



# Disruption and restoration of immunization system in Bangladesh during the COVID-19 Pandemic

Dr Md. Hossen<sup>1</sup> Dr S.M Murad<sup>2</sup> Dr Chiranjit Das<sup>3</sup>



## Background

- Childhood vaccination is one of the most important and cost-effective public health interventions to reduce child mortality<sup>1</sup>.
- EPI was launched in Bangladesh on 7th April 1979 and won GAVI best performance award in 2009 and 2012<sup>2</sup>.
- Currently, a total of 14 doses of 11 antigens are given to each child <1 year<sup>3</sup> and the data is managed and stored in DHIS2<sup>4</sup>.
- The COVID-19 pandemic put immense pressure in terms of maintaining the routine immunization in Bangladesh<sup>5</sup>

## Introduction

- Bangladesh's national immunization program targets about 3.8 million children per year
- Coverage is monitored using the District Health Information Software (DHIS2)
- Data recorded on DHIS2 revealed that over 284,000 children missed their pentavalent vaccine in April and May 2020 followed by emergence of SARS CoV-2 in March 2023
- The alarming dropout rate was flagged within the Expanded Program on Immunization (EPI) in Bangladesh requiring targeted action to increase the EPI coverage to pre-COVID levels
- The national EPI team and development partners began investigating how best to address the glaring disruption in the rollout of immunization services.
- Different strategies were adopted and implemented to **catch-up and reducing missed opportunities**

## Challenges

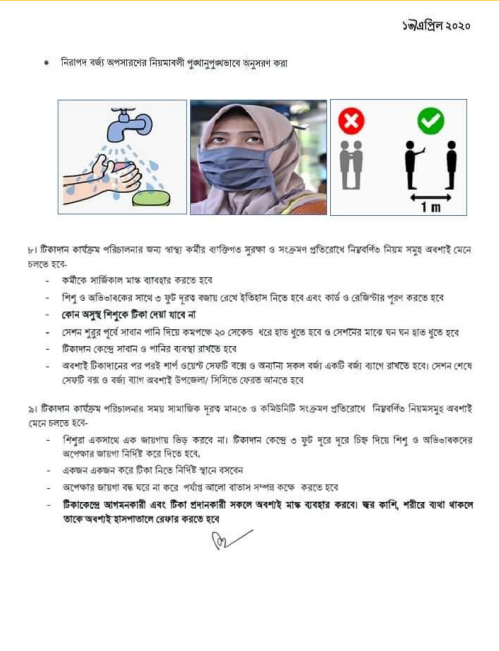
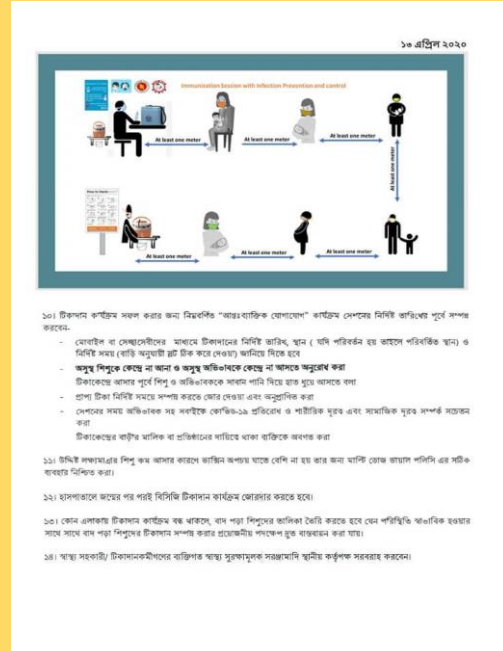
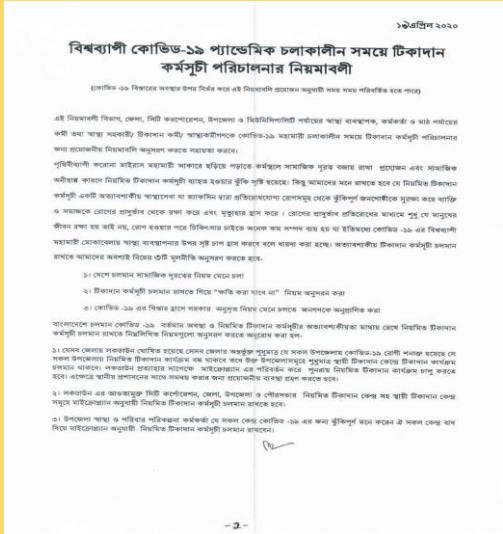
- Physical supervision and monitoring hindered
- Fear of getting COVID-19 among the health workers & the community people
- Orientation of new mid level managers joined during pandemic
- Health worker Fatigue
- Lock down/ shut down
- Compromised Access and Utilization



## Strategies adopted

- Assessment of impact via monthly tracking (Dashboard)**
- Policy:
  - Increasing the age limit up to 3 years from 12 months
  - Developed guideline to maintain routine immunization during the pandemic
  - Developed & circulated SBCC materials
- Strengthen data driven monitoring & supervision using virtual platform
- RI & VPD surveillance review
- Capacity building:
  - > 26500 vaccinators were trained on infection, prevention and control
  - Mid-level- Managers training on infection, prevention and control
- House to house search for zero dose, under immunized children and ensure vaccination during the world Immunization week 2021-2022
- Innovation:
  - Rapid convenient monitoring
  - Training using virtual platform
  - Identifying low covered areas using DHIS2 and regular meeting to find out challenges and take subsequent actions

- Guideline to maintain routine immunization amid pandemic



- Awareness posters for caregivers & vaccinators



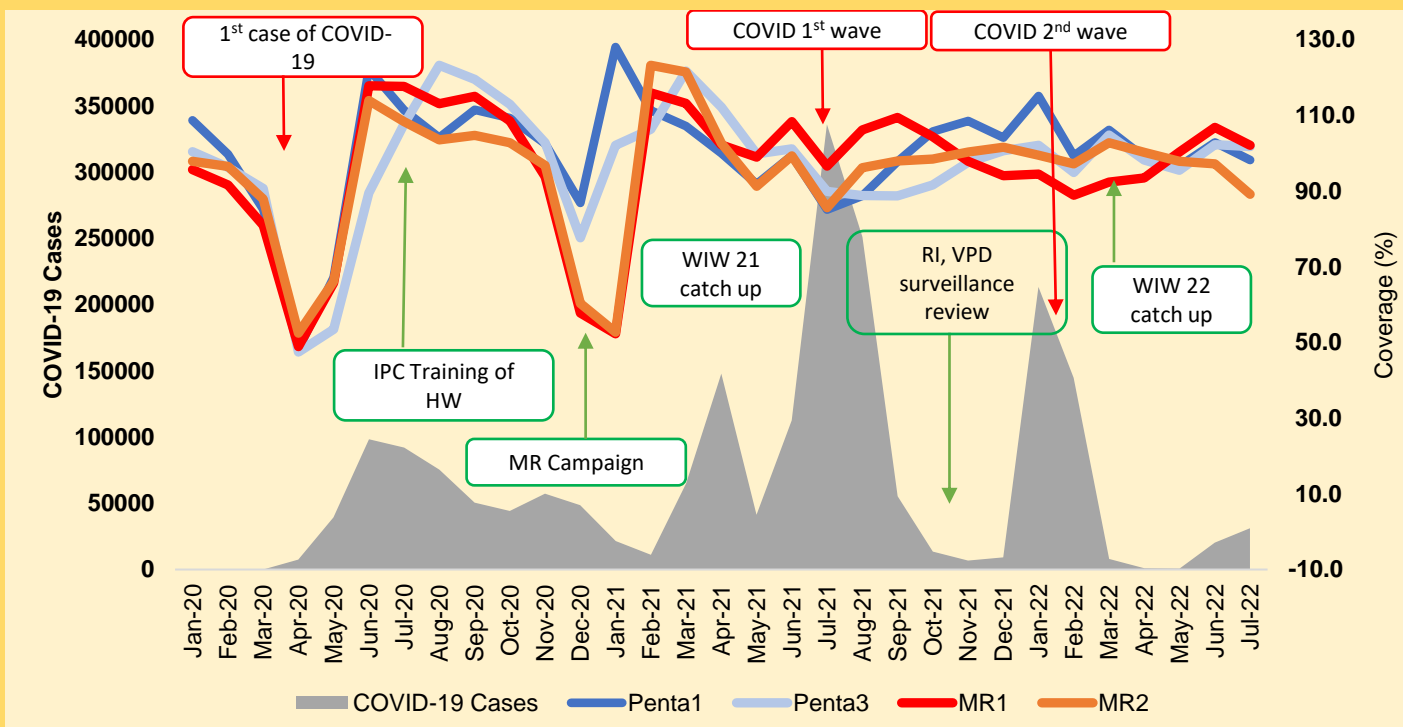
- Capacity building efforts



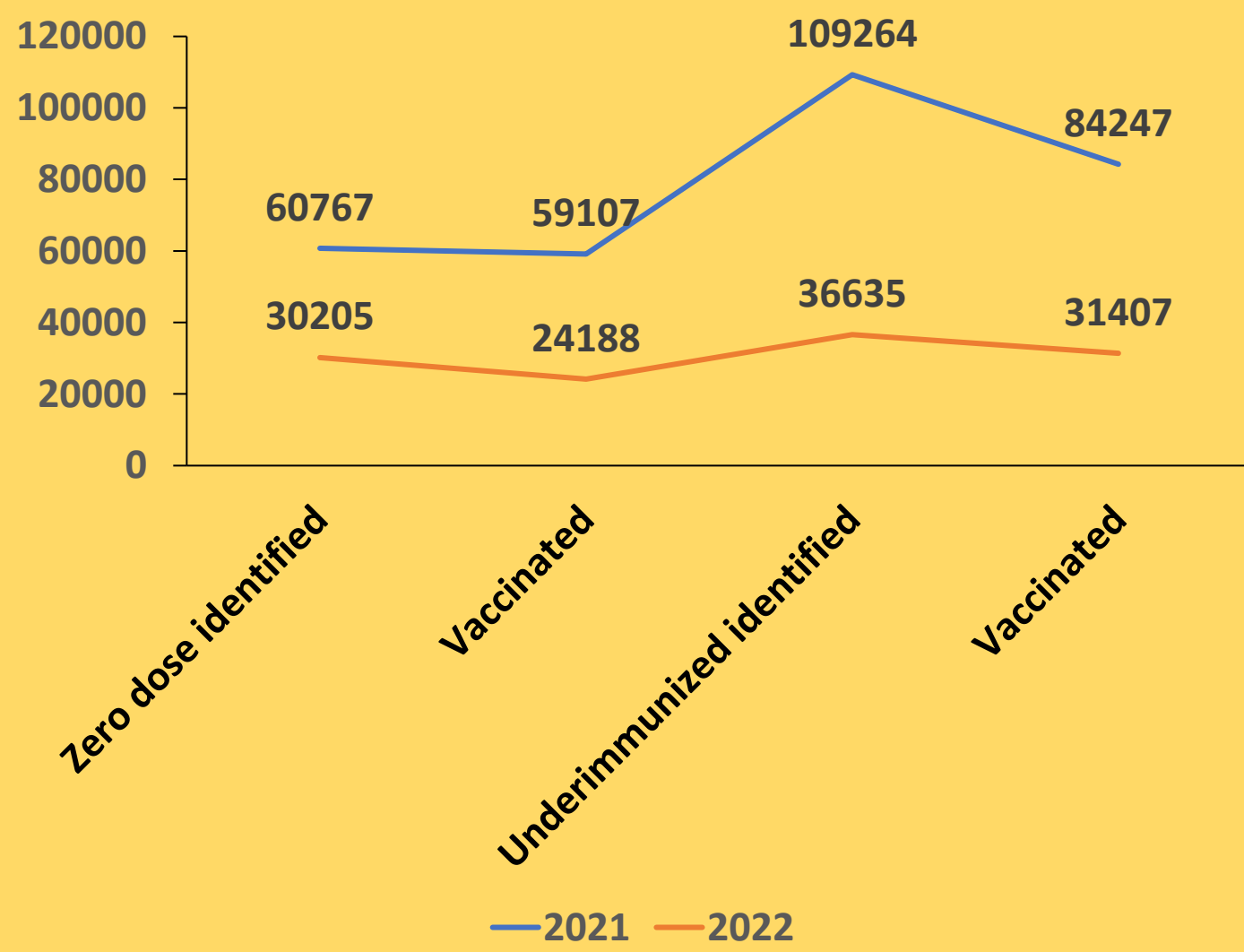
- House to house search by healthcare workers



## Evolving trend of routine EPI coverage

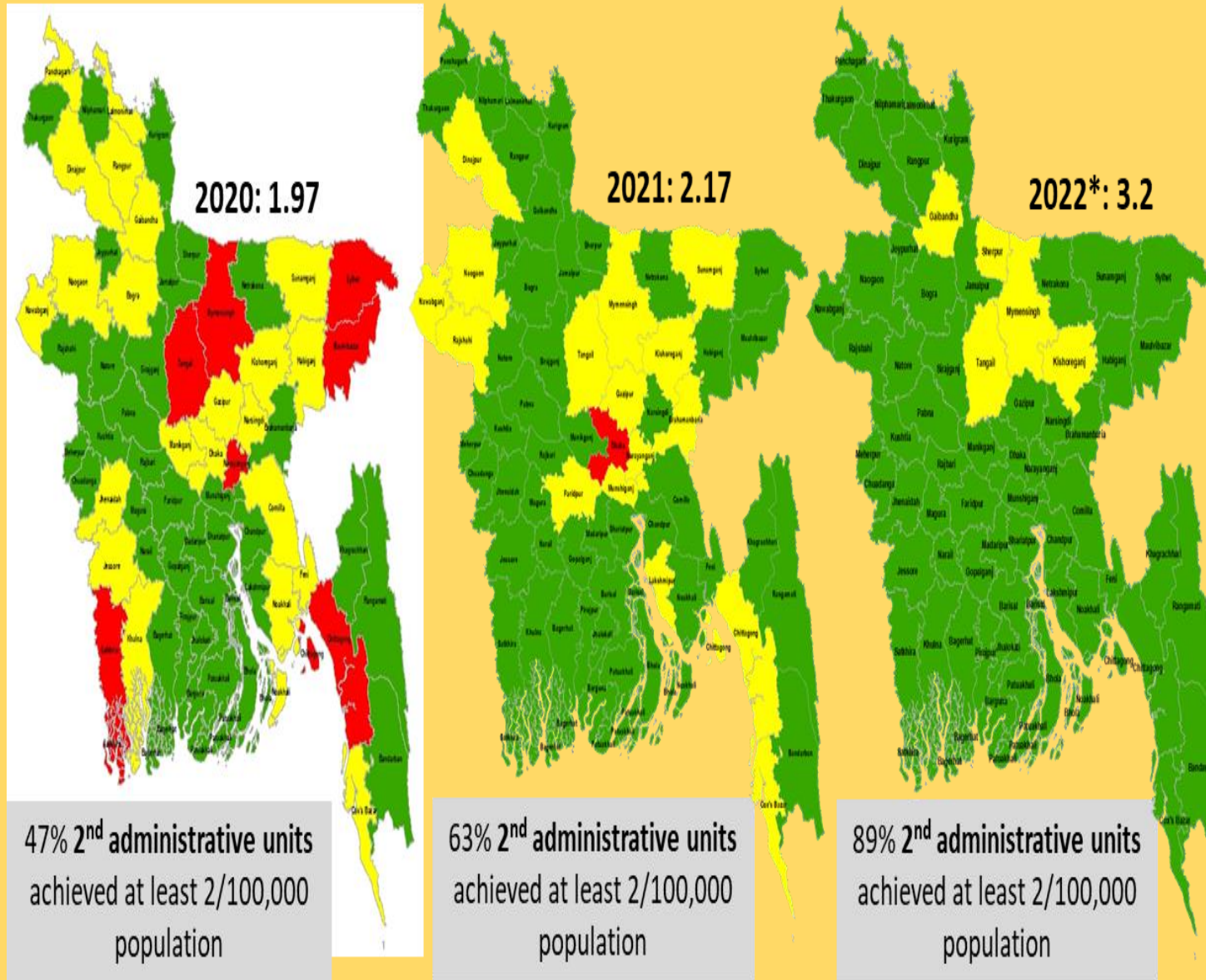


## Reducing trend of zero & under immunized, 2021-22



## Improving trend of Measles surveillance

National target: At least 2/100,000 population in ≥ 80% of 2<sup>nd</sup> administrative units



Legend: No case, <1, 1-2, ≥2

Note: 2<sup>nd</sup> administrative units (64 districts including 12 CC)

## Planned activities to sustain high coverage

- Targeted assessment of immunization coverage and identify barriers in HTR and HR groups and vaccination of missed children**
- Partnership with local government, religious leaders, school, adolescents and communities with targeted communication action plan and materials**
- Mobile and evening session to reach street children, mobile population, slum, high risk population and group in urban and rural areas**
- Implementation of technology-based innovations like TrueCover to find out accurate coverage and zero dose children in remote areas**
- Online EPI micro plan including GIS location to monitor sub-block and session wise vaccination coverage to reduce zero dose children**
- Individual tracking of mothers to ensure enrolment of every children in EPI tracker**
- Conduct RCA regularly to identify zero dose and under immunized children**
- Involve community support group in the identified 360 wards to identify zero dose and under immunized children and ensure vaccination**
- field monitor in low performing Districts and City Corporations to identify zero dose and under immunized children in missed and underserved communities and ensure**
- Conduct Mid-Level Managers (MLM) training for all the Upazila manager in the country**
- Organize yearly review workshop at District and City Corporations to assess zero dose and under-immunized children's coverage achievement**
- Integrate EPI session with IMCI services in selected facilities to take missed opportunity for vaccination**
- EPI vaccination center Apps for City Corporations to track the vaccination sites**
- Initiative for community ownership and resource mobilization to vaccinate zero dose and under immunized children**
- Include more questionnaires in the REPI CES 2022 to assess zero dose and under immunized children**
- Include RI recovery interventions during phase wise roll out of HPV vaccination**

Strong political commitment  
Multisectoral co-ordination

Ensure robust immunization system by adopting innovative approaches

Lessons learnt

Development and implementation of futuristic policy making

Capacity building & thoughtful resource mobilization

## Affiliations

- Deputy Program Manager, EPI & Surveillance  
EPI, MNCAH, Directorate General of Health Services  
Ministry of Health & Family Welfare  
Bangladesh  
Email: [tanvirantik@gmail.com](mailto:tanvirantik@gmail.com)
- Program Manager, EPI  
MNCAH, Directorate General of Health Services  
Ministry of Health & Family Welfare, Bangladesh  
Email: [pmepe.dghs@gmail.com](mailto:pmepe.dghs@gmail.com)
- National Professional Officer, Immunization  
World Health Organization  
Email: [dasch@who.int](mailto:dasch@who.int)

## References:

- Ehret J. The global value of vaccination. Vaccine. 2003 Jan 30;21(7):596–600.
- Sarkar PK, Sarker N kumar, Doulah S, Bari TIA. Expanded Programme on Immunization in Bangladesh: A Success Story. Bangladesh Journal of Child Health. 2015;39(2):93–8.
- DGHS EPI. Polio Transition Plan Bangladesh. Dhaka: Directorate General of Health Services, Expanded Programme on Immunization, Ministry of Health & Family Welfare, Government of the People's Republic of Bangladesh; 2018.
- Begum T, Khan SM, Adamou B, Ferdous J, Parvez MM, Islam MS, et al. Perceptions and experiences with district health information system software to collect and utilize health data in Bangladesh: a qualitative exploratory study. BMC Health Services Research. 2020 May 26;20(1):465.

