



# REPUBLIC OF MOLDOVA

## IMMUNIZATION INTERVENTION LED BY ROOT CAUSE ANALYSIS ASSESSES CONTEXT SPECIFIC APPROACHES TO IMPROVE VACCINE UPTAKE



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### MOTIVATION

Immunization is a critical public health intervention that protects individuals and communities from vaccine-preventable diseases. In Moldova, achieving high immunization coverage is considered a nationwide priority to ensure the health and well-being of its population. However, in recent years the country's Balti District has fallen behind in achieving optimal immunization coverage. Poor vaccine uptake in the district was further compounded by disruption to vaccine coverage caused by the COVID-19 pandemic.

To identify barriers to vaccination and develop a tailored approach to vaccination delivery, UNICEF and the Ministry of Health, in collaboration with WHO, Primary Health Care (PHC) providers and local authorities undertook a Root Cause Analysis (RCA) in Balti.

This case study examines the efforts to improve immunization coverage in Balti, the role of PHC, and support provided by UNICEF and WHO to mitigate the impact of the pandemic on immunization programmes.

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## I. Motivation

Immunization is a critical public health intervention that protects individuals and communities from vaccine-preventable diseases. In Moldova, achieving high immunization coverage is considered a nationwide priority to ensure the health and well-being of its population. However, in recent years the country's Balti District has fallen behind in achieving optimal immunization coverage. Poor vaccine uptake in the district was further compounded by disruption to vaccine coverage caused by the COVID-19 pandemic.

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### WHY IS BALTI UNIQUE IN MOLDOVA?

**Balti is considered the second most important economic center in the country.**

It has a large food processing industry centered around wine, sugar, and flour. While the majority Balti's population speak Romanian and Russian, some only know one of these two languages. Many people in the city also understand Ukrainian.



## II. The decline in coverage amidst the COVID-19 pandemic

In 2019, prior to the pandemic, more than 90 per cent of Moldovan children had received the third dose of the Diphtheria, Tetanus and Pertussis vaccine (DTP3) – a key marker in vaccine coverage. Around 88 per cent had received the first dose of the Measles, Mumps and Rubella (MMR1) vaccine. COVID-19-related lockdowns, travel restrictions, reallocation of health care resources, unprecedented burden on health care services, disruption to vaccine delivery, vaccine hesitancy, and the spread of misinformation all contributed to a decline in immunization coverage in Moldova. As a result, DTP3 vaccination rates dropped below 87 per cent in 2021, and MMR1 vaccination rates dropped even further to 83 per cent. In the Balti District the decline was even more dramatic with around 66 per cent of children vaccinated with DTP3 vaccines, and 60 per cent vaccinated with MMR1 in 2021.

## III. Barriers to vaccination detected by the RCA

By conducting a comprehensive Root Causes Analysis (RCA), key obstacles to vaccination have been identified across different domains of service delivery, information systems, program management, communication and demand generation. This chapter explores the major barriers revealed by the RCA. Understanding and addressing these barriers are essential to develop targeted strategies that can overcome obstacles and ensure effective vaccination services for all individuals and communities.

### SERVICE DELIVERY

- Insufficient capacities of PHC service providers to effectively communicate about the importance and safety of vaccines among caregivers and beneficiaries contributes to increased concern of vaccination among parents.
- Family doctors lack vaccine confidence and knowledge, particularly on recommendations on vaccine safety and contraindications. This results in false contraindications, postponed vaccination sessions and gaps in immunity layers.
- While incentive programs exist, family doctors have limited knowledge about motivation schemes to increase immunization coverage.

### INFORMATION SYSTEMS

- Unavailability of real-time data from information immunization systems is considered an important cause for tracking. Population mobility negatively affects the ability of service providers to provide catch up vaccinations for children who have missed routine immunization and increase coverage among their respective population groups.
- The current PHC financing system means that family doctors are not interested in revision of the lists of registered households, even if these households are not residing in the country, as such revision will lead to decrease of per capita financing of health facilities.

### PROGRAM MANAGEMENT

- Measures put in place to ensure successful program management have proven insufficient with health facilities not receiving the required supervision visits. A third of health facilities never received a visit and a quarter of facilities were visited once.
- Among visited facilities, 59 per cent did not receive any supportive supervision reports, recommendations or feedback. Staff responsible for supportive supervision visits either do not use or do not follow the standard operating procedures (SOPs), guides, and data collection and analysis tools.

## COMMUNICATION/DEMAND GENERATION

- Growing skepticism about the benefits of vaccination can be seen among parents and caregivers. This can be attributed to the lack of knowledge of parents on specific issues and benefits of immunization.
- Low vaccine demand and uptake among religious communities are one of the most serious factors which affects the National Immunization Program's performance in achieving target coverage rates at both national and subnational levels.
- The low readiness of Roma communities to vaccinate their children is another root cause of the Immunization Program's inability to ensure equitable service delivery in all parts and among all communities.
- Low readiness is believed to be influenced by cultural and behavioral factors. Roma community members typically do not engage in formalized systems or settings and tend to seek needed services individually. In Moldova, children from Roma families are not sent to kindergartens and rarely attend schools. However, experiences in different countries show that the refusal of Roma parents and caregivers to immunize their children is not based on religious or strong beliefs. Therefore, specific and effective communication can be instrumental in convincing Roma community members to vaccinate their children.



## IV. Addressing the challenges through tailored interventions

Recognizing the crucial role of PHC in delivering health care services to communities, tailored interventions were developed to strengthen immunization coverage in Balti District based on RCA. With the support of UNICEF and WHO, several strategies were applied.

### HEALTH CARE WORKER TRAINING

Health care workers are at the forefront of immunization efforts, and their expertise and communication skills are crucial in addressing vaccine hesitancy and providing accurate information. A comprehensive training program developed by Drexel University (USA) and UNICEF Europe and Central Asia Regional Office equipped health care workers in Balti district with up-to-date knowledge on vaccine safety, addressing common concerns associated with vaccination, and effective communication techniques. All health care workers from all health providers from the district were trained, in total more than 270 physicians and nurses underwent interpersonal communication training and false contraindication training enabling them to positively engage with caregivers and dispel myths surrounding vaccines.

### COMMUNITY ENGAGEMENT

To build trust and confidence in immunization, community engagement played a central role. Local influencers, including health care professionals, religious and community leaders, and public figures, were enlisted to disseminate accurate information about immunization. This approach enhanced vaccine acceptance within the community and addressed concerns raised by caregivers. A detailed plan of activities for increasing vaccination and a comprehensive media campaign was conducted across local TV and radio stations, featuring video and audio spots, interviews, and TV shows. To ensure maximum reach and impact in the hesitant vaccination groups including religious minorities and Roma communities, informative materials including culturally relevant posters and flyers were created in local languages.

### LOGISTICAL SUPPORT

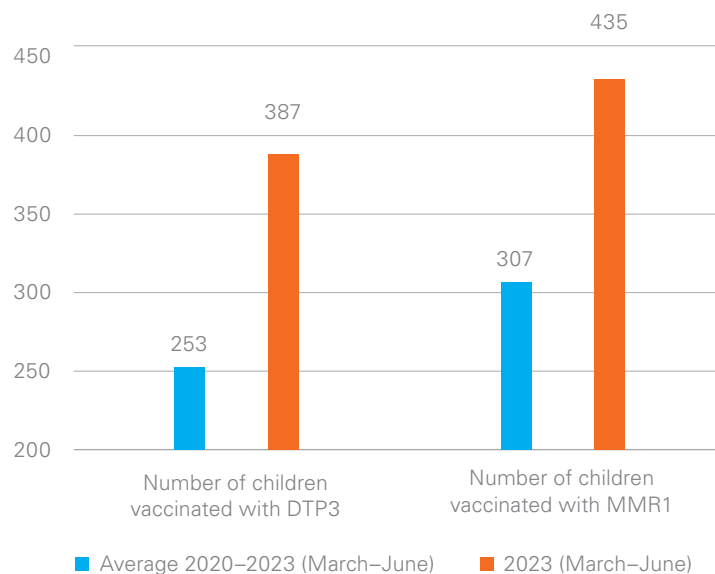
UNICEF and WHO supported the delivery of vaccines and necessary supplies to health care facilities, and supportive supervision visits in Balti District. PHC providers played a key role in coordinating these efforts, ensuring that children who had missed vaccines were identified and reached.



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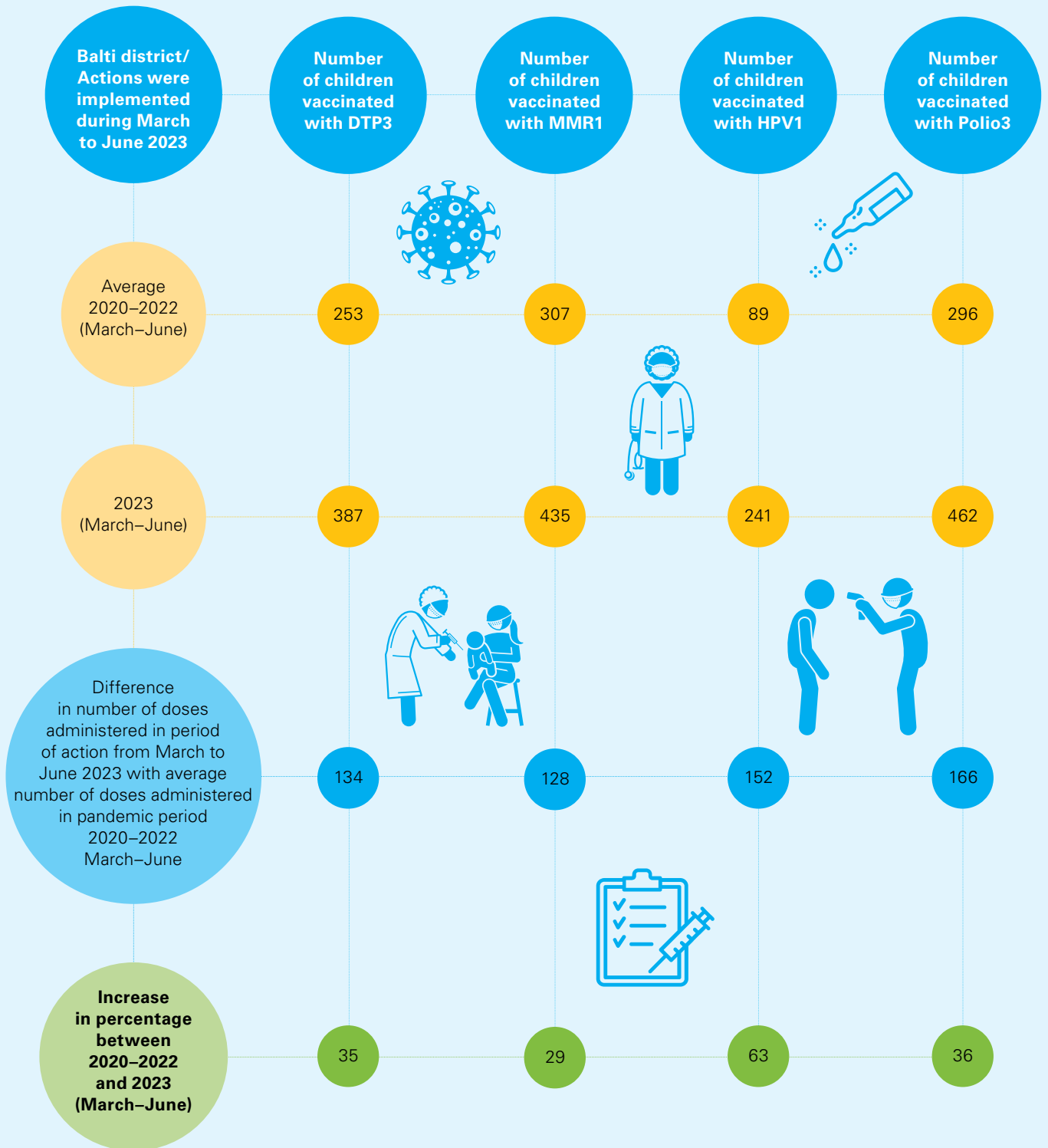
## V. Achievements and impact of interventions in Balti District

The concerted efforts and tailored interventions in Balti District yielded a number of notable results in a short period of time:



- **DTP3:** After the implementation of tailored actions based on RCA in Balti District during March-June 2023, there was **an increase of 35 per cent in the number of vaccinated children with DTP3** with 387 children registered in 2023 compared with an average of 253 children vaccinated in the pandemic period of 2020-2022 between March and June.
- **MMR1: an increase of 29 per cent** in the number of vaccinated children with MMR1 with 435 children vaccinated between March and June 2023 compared with an average of 307 children in the pandemic period of 2020-2022 between March and June.
- **HPV: an increase of 63 per cent** in the number of vaccinated children with HPV1 with 241 children vaccinated between March and June 2023 compared with an average of 89 children vaccinated with MMR1 in the pandemic period of 2020-2022 between March and June.
- **Capacity building:** 270 healthcare workers from the district underwent interpersonal communication training, enabling them to address caregivers' hesitancy, fears and concerns regarding vaccination of children. As a result, the PHC workers helped to increase DTP3 coverage by 65 per cent and MMR1 coverage by 70% in 2023, compared to the previous reporting period in 2020-22.
- **Community support:** In response to these challenges, an awareness raising campaign was initiated with the support of more than 100 local leaders and the Parliamentary Commission for Health and Social Protection. Local leaders were instrumental in strengthening community engagement, building trust, and ensuring the success of vaccination campaigns among hesitant groups including religious minorities and Roma. Their involvement fostered a sense of ownership, leading to increased acceptance, participation, and ultimately better public health outcomes.





\*Data was collected from official reports from National Agency for Public Health





## VI. Driving improvements in immunization coverage: key takeaways

**Primary health care is essential in achieving high immunization coverage and should be at the forefront of vaccination strategies.** The Balti district case study highlights the pivotal role of PHC in driving improvements in immunization coverage. Despite the challenges posed by the COVID-19 pandemic, and pre-existing challenges in the Balti district, the case study emphasizes the resilience of PHC in overcoming obstacles and safeguarding public health. The timely support provided by UNICEF and WHO was instrumental in enabling the implementation of tailored interventions.

**Tailored interventions, guided by comprehensive analysis are crucial in addressing specific barriers to vaccine uptake.** The RCA conducted in Balti District has proved to be a pivotal tool in driving targeted and impactful improvements in immunization coverage. This comprehensive case study exemplifies the importance of RCA in empowering PHC and engaging local leaders to overcome challenges and achieve significant advancements in vaccine uptake.

**Community engagement plays a vital role in fostering trust and acceptance of vaccines.** By incorporating feedback from local communities and assessing program outcomes, immunization efforts can remain agile and responsive, ensuring sustained vaccine acceptance and uptake. The success of the RCA-driven approach in Balti District showcases its potential for scalability, making it applicable to other regions in the country facing similar immunization challenges.

**Timely delivery of vaccines to health care facilities and well-trained personnel is critical.** Efficient vaccine distribution is crucial in ensuring accessibility, and timely delivery ensures that vaccines reach all health care facilities, including those in remote and other hard-to-reach areas. It involves establishing a well-connected supply chain network that can reach the most geographically isolated communities. By optimizing transportation routes, storage facilities, and logistics systems, vaccines should be readily available to healthcare providers and individuals, regardless of their location. Additionally, PHC workers need regular capacity building on technical aspects and IPC to increase demand and timely administration of vaccines by effective communication with caregivers and the beneficiaries and reducing misconceptions around contraindications.

**Collaboration with international organizations, such as UNICEF and WHO, strengthens the impact of immunization programs and supports national health initiatives.** The RCA-driven interventions have laid the groundwork for sustainable impact in Balti district. Evidence-based strategies can be continuously monitored, evaluated, and adapted to meet evolving needs and challenges.

## VII. Way forward:

RCA's are paramount to guiding continued efforts to strengthen immunization programs in Republic of Moldova.

1. **Strengthening community engagement and mobilization** by working with local authorities, health care workers, teachers, religious leaders, community influencers, and local journalists to form a community engagement task force.
2. **Capacity building of health workers** by implementing comprehensive training programs for health care workers focusing on vaccine safety, contraindications, and effective communication with caregivers. Provide refresher training sessions to reinforce knowledge and skills related to immunization. Cultural competence of HCWs and communication strategies to address the needs of diverse populations, including religious minorities and Roma communities should be taken in account.
3. **Supportive and collaborative supervision visits** should be done regularly and ensure the use of standard operating procedures (SOPs), guides, and data collection tools.
4. **Data-driven decision making** by enhancing data collection and reporting systems to ensure real-time availability of immunization data. Use data-driven insights to develop targeted strategies for increasing vaccine uptake in specific communities and population groups.
5. **Stakeholder engagement and evaluation** by advocating for increased resources and support for immunization programs from government authorities and development partners. Foster strong partnerships with international organizations, such as UNICEF and WHO, to leverage their technical expertise and resources for immunization activities.

By adopting these strategies and building upon the successful interventions implemented in Balti district, Moldova can drive further improvements in immunization coverage, safeguarding the health and well-being of its population. Continuous collaboration, data-driven decision-making, and community engagement will play important roles in achieving the desired outcomes and ensuring equitable access to vaccines for all individuals and communities.



## VIII. Conclusions

The experience gained in Balti district serves as a valuable model for other districts in Moldova, helping to enhance overall national immunization efforts. The evidence generated through the RCA can inform national policies and strategies, contributing to improved immunization coverage at a broader scale.

By identifying root causes, crafting evidence-driven interventions, and engaging local leaders, immunization efforts have gained momentum, ultimately benefiting the health and well-being of the community. The success of the RCA-driven approach in Balti district underscores its potential as a transformative tool in strengthening PHC, enhancing community engagement, and advancing immunization efforts at both the local and national levels.

Through this approach, the Republic of Moldova can continue to make strides towards achieving equitable and sustained improvements in vaccine uptake, safeguarding the health of its population.

### AUTHORS:

**Alexei Ceban** – Immunization Specialist  
UNICEF Europe and Central Asia Regional Office

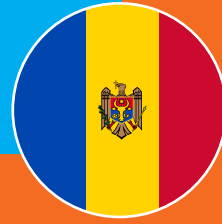
**Svetlana Ștefanuț** – Immunization Specialist  
Regional Advisors, UNICEF Europe and Central Asia Regional Office

**Angela Muntean** – Communication Specialist  
UNICEF Country Office from Republic of Moldova

**Cristina Stratulat** – Communication for Development Officer  
UNICEF Country Office from Republic of Moldova

**Veaceslav Gutu** – Manager of National Immunization Programme  
National Agency for Public Health, Republic of Moldova

**Angela Capcelea** – Health Specialist  
UNICEF Country Office from Republic of Moldova



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