



LEAVING NO CHILD BEHIND:

Scaling up investment in immunization to protect against diseases

A six-month-old girl plays with her mother at Ashkarpur Community Clinic, Satkhira.

Vaccines are the world's safest method to protect children from life-threatening diseases. They save more than five lives every minute – preventing up to three million deaths a year.

With increased public investment and targeted interventions, Bangladesh can provide global leadership on immunization and improve health outcomes for all children.



Key facts

Bangladesh has vaccines for 10 diseases in its routine immunization schedule targeting **3.8 million children** and **6 million women** each year.

Immunization prevents approximately **200,000 deaths** in Bangladesh each year.¹

Bangladesh requires **US\$ 160 million** or **136 crore Taka** for the immunization programme each year.

In 2020, Bangladesh contributed **39 per cent** of funds, leaving a 61 per cent gap covered by Gavi and external sources.

Gavi funding support will **phase out** from 2022-2026.

Bangladesh needs to invest **20-25 per cent more** on vaccines each year to sustain immunization progress.

Introduction

Vaccines save lives. For over two centuries, vaccines have reduced the scourge of diseases like polio and measles, helping children to survive and thrive. Today, vaccines are considered one of the most cost-effective means of advancing global health.

Over the past 40 years, Bangladesh has made remarkable progress on immunization and child health. The country has successfully maintained the elimination of neo-natal tetanus since 2008, received the polio-free certificate in 2014 and between 1990 and 2012, reduced deaths of children under five by 73 per cent.²

Thanks to strong government ownership, Bangladesh has established the capacity to set and achieve targets to deliver immunization services across 140,000 vaccine administration points. Progress is closely monitored and disease outbreaks are tracked by a well-established surveillance system.

Despite strong performance, gaps remain. Reaching all children continues to prove challenging. The COVID-19 pandemic provides a stark reminder of how lives and livelihoods can be upended by disease outbreaks, with knock-on effects on children's education, mental health, protection and overall well-being. Immunization gains are fragile and subject to external shocks.

What are the challenges?

There is an urgent need to increase investment in the immunization programme to sustain and build upon Bangladesh's success. If not, progress will be jeopardized and lives may be lost. Bangladesh faces several challenges that require attention and action.

Static coverage rates

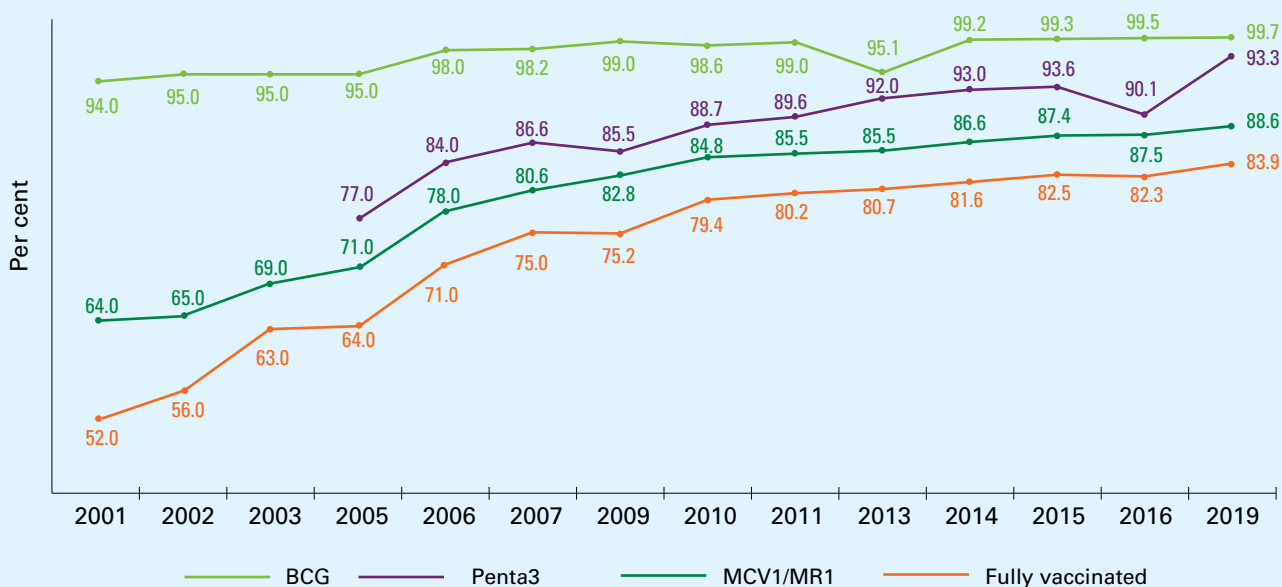
Immunization coverage rates have remained over 80 per cent for more than ten years and 84 per cent of children under 12 months are fully immunized.³ However, Bangladesh is currently off track to achieve the health-related Sustainable Development Goal to immunize 95 per cent of children with all antigens by 2030. Bangladesh needs to accelerate efforts to increase static coverage and realize this global commitment to protect children against preventable diseases.

Inequitable access and under immunized children

Although immunization coverage is high, inequities persist. Significant variations occur between districts and across rural urban divides.

For full vaccination coverage (FVC), the gap between the highest and lowest performing districts was 31 per cent, Bhola (96 per cent) and Khagrachari (65 per cent) respectively.

Figure 1: Annual trend in national valid full vaccination coverage by age of 12 months among 12-23 months old children from 2001 to 2019



Source: Expanded Programme on Immunization (EPI) Coverage Evaluation Survey (CES) 2019³



Vaccines ready for use at Mymensingh outreach centre.

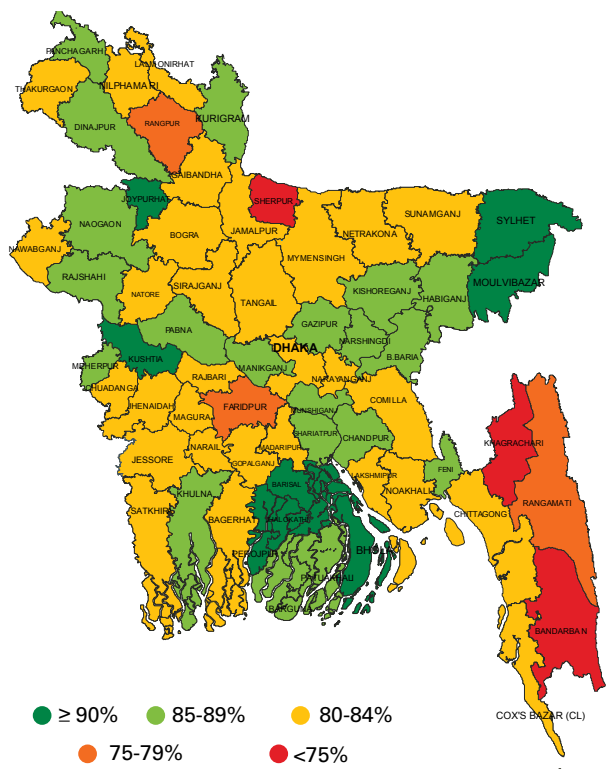
Only 8 out of 64 districts, achieved over 90 per cent of FVC, while three districts achieved less than 75 per cent FVC.³ When pockets of unvaccinated children exist, diseases can resurge.

Contrary to some other countries, in Bangladesh the full vaccination of children in urban areas (79 per cent) is lagging behind rural coverage (85 per cent). Seven out of 11 City Corporations achieved less than 80 per cent of FVC and around 1 per cent of children in

urban areas have never been vaccinated.³ High internal migration in urban slum areas create challenges to track missed children or drop-outs.

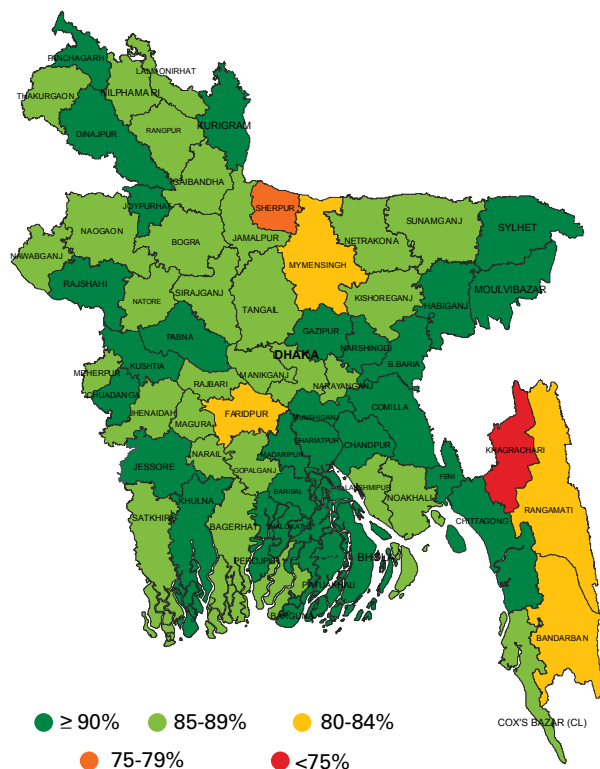
The urban areas of Sylhet City Cooperation (CC) and Cumilla CC are the lowest performing areas in the country, with full vaccination coverage around 64-65 per cent.⁴ Improving coverage in urban areas is critical to ensure equity in service delivery.

Figure 2: Valid full vaccination coverage by age of 12 months by district



Source: EPI Coverage Evaluation Survey 2019

Figure 3: Measles-rubella dose 1 vaccination coverage by age of 12 months by district



Source: EPI Coverage Evaluation Survey 2019



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Health worker, Yochingnu prepares a measles-rubella vaccine in Rangamati, Bangladesh, as part of a national measles-rubella vaccination campaign.

Frontline immunization workforce

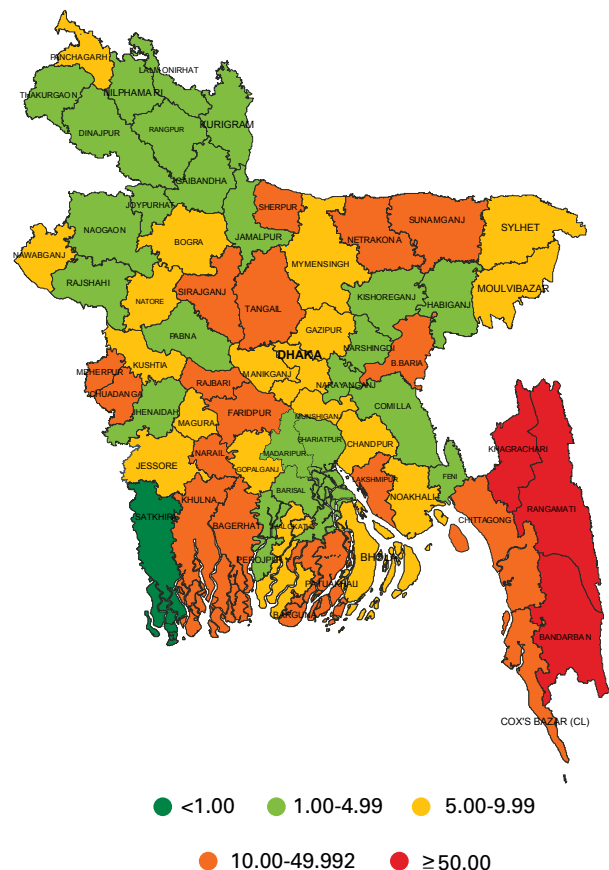
Studies reveal a correlation between low immunization performance and health worker availability. In Sunamganj District, where the FVC rate was 68 per cent, only 32 per cent of immunization-related health posts were occupied. Similarly, in Habiganj District, where the FVC rate was 82 per cent, about 45 per cent of vaccinators were available. Both districts are located in Sylhet Division.⁴

Resurgence of vaccine-preventable diseases

Bangladesh has experienced a number of measles outbreaks in recent years, increasing from four outbreaks in 2015 to 82 outbreaks in 2019. The country had reached near elimination levels in 2015 with 1.6 cases per million which rose to 11.7 cases per million in 2020.⁵

Low routine coverage and pockets of low coverage in urban slum areas, remote areas of Chittagong Hill Tracts, tea garden areas and some remote river island areas (Haor and Char) have contributed to this resurgence. Sustained high vaccination coverage is required for every vaccine preventable disease to achieve herd immunity and keep children and communities safe.

Figure 4: Measles incidence per 1 million population by district in 2020



Source: EPI Measles Rubella Bulletin, Vol#3, April 2021



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A child smiles in her mother's lap before receiving a vaccination in an outreach centre, Trishal, Mymensingh, Bangladesh.

Sustainable financing

Bangladesh has comparatively low public health expenditure at 0.7 per cent of Gross Domestic Product (GDP) in Financial Year 2019. This must be increased to 2 per cent of GDP to reach the target established in the Government of Bangladesh's 8th Five-Year Plan 2020-2025.⁶

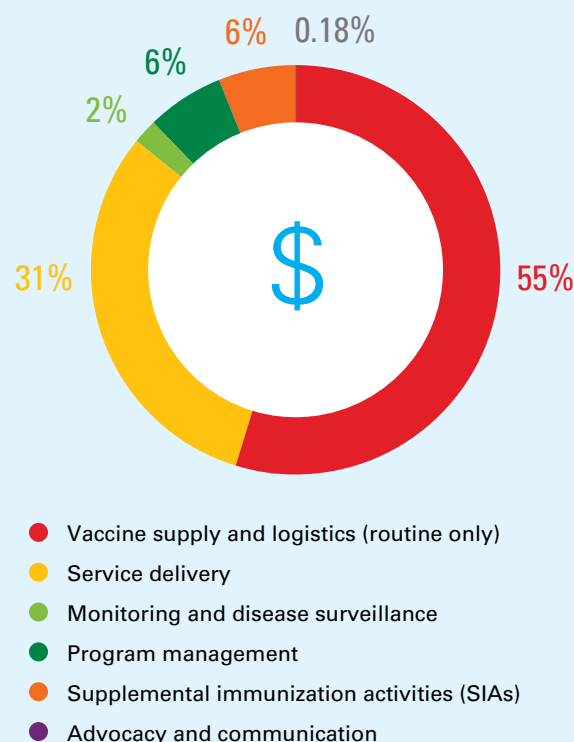
Bangladesh requires US\$ 803 million or 67,853 crore Taka to fund immunization activities between 2018 and 2022, or US\$ 160 million or 136 crore Taka per year. Gavi, the Vaccine Alliance, is the largest external financier, currently providing over half of the annual budget for immunization.

External funding resources will steadily decrease as Bangladesh graduates from Least Developed Country to Developing Country status in 2026. Meanwhile, the immunization programme will soon enter an acceleration phase to transition from Gavi co-financing towards self-financing by 2026.

Bangladesh needs to increase the budget for vaccine procurement by 20-25 per cent each year for the next five years to cover the anticipated shortfalls and build resilient and sustainable immunization services.

The gains that Bangladesh has made in immunization coverage may not be sustainable if domestic funding for health and immunization activities remain limited.

Figure 5: Projected funding requirements for immunization programme



Source: Government of Bangladesh Comprehensive Multi-Year Plan 2018-2022 for National Immunization Program



Bisakha Chakma brings her youngest son Tuhin Marma (7) for a measles-rubella vaccination in Rangamati during the national vaccination campaign.

Why immunization investment matters?

Vaccines are among the greatest advances of modern medicine

Since the late 18th century, they have reduced the scourge of numerous infectious diseases and saved millions of lives. In Bangladesh, the immunization programme is estimated to have **prevented over two million deaths** between 1987 and 2000 and continues to prevent approximately **200,000 deaths** each year.¹

Cost effectiveness and socio-economic benefits

Immunization is one of the most effective public health interventions – both in terms of lives saved and economic benefits. **For every US \$1 spent on immunization** during the Decade of Vaccines from 2011-2020, **there was an average return of up to US \$26 dollars across a child's lifetime**, from savings on health care and lost revenues due to illness. Immunization also brings returns on poverty reduction, equity, education and strengthening health systems as a whole.⁷

Viruses know no borders

As the COVID-19 pandemic has taught us, **viruses know no borders**. For diseases like polio and measles, an outbreak anywhere is a threat to children everywhere. When vaccine rates drop, outbreaks occur, and large numbers of children could get sick and some of them might die. That's why it is important to scale up investment in routine immunization to avoid a reversal of the public health gains of the past decades.

New vaccines – new opportunities to save lives

Research and innovation have led to the development of **new vaccines to protect against diseases**. Failure to introduce new vaccines will be a lost opportunity to protect against sickness and death caused by cervical cancer, typhoid, meningitis and severe diarrhoeal diseases.

Way forward

To build a world where no child dies from a preventable cause and all children realize their right to good health, we must accelerate progress on immunization and build back better as we recover from COVID-19.

Call to action

1

Reach every child. Tackle inequity in health service delivery and accelerate efforts to use data effectively and reach every child and woman with a complete immunization package. Ensure all vaccinations are completed by the appropriate age.

2

Strengthen the health system to continue the delivery of routine vaccinations and other critical health services for children during the COVID-19 pandemic and beyond. Invest in human resources, vaccines, equipment and data management to improve efficiency and financial sustainability.

3

Increase public health expenditure to at least 2 per cent of GDP.

4

Increase government spending on immunization by 20-25 per cent each year for five years to successfully transition to self-financing by 2026 and sustain high coverage for all vaccines.

5

Accelerate efforts and allocate resources to introduce new vaccines as part of routine immunization including rotavirus, typhoid vaccine and human papillomavirus (HPV) to prevent childhood diseases and cervical cancer in women.

Endnotes

- 1 Sarkar, Probir Kumar et.al. (2015) Expanded Programme on Immunization in Bangladesh: A Success Story. Bangladesh Journal of Child Health 2015; Vol 39 (2): 93-98.
- 2 UN Inter-agency Group (2015) Levels & Trends in Child Mortality Report 2015. Estimates Developed by the UN Inter-agency Group for Child Mortality Estimation. <<https://data.unicef.org/resources/levels-and-trends-in-child-mortality-2015/>> Accessed on 12 May 2021
- 3 Government of Bangladesh (2019) Expanded Programme on Immunization (EPI) Coverage Evaluation Survey (CES) 2019
- 4 Government of Bangladesh (2018) Comprehensive Multi-Year Plan 2018-2022 for National Immunization Program
- 5 Expanded Programme on Immunization (2021) An EPI Bangladesh Initiative. Vol #3, April 2021
- 6 Government of Bangladesh (2020) 8th Five-Year Plan 2020-2025. Promoting Prosperity and Fostering Inclusiveness <<https://es.ircwash.org/sites/default/files/2021-02-03-17-04-ec95e78e452a813808a483b3b22e14a1.pdf>> Accessed on 15 June 2021.
- 7 UNICEF (2021) Immunization Programme <www.unicef.org/immunization> Accessed on 12 May 2021.

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