi}}\) Argentina has instated a one-time wealth tax to boost public revenue, and Colombia is exploring tax breaks for companies to pay for their employees’ vaccinations.\(^{,\text{xvii}}\)

- **Donors and development banks** are providing short-term funding streams to support access to COVID-19 vaccines. The World Bank has reallocated US$12 billion in funds to support COVID-19 tests, vaccines, and treatment access.\(^{,\text{xviii}}\) The Asian Development Bank has established a new mechanism for country loans and grants to support COVID-19 vaccine procurement and delivery.\(^{,\text{xix}}\) These funding streams, while critical for COVID-19 vaccine access, are signaled to be temporary.\(^{,\text{xx}}\)

Short-term approaches to financing COVID-19 vaccination may be insufficient to support recovery of routine vaccination rates and equip immunization programs to address emerging infectious diseases. Emergency

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\(^1\) Scissor Effect: Simultaneous rising expenditure and falling revenues.
supplemental funds and reallocations are temporary or limited in their scope to COVID-19 vaccination. Reallocations may also divert resources from other programs. For example, in Australia, cohorts for pneumococcal vaccination were cut back to reallocate funds towards COVID-19 vaccines. Further, sustainability will be a challenge should COVID-19 become endemic and require routine investment. Still, some of the investments for large-scale COVID-19 vaccination programs can have longer-term and broader benefits for immunization programs (e.g., improved information systems, cold chain updates, outreach to adult cohorts).

MOVING FROM RESPONSE TO PROACTIVE, SUSTAINABLE INVESTMENT

A more comprehensive vision and sustainable approach to broader immunization financing is needed. This emergency has illustrated the importance of investing in routine immunization programs across the life-course. The spotlight that COVID-19 has given to vaccination and its social and economic returns creates political space to discuss broader program needs and sustainable investment. Now is the time to act and invest in immunizations systems for today and tomorrow. By not creating silos around COVID-19 vaccination financing, countries can optimize current resource allocations and invest to stop COVID-19, and to strengthen current programs and prepare for future emerging infectious diseases. Specifically, policymakers should:

| Ensure short-term investments strengthen immunization systems and access overall | Infrastructure investments to prepare for a rapid, efficient COVID-19 vaccine roll-out should benefit routine immunization programs. This includes:
1. Robust supply-chains with transport and cold-chain capacity that can deliver vaccination services to entire populations
2. Timely, reliable data systems to track vaccine inventory, coverage rates, and dosing intervals
3. Robust pharmacovigilance systems to monitor safety and facilitate timely adverse event responses.

Countries often have external funding options in this space and should assess what support is available from regional and global actors. For example, the European Union (EU) quadrupled their EU4Health budget to 5.1 billion euros in 2021 to create more resilient health systems. These short-term funding options can support stronger long-term immunization systems.

| Invest in a comprehensive system for equitable access and high uptake across the life-course | COVID-19 vaccination has highlighted gaps in the ability of public immunization programs to reach adolescent and adult populations. Countries have already begun to identify and finance new staffing and new settings to both improve access to COVID-19 vaccination and restore routine immunization delivery. For example, Canada, New Zealand, and Puerto Rico authorized pharmacists to deliver vaccinations, and the Philippines conducted house to house vaccination campaigns to increase population confidence and recover coverage rates. Countries should make sustained investments in these and other relevant models to continue to promote equitable access to adolescent and adult vaccines. |
Secure sustainable financing options to fortify immunization programs and ensure they can meet tomorrow’s public health needs

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<tr>
<th>Support prioritization of prevention and immunizations budgets with new funding options.</th>
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<td>The relationship between public health and economic health is accentuated by the COVID-19 pandemic, creating a unique window to re-prioritize health budgets. This may mean allocating more of the public budget to health or creating efficiencies within the health budget by orienting health spending towards preventive services. Countries may also explore new forms of sector or program-specific funding such as earmarked taxes (commonly levied on items such as tobacco, alcohol, or gambling), insurance premiums (for countries with a centrally funded program under the Ministry of Health), or private resources that can be leveraged through corporate social responsibility efforts or tax deductions.</td>
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<th>Understand the program costs and return on investment to inform financing decisions and secure sustainable financing in the long-term.</th>
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<td>To secure prioritization of, and funding for, immunization programs in the long-term, decisionmakers need information and data that can inform and support their decisions. Policymakers should ensure data collection on the program costs, effectiveness, and benefits of COVID-19 vaccination strategies (e.g., correlation with economic recovery or causation of recovery, coverage rate growth, utilization of different access points).</td>
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