



# DELIVERING ON THE PROMISE OF IMMUNISATION

## HOW FAR HAVE WE COME?



Endorsed by:

**Gavi CSO Constituency**  
for Immunisation and Stronger Health Systems  
Helping to reach Every Child with Immunisation and Health Services



Save the Children

**ACTION**  
GLOBAL HEALTH ADVOCACY PARTNERSHIP

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# 01 GAVI AT 20 YEARS: THE IMMUNISATION LANDSCAPE

## TAKING STOCK

In 2020, Gavi, the Vaccine Alliance, celebrates its 20th anniversary — 20 years of keeping children healthy. For its next strategic period (2021-25), Gavi has set out an ambitious plan to deliver more than 3.2 billion doses of life-saving vaccines **to reach 300 million children by 2025.**<sup>i</sup> In order to fulfil its plan, Gavi will need **US\$7.4 billion in new resources.**

The Gavi replenishment pledging conference in June 2020 is a critical moment to invest ambitiously in the next decade of vaccines and renew commitments to deliver on strengthening immunisation and health systems.

Since 2000, Gavi has been a pivotal partner, leveraging contributions from donors, countries, co-financing and the vaccine industry. It has transformed the vaccines landscape and remains critical to addressing the urgent global need for immunisation. Preventing 13 million deaths in low-income countries<sup>ii</sup> and immunising 40 million children per year — more than 760 million children total have been vaccinated over the past 20 years, thanks to a focus on innovation, increased donor and domestic financing, and determination to reach every child. Introducing rotavirus vaccines in all Gavi countries — including those that have not yet done so — could **prevent nearly 600,000 deaths and save approximately \$900 million** in treatment costs by 2027.<sup>iii</sup>

Gavi's work has a vital impact on immunisation and is a significant driver for achieving the global immunisation goals of the 2011–20 Global Vaccine Action Plan (GVAP),<sup>iv</sup> the subsequent Immunization Agenda 2030 and the Sustainable Development Goals (SDGs). Gavi's current strategy, with \$7.5 billion committed by donors from 2016 to 2020 has been guided by the mission of increasing immunisation coverage and equity to make progress on leaving no one behind.

And yet, as of 2018, 1 in 10 children still do not receive any vaccinations,<sup>v</sup> putting them at serious risk of potentially fatal diseases. Though immunisation has proven to be one of the most successful, cost-effective, and far-reaching public health interventions, the percentage of children who received their full course of routine immunisations has stalled at 86 percent — increasing only one percentage point between 2015 and 2018.<sup>vi</sup> This rate falls short of the 2020 global immunisation coverage target of 90%.

Large inequalities remain in immunisation coverage rates within and between countries, indicating that national immunisation programmes are not reaching every child. Inequalities in coverage across and within countries mean that children from the lowest-resource families, the most remote and urban poor areas, and most underserved groups are left behind. More than half of Gavi-supported countries with available disaggregated data (29 of 55) show poor performance in terms of equity.<sup>vii</sup>

The Gavi replenishment offers a unique opportunity to:

- **invest ambitiously in Gavi to leave no one behind with immunisation**
- **reflect on how to increase coverage and equity for all supported vaccines**
- **enhance accountability for the commitments made on immunisation and health systems strengthening**
- **address existing barriers and challenges so that every child is immunised.**

## AN EQUITABLE FUTURE

The Decade of Vaccines (2011–20) has achieved significant progress for vaccine introductions.<sup>viii</sup> Recognising that vaccine introductions alone do not save lives, to address urgent equity challenges and leave no one behind in immunisation, we in the global health community — governments and development partners, healthcare providers, civil society, and the private and public sector — must innovate to reach further and do things more efficiently and sustainably.

Immunisation systems are also under threat from major challenges, such as conflict, mass urbanization and migration, climate change and environmental degradation, population growth, a rise in vaccine hesitancy, and changes in the health financing landscape. The risk is that children living in low-resource settings and underserved groups in remote areas and urban slums will continue to be left behind.

**Investments today in integrated delivery of health systems, inclusive of immunisation services, will ensure that the full range of vaccine-related benefits are extended equitably to all people, regardless of where they are born, where they live, or who they are.**



# 02 WHY INVEST IN GAVI?

## TO DELIVER PEOPLE-CENTRED PRIMARY HEALTHCARE AND UNIVERSAL HEALTH COVERAGE

Together, the global health community must leverage the funds that are pledged in this Gavi replenishment to move us closer to a world where no child dies from preventable diseases. It must be a transformative investment that helps countries build strong person-centred primary healthcare (PHC) that is in reach of all children and families – regardless of gender, poverty or geography; this includes mobilising increased domestic financing, as a first step towards universal health coverage (UHC) and achieving SDG3 by 2030. In Gavi's next strategic period (2021–25), countries will contribute \$3.6 billion in co-financing and self-financing vaccine costs, thereby leveraging up to 41% country financing for Gavi-supported vaccines.<sup>ix</sup>

## TO IMPROVE EQUITABLE ACCESS TO HEALTH

UHC, when built on a foundation of vaccines, sanitation, nutrition and education can successfully deliver on well-being for all. But

in order to deliver sustainable change for children, each of these interventions needs to be well-funded and supported. For example, malnutrition weakens the immune system and increases the likelihood of deaths from vaccine-preventable diseases, therefore it is crucial that vaccination is supported with adequate nutrition.<sup>x</sup>

Pneumonia is another key example. The world's leading infectious killer of children, it claims the lives of more than 800,000 children under the age of five every year; more than 2,000 every day. It is a shocking demonstration of pervasive health inequities disproportionately affecting the most underserved children in low- and middle-income countries.

Children in the lowest poverty quintiles are most at risk because of high rates of malnutrition as well as lack of access to both good-quality basic health services for vaccinations and to diagnosis and treatment of common childhood illnesses. As a result, these children are almost twice as likely to die before their fifth birthday compared with children in the highest quintile. It is possible to prevent, diagnose and treat pneumonia

through investments in UHC and equitable access to quality PHC, immunisation, nutrition, and safe drinking water, sanitation and hygiene.

## TO DRIVE INTEGRATED IMPACT

Global health funds — including Gavi, the Global Polio Eradication Initiative (GPEI), the Global Financing Facility, and the Global Fund to Fight AIDS, Tuberculosis and Malaria — have led on tackling some of the most persistent health threats, collectively saving millions of lives and helping millions of people to live healthy and productive lives. Moving closer to a world where no one dies from preventable diseases requires ambitious commitments and strategies that deliver for all children, particularly from countries that are transitioning out of support from these institutions to self-finance their own health initiatives.

Planning is also underway for the Immunisation Agenda 2030; the GPEI 2019–2023 Endgame Strategy as polio nears eradication; Gavi's next strategic period, Gavi 5.0 (2021–2025); the World Health Organization's (WHO) Global Action Plan for Healthy Lives and Well-being for All (GAP); and the roadmap for implementing the Addis Declaration on Immunization. These different strategies, frameworks and accountability indicators need to be harmonised and made consistent with global and regional targets in order to align and reinforce a joint ambition to achieve shared goals.

## PREPARING FOR A POLIO-FREE WORLD

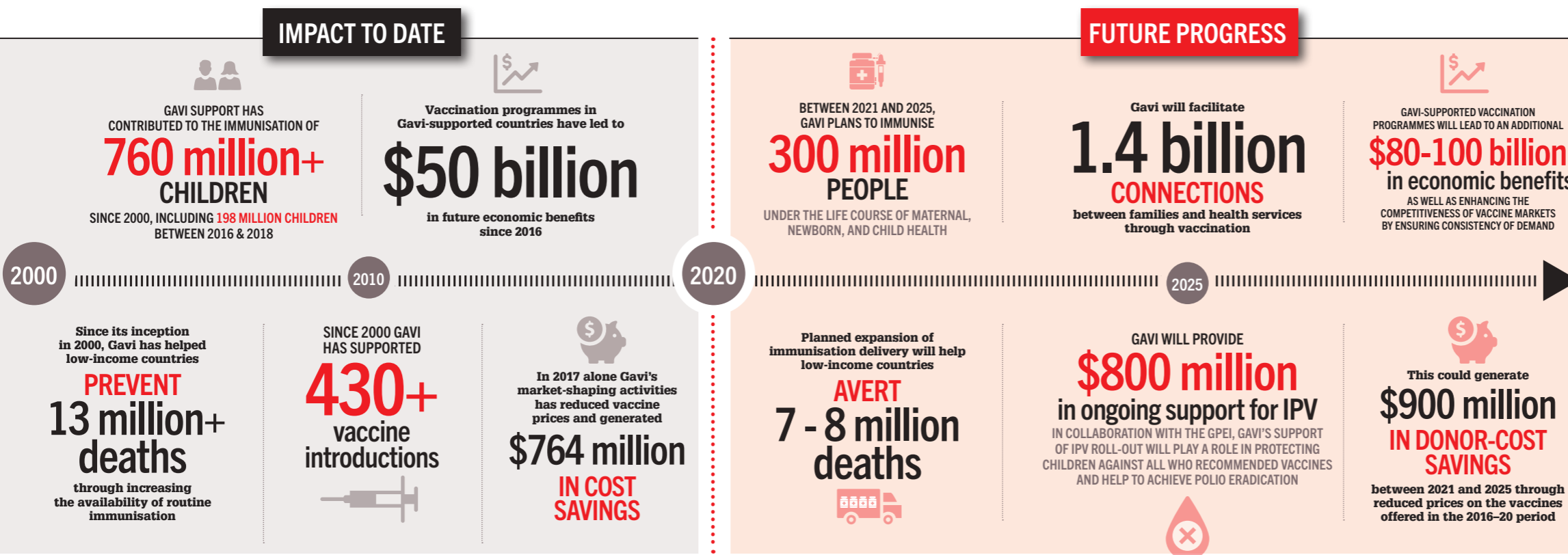


As a direct result of immunisation, the world is closer than it has ever been to eradicating polio, with only two countries – Afghanistan and Pakistan – still affected by wild poliovirus. To interrupt transmission, immunisation and health systems need to be strengthened. Of the 16 countries identified as priorities for transition planning,<sup>xii</sup> many continue to have low (overall) immunisation coverage, are considered fragile states, and several will also be impacted by the simultaneous wind-down of other major programmes such as Gavi, Global Fund, and the World Bank's International Development Association (IDA).<sup>xiii</sup>

With Gavi officially joining the GPEI as a core partner in 2019 and planning to invest US\$ 800 million in the next strategic period to further accelerate the IPV roll-out, now is the time to do more to reach eradication and build stronger systems for the Expanded Programme on Immunization (EPI). Circumstances where domestic resources cannot cover all programmatic gaps, will leave communities and health systems vulnerable to the re-emergence of polio, as well as service disruptions that extend beyond polio. There is an opportunity to address this with the polio transition process – including integration into other health priorities of essential polio-related assets, such as extensive infrastructure of disease surveillance systems, vaccine supply and logistics networks, laboratories, communications capacity building, and campaigns (about measles, maternal and child health programmes, humanitarian emergencies, and sanitation and hygiene programmes).

However, current country-level challenges with transition planning and implementation require global-level attention from GPEI, Gavi, donors, country governments and civil society. Civil society is a key partner to help address gaps, to inform and advocate for sustaining a polio-free world, and to promote synergies between remaining polio efforts and other health programmes; this is needed to make a reality of transition planning and implementation – and of a polio-free world.<sup>xiv</sup> The global frameworks provided by the new Polio Endgame Strategy<sup>xv</sup> and the GAP<sup>xvi</sup> are the necessary tools needed to support countries to strengthen routine immunisation through PHC and deliver on the health-related SDGs and country commitments to health. At a time when experts proclaim that "...countries need to see immunisation systems as core to their health systems and that effective national immunisation systems require ongoing nurturing, political commitment and public support",<sup>xvii</sup> the opportunity must be taken to ensure building systems is prioritised. The risks of not doing so are too high. Strong systems are needed to deliver polio eradication and sustainability of a polio-free world.

## GAVI REPLENISHMENT 101: KEY FACTS ON GAVI'S MONUMENTAL 20-YEAR IMPACT AND FUTURE PROGRESS\*



\*Sources: Gavi, the Vaccine Alliance (2019) Facts and Figures. Retrieved from <https://www.gavi.org/about/mission/facts-and-figures/>; Gavi, the Vaccine Alliance (2018) 2016–2020 Mid-Term Review Report. Retrieved from <http://gotlife.gavi.org/mtr-event/mtr-report/>

## IMMUNISATION KEY FACTS: AN EQUITY PLATFORM FOR STRENGTHENING PHC



GLOBALLY, 90% OF CHILDREN ARE REACHED BY THE FIRST DOSE OF A VACCINE CONTAINING DTP, MAKING IMMUNISATION THE MOST UNIVERSALLY ACCESSED HEALTH SERVICE.

IMMUNISATION OFFERS AN ENTRY POINT TO CONNECT WITH CAREGIVERS AND BUILD ESSENTIAL KNOWLEDGE AROUND HEALTH SERVICES SUCH AS NUTRITION, HYGIENE AND SANITATION, AND FAMILY PLANNING.

IMMUNISATION IS A KEY COMPONENT IN FORGING ENDURING CONTACT BETWEEN CHILDREN AND THE PHC SYSTEM AND PROVIDING A PLATFORM FOR OTHER AGE-APPROPRIATE HEALTH INTERVENTIONS.



IMMUNISATION IS ONE OF THE MOST GENDER-EQUAL HEALTH INTERVENTIONS WITH NO MEASURABLE DIFFERENCE BETWEEN BOYS AND GIRLS. HOWEVER, GENDER-RELATED BARRIERS, INCLUDING THE UNEQUAL STATUS OF WOMEN IN SOCIETIES, CAN IMPACT VACCINATION RATES WHEN CAREGIVERS ARE RESTRICTED FROM ACCESS TO SERVICES. GREATER GENDER EQUALITY LEADS TO HIGHER IMMUNISATION COVERAGE.

ROUTINE IMMUNISATION AND PHC CONTRIBUTE TO HEALTH SECURITY BY PREVENTING DISEASE OUTBREAKS, SUPPORTING SURVEILLANCE, AND STRENGTHENING PREPAREDNESS AND RESPONSE CAPACITIES FOR HEALTH EMERGENCIES. IMMUNISATION ALSO HELPS PREVENT THE EMERGENCE AND SPREAD OF ANTIMICROBIAL RESISTANCE.

# 03 THE IMPACT OF IMMUNISATION: WHY VACCINES MATTER

**Vaccines save children's lives and protect the well-being of families. But that's not all. They also safeguard people's incomes and promote economic growth.**



### AN INVESTMENT THAT PAYS BACK

Immunisation is the most cost-effective public health intervention of modern times. For every \$1 invested in immunisation, \$21 is saved in healthcare costs and preventing lost wages and productivity due to illness.<sup>xxxi</sup> And when the broader benefits of people living longer, healthier lives are factored in, the return on investment for every \$1 spent rises to a total of \$54.<sup>xxxii</sup> Planned investments in immunisation from 2021–25 could generate \$80–100 billion worth of economic benefits – equivalent to at least three years of annual foreign aid to low- and middle-income countries.



### A HEALTHIER, MORE PRODUCTIVE WORKFORCE

When children are fully vaccinated and protected from many childhood diseases, they become less sick, less often. As a result, their parents and caretakers spend less time nursing them back to health, which directly benefits their ability to work.



### BETTER HEALTH LEADS TO MORE EDUCATION

Children who avoid contracting diseases or who experience illness less often have better school attendance and stronger academic performance. Better cognitive development, physical strength and educational achievements lead to better employment prospects and the opportunity to earn more during adulthood.



### HEALTHIER FAMILIES AND COMMUNITIES

The burden of disease often falls on the socially and economically disadvantaged. More children who are fully vaccinated and living healthier lives means more people have the chance to work and better their economic prospects.<sup>xxxiii</sup> Lower health care costs for health systems and for families could save up to \$6 billion globally in treatment costs.

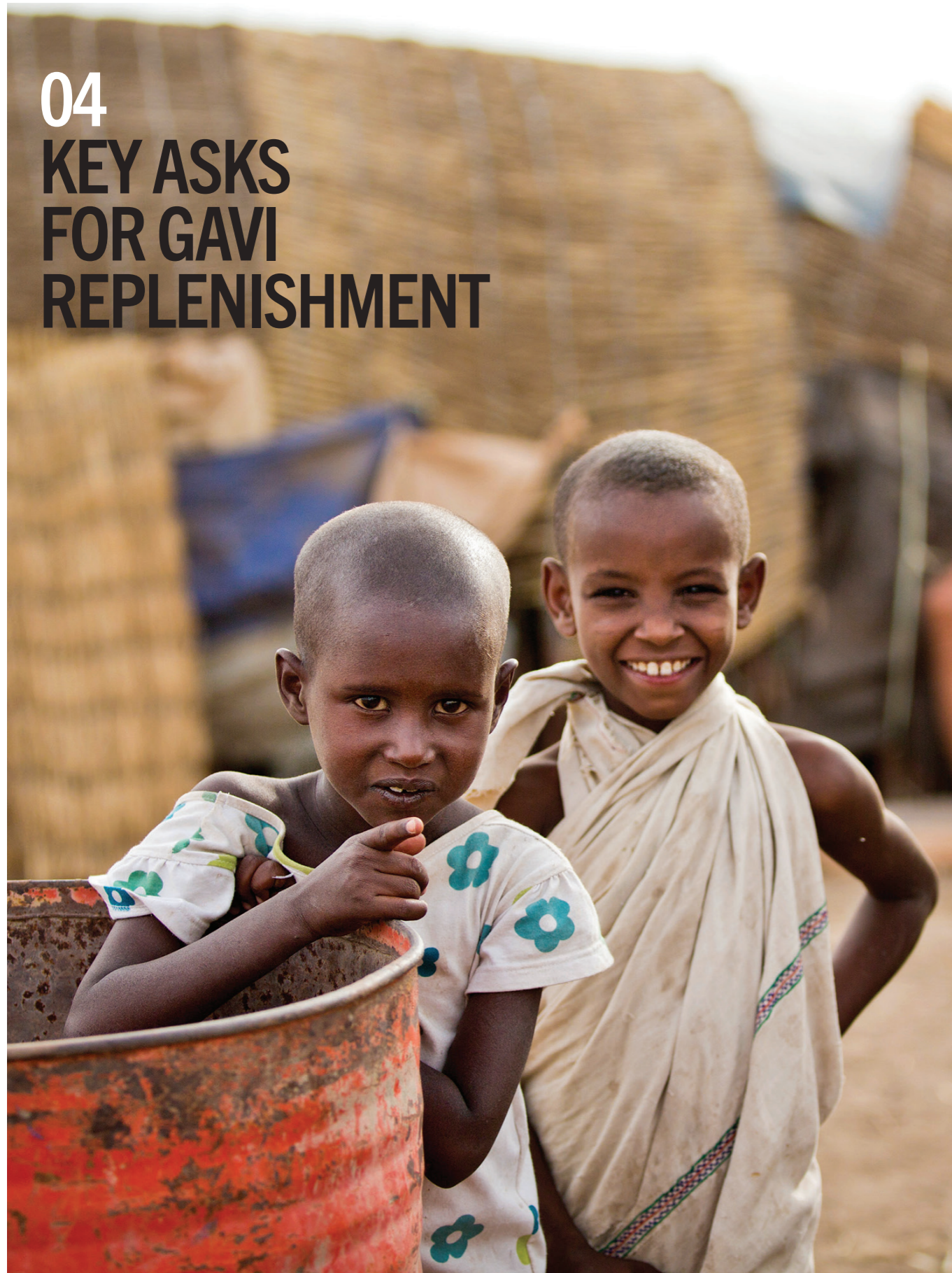


### NEW OPPORTUNITIES TO SAVE LIVES

Research and innovation have enabled the development of new vaccines and delivery systems that provide protection from more diseases; developments that represent noteworthy progress. Failure to introduce effective new vaccines into a national immunisation programme represents a lost opportunity to protect many more children and adults from preventable deaths. That is why it is vital Gavi-supported countries are able to seize these new opportunities



# 04 KEY ASKS FOR GAVI REPLENISHMENT



To reach children everywhere with life-saving vaccinations, we must strengthen health systems. That means addressing challenges over coverage and equity at the sub-national level. Gavi and the Alliance partners have a critical role here. Gavi policies are needed that drive equity-focused national agendas that encourage countries to focus on sub-national level disparities. By requiring action from donors and national governments, Gavi can help make commitments to coverage and equity a reality.

The Gavi replenishment process is an opportunity to do just that. Ambitious pledges will provide resources, which are imperative to driving the equity agenda. Even more importantly, they will grant Gavi the space to be bolder in seeking to achieve its ambition to reach 300 million children by 2025.

Gavi, national governments, donors, development partners, vaccine manufacturers and the private sector have a responsibility to accelerate action to ensure that all children are reached with immunisation through access to affordable vaccines and a strong PHC system, a first step towards UHC. Every last child – regardless of where they are born, and their level of poverty or social exclusion must have access to immunisation.

## WE CALL FOR:



### AMBITIOUS INVESTMENTS IN GAVI

- **Investing ambitiously to secure a fully funded Gavi:** A fully funded Gavi will maintain predictability and stability of vaccine markets, accelerate equitable access to affordable vaccines and help to immunise an additional 300 million children between 2021-25. Gavi's new strategy will invest \$5.3 billion in vaccine programmes, \$3.3 billion in immunisation systems and enabling infrastructure, and \$1.1 billion in health systems strengthening. This investment opportunity is the best buy-in public health.

### EQUITABLE PEOPLE-CENTRED SERVICES

- **Leaving no one behind:** Prioritisation of 'zero dose' children in all policies. An equity lens is required to identify and focus on underserved children (including gender, rural remote, fragile settings, urban slum, low-income, and uneducated children).
- **Safeguarding immunisation in fragile settings:** Delivering services for the hardest-to-reach communities in accordance with a best practice framework to ensure equitable access to immunisation services for migrant, displaced and disadvantaged populations, including those affected by conflict and humanitarian emergencies — as recommended by the SAGE 2018 report.<sup>xxxiv</sup> In the decade ahead, we are likely to encounter new infectious diseases that could represent the threat of a global pandemic; with migratory populations, even countries with resilient health systems could be at risk of losing hard-won gains.

### SUSTAINABLE SYSTEMS

- **Strengthening primary health care:** Gavi to ensure investments are tailored to and promote integrated immunisation services that deliver full immunisation coverage and other vital

health services through the life-course and are aligned with efforts to strengthen national and sub-national PHC.

- **Enhancing transition preparedness and capacity support:** Frequent programmatic and financial analysis should be conducted and shared with national stakeholders, other funds and donors highlighting country-level risks, challenges and opportunities. Expectation-setting by global planning processes should ensure that comprehensive country analysis and needs inform policy decisions, including of Gavi-recipient country preparedness criteria, in order to deliver on comprehensive transition assessments prior to entering the accelerated Gavi transition phase.
- **Ensuring vaccine affordability:** Prioritise cultivating vaccine markets, incorporating market shaping mechanisms (such as a revised Advanced Market Commitment, mode<sup>[xxxv,xxxvi]</sup>), and the entry of new suppliers to the market to continue to lower and maintain prices.

### CONTEXT-DRIVEN INNOVATION

- **New life-saving vaccines and technology:** Stronger collaboration between vaccine and vaccine-delivery innovations and programme implementers in communities, in order to ensure new product design development, and evaluation is responsive to the needs of communities.
- **Monitoring for equity:** Leveraging of data and digital tools by donors, recipient-country governments and CSOs in order to identify unvaccinated children. This will improve the performance of sub-national immunisation systems to reach underserved populations.
- **Optimising private sector engagement:** Commitment to a people-centred approach from vaccine manufacturers and private sector partners, with affordable vaccine prices, and stable vaccine supply volumes that meet specific country demand.

### POLITICAL WILL

- **Prioritising civil societies role:** Meaningful civil society engagement (e.g., representatives from all communities, including those left behind), where CSOs take part in Gavi's planning, budgeting, implementation and monitoring of processes to ensure services are culturally appropriate, gender-sensitive, affordable, effective and sustainable.
- **Increasing domestic investments in health:** Commitment from Gavi-recipient countries to increasing public investment in immunisation by at least 5%; strengthening PHC systems;<sup>xxxvii</sup> prioritising reaching the target of 90-95% immunisation coverage at the district level; and developing comprehensive transition plans with clear milestones to protect health financing.



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of ACTION or its country partners concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.



# 05 IMMUNISATION IN ACTION: A CLOSER LOOK AT VACCINE ACCESS IN FIVE SPOTLIGHT COUNTRIES

Over recent decades, immunisation has saved millions of lives. Thanks to investments in improving immunisation delivery services, vaccination coverage rates have increased dramatically. But to achieve health for all, there must be increased attention to equity, reaching even the poorest and most underserved children with routine immunisation and PHC systems.

VACCINATION KEY

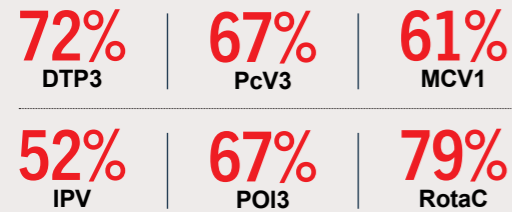
- DTP3: Diphtheria-Tetanus-Pertussis
- PcV3: Pneumococcal Conjugate Vaccine
- MCV1: Measles Containing Vaccine
- IPV: Inactivated Polio Vaccine
- Pol3: Polio
- RotaC: Rotavirus Conjugate Vaccine

CRITICAL CHALLENGES AND RISKS KEY

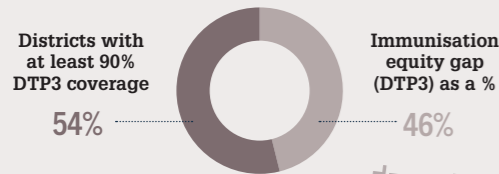
- Surveillance
- Low immunisation rates in high-risk areas
- Routine immunisation
- Staff capacity and training
- Transition/financing
- Social mobilization
- Fragile context
- Outbreak preparedness and response
- Human resources
- Programme management

ETHIOPIA

NATIONAL IMMUNISATION COVERAGE



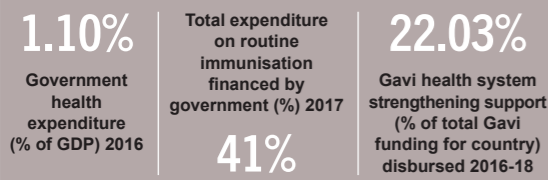
EQUITY



Estimated year country will reach equity target <10% points between richest and poorest



YEAR THE COUNTRY WILL REACH 90% DTP3 COVERAGE



CRITICAL CHALLENGES AND RISKS



Level of risk to immunisation system

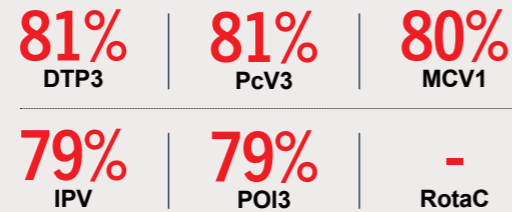
Immunisation equity rating<sup>dx</sup>

HIGH

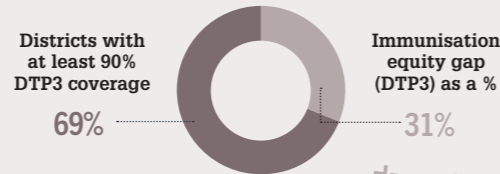
MEDIUM

DRC

NATIONAL IMMUNISATION COVERAGE



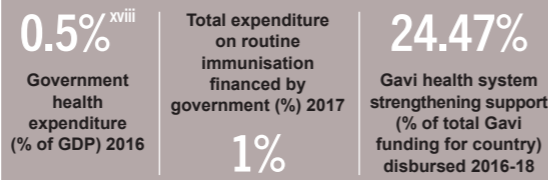
EQUITY



Estimated year country will reach equity target <10% points between richest and poorest



YEAR THE COUNTRY WILL REACH 90% DTP3 COVERAGE



CRITICAL CHALLENGES AND RISKS



Level of risk to immunisation system

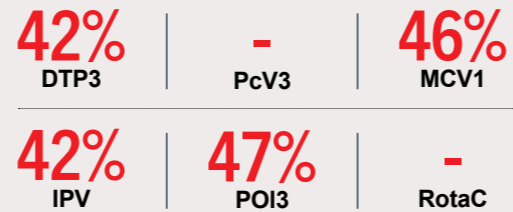
Immunisation equity rating<sup>dx</sup>

HIGH

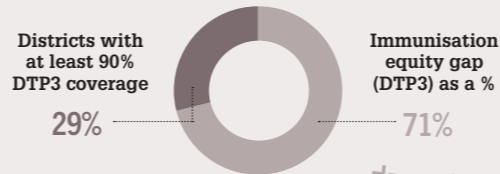
LOW

SOMALIA

NATIONAL IMMUNISATION COVERAGE



EQUITY



Estimated year country will reach equity target <10% points between richest and poorest



YEAR THE COUNTRY WILL REACH 90% DTP3 COVERAGE



CRITICAL CHALLENGES AND RISKS



Level of risk to immunisation system

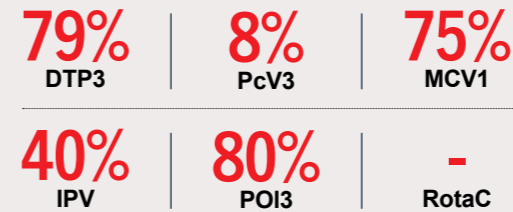
Immunisation equity rating<sup>dx</sup>

HIGH

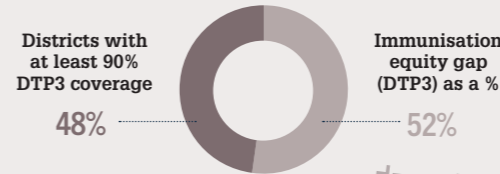
LOW

INDONESIA

NATIONAL IMMUNISATION COVERAGE



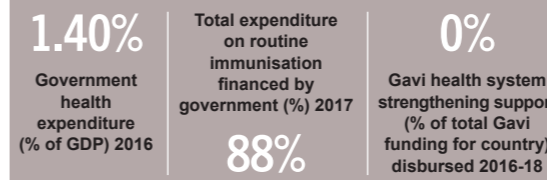
EQUITY



Estimated year country will reach equity target <10% points between richest and poorest



YEAR THE COUNTRY WILL REACH 90% DTP3 COVERAGE



CRITICAL CHALLENGES AND RISKS



Level of risk to immunisation system

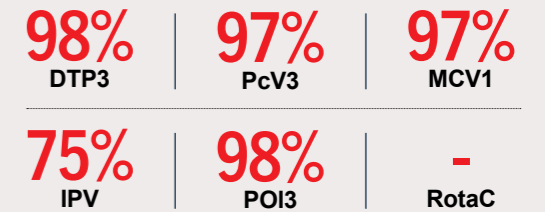
Immunisation equity rating<sup>dx</sup>

MEDIUM

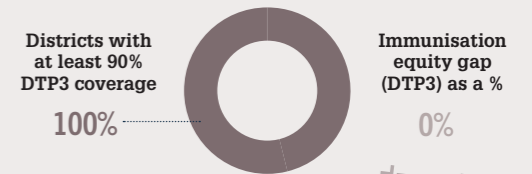
MEDIUM

BANGLADESH

NATIONAL IMMUNISATION COVERAGE



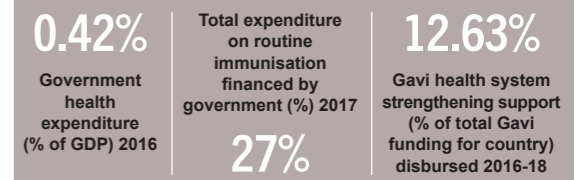
EQUITY



Estimated year country will reach equity target <10% points between richest and poorest



YEAR THE COUNTRY WILL REACH 90% DTP3 COVERAGE



CRITICAL CHALLENGES AND RISKS



Level of risk to immunisation system

Immunisation equity rating<sup>dx</sup>

LOW

HIGH

# THE HIDDEN STORY OF VACCINE INEQUALITY

## AN ANALYSIS OF FIVE SPOTLIGHT COUNTRIES

### 01 VAST GEOGRAPHICAL AND SOCIO-ECONOMIC DISPARITIES

In four of the five spotlight countries, middling national coverage levels of DTP3 hide vast geographical and socio-economic inequalities. In Ethiopia, the DRC, Somalia and Indonesia, DTP3 coverage is well below the required 90% coverage (please refer to the map) — as are other critical immunisations. Some coverage rates are as low as 8% (pneumococcal in Indonesia), 40% (polio vaccine in Indonesia), 46% (measles vaccine in Somalia) and 79% (rotavirus in Ethiopia) — with no country meeting the required global immunisation target of 90–95% coverage.

A majority of unvaccinated children live in hard-to-reach areas, urban centres and informal settings or urban slums.<sup>xx</sup> Special attention must be paid to these areas to reach equitable immunisation levels. If resources to these areas plateau while their populations increase, then those resources will be spread too thin to reach every child.

As of 2018, the equity gap in immunisation coverage is estimated to range from 71 to 31 percentage points — nowhere near the equity target of less than a 10 percentage-point difference between the richest and poorest groups. With the exception of Bangladesh, three of the five spotlight countries are currently decades away from reaching that target.

### 02 UNDER-VACCINATED AND UNVACCINATED CHILDREN DISPROPORTIONATELY LIVE IN FRAGILE SETTINGS

The DRC, Ethiopia, and Somalia are among the 16 countries<sup>xxi</sup> that are either polio-affected, fragile, or affected by conflict. According to WHO, of the 19.4 million infants who have not received the three recommended doses of DTP, 44% (8.6 million) live in these 16 countries.<sup>xxii</sup> Vaccine equity challenges are apparent at the sub-national level across these countries, where a large number of districts have levels of DTP3 coverage well below 70%. Low investments in health and routine immunisation and imminent changes in finances as polio eradication nears and GPEI winds-down, will make closing the equity gap and reaching the children left behind in these countries even more difficult.<sup>xxiii</sup>

The growth of fragility, urbanisation and forced migration have challenged the work of Gavi and the Alliance partners to deliver vaccines and other essential health services to those who are hardest to reach. Clearer strategies are needed from all Alliance partners on how they will build on lessons learned in order to address the barriers that have delayed progress on vaccine coverage. These strategies should build on innovations like equity analyses, introduced during Gavi's current strategic period, and more targeted usage of Gavi's Health System and Immunisation Strengthening Support grants. Gavi's next strategy must include increased efforts to boost financial, technical and capacity support to countries in order to strengthen PHC systems. In addition, the strategy should include commitments to explore new and innovative ways to improve equity.

### 03 WEAK GOVERNMENT INFRASTRUCTURE

Of the 19.4 million infants not fully vaccinated with all three recommended doses of DTP, 13.5 million did not even receive an initial dose,<sup>xxiv</sup> pointing to a lack of access to both routine immunisation services and primary care. Moreover, 5.9 million are partially vaccinated, not having finished the schedule, suggesting a gap in care-seeking and in the provision of age-appropriate health services for children and families.<sup>xxv</sup>

In Somalia, for example, in a context of large-scale food insecurity, water shortages due to severe droughts, long-standing economic instability and a history of conflict, more than half of the population lives in extreme poverty. About 90% of Somalia's health investments are allocated to outbreak prevention and emergencies, leaving the country with a weakened health system that fails to deliver basic services, further hindering children's and adults' access to health.

### 04 INNOVATION AND VACCINE DELIVERY

Vaccines are the most cost-effective health intervention, yet the high cost per vaccine purchase and per dose delivered can be a major barrier to large-scale immunisation.<sup>xxvi</sup> Despite Gavi's efforts to regulate pricing for various vaccines for Gavi-recipient countries, critical vaccines such as rotavirus, pneumococcal

In reviewing the publicly-available data for these five spotlight countries — Bangladesh, Democratic Republic of Congo (DRC), Ethiopia, Indonesia and Somalia — it is clear that a most of them need to address vast and varied inequities, including geographic location, population subgroups, health financing, and the programmatic sustainability of health systems.

conjugate (PCV), yellow fever (YF), and human papilloma virus (HPV) remain inaccessible to many, including Somalia, the DRC and Indonesia. As countries transition from Gavi support, they face the double burden of increasing vaccine prices and having to fully self-fund;<sup>xxvii</sup> moreover, they may lack both the market information and know-how to negotiate better pricing.<sup>xxviii</sup> The private sector should continue to lower prices and make vaccines affordable for both Gavi-eligible and middle-income countries. In addition, a concerted effort is needed to increase the transparency of vaccine prices and pricing mechanisms — not just for Gavi-procured vaccines but for all vaccines, from all manufacturers.

Nevertheless, there are positive developments on the vaccine horizon. Efforts to build the capacity of low- and middle-income country vaccine manufacturers are helping to alleviate supply constraints, expand access and keep costs low. For example, in 2018, the Indian vaccine manufacturer Bharat Biotech received WHO pre-qualifications for its oral rotavirus vaccine, ROTAVAC. To date, approximately 30 million doses of ROTAVAC have been supplied within India.<sup>xxix</sup> Moreover, in 2019, the Serum Institute of India received WHO pre-qualifications for its PCV (PCV10) — the first-ever PCV from a developing country manufacturer.<sup>xxx</sup> Further steps such as this must be taken to improve affordability, so countries can increase coverage and equity and build sustainable immunisation systems. Research and development that responds to the burden of disease of the most excluded children and the contexts in which they live should be prioritised.

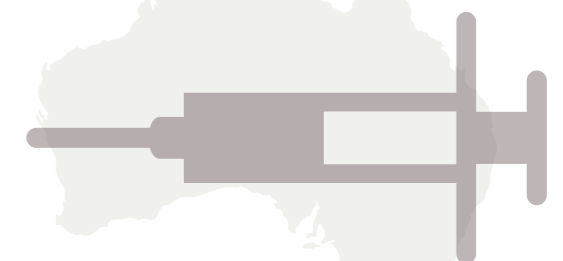
### 05 TRANSITION: PROGRAMMATIC SUSTAINABILITY AND DOMESTIC RESOURCE MOBILISATION

In the five spotlight countries, government investments in health are well below 2% of their gross domestic product (GDP). This puts at risk vital elements of each country's routine immunisation system such as surveillance (at the community and national level) and human resources.

For example, in order to build strong health systems, increase coverage and deliver UHC, the DRC needs to increase domestic

public health expenditure from 0.5% of GDP towards a target of 5% of GDP and to prioritise spending at the PHC level. The DRC must seek to raise revenue for health systems in an equitable way through progressive taxation and to remove out-of-pocket payments, such as user fees, for health and nutrition services — at least for vulnerable populations and priority services. By contrast, if the DRC continues to rely heavily on out-of-pocket payments, it will be ever harder to achieve UHC. With such a low level of domestic resources going to health, once the GPEI winds down — following the anticipated achievement of a polio-free world — the DRC's programme management, data processing and analysis, monitoring, and supervision of activities for childhood preventable diseases will be at extreme risk.

In many other countries with higher levels of government income than the DRC, vast inequities continue to exist; one example is Indonesia. In these countries, strengthening health systems — by supporting an immunisation platform through which other basic PHC services are provided — has the potential to fast-track the health of a generation at risk of being left behind. The resources and policies of Gavi are essential to accelerate those countries' progress towards their targets. Gavi's next strategy should therefore prioritise health systems strengthening by supporting countries — particularly those transitioning from Gavi support — to improve the sustainability of national immunisation programmes through appropriate allocation and management of financial domestic resources. Ensuring PHC is well-resourced is critical to building health systems in these countries. The time for global action is now.





CASE  
STUDY

## 06 BANGLADESH AND GAVI: A PARTNERSHIP FOR RESILIENCE

Bangladesh, a Gavi-recipient country, has one of the highest immunisation coverage rates in the world.<sup>xxxviii</sup> This has been achieved through strong political leadership and Gavi's partnership with Bangladesh providing over US\$ 650 million for the introduction and rollout of routine vaccines as well as strengthening of the country's health system.

Approximately 80% of this amount has funded new vaccines, including pentavalent, measles and measles-rubella, inactivated polio vaccine (IPV), and pneumococcal vaccines. This could be at risk in the future due to low government investments in health, and existing gaps and health disparities triggered by the ongoing refugee crisis. As of 2016, the government's health expenditure was just 0.46% of GDP, much lower than the recommended 5%. Moreover, Bangladesh has experienced a refugee crisis since August 2017. Hundreds of thousands of Rohingya refugees have fled from violent attacks in Myanmar to the Cox's Bazar district of Bangladesh; 60%, or 500,000, of them are children.<sup>xxxix</sup> Responding to this situation has required coordination and joint action by the government and development partners.

Emergency responses to situations such as the Rohingya crisis need to contribute to the use of local and national systems in ways that account for on-the-ground needs and realities. Local individuals and organisations, United Nations agencies, NGOs and other partners must establish

PHC capacity, rehabilitate hospitals, improve laboratories so that they support public health programmes, and minimise user charges so that people in need can access care.<sup>xl</sup> example shows that health, conflict, security and fragility are acutely linked. Currently, 44% of under-vaccinated and unvaccinated children live in fragile countries;<sup>xli</sup> the vaccination coverage is almost 10% lower in fragile countries than in non-fragile countries.<sup>xlii</sup>

A growing number of countries facing fragility or emergencies are Gavi-recipient countries, including Bangladesh. Worldwide, two-thirds of the world's unvaccinated children are living in countries affected by armed conflict.<sup>xliii</sup> As conflict and emergency situations can cause large numbers of children to go unprotected from vaccine-preventable diseases, with lasting impact on health, in June 2017 Gavi approved the *Fragility, Emergencies and Refugees Policy*. This policy allows Gavi to adjust its support and processes to better meet each country's specific needs, working closely with partners and humanitarian actors.<sup>xliv</sup> Bangladesh became the first

country to take advantage of the policy in late 2017, carrying out Gavi-funded cholera vaccination campaigns for both Rohingya refugees and local children in Cox's Bazar.<sup>xlv</sup> The vaccination campaign successfully prevented a large-scale cholera outbreak, but low immunisation coverage among the Rohingya refugee community allowed diphtheria to spread among them, infecting thousands. Gavi also supported measles-rubella, pneumococcal, drug resistant typhoid, polio and pentavalent vaccines for more than 150,000 refugee Rohingya children.<sup>xlvi</sup>

With Gavi support, Bangladesh has immunised 38 million children since 2003, including 2.8 million in 2018 alone.<sup>xlvii</sup> In 2010, Bangladesh reached the target laid out in the United Nations Millennium Development Goal 4, reducing under-five mortality by two-thirds. CSOs, in partnership with governments also played a key role in advancing equity and implementing immunisation programmes. For example, A CSO network in Bangladesh, led by Save the Children, advocated for the inclusion of pneumococcal vaccine in the government's routine EPI. The coalition

members worked directly with policy makers through national committees and working groups to obtain immunisation buy-in. In 2015, the government of Bangladesh introduced PCV. This was a huge step forward in combatting the occurrence of pneumonia across Bangladesh, demonstrating the importance of CSO, Gavi and government collaboration.

As an active participant in initiatives around health information management, biometrics and unique digital identities for health, Bangladesh is now at the forefront of Gavi's partnerships for innovation in immunisation. Bangladesh Prime Minister Sheikh Hasina Wazed has been key in the country introducing new vaccines and maintaining basic immunisation coverage at an impressive 98% as well as in reaching the equity target of less than 10 percentage points between the richest and poorest groups.<sup>xlviii</sup> Gavi's partnership with Bangladesh has been critical in helping reach an increased number of children with vaccines and has helped save the lives of vulnerable refugee children.



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- xviii** In DRC, from 2015–16, 3% of the country’s budget was spent by the government on health per person; 4% of the government’s budget was spent on health; 46% of the government’s health budget was spent on PHC; 37% of total health expenditure was out-of-pocket.
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## METHODOLOGY



Immunisation coverage and equity figures were assessed using data available (December 2019) from the WHO, UNICEF, Gavi and World Bank websites. This data has been chosen by the authors to highlight:

- the current status of various immunisation programmes
- the projected timeline to reach the Global Vaccine Action Plan’s 2020 targets during the current Decade of Vaccines: 2011–2020, and the next decade’s targets from 2021–30
- financial considerations with changing support from Gavi that affect overall government immunisation budgets
- the challenges associated with reaching every child
- Gavi’s positive impact on immunisation systems

This data is aimed at informing all global health stakeholders about the realities of immunisation and themes that are common across countries, as well as highlighting challenges and barriers to tackling vaccine-preventable diseases. The financial analysis was derived from the immunisation financing indicators (vaccine-preventable diseases) from the 2019 WHO-UNICEF Joint Reporting Form, Monitoring System’s 2019 global summary and the World Bank’s database. The Gavi vaccine introduction data was retrieved from Gavi’s 2018 annual progress report. The increase in Gavi co-financing figures for the 2019–23 period were retrieved from Gavi’s Country Co-financing Information Sheets (Correct December 2018). When upper and lower estimates based on approved grants vs. projections based on current performance are available (in DRC and Ethiopia), the lower estimate has been used. Information sheets are available from country profiles on Gavi’s Country hub.

The initial equity gap analysis is based on the total number of districts in each country in 2018, and the percentage of districts with at least 90% DTP3 coverage. The equity gaps identified are only available for countries that reported national and sub-national immunisation data to the WHO vaccine-preventable diseases: monitoring system. The equity gap indicator measurement was derived from the Global Vaccine Action Plan’s 2011–2020 strategic objective number three, “the benefits of immunization are equitably extended to all people.” Per the objective, “progress towards greater equity can be evaluated by monitoring the percentage of districts with less than 80% coverage with three doses of diphtheria-tetanus-pertussis-containing vaccine and coverage gaps between lowest and highest wealth quintile.”

Considering this data, the authors have made a subjective evaluation of the level of national immunisation equity and risks to countries’ immunisation systems. Their assessment is based on available information and data (noting the variable quality of data across countries). The ratings were based on the following criteria:

- Risk to immunisation systems: Based on government health expenditure as a percentage of GDP, percentage of total health expenditure on routine immunisation, DTP3 coverage level, total fertility rate, and number of nurses and midwives per 1,000 people, and number of beds per 1,000 people. The individual country contexts, including Gavi co-financing, government health expenditure, total health expenditure on routine immunisation and DTP3 coverage, as well as the critical challenges and risks, were counted towards the level of risk
- Country immunisation rating: based on individual country equity gap as a percentage, and the projected year the country will reach <10 percentage points between the richest and poorest quintiles. Child mortality estimates and total health expenditure on routine immunisation were also determinants of the rating: Low (high equity gap), Medium (medium equity gap) and High (low equity gap).



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