



**Europe and Central Asia:
Evaluation of Immunization Programming at
the System Level
2018-2023**

**Country Evaluation Report
for Tajikistan**

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Acronyms

ADB	Asian Development Bank
AEFI	Adverse event following immunization
AMC	Advanced Market Commitment
cMYP	Comprehensive Multi-Year Plan
CCEOP	Cold Chain Equipment Optimization Platform
CDC	Centers for Disease Control (United States)
CIP	(Regional) Centre for Immuno-Prophylaxis
CSO	Civil society organization
DHIS2	District Health Information System 2
DHS	Demographic and Health Survey
DHC	District Health Centre
DRR	Disaster risk response
EPI	Expanded Programme on Immunization
EVM	Effective vaccine management
FMC	Family medicine centre
Gavi	The Global vaccine alliance
GBAO	Gorno-Badakhshan Autonomous Region
GGHE	General government health expenditure
GOJ	Government of Japan
HCD	Human-centred design
HCF	Health care facility
HCW	Health care worker
HepB	Hepatitis B vaccine
HLSC	Healthy Lifestyle Centre
HMIS	Health management information system
HPV	Human papillomavirus vaccine
HSS-2	Health System Strengthening Programme Two
IA	Immunization Agenda
ICC	Immunization Inter-agency Coordination Committee
IEC	Information Education Communication
IHME	Institute for Health Metrics and Evaluation
JICA	Japan International Cooperation Agency
JRF	Joint Reporting Form
KABP	Knowledge, attitudes, behaviours and practices
KEQ	Key evaluation question
KII	Key informant interview
M&E	Monitoring and evaluation
MoHSPP	Ministry of Health and Social Protection of the Population
NCD	Non-communicable disease
NDVP	National deployment and vaccination plan
NIP	National Immunization Programme
NIS	National Immunization Strategy
NRA	National regulatory authority

PHC	Primary health care
RAM	Results Assessment Module (UNICEF)
RCIP	Republican Centre for Immuno-Prophylaxis
RHC	Rural health centre
SIA	Supplementary Immunization Activities
SOP	Standard operating procedures
SSES	State Service for Sanitary and Epidemiological Supervision
ToC	Theory of change
TWG	Technical working group
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
ViVA	Visibility for Vaccines
VPD	Vaccine-preventable disease
WUENIC	WHO/UNICEF Estimates of National Immunization Coverage
WHO	World Health Organization
WB	World Bank

Executive Summary

Introduction

1. In September 2023, the United Nations Children’s Fund (UNICEF) Europe and Central Asia launched an evaluation of immunization programming in the region at the systems level. The decision to undertake this evaluation recognized the critical importance and central role of immunization in the attainment of Sustainable Development Goal (SDG) 3: “to ensure healthy lives and promote well-being at all ages”. Further, equitable access to immunization is highlighted in SDG implementation target 3b. which includes the requirement to “provide access to affordable essential medicines and vaccines”.¹

2. The regional evaluation includes, as a core method, a set of five country evaluations of UNICEF immunization programming: Bosnia and Herzegovina, Kyrgyzstan, Kosovo, the Republic of Moldova and Tajikistan.² This report presents the results of the Tajikistan evaluation. The purpose of the evaluation is to provide an independent, rigorous assessment of UNICEF results to date in contributing to the national immunization system in Tajikistan in its efforts to maximize immunization coverage. There are four specific evaluation objectives:

- i. To assess the impact of immunization programming, looking at both supply and demand, and understand what worked and what did not in improving immunization coverage;
- ii. To determine the effectiveness, impact, coherence, relevance and efficiency of immunization programming with a system’s lens;
- iii. To assess the contribution of UNICEF work to the national and sub-national progress (outcome and impact) in immunization coverage, especially for hard-to-reach individuals/communities;
- iv. To draw lessons and provide recommendations to further support national governments in their efforts of strengthening immunization programming within the health care system.

Scope of the evaluation

3. The evaluation addresses both the effectiveness of immunization systems in Tajikistan and the contribution of UNICEF support to reinforcing those systems to ensure they are well organized and financed to reach out to every child with life-saving vaccines. It covers the time period from 2018 to 2023, and thus includes UNICEF support to the national response to the COVID-19 pandemic. Geographically, the evaluation covers the operation of immunization programmes and activities in Tajikistan at the country, region and district level, as well as local points of delivery for vaccine services.

Intended evaluation audience and evaluation management and governance

4. The primary stakeholders and users of the evaluation are UNICEF Tajikistan and the health authorities of the Government of Tajikistan, especially those engaged in all aspects of immunization programming including needs forecasting, procurement and storage, primary healthcare service delivery, disease surveillance and response and health promotion. The evaluation has been jointly

¹ World Health Organization (2017), *Monitoring the Health-Related Sustainable Development Goals (SDGs)*,

² References to Kosovo in this document shall be understood in the context of Security Council Resolution 1244 (1999).

managed by the Evaluation Unit of the Europe and Central Asia (ECA) Regional Office of UNICEF and the UNICEF Country Office (CO) in Tajikistan. It has relied throughout the process on the guidance, support and advice of an Evaluation Reference Group with joint membership from the UNICEF CO and the Government of Tajikistan.

Evaluation criteria and key evaluation questions

5. The evaluation has assessed immunization programming in Tajikistan through the lens of six evaluation criteria, as developed by the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD/DAC) and adopted and refined by the United Nations Evaluation Group (UNEG). Within these evaluation criteria the evaluation addressed twelve Key Evaluation Questions (KEQs), as described in full in Section 1.0 of the report.

6. Under **Relevance**, the evaluation examined the adaptability and responsiveness of UNICEF support to the immunization system in Tajikistan, as well as the suitability and effectiveness of its institutional role in supporting immunization. Addressing **Coherence** involved assessing the alignment of UNICEF support with national strategies, policies, and programmes in immunization, as well as the extent to which UNICEF-supported initiatives have been integrated into the national system. Applying the **Effectiveness** criteria meant focusing on UNICEF Tajikistan's capacity to support the national immunization system, and the effectiveness of that support in strengthening the health system and reaching under-served populations to improve equity.

7. To apply the **Sustainability** criteria the evaluation assessed both the institutional and financial sustainability of the immunization system and the role played by UNICEF support in strengthening both. Under the **Efficiency** criteria the evaluation assessed the effect of UNICEF support on the system's capacity to identify and address bottlenecks and inefficiencies that may limit immunization coverage. Finally, the evaluation applied the **Impact** criteria by assessing trends in immunization over time, their likely impact on reducing vaccine-preventable disease prevalence, and the contribution made to those results by UNICEF support.

Approach and methodology

8. This evaluation applied a theory-based approach, utilizing a Theory of Change (ToC) for UNICEF support to immunization initially developed as a regional model but used (in consultation with the Country Offices) to identify KEQs applicable at the country level. Contribution analysis was the main analytical model applied during the evaluation. Data collection and analysis followed a mixed methods approach at the country level, combining document and quantitative data reviews with key informant interviews and observational site visits to a sample of offices, warehouses, distribution centres and immunization service delivery sites. Data collection was undertaken from April to June 2024, followed by an internal evaluation team data consolidation workshop in Istanbul (involving all five country teams) and further analysis during July and August.

Conclusions

9. The evaluation resulted in 31 detailed evaluation findings, responding to all of the evaluation questions and sub-questions. In turn, those findings are directly reflected in and support the evaluation conclusions presented here. The numbered findings that are the basis for each evaluation conclusion are presented in brackets at the end of each conclusion.

10. **Conclusion One:** UNICEF Tajikistan's support for the immunization system during the evaluation period has been responsive and has adapted to the challenge of maintaining high levels of

coverage over time and in reaction to specific challenges and shocks, such as the COVID-19 pandemic and outbreaks of vaccine-preventable diseases (VPDs). Since 2022, this has included a significant effort to address the social and behavioural drivers of vaccine uptake, with more of an effect on communications and demand promotion than on alterations to the delivery of immunization services. [Findings: 1, 4, 5, 6].

11. **Conclusion Two:** UNICEF Tajikistan has worked efficiently with national health authorities to improve both the quality and the availability of comprehensive coverage data at all levels of the system, and to undertake surveys, research studies and reviews to analyse national requirements and identify gaps and inequities in coverage and their underlying causes. [Findings: 2, 3, 4, 5, 12].

12. **Conclusion Three:** UNICEF Tajikistan and the relevant national institutions (especially the Republican Centre for Immuno-Prophylaxis: RCIP) have collaborated effectively to improve capacity for ongoing research and assessment of the social and behavioural drivers of vaccine uptake. However, there is still a gap in use of the resultant information to materially affect the structure and delivery of vaccine services. [Findings: 1, 5, 12, 25].

13. **Conclusion Four:** UNICEF Tajikistan plays a pivotal role in vaccine forecasting and management, as well as in capacity building in key areas (vaccine procurement, customs clearance, safe storage and distribution). Despite the efforts of UNICEF and the institutions responsible for immunization in Tajikistan, important gaps remain in the availability, timeliness, completeness and reliability of data required for vaccine needs forecasting and management, including accurate sex-disaggregated data on vaccine coverage. This is especially true at the sub-national level, with insufficient granularity to identify pockets of under-vaccinated communities and populations. These gaps are a barrier to effective planning and management efforts to reach under-served populations, achieve intended results (especially for zero-dose and under-immunized children) and address inequities. They also make it more difficult to design and implement effective systems-strengthening initiatives. The absence of sex-disaggregated data limits managers' ability to fully understand potential disparities in immunization coverage, and ensure more comprehensive and targeted healthcare delivery. [Findings: 3, 15, 16, 17, 18, 19, 25, 29, 31].

14. **Conclusion Five:** UNICEF's support to the immunization system in Tajikistan during the period under evaluation has been fully aligned with (and has contributed to) the development and implementation of national strategies, policies and programmes in immunization. This alignment facilitated more seamless integration of UNICEF-supported activities – such as vaccine procurement, distribution, cold chain management and capacity building – into the broader immunization strategy. UNICEF support has also been coherently aligned and coordinated with the work of technical (World Health Organization) and financing (especially Gavi³) partners. [Findings: 7, 9, 10, 11, 14, 30, 31].

15. **Conclusion Six:** UNICEF in Tajikistan, drawing on the work of a small but capable team of health, immunization and social and behaviour change (SBC) professionals, (while relying in continuing technical support and adaptable tools provided by the Regional Office), has demonstrated the required technical capacity to effectively support the national immunization system. [Findings: 1, 3, 13, 30].

³ The Global Alliance for Vaccines and Immunization (Gavi) is a public–private global health partnership with the goal of increasing access to immunization in poor countries.

16. **Conclusion Seven:** UNICEF's support has significantly contributed to strengthening the capacity of the national immunization system to effectively respond to the challenge of maintaining high levels of national coverage for routine immunization while responding to outbreaks of VPDs. [Findings: 1, 2, 9, 12, 13, 26, 27].

17. **Conclusion Eight:** Notwithstanding the overall effectiveness of UNICEF's support and the response of the national authorities, persistent, significant barriers remain to immunization uptake as demonstrated by the reported numbers of zero-dose children and outbreaks of polio and measles. The barriers to immunization uptake will not be overcome until significant progress is witnessed across information gaps at the institutional and community levels, accompanied by continued progress in improving the integration of immunization services into Maternal and Child Health (MCH) and other primary healthcare (PHC) activities. [Findings: 8, 19, 28].

18. **Conclusion Nine:** UNICEF and partner national health authorities have pursued a strategy of institutional integration of UNICEF-supported strategies, plans, programmes and investments into the national immunization system. As a result, gains made with UNICEF support are apt to be institutionally sustainable despite ongoing financial, human resource and supervisory challenges. [Findings: 2, 7, 9, 10, 20, 22].

19. **Conclusion Ten:** Despite the progress Tajikistan has made in improving its ability to co-finance vaccine procurement, the National Immunization Programme (NIP) – especially in its “high investment components” – remains highly dependent on external support, a reliance that remains a critical vulnerability. [Findings: 21, 22, 23, 24].

Recommendations

20. The evaluation findings and conclusions have been used to develop the following evaluation recommendations. Each recommendation includes a supporting rationale and an assigned priority. The recommendations are:

21. **Recommendation 1:** That UNICEF Tajikistan should engage with and support the relevant health institutions⁴ to continue to improve the quality, timeliness and granularity (including sex, location and facilities disaggregation) of data used for vaccine needs forecasting and management, especially data on vaccine coverage. This should include increased attention to and investment in the digitalization of vaccine coverage reporting from Family Medicine Centres (FMCs) to the central level. It can also be supplemented by more frequent surveys of immunization coverage. The ultimate goal of these changes should be to provide the information required to effectively and efficiently plan and manage immunization services and provide a more complete foundation for systems strengthening.

Rationale: The evaluation has demonstrated that gaps in the current system – especially in the timeliness and sufficient disaggregation of data by sex, location and under-served community or populations – impede effective decision-making to address pockets of zero-dose or under-vaccinated children. *Based on Conclusions: 2, 4, 8. Priority: High*

22. **Recommendation 2:** That UNICEF Tajikistan works with the relevant state agencies – the communications unit in the RCIP, Healthy Lifestyle Centre (HLSC), and PHC/FMC system – to further

⁴ The Ministry of Health and Social Protection of the Population (MoHSPP), the Republican Centre for Immuno-Prophylaxis (RCIP), the Healthy Lifestyles Centre (HLSC), the State Service for Sanitary and Epidemiological Supervision (SSES), and Primary Health Care/Family Medicine Centres (PHCs/FMCs).

institutionalize SBC activities into the organizational structures and state budget of the NIP. UNICEF Tajikistan should also coordinate with these agencies to encourage further collaboration to ensure that the results of UNICEF-supported research on the social and behavioural drivers of vaccine uptake are used to adjust systems and practices for immunization service delivery to respond to the identified barriers – including issues impeding access for communities with zero-dose children – in order that duty bearers fully recognize disparities in access and take action to address them. The ultimate goal should be to ensure that the improved understanding of social and behavioural drivers of vaccine uptake is used to target zero-dose children as a high-priority activity driven by consistent funding (especially among under-served populations, with a specific focus on those concentrated in non-remote rural settings in central and western regions⁵ as well as internal migrant families in urban settings).

Rationale: UNICEF and the RCIP have jointly made advances in the generation and use of evidence on the social and behavioural drivers of vaccine uptake, but these have mainly influenced strategies and approaches to communications. There is an opportunity to extend the learnings from research from an SBC perspective more directly into immunization operations. Implementing this recommendation should also help to ensure consistent funding for critical outreach activities such as community mobilization, awareness campaigns, and tailored communication efforts targeting under-vaccinated and hard-to-reach populations and including targeting children with zero-dose. *Based on Conclusions: 1, 3, 7, 8. Priority: High*

23. **Recommendation 3:** UNICEF Tajikistan should continue to advocate with national health authorities for more complete integration of immunization services into MC and PHC practices delivered through the FMC/PHC system.

Rationale: By building on progress to date but also embedding and integrating immunization more fully into PHC services, Tajikistan can develop a stronger base for strengthening the overall PHC system, including immunization. This can help improve results in immunization through more efficient use of resources, increased vaccine uptake, and improved overall health outcomes for children. *Based on Conclusion: 8. Priority, High.*

24. **Recommendation 4:** UNICEF Tajikistan should engage with the MoHSPP, RCIP and PHC/FMC to review and strengthen processes and systems for providing evidence-based feedback and supportive supervision to managers at decentralized levels, including FMCs, in an effort to improve the quality of information flows in both directions and support improved decision making.

Rationale: Key informant interviews, site visits and selected review reports have highlighted the need to provide more frequent, timely, and supportive feedback and oversight to healthcare workers in frontline roles in immunization. Gaps in this area can contribute to data quality and timeliness issues, and hinder local responses to gaps in coverage and to outbreaks. *Based on Conclusions: 2, 4, 8. Priority: Medium*

25. **Recommendation 5:** UNICEF Tajikistan, supported by the ECA Regional Office, should develop a medium-term plan for the CO to further leverage both CO staff and RO technical capacities and tools in all aspects of immunization support (including SBC). This should include planning to leverage financial support to the health sector from external partners – including, among others, the World

⁵ Defined as districts more than three hours by car from an urban centre.

Bank, the Asian Development Bank (ADB), and the European Union – as well as the technical capacities of UNICEF and other partners to more effectively assist in addressing the financial, human resources and supervisory challenges faced by the national immunization system.

Rationale: The UNICEF CO team devoted to immunization has proven itself able to provide the required technical support to national immunization partners (with support from the RO) but this may be difficult to maintain in light of continuing demands for support from national partners and the prospect of a more difficult environment for resource mobilization in the future. The continuing need for UNICEF advocacy and technical support to overcome existing challenges in the system suggests the need for a robust plan to leverage available resources. *Based on Conclusions:* 6, 7, 9. *Priority:* High

26. **Recommendation 6:** UNICEF Tajikistan should continue and even further emphasize a strategy of close alignment of support to immunization with national strategies, plans, priorities and programmes. By continuing and deepening this approach, UNICEF Tajikistan can further advance the institutionalization of the initiatives and investments it supports within the national immunization system – with a consequent positive impact on institutional sustainability.

Rationale: Effective collaboration with national partners in the immunization system has been demonstrated as an important factor for ensuring the integration of agreed and shared priorities to address inequities and to reach under-served populations, as well as a key factor in the stability and sustainability of the national system over time. *Based on Conclusions:* 5, 9, 10. *Priority:* Medium

27. **Recommendation 7:** UNICEF Tajikistan should engage with the MoHSPP and the RCIP to review the planning for the National Immunization Strategy (NIS) 2030 and its component programmes to ensure that it contains effective measures to overcome the identified barriers to vaccine uptake that have been identified in research supported by UNICEF, with a specific focus on rural districts with the highest concentration of zero-dose children and on reaching internal migrant families in urban locations.

Rationale: Despite the high levels of overall national coverage achieved by Tajikistan throughout the evaluation period, outbreaks of VPDs continue, indicating the need for accelerated but efficient efforts to address under-served populations. *Based on Conclusions:* 7, 8. *Priority:* High

28. **Recommendation 8:** UNICEF Tajikistan should continue advocating with the Government of Tajikistan to ensure increased funding from the national healthcare budget for vaccines and related supplies, as priorities articulated in the National Immunization Strategy 2030.

Rationale: Some of the most promising “high-investment” activities supported by UNICEF – in areas such as outreach services for under-served populations and better addressing the social and behavioural drivers of uptake – are highly reliant on external funding sources. There is an opportunity to build on the strength of the relationship between UNICEF and all elements of the national immunization system to advocate increased domestic public financing of immunization – supported by resources mobilized from international sources. *Based on Conclusions:* 9 and 10. *Priority:* High

Table 1: Summary of recommendations

Recommendation	Based on Conclusions	Responding Agency	Lead Collaborative Role	Priority
1. Improve the quality, timeliness and granularity of coverage data for vaccine forecasting and management.	2, 4, 8	UNICEF	MoHSPP	High
2. Institutionalize SBC activities into the immunization system and operationalize the results of SBC research to address zero-dose and under-vaccinated children.	1, 3, 7	UNICEF	MoHSPP	High
3. Advocate more complete integration of immunization into MCH and PHC services.	8	UNICEF	MoHSPP	High
4. Reinforce systems for evidence-based feedback and supportive supervision	2, 4, 8	UNICEF	MoHSPP	Medium
5. Develop a medium-term plan to leverage UNICEF CO and RO capacity to support efforts to address the financial, human resource and supervisory challenges to the system.	6, 7	UNICEF Tajikistan	UNICEF ECA	High
6. Further engage in and emphasize collaborative, country-led coordination in support of immunization	9, 10	UNICEF	MoHSPP	Medium
7. Review planning for NIS 2030 to ensure focus on barrier reduction, equity, and reaching zero-dose and under-vaccinated children.	7, 8	UNICEF	MoHSPP	High
8. Continue joint advocacy to increase domestic and international investment in immunization.	9, 10	UNICEF	MoHSPP	High

Source: Evaluation Dataset, UNICEF (2024).

Note: In Table 1, the MoHSPP is indicated as the lead collaborating institution in the Government of Tajikistan responsible for the immunization system as a whole. In operational terms it is clear that the RCIP, SES, SES, HLSC and PHC institutions and departments as well as the FMCs at all levels will play a role in the national response. Where UNICEF has been indicated as lead agency, the evaluation recognizes that all programming implemented in support immunization is under the leadership of the MoHSPP.

1.0 Introduction

1.1. Background: The regional evaluation and the role of the Tajikistan evaluation

29. UNICEF ECA planned the evaluation of immunization programming as a key part of its Regional Office Management Plan in 2022. The decision to undertake the evaluation in 2023 and 2024 recognized the critical importance of immunization in the region, based on the central role of immunization for the achievement of Sustainable Development Goal 3 “to ensure healthy lives and promote well-being for all at all ages”.⁶ Further, equitable access to immunization is highlighted in SDG implementation target 3b. which includes the requirement to “provide access to affordable essential medicines and vaccines”. The evaluation terms of reference (ToR) are provided in Annex 1.

30. The evaluation has as its core methodology a set of five country evaluations undertaken from March to July 2024. The five countries (Bosnia and Herzegovina, Kosovo, Kyrgyzstan, the Republic of Moldova and Tajikistan) were chosen to provide an illustrative sample of both country contexts and UNICEF support.

31. The role of the Tajikistan country evaluation is two-fold:

- to provide a consistent and well-structured analysis of UNICEF support to immunization which can serve as one of the pillars of the regional synthesis report of the evaluation; and
- to provide an independent evaluation of UNICEF support to immunization in Tajikistan, with conclusions and recommendations that serve the needs of stakeholders including the UNICEF CO, national health authorities and key partners in Tajikistan.

32. The evaluation has been co-managed by the UNICEF ECA Regional Office (Geneva and Istanbul) and the UNICEF Country Office, with participation and consultation by Tajikistan’s Ministry of Health and Social Protection of the Population (MoHSPP). It is supported by an Evaluation Reference Group of key stakeholders in Tajikistan.

1.2. Purpose and objectives

33. The purpose of the evaluation **is to provide a rigorous assessment of UNICEF’s results to date in contributing to the national system in its efforts to maximize immunization coverage**. This provides an objective assessment of the strengths and weaknesses in approaches as well as insights on how to address possible system- and programme-level bottlenecks.⁷

34. The objectives of the evaluation are as follows:

- i. To assess the impact of immunization programming in the healthcare system, looking at both supply and demand, and understand what worked and what did not in improving immunization coverage, especially for the hard-to-reach individuals/communities, how and why;
- ii. To determine the effectiveness, impact, coherence, relevance and efficiency of immunization programming with a systems lens;

⁶ United Nations (n.d.) *Good Health and Well-being*, <https://www.un.org/sustainabledevelopment/health/>, accessed 23 December 2024.

⁷ United Nations Children’s Fund, ‘Evaluation of UNICEF Support to Immunization in Europe and Central Asia: Terms of Reference’.

- iii. To assess the actual and potential contribution of UNICEF's work to the national and sub-national progress (outcome and impact) in immunization coverage, especially among hard-to-reach individuals/communities;
- iv. To draw lessons and provide recommendations for the refinement and potential scaling up of good practices to further support national governments in their efforts to strengthen immunization programming within the healthcare system.

1.3. Scope of the evaluation

35. *Thematic:* The evaluation addresses both the effectiveness of national immunization systems in Tajikistan and the contribution of UNICEF support to reinforcing those systems to ensure they are well organized and financed to reach out to every child with life-saving vaccines. *Temporal:* The evaluation focuses on the period 2018 to 2023. *Geographic:* The evaluation covers the operation of immunization programmes and activities in Tajikistan at the country, region and district levels, including the points of delivery for vaccine services.

1.4. Object of the evaluation and stakeholders

36. The **object under evaluation** is UNICEF programme support to Tajikistan to “reinforce immunization programmes as part of health system strengthening, to ensure they are well organized and financed to reach out to every child with life-saving vaccines.”⁸ This includes all UNICEF Tajikistan's programme expenditure coded to immunization activities from 2018 to 2023 as presented in Table 5, Section 4.1. From a base of US\$1.43 million in 2018, UNICEF Tajikistan expenditures coded to immunization declined to \$480,000 in 2019 before rising steadily to a high of \$2.08 million in 2023. Over the period under evaluation UNICEF Tajikistan's expenditure on immunization totalled \$7.98 million.⁹

37. *The primary stakeholders and users* of the evaluation are UNICEF Tajikistan and the national health authorities, especially those engaged in immunization programming, primary healthcare service delivery, disease surveillance and response, and health promotion.

38. *Secondary stakeholders* include development partners supporting immunization programming as well as implementing partners directly supported by UNICEF. The evaluation recommendations are directed to UNICEF Tajikistan and national health authorities as appropriate.

1.5. Structure of the report

39. The report is structured as follows:

- Section 1.0 is this introduction;
- Section 2.0 presents an overview of the evaluation approach and methodology and the actions taken to collect and analyse data, along with a discussion of the limitations of the evaluation and remedial action taken;
- Section 3.0 provides a brief overview of the national context for immunization programming in Tajikistan during the evaluation period;
- Section 4.0 profiles UNICEF support;

⁸ United Nations Children's Fund (2023) *Evaluation Terms of Reference: Immunization programming at the system level, 2018 to 2023*, p. 3.

⁹ Source: UNICEF Tajikistan.

- Section 5 presents the evaluation findings organized under evaluation criteria and key evaluation questions;
- Section 6 provides the overall evaluation conclusions derived from evaluation findings while Section 7 builds on conclusions to present a brief overview of lessons learned;
- Finally, Section 8.0 presents the evaluation recommendations.

2.0 Methodology and data collection

2.1. Evaluation criteria and key evaluation questions

40. The evaluation has applied the evaluation criteria developed by the OECD/DAC as adopted by the UNEG.¹⁰ These criteria include relevance, coherence, effectiveness, sustainability, efficiency and impact. The key evaluation questions are presented in Table 2. Taken as a whole, the revised evaluation questions encompass all the evaluation criteria.

Table 2: Key evaluation questions

Evaluation criteria and key evaluation questions
Relevance
KEQ 1. To what extent and in what ways has UNICEF responded to address immunization rates at country level? To what extent has it adapted to respond to changes and trends, including by addressing behavioural and social drivers of vaccine uptake at system, community and individual levels?
KEQ 2. To what extent has UNICEF assumed an institutional role in supporting immunization which is commensurate with its mandate, capacities and comparative advantages, especially in relation to key partners? To what extent does the UNICEF operational and strategic role at country level reflect its institutional strengths and comparative advantage in immunization support in relation to key partners?
Coherence
KEQ 3. Where key partners have significant influence on the strengthening of immunization systems, has UNICEF support been aligned and/or complementary with actions by stakeholders to improve vaccination coverage in the ECA region?
KEQ 4. Where UNICEF has supported efforts to identify and address barriers and to increase demand for immunization (including adjustments to policies, programs, services, workforce capacity and accountability) has this resulted in programs and actions embedded into health systems and integrated into national immunization programmes, budgets and policies?
Effectiveness
KEQ 5. To what extent do UNICEF RO and CO staff have the capacity, tools and incentives to effectively support national actions to address social and behavioral drivers of vaccine uptake as an integral element of support to system strengthening for immunization within PHC?
KEQ 6. To what extent has UNICEF contributed to strengthening national systems' capacity to improve vaccine uptake?
KEQ 7. To what extent have health care systems been able to identify, understand and address factors affecting their ability to reach the most vulnerable and address issues of inequity in immunization programming?
KEQ 8. What drivers or groups of drivers influence the change in immunization coverage, positively or negatively at policy, system, services, community and individual level?

¹⁰ Organisation for Economic Co-operation and Development (n.d.) *Development co-operation evaluation and effectiveness*, www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.html, accessed 23 December 2024.

Evaluation criteria and key evaluation questions
Sustainability
KEQ 9. To what extent has UNICEF support to immunization at country level contributed to sustainable system strengthening including capacity to address factors affecting vaccine uptake/demand?
Efficiency
KEQ 10. How efficient are health system's immunization policies and programmes to identify and address current and potential bottlenecks or inefficiencies?
Impact
KEQ 11. To what extent have national health system's policies and programs (including for demand generation) aiming to improve vaccination rates over the past 5 years had an impact on overall vaccination coverage (including in under-vaccinated populations), vaccine-preventable disease incidence, perceptions and immunization-related behaviors of key stakeholders, such as healthcare providers, and caregivers?
KEQ 12. To what extent has UNICEF been able to influence key stakeholders to take actions that can reasonably be expected to result in changes of vaccination rates and what have been the most impactful UNICEF supported investments aimed at increasing immunization coverage – including those fully or mostly financed by national governments?

Source: Evaluation Inception Report, UNICEF, 2024.

2.2. Approach and methodology

41. The evaluation uses a data collection, analysis and reporting framework that is common across all five countries (Bosnia and Herzegovina, Kosovo, Kyrgyzstan, the Republic of Moldova and Tajikistan) but allows for flexible and specific inquiry to enhance utility to key stakeholders at country level.

42. The evaluation used a theory-based approach beginning with the development of an overall (regional) theory of change (ToC) presented in Annex 2. The regional ToC was then used to identify key evaluation assumptions and to articulate the KEQ in table 1.

43. The pre-dominant analytical model for the evaluation is Contribution Analysis (CA), which required the gathering of available documentary and quantitative evidence on the results of UNICEF support to the immunization system and supplementation of that data with primary and secondary evidence as needed. A more complete description of how the analytical model for the regional and country evaluations was developed is provided in the evaluation inception report.¹¹ A more complete description of the methodology applied for the Tajikistan evaluation is provided in Annex 3.

2.3. Data collection methods and results

44. A preliminary profiling of quantitative data and a review of documents uploaded by the UNICEF CO was carried out by the central evaluation team during the inception phase of the evaluation (September 2023 to March 2024). Data collection in Tajikistan was conducted by the national evaluator from the beginning of April to the end of June 2024. In addition, the evaluation team leader took part in a three-day mission to Tajikistan in mid-April 2024.

¹¹ United Nations Children's Fund (March 2024) 'Inception Report: Europe and Central Asia: Evaluation of UNICEF Immunization Programming at the System Level (2018 to 2023)'.

Document review

45. The evaluation conducted a desk review of key strategic, policy, programme and project documents, and a review of secondary sources of information and analysis, including documents published by the government, UNICEF, and other donors, and immunization and health systems technical documents.

46. The desk review identified key priorities and challenges to be addressed during the evaluation process (key informant interviews and field visits), ensuring that efforts were focused on areas needing further inquiry and analysis. The list of key documents consulted can be found in Annex 4.

Key informant interviews (KIIs)

47. Building on a stakeholder map developed in consultation with UNICEF Tajikistan, the list of stakeholders to be interviewed was agreed between the evaluation team and the UNICEF CO prior to an in-country mission by the evaluation team leader in April 2024. The evaluation conducted semi-structured interviews based on a set of guides tailored to each category of key stakeholder.

48. Interviews with health authorities and service providers covered all the main ministries, departments and organizational units engaged in managing or providing immunization services in Tajikistan. These included the Ministry of Health and Social Protection of the Population (MoHSPP), the Republic Centre for Immuno-Prophylaxis (RCIP), the State Service for Sanitary and Epidemiological Supervision (SSES), Family Medicine Centres (MFPs) as well as the Healthy Lifestyles Center (HLSC) and the Primary Health Care (PHC) Department. Direct interactions with key stakeholders gave the evaluation deeper insights into a triangulated set of perspectives, experiences, and challenges. Interviews were conducted in person, virtually, or by phone. A success rate of 96 per cent in data collection was recorded (45 of the proposed 46 KIIs were completed): the respondents were 58 per cent female and 42 per cent male.

Table 3: Key informant interviews by institutional type

Institutions	#
MoHSPP	7
RCIP	12
FMCs	10
State Service for Sanitary and Epidemiological Supervision (SSES)	2
UNICEF Country Office	7
International agencies	5
Research institutions	2
Total	45

Source: Evaluation Dataset, UNICEF, 2024.

49. The views of these stakeholders working in various immunization components at national, oblast, and district levels provided direct evidence to address the evaluation questions.

Site visits and observations

50. In addition to collecting documents and conducting KIIs in the offices of key stakeholders in the capital, the evaluation visited regional (oblast) and district RCIP branches, vaccine storage and distribution centres and rural health facilities. The primary purpose of these site visits was to gather additional evidence by observing immunization services at the grassroots level. Additionally, the visits enabled the evaluation to gather evidence on UNICEF's contribution to results (and contributions by other partners), while identifying continuing operational barriers and challenges.

Quantitative data analysis

51. Quantitative profiling included collecting quantitative data on coverage from the UNICEF reports and immunization programme data sets, and other relevant reports and assessments. Quantitative analysis of secondary data analysis included tracking the trend of immunization coverage from 2018 to 2023 in the country using various sources of information (Joint Reporting Form (JRF), administrative data and WHO/UNICEF Estimates of National Immunization Coverage (WUENIC) data, updated for 2023).

52. The methodology applied specifically in the Tajikistan evaluation is described in detail in Annex 3. The same source also provides a link to the evaluation Inception Report which includes the detailed evaluation matrix and all the data collection instruments. Finally, Annex 3 includes a link to the evaluation evidence base/matrix, summarizing evidence gathered from all sources organized by KEQ. Providing links to these documents allows the reader to access the information as needed while avoiding excessively lengthy annexes.

2.4. Limitations

53. The evaluation team encountered certain constraints during data collection, and undertook mitigation strategies to overcome those constraints. In addressing these, the national evaluator was able to call on the assistance of the UNICEF Tajikistan CO as required.

Table 4. Limitations and constraints of the evaluation

Limitations and constraints	Mitigation strategies deployed
Delays in appointment/ scheduling of KIIs.	- Prior invitation to the stakeholders by email from MoHSPP and UNICEF. - Constant contact by phone or email follow-up.
Resistance/hesitation in sharing data.	- The evaluation team introduced itself by producing letters from MoHSPP/UNICEF. - Constant follow-up by the national evaluator.
Limited availability and questions regarding the quality of the health management information system (HMIS) and/or programme implementation data.	- The assessment reflects any gaps that pre-exist in the secondary sources of data online or utilizing available data from survey and study reports. All quantitative data and trends were triangulated by comparison with the results of KIIs and observations during site visits.
The availability of quantitative data and information related to behavioural and social drivers of vaccine uptake is limited.	- The evaluation augmented available quantitative information on social and behavioural drivers of vaccine uptake by using the interview process to access the experiences and opinions of key

Limitations and constraints		Mitigation strategies deployed
		informants. Documentary sources provide some data on changes in knowledge attitudes and practices (KAP) toward immunization. ¹²
Non-recognition by healthcare authorities of the nature and locations of under-served communities.	-	The evaluation accessed research and data compiled by agencies outside the national government, identifying the location of the majority of zero-dose children as a proxy for under-served communities.
Staff turnover at UNICEF Tajikistan with implications for accessing institutional memory.	-	Triangulation of UNICEF CO key informant evidence with data from national authority staff who had institutional knowledge from 2018 and 2023.
Some cultural sensitivities may limit sharing of information by healthcare workers.	-	The lead national evaluator used informal discussions in site visits combined with observation to allow for more open discussion of service strengths and challenges.

Source: Evaluation Dataset, UNICEF, 2024.

3.0 Immunization services in Tajikistan: The national context

3.1. National priorities and expenditure

54. Tajikistan is committed to developing its human capital by improving access to health care, including immunization, but severe constraints still affect health service provision, such as high and unforeseen end-user payments, shortages of skilled and motivated staff, and gaps in infrastructure and equipment. These limitations were further accentuated by the COVID-19 pandemic. Although government spending on health has increased in the past few years, in 2018, it was only 2.3 per cent of gross domestic product (GDP) and the health sector only commands 7.3 per cent of the total government budget, the lowest budget share allocated to health in the WHO European Region.¹³ While total health expenditure has ranged between 4.6 per cent and 5.3 per cent of GDP over the past decade, it remains lower than required, necessitating a high level of out-of-pocket health spending which makes up around 71 per cent of national health expenditure. For the last four years, the share of health expenditure in total General Government Expenditure (GGE) has remained at the same level – around 8 per cent – and overall health expenditures remain dependent on private, out-of-pocket spending.¹⁴

55. In Tajikistan, the General Government Health Expenditure (GGHE-D) as a percentage of GGE improved by 2.4 percentage points (from 4.6 per cent in 2000 to 7 per cent in 2021, the latest year of available data). Domestic public health expenditure as a proportion of all expenditures peaked at 31 per cent in 2014 and declined to 26 per cent by 2020. In the same period, external funding accounted for 6 per cent in 2014 and 8 per cent in 2020.¹⁵

¹² United Nations Children's Fund Tajikistan, 'Strengthening the Health System in Tajikistan: Final Report Submitted to The Global Alliance for Vaccines and Immunization', December 2023.

¹³ European Union (2021), *Multi-annual Indicative Programme 2021-2027*, https://international-partnerships.ec.europa.eu/document/download/49dca25b-db76-46b7-8864-461bd90af727_en, p.7

¹⁴ Ibid., pp. 15, 26.

¹⁵ World Health Organization (2023) *Health Financing System Assessment*, Tajikistan, www.who.int/europe/publications/i/item/WHO-EURO-2024-7756-47524-69898, p. 26.

56. The share of vaccine procurement as part of the GGHE-D is extremely low, and does not reach 1 per cent on an annual basis. Currently, 80 per cent of the health budget is spent on the salaries of workers, while only 3.9 per cent is made available for medicines and supplies, and only 20 per cent of that 3.9 per cent was spent on vaccines as recently as 2020 (MoHSPP 2020). These low levels of healthcare and immunization expenditure (when compared to regional averages), coupled with the uneven geographical distribution of public health resources, have been assessed as contributing to health inequities and negatively affecting the quality of health care.¹⁶

57. In terms of infrastructure, the national primary healthcare network includes 2,890 facilities under the guidance of managers based at the district levels. Services at these facilities are integrated and include reproductive, maternal, newborn and child health; HIV and AIDS; immunization; non-communicable diseases (NCDs); and disease prevention work. PHC service provision is fully managed and integrated via subnational facilities such as Health Houses, Rural Health Centres, City Health Centres and district-level FMCs.

58. The National Immunization Programme (NIP) is a priority for the Government of Tajikistan, which has received support from Gavi since 2001 (Gavi, 2022). Despite the Expanded Programme on Immunization (EPI) being recognized as a priority public health initiative, government investment in it remains very limited, mainly due to economic constraints and limited fiscal space to allocate resources. According to the WHO (2022), Tajikistan remains the only country in the WHO European Region that is not able to cover the cost of traditional vaccines for the population.¹⁷

3.2. From procurement to delivery

59. The NIP is managed and implemented with the support of several centres and departments of the MoHSPP. At the national level these include: the RCIP; regional Centres for Immunoprophylaxis (CIPs) and district-based centres integrated into PHC institutions, providing the main managerial and operational functions of the immunization programme. Family medicine practices at health facility level provide vaccine delivery services. Other MoHSPP centres and departments involved in immunization include: the SSES department, the Health Reform and PHC department, the MCH department, the FMC, and HLSC, which has responsibility and accountability for health promotion – including promotion of vaccines.

60. More than 2,800 health facilities – including maternity services, polyclinics, rural hospitals, small rural ambulatories, medical houses and health houses – provide immunization services. Since 1993, all the vaccines used on childhood immunization programmes are procured centrally at national level, with the support of the UNICEF procurement unit, and then distributed to all health centres involved in immunization of children through the regional and district CIPs. The EPI vaccines used are quality assured through WHO prequalification. In Tajikistan, immunization of children following the national immunization calendar, is free of charge.

¹⁶ Ibid.

¹⁷ World Health Organization (2022) *Health Systems in Action: Tajikistan*, <https://iris.who.int/bitstream/handle/10665/362327/9789289059206-eng.pdf>, p.13.

3.3. Vaccine storage and distribution

61. The national immunization supply chain in Tajikistan includes four levels of vaccine cold storage: the central vaccine store at the national level, regional vaccine stores, district vaccine stores, and health facility vaccine stores. The supply chain and services in an immunization programme require accurate planning, vaccine quality control, efficient logistics, effective service delivery, and continuous monitoring and evaluation. Each step is crucial for ensuring that vaccines are procured, stored, and administered safely and effectively, ultimately achieving high immunization coverage and protecting children. The Department of Pharmacy and Medical Products of the MoHSPP – the national regulatory authority (NRA) – carries out the basic regulatory functions for vaccines procured by the United Nations: that is marketing, authorization/licensing, and post-marketing surveillance and adverse events following immunization (AEFI). Tajikistan has no laboratory control capacity for vaccine testing.

62. With the support of Gavi Health System Strengthening (HSS) and Cold Chain Equipment Optimization Platform (CCEOP) grants, Tajikistan has taken steps to strengthen the cold chain at all levels. The 2018 Cold Chain Inventory, Needs Assessment and Rehabilitation Plan and the 2018 Immunization Coverage and Equity Improvement Plan for CCEOP assessed 2,949 health centres involved in the immunization supply chain (95 per cent of all health centres). The results showed that fixed delivery of immunization services is a universal practice, while outreach delivery of immunization services is less common. Outreach was generally only provided during supplementary immunization activities, usually in response to outbreaks of VPDs.

63. The 2018 inventory recorded 10 cold rooms, 3 freezing rooms and 2,376 refrigerators and freezers in use in the immunization supply chain, of which 624 (26 per cent) are WHO prequalified ice-lined refrigerators. The inventory update in September 2023 recorded 4,872 active cold chain equipment facilities (CCEs), at national, regional, district levels.¹⁸ About two-thirds of the centres reported having a designated responsible person to monitor and manage cold chain equipment. Temperature monitoring was being performed using dial thermometers (95 per cent of the centres with active cold chains) followed by integrated dial or electronic thermometers. About 90 per cent of centres reported receiving a supervisory visit in the last 12 months.

64. The flow of vaccine storage and distribution follows this pattern:

- National vaccine warehouse: Collects vaccines from the airport using refrigerated trucks as soon as each shipment arrives.
- Regional warehouses: Using refrigerated trucks, RCIP distributes vaccines and supplies to regional warehouses based on their quarterly demand. District warehouses (in seven districts) collect vaccines from the national warehouse every month based on their monthly demand. Vaccines are loaded in cold boxes or vaccine manufacturers' transportation containers and transported using general-purpose vehicles. Vaccines are stored in ice-lined refrigerators, and in some cases in walk-in cold-rooms at subnational warehouses.

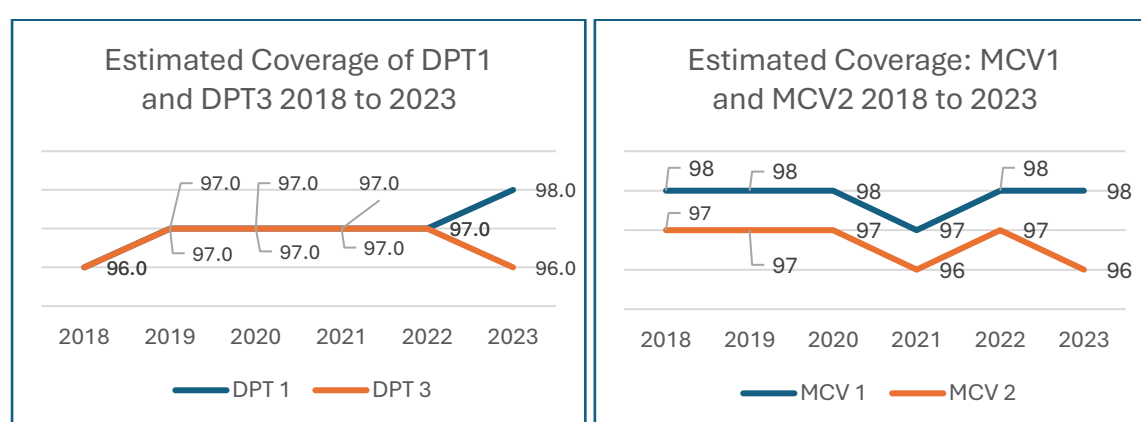
¹⁸ *Comprehensive CCE Needs Document*, Tajikistan, 2023.

- Immunization service providers collect vaccines once a month from district vaccine warehouses using vaccine carriers.¹⁹

3.4. Immunization Coverage History 2018-2023

65. Tajikistan has consistently achieved high immunization coverage rates over the last decade. The collaboration between the MoHSPP, RCIP, international organizations like UNICEF and WHO, and local communities has been pivotal in maintaining these high coverage rates.²⁰ Additionally, the implementation of advanced cold chain systems and continuous training of healthcare workers has reportedly further strengthened the country's immunization infrastructure, contributing to improved public health outcomes. Administrative data from the country and WHO/UNICEF estimates (2024) indicate sustained high coverage almost for all antigens for the time period of the evaluation.

Figure 1: Estimated national coverage of DPT and MCV vaccines



Source: WUENIC Estimates, July 2024.

66. The strategic narrative for the Gavi Support Request, 2022, indicates that coverage analysis and triangulation obtained from various sources – administrative coverage data, latest survey data, and Institute for Health Metrics and Evaluation (IHME) data – showed a reasonable match of survey data with IHME estimates and administrative coverage data for the same year. Triangulation of administrative coverage data showed a strong correlation between the Survey coverage data estimates and IHME coverage estimates.²¹

3.5. Challenges and issues: 2018-2023

67. Notwithstanding the above, consultation with key stakeholders, health workers and supporting partner agencies point to the existence of inconsistencies in administrative data and corresponding issues regarding the accuracy of immunization coverage data.²² A major obstacle to closing current immunization gaps has been the lack of timely and high-quality data to inform decision making, operational planning, and performance management of immunization staff and service delivery. This information is essential at all levels of the health system for the effective delivery of immunization services. The absence of such data has consequences including missed

¹⁹ Comprehensive CCE Needs Document, Tajikistan 2023.

²⁰ KIIs with MoHSPP, RCIP.

²¹ Ministry of Health and Social Protection of the Population, 'Strategic Narrative for Gavi Support Request', 2022.

²² KIIs with WHO, RCIP and FMC.

opportunities to identify under- or unimmunized persons, inadequate defaulter tracking, and burdensome data collection processes that divert health provider time and attention away from the provision of high-quality service delivery.

68. WUENIC estimated the number of zero-dose children in Tajikistan as 7,638 (3 per cent of surviving infants) in 2021, declining to 5,000 in 2022.²³ The estimated number of zero-dose children in Tajikistan was 6,373 at the beginning of the evaluation period in 2018, peaked at 7,535 in 2021 and fell to 4,088 in 2023.²⁴ In Tajikistan, most zero-dose children live in rural non-remote areas. While zero-dose prevalence is slightly higher in remote rural areas, the absolute number of zero-dose children was found to be higher in non-remote but still rural areas.²⁵ Moreover, it is estimated that 29 per cent of under-5 deaths are associated with households with a zero-dose child.²⁶ This is equivalent to 2,818 under-5 deaths associated with zero-dose children (all-cause mortality).²⁷

69. Challenges to accurately measuring vaccination coverage include: (i) the documentation required to register every dose administered is cumbersome and entirely paper-based; (ii) discrepancies in the estimated size of the target population obtained from different sources; (iii) health facilities do not conduct regular systematic analyses to identify issues with the implementation of the immunization programme; and, (iv) vaccination cards (passports) are not universally available.²⁸

70. Unfortunately, RCIP administrative data as reported is not sex disaggregated, with the consequence that it is impossible to measure gender disparities in immunization coverage. However, almost all interviewed stakeholders indicated that otherwise marginalized groups (socially and economically) are integrated into the health system, and they have equal access to health services, particularly to immunization services.

4.0 UNICEF support

4.1. Dimensions of UNICEF support

71. In Tajikistan, UNICEF operates through its CO in Dushanbe and three field-based offices, with one staff member in each. Throughout the evaluation period, UNICEF Tajikistan focused on developing a strong partnership in immunization with national health authorities and international partners (WHO, the World Bank, the Asian Development Bank, the United Nations Development Programme (UNDP), the United States Agency for International Development (USAID) and Gavi). This engagement in cooperation and coordination was directed toward improving immunization services.

²³ Defined by Gavi for operational purposes as: “those who lack the first dose of diphtheria-tetanus-pertussis containing vaccine (DTP1)”. See Gavi (n.d.) *Reaching Zero-dose Children*, www.gavi.org/our-alliance/strategy/phase-5-2021-2025/equity-goal/zero-dose-children-missed-communities, accessed 23 December 2024.

²⁴ World Health Organization (updated July 2024) *Diphtheria tetanus toxoid and pertussis (DTP) vaccination coverage*, [https://immunizationdata.who.int/global/wiise-detail-page/diphtheria-tetanus-toxoid-and-pertussis-\(dtp\)-vaccination-coverage?CODE=TJK&ANTIGEN=&YEAR=](https://immunizationdata.who.int/global/wiise-detail-page/diphtheria-tetanus-toxoid-and-pertussis-(dtp)-vaccination-coverage?CODE=TJK&ANTIGEN=&YEAR=)

²⁵ Gavi (2023) ‘MEL team, Tajikistan Zero Dose Analysis’.

²⁶ Calculation based on the Demographic and Health Survey (DHS) 2017 Statistical Agency under the President of the Republic of Tajikistan, Ministry of Health (2018), *Tajikistan Demographic and Health Survey 2017*, www.dhsprogram.com/publications/publication-fr341-dhs-final-reports.cfm

²⁷ Ibid.

²⁸ Joint National-International Review of Immunization Programme in Tajikistan, 2019.

UNICEF Tajikistan expenditure on support to immunization

72. Table 5 provides an overview of UNICEF Tajikistan's expenditure under immunization-related activity codes during the evaluation period. The table was provided by UNICEF Tajikistan, building on data gathered from central UNICEF sources.

Table 5: UNICEF Tajikistan expenditure coded to immunization, 2018 to 2023²⁹

Expenditure intervention code	2018	2019	2020	2021	2022	2023
Demand for immunization		129,500.00	286,319.40	427,857.91	600,199.98	368,567.75
Purchase of vaccines and devices	1,116,657.76	21,000.00	34,464.00	21,000.00	146,298.32	1,494,609.16
Polio social mobilization and communications	108,350.96	9,072.19		399,237.22		
SBC and community engagement for immunization					32,064.51	79,735.95
Technical assistance for immunization – excluding polio technical assistance	211,336.14	197,077.70	1,101,245.67	620,297.21	72,119.90	14,625.84
Other		128,749.87	92,464.36	82,796.21	96,352.08	89,456.69
Annual total	1,436,344.86	485,399.76	1,514,493.43	1,551,188.55	947,034.79	2,046,995.39

Source: UNICEF Tajikistan, 2024.

73. The key areas of UNICEF activities in immunization during the evaluation period can be categorized as follows:

Table 6: Key dimensions of UNICEF support to immunization in Tajikistan

Immunization system dimension	UNICEF support
Coverage and equity	Improving coverage and equity to reach out to every child with vaccines, cover all left-out and dropped-out children with immunization, and reach the marginalized population.
Introduction of new vaccines	Leveraging the introduction of new vaccines as an opportunity to protect children from new VPDs and strengthen the routine immunization system.

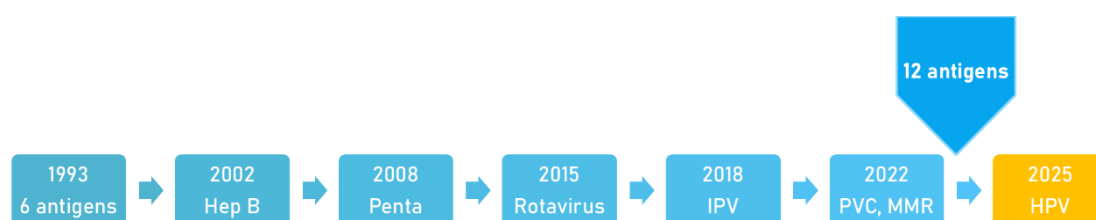
²⁹ All the data on UNICEF expenditures was provided by the Tajikistan UNICEF Country Office. Where no expenditure is indicated it means that the CO has no record of expenditure on that programme component. Missing data means no expenditure was coded in that intervention for the year.

Cold chain strengthening	Providing financial and technical support to cold chain strengthening to build upon a strong immunization supply chain and logistics.
Communication and demand generation	Improving communication and demand generation via advocacy at the highest level and capacity building of health workers on interpersonal communication, development and dissemination of messages with regard to immunization services (routine and supplementary).
Policy development, guidance and operational support	Supporting the Government of Tajikistan to assess the various components of immunization programme, development of guidance and operational support.

Source: Evaluation Dataset, UNICEF, 2024.

74. The introduction of new vaccines has been supported by UNICEF in an effort to safeguard children against emerging vaccine-preventable diseases, but also as a catalyst for enhancing routine immunization services. The timing of vaccine introduction into the national immunization schedule is presented in Figure 2.

Figure 2: Introduction of vaccines in Tajikistan



Sources: National Immunization Programme and UNICEF Tajikistan Country Office, Annual Reports 2018 to 2023 (graph developed by the evaluation team).

75. The introduction of new vaccines is always accompanied by discussion and agreement with the National Immunization Technical Advisory Group (NITAG) and endorsed by a special order of the MoHSPP. The pentavalent vaccine (DTP-HepB-Hib) was introduced in 2008. The Rotavirus vaccine was introduced in 2015. IPV (one dose per child) was introduced in 2018, and the second dose was introduced in June 2022. The PCV and MMR vaccines were introduced in 2022. The HPV vaccine will be introduced after 2025.³⁰

76. UNICEF is also supporting national and local information campaigns to educate the public on the critical importance of immunization, while addressing vaccine hesitancy, building public trust, tackling dangerous myths and combating misinformation. It also works closely with local health institutions and FMCs to equip parents and communities with the knowledge they need to protect their children.

77. UNICEF Tajikistan is also supporting the training of frontline health workers on how to inform families about the benefits of immunization and to reinforce government efforts to monitor public attitudes and immunization rates, to tackle any problems as quickly as possible.

³⁰ Inactivated poliomyelitis - containing vaccines (IPV), Prevnar [heptavalent pneumococcal conjugate vaccine (PCV7) containing MMR vaccine.

78. UNICEF field offices in Sughd, Khatlon, and Gorno-Badakhshan Autonomous Region (GBAO) have played a crucial role in supporting both routine and supplementary immunization activities. By engaging with local health authorities, particularly RCIP and HLSC staff, they have monitored vaccine supply, proper functioning of the cold chain system, timely acquisition of necessary informational and educational materials, provided technical support for organizing training sessions for health workers, and internal and external coordination of UNICEF activities. However, there is still a need to strengthen immunization programme management and service delivery to achieve full coverage of all children – including children from marginalized groups and hard-to-reach areas – with immunization, and prevent infectious disease outbreaks in the country.

The essential role of partnerships

Consultations with national health authorities and other key stakeholders indicate that strategic partnerships between the government and international supporting agencies are a critical success factor for immunization programmes. The strategic importance of partnerships was clearly demonstrated during the response to the COVID-19 pandemic situation, which relied largely on the strongly coordinated efforts of various international and local agencies.

79. The UNICEF Country Programme Document 2022-2026 articulates that social and behaviour change interventions will be critical to achieving results across all sectors to generate evidence and work with programmes (including immunization) to promote demand for services among the most vulnerable while also promoting changes in social norms on equity and gender equality.

80. In response to the COVID-19 pandemic, UNICEF supported the timely procurement and shipment of 5.2 million doses of three types of COVID-19 vaccines through the COVID-19 Vaccines Global Access (COVAX) Advance Market Commitment (AMC) platform.³¹ A total of 3,256 health workers were trained on interpersonal communication for COVID-19 vaccination, microplanning and cold chain management. Due to these coordinated efforts, as of December 2022, over 5.3 million people (98.8 per cent of the population over 18 years old) had received one dose and 97.5 per cent both doses of COVID-19 vaccine; 96.2 per cent received booster dose one, and 59.3 per cent - booster dose two.³²

4.2. Partnerships and engagement with other support providers

81. UNICEF's partnerships and engagement with other support providers – such as WHO, Gavi, and other agencies – are intended to enable UNICEF and its partners to play a coordinated role in strengthening immunization programmes. These collaborations focus on the collective and coordinated mobilization of resources, technical expertise, and advocacy efforts to enhance and sustain vaccine coverage, ensure vaccine supply security, improve immunization logistics, enhance the capacity of health workers, and promote community engagement.

82. As just one example, the partnership with the Red Crescent Society of Tajikistan (RCST) was designed to support the timely delivery and distribution of much-needed protective and life-saving equipment to COVID-19 frontline health facilities during the pandemic, as well as communicating COVID-19 prevention messages to the population. Moreover, it was intended to strengthen

³¹ The COVAX AMC was a Gavi-coordinated financing instrument that supported the participation of 92 lower-income economies in the [COVAX Facility](#). Source: Gavi

³² United Nations Children's Fund (2024) 'InSight: Outcome Impact Data Explorer: Results Assessment Module'.

emergency preparedness and disaster risk reduction (DRR) with supply prepositioning and quick roll out of emergency operations.³³

5.0 Evaluation findings

General overview

83. The Tajikistan NIP is considered by key informants to be a national priority and an example of a successful public health intervention within the health system of the country, as well as an effective measure contributing to reducing the incidence of VPDs and prevention of outbreaks. However, despite reported high coverage for all antigens during the evaluation period, consultations with key stakeholders and health workers indicate that some geographic areas still have much lower coverage, particularly in hard-to-reach regions and among families with fears and other signs of vaccine hesitancy. Over time, these areas of low coverage are vulnerable to the spread of infections.³⁴ Significant outbreaks of measles and polio in 2021 and 2023 provide substantive evidence that these concerns are not unfounded.³⁵

5.1. Relevance of UNICEF support to national systems

5.1.1. UNICEF's response to changes and trends

KEQ 1. To what extent and in what ways has UNICEF responded to address immunization rates at the country level? To what extent has it adapted to respond to changes and trends, including by addressing behavioural and social drivers of vaccine uptake at system, community and individual levels?

Finding 1. UNICEF has responded to changes in the context of the immunization system in Tajikistan by adjusting support to enhance the capacity of RCIP staff and health workers, by strengthening vaccine supply systems (including the cold chain) and by supporting efforts to identify and address the social and behavioural drivers of vaccine uptake.

Finding 2: UNICEF Kyrgyzstan has also worked to strengthen the national immunization system and improve vaccine coverage by supporting efforts to leverage and improve comprehensive data on vaccine coverage, engaging a diverse array of stakeholders from the health sector, including local jamoats and village activists.

Finding 3: UNICEF support to immunization during the evaluation period has been grounded in reviews and analyses of national requirements and priorities in the areas of forecasting, distribution, service delivery and, especially, cold chain management. However, significant gaps and barriers remain to improving immunization operations – especially for reliable data collection and management, as well as vaccine forecasting and management – and demand for technical support from UNICEF persists on the part of national health authorities

³³ United Nations Children's Fund (2021) *Country Office Annual Report 2020*, www.unicef.org/media/102531/file/Tajikistan-2020-COAR.pdf.

³⁴ KII with RCIP and FMC staff.

³⁵ United Nations Children's Fund (2023) *Country Office Annual Report 2022*, www.unicef.org/media/136426/file/Tajikistan-2022-COAR.pdf.

Finding 4: Building on a history of support to communications for demand generation, UNICEF has recently engaged in advocacy on the importance of addressing the social and behavioural drivers of vaccine uptake through interventions developed using an SBC approach.

Finding 5: UNICEF Tajikistan has supported the gathering of evidence-based information and has contributed to the establishment of a communications unit at the central office of RCIP, with dedicated staff and fully supported by RCIP. Recently UNICEF support has focused increasingly on understanding the social and behavioural drivers of uptake.

Finding 6: UNICEF's support for the communications component of the national response to the 2021 polio outbreak is an example of UNICEF Tajikistan's flexibility and adaptability to change in the national context for immunization.

Relevance of UNICEF support to national priorities in immunization

84. UNICEF-supported activities demonstrate a high degree of relevance to national health and immunization priorities, as articulated in the NIPs (2016-2020 and 2021-2025), the National Development Strategy (NDS) 2030, the Health Sector Strategy (HSS) to 2030 and other strategic documents. In addition, the UNICEF work plans for 2021-2022 and 2023-2024 were agreed in discussions with the MoHSPP to tackle key components of the NIP.³⁶ UNICEF's support has been targeted at improving immunization services through providing vaccines and related supplies, enhancing supply chain and logistics systems, and capacity building of health workers engaged in immunization services and demand generation for immunization. The extent to which UNICEF's support has been aligned with the Government of Tajikistan's priorities, as articulated in key strategy and policy documents regarding PHC services delivery, was also highlighted in discussions with key stakeholders.³⁷ The same interviews also indicate that UNICEF Tajikistan has developed strong partnerships with all stakeholders and agencies working towards achieving results in immunization.

Alignment with UNICEF's Immunization Roadmap and shared Gavi strategies and goals

85. In addition to strong alignment with national priorities in Tajikistan, it is worth noting that UNICEF's Country Programme activities are well aligned with the goals articulated in the UNICEF Immunization Road Map 2030 and the Gavi 5.0 Strategic Goal of "leaving no one behind with immunization by 2030".

86. Similarly, the main goal of the theory of change underlying the current Gavi support in Tajikistan is to "strengthen the protection of all children in the Republic of Tajikistan against the vaccine-preventable diseases through the delivery of high-quality routine immunization services that ensures a decrease of zero-dose and under-vaccinated children by 25 per cent by 2025".³⁸ The goal of the proposed investments is aligned with the vision of the National Immunization Strategy of Tajikistan 2030 developed in 2022: "The Republic of Tajikistan, a country where everyone, everywhere, at every age, fully benefits from vaccines for good health and well-being". High-level

³⁶ United Nations Children's Fund – Government of Tajikistan Programme of Cooperation.

³⁷ KIIs, the Government of Tajikistan, and RCIP staff.

³⁸ Ministry of Health and Social Protection of the Population (2022) 'Strategic Narrative for Gavi Support Request'.

Strategic Priority 3 of the NIS 2030 is to ensure “Access to immunization for uncovered and zero-dose children”.³⁹

87. UNICEF also supported the development of the National Routine Immunization Plan, 2023, which defines the vaccine needs for the country and is shared with the UNICEF Supply Division for procurement. Within the National Deployment and Vaccination Plan for the introduction of COVID-19 vaccines, UNICEF – with Gavi's support – procured 850 vaccine carriers, 1,000 icepacks, 190 vaccine refrigerators, and 400 temperature monitoring devices (30DTR).⁴⁰

88. Interviews with health workers and staff involved in the delivery of immunization services confirm that, in accordance with MoHSPP regulations, the immunization services are mainly provided at health facilities in fixed immunization points, and only during supplementary immunization activities are vaccinations provided at home (door to door).⁴¹

Supporting the identification of gaps in the immunization system

89. As long ago as 2016, UNICEF supported the development of the national comprehensive Multi-Year Plan (cMYP) 2016-2020 which contained a detailed situation analysis identifying the most critical needs of the country's immunization systems, including:

- (a) Strengthening immunization financing and resource mobilization for immunization programmes;
- (b) Strengthening the programme management capacity of the RCIP;
- (c) support for the introduction of new vaccines (PCV and HPV);
- (d) support with implementation of the effective vaccine management (EVM) assessment recommendations (e): support for human resource capacity.^{42 43}

90. In addition, the Multi-Year-Plans agreed by MoHSPP and UNICEF (2021-2022 and 2023-2024) as well as the NIP (2021-2025) highlight key directions and activities, which are agreed priorities to be tackled during the implementation period. In this regard, UNICEF is the ministry's main partner agency in supporting planned immunization activities.⁴⁴ In 2020, UNICEF and the MoHSPP agreed that they would elaborate two-year work plans with clear activities and budget allocation for each activity and the intended results to be achieved by the end of implementation (2021-2022 and 2023-2024). Throughout the evaluation period, UNICEF has supported a series of structured reviews and analysis of the immunization system, with a view to identifying system gaps and interventions to address them.⁴⁵

³⁹ Ministry of Health and Social Protection of the Population (2022) 'Republic of Tajikistan National Immunization Strategy 2030.

⁴⁰ United Nations Children's Fund (2024) 'InSight: Outcome Impact Data Explorer: Results Assessment Module.'

⁴¹ KII, HWs from health facilities (HFs).

⁴² cMYP 2016 -2020, Tajikistan.

⁴³ Two-year work plan 2021-2022.

⁴⁴ KIIs with RCIP staff.

⁴⁵ Including, for example, UNICEF C4D Crisis Communication Plan Gap Review (2019), EVM report (2022), CSO Capacity in Immunization Mapping (2023), CCEOP (2023).

UNICEF's support in relation to identified needs in vaccine management

91. A key indicator of the relevance of UNICEF Tajikistan's support can be seen in the relationship between the investments and activities supported and the needs identified in the studies noted above, as emphasized in discussions with health professionals at all levels.

92. UNICEF has consistently supported the MoHSPP and RCIP in the field of vaccine forecasting and vaccine management. As noted in interviews with RCIP staff, UNICEF has helped to develop staff capacity in key areas (vaccine customs clearance, storage and distribution). However, RCIP staff also noted, they still relied on highly rated technical support from UNICEF in vaccine forecasting and overall vaccine management. High-level health authorities also credit UNICEF support when noting that the country has not experienced any interruption to vaccine delivery in recent years. Moreover, UNICEF supported enhancement of the capacity of RCIP for vaccine storage through construction and expanding warehouse capacity and procurement of cold chain equipment.⁴⁶ These positive effects of UNICEF support have also been pointed out by health workers at oblast and district levels.

Reported achievements in training for immunization management

- 3,230 specialists at national, subdistrict, and district levels increased their knowledge of microplanning, using a cascade training approach.
- 515 health workers increased their knowledge of proper vaccine storage through UNICEF-supported training.
- 54 RCIP staff trained and currently operate the vaccine stock management system (Software Version 1C).

UNICEF Final Report on Strengthening the Health System in Tajikistan, (2023).

Warehouse management and logistics

93. Currently the 1C warehouse management electronic logistics tool has been installed at central and regional level, and staff have been trained.⁴⁷ The agreed UNICEF and MoHSPP goal is to scale up use of this tool to district levels to allow coverage of the entire country. The system allows central managers to continuously assess vaccine stocks at national, regional and district levels. Installation of ViVa software, for vaccine stock management flow monitoring was also highly appreciated by RCIP staff.⁴⁸

Regular vaccine assessment to identify critical gaps

94. In 2019, the MoHSPP (in agreement with WHO and UNICEF) commissioned a comprehensive joint national-international review of the status of the Immunization Programme. The 2019 review highlighted the positive performance of the NIP in the preceding years, achieving high immunization coverage and increasing the financial contribution of the Government of Tajikistan from less than 20 per cent in 2015 to 29.4 per cent in 2019.⁴⁹ An important challenge noted in the 2019 review was the relatively poor intersectoral coordination among national institutions (RCIP, SES, PHC, MCH, FMC, and

⁴⁶ KII with RCIP.

⁴⁷ RCIP staff describe the 1C Warehouse Management Software as an effective digital tool for vaccine and other immunization-related items stock management.

⁴⁸ Visibility for Vaccines (ViVa) is a web-based electronic tool that can be used to forecast vaccine stock level projections and alert managers of critical situations to avoid stock-outs.

⁴⁹ Joint National-International Review of the Immunization Programme in Tajikistan, 2019.

HLSC). This issue was also highlighted by UNICEF, WHO, and the Government of Tajikistan staff who participated in the 2019 assessment.^{50,51}

Addressing identified gaps in the cold chain

95. UNICEF Tajikistan responded to identified needs by leveraging national and development partner funds to strengthen the national cold chain. Key informants noted that UNICEF Tajikistan had built on concerted and strategic engagement in the immunization programme for over a decade to support resource mobilization efforts and to leverage resources from multilateral institutions such as Gavi, the World Bank, the ADB and the European Union. In particular, Gavi's funding of UNICEF supported activities under the Health System Strengthening Programme 2 (HSS-2) to strengthen the cold chain system at all levels.⁵² Other funds in support of cold chain strengthening have been mobilized through bilateral and other donors, such as the Government of Japan⁵³.

96. The reported results of the Gavi HSS-2 implementation period (2017-2023) include: vaccine storage capacity improved at national and regional hubs through the installation of cold rooms for vaccine storage; and improved sustainable maintenance of the cold chain equipment through the increased technical capacity of 42 technicians.⁵⁴ During field visits, RCIP managers and staff regularly noted their appreciation of UNICEF support in enhancing RCIP warehouse and staff capacity.⁵⁵

"We highly appreciate UNICEF continued support in strengthening cold rooms and warehouse capacity at regional level. Currently we have enough capacity to keep vaccines in a safe environment and deliver them to lowest levels. In addition, UNICEF has provided lorries and vehicles for distribution and monitoring of the EPI programme. "

RCIP, Sughd region.

97. Also, according to key stakeholders, UNICEF's support to strengthen the RCIP cold chain resulted in a more reliable delivery system of quality vaccines to children. Through its technical advisory role, UNICEF quality-assured the development of the Gavi CCEOP application, as part of a strategy to strengthen vaccine supply chain and logistics and achieve better immunization equity and coverage.⁵⁶ However, despite improvements in the supply of cold chain equipment to health facilities at all levels, RCIP managers noted that there is still a clear need to equip lowest-level health facilities with cold chain equipment and (due to frequent cuts in electricity) with additional generators.⁵⁷

Communications and the transition to an SBC approach

98. UNICEF has consistently supported efforts to promote demand for immunization by:

- Supporting capacity development for IPC by service delivery personnel;
- Supporting improvements in crisis communication (on polio and COVID-19);

⁵⁰ Ibid.

⁵¹ KIIs with UNICEF, WHO and Government of Tajikistan staff.

⁵² The Gavi-funded Health System Strengthening Grant 2 (HSS-2) was a six-year, \$14.3 million project from 2017 to 2023, intended to strengthen national financial and programme management systems to achieve high immunization coverage [United Nations Children's Fund (2023) *Strengthening the Health System in Tajikistan*].

⁵³ United Nations Children's Fund (2021) *Government of Japan, the Ministry of Health and UNICEF re-confirm commitment to immunization*.

⁵⁴ United Nations Children's Fund (2023) *Gavi HSS final report*.

⁵⁵ KII with EPI staff.

⁵⁶ United Nations Children's Fund (2019) *Country Office Annual Report 2018*.

⁵⁷ KII with RCIP.

- Engaging in support of media campaigns;
- Supporting data gathering and analysis for evidence generation; and
- Supporting the development of the national SBC strategy and plan of action.

99. Prior to the period under evaluation, UNICEF focused its support on communications for demand generation, as exemplified by the UNICEF-supported communication strategy to optimize immunization approved by MoHSPP in October 2016 and ending in 2020.⁵⁹ Between 2019 and 2024, UNICEF has facilitated the collection of evidence-based information on the knowledge, attitudes, and practices of caregivers, key stakeholders, and health workers related to childhood immunization. Additionally, UNICEF-supported research sought to uncover the primary barriers and drivers affecting vaccine uptake. UNICEF-supported studies indicate that the most frequently cited negative determinants of uptake have been:

- Fear of adverse vaccine reactions;
- Negative experiences during previous vaccinations;
- An adherence among physicians to an overly long and unconfirmed list of contraindications; and
- Insufficient and unclear information provided by health workers with regard to vaccine and immunization risks and benefits.^{60,61}

100. According to interviewed health authorities at national and local levels, caregivers in Tajikistan do not generally seem to question the health benefits of vaccines for their children, or to greatly mistrust information provided by health providers (especially physicians) on vaccine risks and benefits. Rather, they express genuine fears over the immediate risks to children.⁶²

Research on SBC used as a foundation for national strategy

101. The results of recent surveys (in 2023) have provided the foundation for developing a draft SBC strategy for Tajikistan submitted at time of writing to the MoHSPP for validation and approval.^{63,64} As noted in the draft strategy, one element if an SBC approach is the strategic use of communication and community engagement approaches to promote changes in knowledge, attitudes, norms, beliefs and behaviours, ultimately contributing to reducing drop outs and reaching zero-dose and under-vaccinated children.

Research Informing Strategy

Taking into consideration growing problems with vaccine hesitancy and the and findings of recently commissioned KAPB assessments and surveys, the MoHSPP established a Technical Working Group to develop an immunization SBC strategy which is currently in the finalization phase.

Evaluation Dataset

102. In accordance with UNICEF-supported reviews of underlying drivers of vaccine uptake, all respondents and regular research have highlighted the need for improvements in the interpersonal communication skills of health workers.⁶⁵ For example, survey findings report that close to 79 per

⁵⁹ United Nations Children's Fund (2016) *EPI Communication Strategy*.

⁶⁰ KAPB 2019, 2023.

⁶¹ United Nations Children's Fund (2023) *Attitudes of the Population and Medical Personnel in Tajikistan towards Immunization*.

⁶² KIIs with immunization system managers and service delivery staff.

⁶³ KII with UNICEF CO.

⁶⁴ KII with RCIP staff.

⁶⁵ KII with UNICEF.

cent of parents/caregivers reported being satisfied with the answers from health workers to their questions regarding childhood immunization.⁶⁶

Flexible response to a polio outbreak

103. In 2021, in partnership with WHO, UNICEF Tajikistan supported the MoHSPP to provide supplementary polio immunization for 1.27 million children (99 per cent coverage country-wide), which helped to end the polio outbreak.⁶⁷ A communication campaign – paired with evidence-based social mobilization and demand promotion interventions – led to strengthened capacity in health workers and caregivers and, ultimately, in higher vaccination rates against the COVID-19 and polio.

Supporting institutional capacity for SBC

104. Key informants noted that the transition to an SBC framework (as opposed to traditional campaign-based communications efforts) is an effective approach for sustained demand promotion for immunization. UNICEF, within the Gavi HSS-2 project, helped to establish and strengthen the communications unit of the RCIP. The shared UNICEF/RCIP goal is to boost immunization demand by applying different SBC approaches through engagement of different sectors of the health system. The UNICEF CO has completed training for master trainers on IPC and Human-Centred Design (HCD) approaches, alongside dissemination of a set of training materials, to be utilized by responsible health staff during cascade trainings at district and institution levels.

105. In 2023 and 2024, UNICEF supported the training of 196 staff members from RCIP, HLSC, and FMC on SBC, by applying HCD approaches, representing all regions of the country (Rayons of Republican Subordination (RRS): 26; Sughd: 34; Bokhtar- 32; Kulob: 24; Rasht: 20 and GBAO: 26).⁶⁸

106. UNICEF's capacity-building efforts – along with the application of highly effective tools such as HCD and IPC during the training of health workers, immunization staff, and HLSC staff – have been acknowledged as effective by HLSC and RCIP managers.⁶⁹

5.1.2. UNICEF's institutional role

KEQ 2. To what extent has UNICEF assumed an institutional role in supporting immunization that is commensurate with its mandate, capacities and comparative advantages, especially in relation to key partners? To what extent does UNICEF's operational and strategic role at country level reflect its institutional strengths and comparative advantage in immunization support in relation to key partners?

Finding 7: In collaboration with WHO and Gavi as key external partners, UNICEF Tajikistan has been able to assume a recognized essential role in support to immunization systems, which is appropriate to its mandate and commensurate with its capacities and comparative advantages. There is, however, scope for UNICEF to engage more in advocacy and support to interdepartmental and cross-sector coordination in Tajikistan's immunization programme.

⁶⁶ Ibid.

⁶⁷ World Health Organization (2022) *Comprehensive outbreak response successfully stops spread of polio in Tajikistan* www.who.int/europe/news/item/28-04-2022.

⁶⁸ HCD is a problem-solving approach intended to help the health and immunization system identify and address barriers or leverage drivers by understanding the human factors and context surrounding challenges within the immunization programme.

⁶⁹ KIIs with HLSC and RCIP.

Finding 8: An important gap in immunization services can be seen in the relative lack of integration between the national FMC, the MCH service system and immunization. The extent to which UNICEF advocacy and policy support is able to address this gap is not clear.

107. Despite long-term support from donor agencies, the NIP is still dependent on external resources (financial and technical). In this regard, WHO and UNICEF are key supporters of immunization services, with a clear division of responsibilities that takes into account their respective mandates and comparative advantages in supporting immunization programmes.⁷⁰ Across all categories of key informants there is general agreement that UNICEF has served as an important anchor of the revitalization of immunization services, starting as early as 1993. Joint technical support by WHO and UNICEF contributed to the development and endorsement of a new immunization calendar starting from January 1994 Order 484 “On Improvement of the System of Prevention of vaccine preventable diseases” of 1993.

WHO-UNICEF, Global Effective Vaccine Management: WHO-UNICEF have designed the Global EVM (EVM) initiative to help countries to improve the quality of their vaccine and cold chain management from the time the vaccine arrives in the country down to the service delivery point.

108. Almost all the consulted key health authorities highlighted that UNICEF – within its mandate and comparative advantage in the immunization programme – has been continuously providing crucial support to the MoHSPP. This support encompasses expertise in vaccine forecasting and procurement, cold chain and supply systems, demand promotion for immunization, equity-focused delivery, immunization financing, data for children, and procurement services.⁷¹

Cross-sectoral integration of immunization services

109. Interviews with national health authorities – including the managers of MCH services, research institution representatives and other stakeholders – indicated that the level of cooperation and coordination from and between the immunization service and elements of PHC, especially MCH, for the implementation of programme activities could be improved.⁷² A wide range of key informants referred to their understanding of insufficient levels of exchange, cooperation and coordination between different MoHSPP departments and centres engaged in immunization: including RCIP, SSSES, the PHC department, MCH, FMC, and the HLSC.

110. Although some reports and information are exchanged among these units, key informants pointed to work duplication and limited resource optimization. An example of work overlap can be found between RCIP and SSSES in the area of monitoring of VPDs. Consultations with various government institutions have indicated a need for stronger cooperation across different sectors of the health system. Participants point out that the cooperation of UNICEF CO with MCH departments, SSSES and research institutions involved in the immunization programme is currently at a low level when compared to support to other elements such as the RCIP.⁷³

⁷⁰ KIIs with UNICEF, WHO and MoHSPP.

⁷¹ KIIs with healthcare authorities.

⁷² KIIs with MCH and other healthcare authorities.

⁷³ KIIs with national healthcare authorities.

111. Key informants suggest that strengthening cooperation with these sectors would not only enhance the efficiency and reach of immunization programmes, but also ensure that interventions are well-coordinated, scientifically grounded and capable of addressing the multifaceted challenges of immunization uptake.

5.2. Coherence of UNICEF support within national systems

5.2.1. Alignment with key partners

KEQ 3. Where key partners have significant influence on the strengthening of immunization systems, has UNICEF support been aligned and/or complementary with actions by stakeholders to improve vaccination coverage in the ECA region?

Finding 9: UNICEF's support to the national immunization system has demonstrated strong coherence with the country's health systems and health priorities. By aligning its initiatives with national policies and frameworks, UNICEF ensured that its interventions complement and enhance existing government efforts.

Finding 10: UNICEF's immunization programming has shown considerable synergy with the actions of other stakeholders, potentially enhancing the impact of vaccination programmes through strategic partnerships. This collaborative approach not only streamlined immunization support efforts but also contributed to improving the efficacy of immunization programmes, reducing duplication, and leveraging additional financial resources. Moreover, UNICEF's collaboration with government institutions and stakeholders and other international partners promoted a unified approach to external support.

Finding 11: UNICEF Tajikistan, by assisting in the setting of strategic directions and priorities, cooperated with government and international organizations to ensure immunization programme reach. UNICEF also facilitated dialogue among stakeholders to align efforts, provided technical support to enhance immunization programme implementation, and leveraged additional financial resources to contribute to the sustainability of programmes. External partners recognize UNICEF as a key player in advancing immunization coverage, through its continued support for the provision of vaccines, strengthening the supply chain and demand generation.

UNICEF participation in strategies and mechanisms for alignment

112. The NIP, since its inception, has received important technical and financial support from international organizations, such as WHO, UNICEF, Gavi, UNDP, the World Bank, United States Centers for Disease Control, and Aga Khan Health Services. Among the partners' supporting routine immunization, the WHO CO plays a central role in supporting the development of immunization policy, supporting diseases surveillance, and capacity building of RCIP managers and health workers. The NIP and accompanying cMYPs establish key priorities and serve as a fundamental framework for aligning the planned activities of the government with those of the development partners that support immunizations. UNICEF has ensured that immunization support is consistent with these national policies, and participates in government-led coordination mechanisms.

113. During the Gavi-supported HSS-2 implementation phase, a joint comprehensive action plan was developed in consultations between MoHSPP and the implementing partners (such as WHO, UNICEF and UNDP). The initiatives in immunization were financed through Gavi grants under the

HSS, Gavi CCEOP and other additional grant mechanisms.⁷⁴ The action plan illustrates UNICEF's participation in a strategic effort to set a common direction for all support aimed at strengthening the immunization system in Tajikistan. Key informants indicate that, overall, the plan facilitated synergies and helped to avoid duplication.

114. UNICEF is also represented and plays a crucial role in the National Immunization Technical Advisory Group, established in 2016, which coordinates provision of scientific advice on immunization policy and practice, and technical oversight for immunization. UNICEF also participates in the Inter-agency Coordination Committee (ICC), which is dedicated to oversight and support of national efforts to strengthen immunization services. By Decree 120 of March 2014, in response to Gavi requirements, the government renewed and approved the ICC's goal and objectives, membership and operating guidelines. In addition, regular immunization meetings, held under the leadership of MoHSP, provide an important platform for facilitating collaboration for immunization support.

UNICEF/WHO cooperation on support to the immunization system

115. Consultations with RCIP managers at headquarters level and site visits confirmed that the republican and regional centres' main technical partners are UNICEF and the WHO. RCIP managers emphasize the clear division of responsibilities across the two agencies, with WHO focusing mainly on disease surveillance, immunization guidelines and standards and UNICEF providing financial, supply and technical support in vaccine procurement, supply chains (including the cold chain) and community engagement and demand promotion. In particular, RCIP staff at all levels pointed to WHO/UNICEF collaboration on the response to recent outbreaks of measles and polio. UNICEF and other partners' planned interventions address the challenges and priorities identified in the cMYP 2016-2020 and the NIP 2021-2025.

116. Consulted UNICEF staff emphasized that the synergy between the organizations operating under the Gavi HSS-2 framework illustrated a concerted approach to improvement of various components of the immunization system, and contributed to increases in service quality and reaching under-served children. For example, UNDP provided support for improving the infrastructure of health institutions and warehouses for safe storage of vaccine and other immunization items. WHO, on the other hand, provided support for surveillance of VPDs, training of health workers on reporting of adverse events following immunization and contraindications for immunization. WHO CO staff also confirmed the high level of coordination and cooperation between WHO and UNICEF in supporting the immunization system. They noted that this was also recognized by government institutional partners. In their view, each agency works closely with the relevant state institutions within their organizational mandates and comparative advantage, but in a well-coordinated manner to avoid any duplication of interventions.⁷⁵

Overall alignment, coordination and synergy

117. Consultations with both government employees and international agencies indicate that UNICEF-supported activities were fully aligned with government priorities and with the interventions of other partners in the immunization field.⁷⁶ The review of secondary data and interviews with government partners demonstrated clear alignment between UNICEF-supported immunization

⁷⁴ KIs with UNICEF CO staff.

⁷⁵ KIs with WHO and UNICEF staff.

⁷⁶ KIs with government staff, World Bank and WHO.

programme interventions and national priorities, as reflected in key national policies and strategies, particularly the National Development Strategy 2030, the Mid-term Development Programme, the National Health Strategy 2030, the NIP 2021-2025, the cMYP 2020 and the Healthy Lifestyles Strategy. In addition, UNICEF's presence at oblast (regional) level with country field offices was seen by regional, district and local health authorities as another means of distinguishing the specific role played by UNICEF in support to immunization.⁷⁷

Coordination and collaboration in response to the COVID-19 pandemic

118. The COVID-19 pandemic presented an opportunity to establish a cross-programmatic coordination mechanism between UNICEF programme sections,⁷⁸ as well as with government and international development partners.⁷⁹ In addition, UNICEF closely coordinated with USAID, the EU, KfW,⁸⁰ the Islamic Development Bank, the World Bank, CDC, and the ADB in procurement of PPE, ventilators, medicines, and oxygen generators. UNICEF specifically focused on the procurement of vaccine and communication components in response to the COVID-19 crisis. All consulted stakeholders stated that UNICEF country and regional teams have played key roles in timely procurement and supply of COVID-19 vaccines, mobilizing the additional resources needed to help contain the pandemic and mitigate its effects routine immunization services.

119. In summary, virtually all stakeholders interviewed indicated that external partners involved in support to immunization consulted and planned among each other and with the government to better collaborate and avoid duplications and overlap. They noted, however, that the planned introduction of the HPV vaccine in 2025, with its focus on schoolchildren, would require improved coordination between UNICEF's education and health sections, and among national partners in health and education.

5.2.2. Integration of UNICEF support and national action

KEQ 4. Where UNICEF has supported efforts to identify and address barriers and to increase demand for immunization (including adjustments to policies, programmes, services, workforce capacity and accountability) has this resulted in programmes and actions being embedded into health systems and integrated into national immunization programmes, budgets and policies?

Finding 12: UNICEF has been active in supporting the assessments and studies of the bottlenecks and barriers to improved effectiveness and coverage of the immunization system in Tajikistan throughout the period under evaluation. These studies have contributed to adjustment to strategies, programmes, workforce training and vaccine service operations, which have been integrated into the national immunization system. UNICEF's collaborative approach to research, investigation and strategy and programme development contributed to the integration of UNICEF-supported initiatives into the system.

⁷⁷ KIIs with RCIP and FMC staff.

⁷⁸ KIIs with UNICEF CO.

⁷⁹ KIIs with RCIP.

⁸⁰ The KfW development bank is Germany's instrument for development lending. See www.kfw-entwicklungsbank.de/International-financing/KfW-Entwicklungsbank/.

Support to evidence generation to identify and address bottlenecks and barriers

120. As a key partner of RCIP, UNICEF has supported a series of assessments and studies intended to identify the bottlenecks, barriers, and weaknesses hampering immunization uptake.⁸¹ Interviews with the national authorities revealed that UNICEF's support for conducting these and other assessments and studies has been pivotal for identifying and addressing the bottlenecks, barriers, and weaknesses within the immunization programme. These efforts have contributed to more informed decision-making at a system level, helped guide strategic planning, and influenced interventions with a view to enhancing the reach and impact of immunization services. The results of these assessments have been thoroughly discussed and shared with MoHSPP and RCIP.

Integration of UNICEF Resulting Strategies and Approaches into the National Immunization System

121. There are many examples of how UNICEF supported studies and assessments informed interventions that became embedded into the national immunization system. These include the following:

- UNICEF-supported efforts to strengthen the supply chain, particularly the cold chain, became an integral part of the state immunization services, with dedicated staff responsible for management and maintenance, as observed during central, regional and district site visits;
- UNICEF support has contributed to the establishment and strengthening of the RCIP communications unit and the introduction of elements of an SBC approach to the work there.
- UNICEF's support for training and capacity development for managers in different elements of the immunization system has helped to integrate the agreed strategies and approaches;
- UNICEF's support for training in vaccine needs forecasting and vaccine procurement has helped to equip the RCIP staff with the skills and knowledge needed to undertake these activities in coordination with UNICEF Supply Division;
- UNICEF's support for the introduction of new vaccines has resulted in the integration of these into the national immunization calendar.

122. Finally, RCIP managers noted that UNICEF and WHO staff were very supportive in the development of the National Immunization Strategy 2030, which will serve as a key strategic document for the country, replacing the cMYP. This strategic document will play a crucial role in guiding investments to improve immunization services through enhanced managerial capacity, improved coverage reporting, strengthened supply chain management, and improved efficiency of monitoring and evaluation systems.

Integration of immunization financing

123. Alongside Gavi, UNICEF has worked closely with the government to gradually increase its share of vaccine financing. The aim of these efforts was to facilitate a gradual shift from donor dependency to greater national financial commitments and to ensure that the government is progressively taking on a larger proportion of the funding responsibilities for vaccine procurement. This approach has the potential of strengthening the financial sustainability of immunization programmes, but also aligns with the principles of self-reliance and ownership in public health

⁸¹ These include for example: Attitudes of the population and medical professional in Tajikistan (2018); C4D Crisis Communication Plan Gap Review (2019); Effective Vaccine Management (EVM), Tajikistan (2022); Strategic Narrative for Gavi Support Request (2022); CSO Capacity in Immunization Mapping (2023); Cold Chain Equipment Gap Analysis 2023; and Assessment of the EPI digital landscape (2024).

initiatives. The UNICEF-supported co-financing scheme has established a clear framework for financial contributions from both Gavi and the government. This framework is intended to ensure that financial resources for vaccine procurement are efficiently managed and allocated, providing a reliable and predictable funding source for immunization activities.

124. The UNICEF CO's collaborative efforts with government authorities and development partners in implementing interventions underscore its commitment to enhancing immunization programmes at a systems level. This partnership approach has ensured that immunization interventions are effectively integrated into FMC and PHC institutions, gradually shifting from a vertical to a more horizontal programme structure.

5.3. Effectiveness of UNICEF support in the context of the national response

5.3.1. UNICEF capacity

KEQ 5. To what extent do UNICEF RO and CO staff have the capacity, tools and incentives to effectively support national actions to address the social and behavioural drivers of vaccine uptake as an integral element of support to system strengthening for immunization within PHC?

Finding 13: UNICEF Tajikistan has demonstrated the technical capacity (both at the CO and RO levels) required to effectively support the strengthening of immunization programming countrywide. While the complement in staff size is small, especially in relation to the workload to support revised SBC initiatives, staff report that the tools and technical support the CO receives from the RO are important as multipliers of its technical effectiveness.

UNICEF Country Office technical capacity

125. The UNICEF health section comprises six staff members, with only two specifically assigned to collaborate with the MoHSPP and RCIP on immunization efforts. This work is supported by the UNICEF CO supply section.

126. In 2023, UNICEF Tajikistan established an SBC section, staffed by one international and one local expert. This section collaborates closely with relevant institutions like the RCIP and HLSC at all levels. Both the RCIP and HSLC noted that the establishment of the SBC section reflected UNICEF's commitment to addressing the underlying social and behavioural factors that affect health, particularly in the areas of immunization, nutrition, and maternal and child health. The SBC team's work involves designing culturally appropriate communication campaigns, training local health workers, and engaging communities to adopt healthier practices. It also involves supporting other members of the immunization team with the results of SBC research as a factor in the design of UNICEF-supported system-strengthening investments. The SBC section's efforts are intended to bridge the gap between knowledge and action, ultimately contributing to better health outcomes for children and families countrywide.⁸²

127. The current available budget of the UNICEF Tajikistan SBC section covers the operations planned for 2024-2025. This budget line is allocated across the workstreams of evidence generation, capacity building, civil society engagement, establishment of social listening and feedback mechanisms, and community engagement. UNICEF Tajikistan is working to mobilize additional

⁸² KIIs with UNICEF CO and RCIP.

financial resources to expand SBC interventions and ensure the sustainability of the section and its work.

128. During consultations, central RCIP and HLSC staff highly valued the support of the UNICEF Tajikistan SBC section in applying various approaches (HCD, social listening and feedback mechanisms) to identify the barriers, bottlenecks and enabling factors to improve uptake of immunization. Taking into consideration the importance of interventions at community and family levels, and communication channels, the RCIP has created a communication unit purely working on research, development of communication materials and training of healthcare workers.

129. The UNICEF SBC section and the immunization team note that enhancing the capacity of media and health workers on immunization is crucial. Recognizing the media's significant influence on public perception, the UNICEF CO organized a series of training sessions for 50 journalists from national and regional television, radio outlets, and newspapers in Dushanbe (the capital), and Khujand, and Bokhtar regions.

130. In addition, UNICEF Tajikistan staff providing support to the immunization system (including SBC) rely on technical support from the RO staff and the guidelines and tools provided by the RO. This support applies not only to SBC dimensions of immunization but also to UNICEF Tajikistan's support to vaccine forecasting, procurement, supply and cold chain management, the introduction of new vaccines and monitoring and assessment of vaccine management.

131. The UNICEF immunization team noted that it relies on support from the CO procurement section when engaging with programmes and partners to procure materials and services. This UNICEF CO procurement section manages the contracts for services, and it also guides partners through their procurement processes with the assistance of the UNICEF Supply Division. The CO (with support from the RO) is equipped with a robust framework of policy guidance and tools (including tools and instruments for monitoring and assessments) to support national actions to increase vaccine uptake.

5.3.2. *Strengthened national capacity to address improved vaccine uptake*

KEQ 6. To what extent has UNICEF contributed to strengthening the national systems' capacity to improve vaccine uptake?

Finding 14: UNICEF Tajikistan has engaged in efforts to strengthen the national system for outbreak preparedness and response by: a) supporting infrastructure improvements and skills development for healthcare professionals to ensure that vaccines are stored, transported and delivered under optimal conditions; and b) directly supporting efforts to strengthen DRR and risk-informed emergency response mechanisms. However, inconsistencies and gaps remain in VPD surveillance and response across the immunization and PHC system.

Finding 15: UNICEF contributed to the strengthening the cold chain system at all levels of the immunization programme. This was confirmed by the increased number and improved quality of cold chain points, and improved national, regional, and district infrastructure. UNICEF's relevant support for cold chain strengthening contributed to a notable improvement in cold chain management at all levels.

Developing an evidence-based understanding of social and behavioural drivers of vaccine uptake

132. The review of research reports and assessments (see section 5.2.2 KEQ 2) and interviews with key stakeholders indicate that UNICEF has been active in supporting research initiatives to understand the barriers to vaccine uptake and evaluate the effectiveness of different interventions over the course of the evaluation period. In addition, under the Gavi-funded HSS-2 grant, UNICEF Tajikistan also supported the baseline and end-line knowledge, attitude, practices and behaviour (KAPB), research surveys intended to assess the attitudes of caregivers and health professionals towards immunization. These surveys helped to gather in-depth, and evidence-based information on the changing perceptions and practices surrounding immunization.⁸³

133. The baseline survey identified key barriers to vaccination, such as misconceptions about vaccine safety, lack of awareness regarding immunization schedules, and logistical challenges faced by caregivers. The end-line survey, conducted after targeted interventions, revealed improvements in understanding and acceptance of immunization among caregivers and enhanced commitment among health professionals. Notably, the evidence gathered from these surveys has been instrumental in informing policy adjustments and tailoring national communication strategies to further enhance immunization coverage and community trust in the healthcare system and the development of a national SBC strategy.

134. In addition, the establishment and staffing of the SBC section within UNICEF Tajikistan and its support for the communications unit of the RIPC provides evidence that the country was making progress in embedding processes for understanding social and behavioural drivers of vaccine uptake into the overall immunization system. However, this was a recent development, and the interviewed stakeholders were still unclear to what extent this could lead to significant system changes over time to improve uptake and, thereby, coverage nationwide.

National systems for outbreak preparedness and response

135. According to key stakeholders, UNICEF's support has been instrumental in reinforcing national systems for outbreak preparedness and response. Through strategic partnerships and targeted interventions, UNICEF has supported efforts to enhance the capacity of the health system to manage and mitigate the impact of infectious disease outbreaks, including ensuring that vaccines and medical supplies are stored and transported under optimal conditions to maintain their efficacy.

136. In addition to infrastructure improvements, UNICEF has focused on strengthening the skills and knowledge of healthcare professionals through comprehensive training programmes. These initiatives have equipped health workers with the expertise needed to conduct rapid response measures, perform accurate disease surveillance, and implement effective immunization campaigns. In 2020, children and their families in Tajikistan were exposed to various risks related to natural hazards, climate-induced disasters, and disease outbreak.

137. To counteract this, UNICEF worked closely with the government actors and other partners to enhance DRR and risk-informed emergency preparedness/response to manage vulnerabilities and strengthen resilience among children around the country. In addition to diversifying the COVID-related risk communication and community engagement (RCCE) approach, UNICEF also provided support to the Committee of Emergency Situation on RCCE to further roll out a multi-channel

⁸³ UNICEF Tajikistan supported the MoHSPP to conduct baseline and endline perception surveys/KAP surveys to better understand the behavioural insights relating to vaccine introduction and uptake as part of support to HSS-2. United Nations Children's Fund (2023) *Strengthening the Health System in Tajikistan: Final Report*.

communication campaign. At the policy level, UNICEF Tajikistan contributed to ensuring the mainstreaming of DRR into the National Education Strategy.⁸⁴

138. At the same time, the review of available secondary data, observations during field visits, and consultations with service providers indicate certain inconsistencies and inadequate coordination efforts regarding VPD surveillance and the response between RCIP, SES, and FMC at the grassroots level. This includes issues related to vaccination coverage, disease surveillance, and reporting.

System-wide improvements with the potential to improve uptake and coverage

139. In addition to supporting the gathering and use of evidence on factors driving uptake, key informants noted that UNICEF's efforts to strengthen the overall immunization system of the country over the timeframe under evaluation have contributed to system-wide improvements and helped the national healthcare authorities to build a more robust platform for improving uptake and extending coverage. They point to a range of improvements in the operation of the national system.

Improving the management and operation of the vaccine cold chain

140. UNICEF's global Immunization Roadmap to 2030 identifies "improved availability of potent vaccines at service delivery points" as a key output.⁸⁵ Achieving this output requires a properly functioning immunization supply chain, including the cold chain as the underlying basis for vaccine safety and efficacy. In this regard UNICEF's support was highly valued by all participants in the evaluation, including government staff and international partners. Under its role in the Gavi-supported Cold Chain Equipment Optimization Plan (CCEOP-1), UNICEF procured and installed cold chain equipment at central, regional and district levels. Only in 2023, UNICEF procured and installed this 700-unit refrigerators, 20 NTS-110 solar refrigerators and 700 voltage stabilizers.

141. Consultations with government employees revealed that they highly appreciated UNICEF's support in enhancing the capacity of health workers engaged in realization of the immunization programme.

142. UNICEF also supported national efforts to enhance the capacity of RCIP and FMC staff in different immunization topics. For example, UNICEF supported the training of 54 RCIP employees at national and sub-national levels who currently operate the vaccine stock management system through utilization of the 1C software for automatization of the vaccine reporting system. This training enabled RCIP specialists to organize and monitor the vaccine and immunization supplies at national and regional levels as well as in the RRS.

"In 2021 UNICEF supported supply chain data management, 1C warehouse management software was installed at the national level, and in six regions, and six districts surrounding Dushanbe. Thirty-two national, regional and district warehouse managers were trained

In 2020, under the Gavi HSS-2 project, around 1,855 health workers – including 72 national and regional EPI managers and 1,783 PHC workers – were trained on revised supply chain data management tools."

Source: UNICEF Strategic Management Questions Survey Formatted Report, data refreshed as of 20 April 2023

⁸⁴ United Nations Children's Fund (2021) *Country Office Annual Report 2020*, www.unicef.org/media/102531/file/Tajikistan-2020-COAR.pdf.

⁸⁵ United Nations Children's Fund (2023) 'UNICEF Immunization Roadmap to 2030: Theory of Change'.

Understanding and addressing factors limiting access

KEQ 7. To what extent have healthcare systems been able to identify, understand and address factors affecting their ability to reach the most vulnerable and address issues of inequity in immunization programming?

Finding 16: Immunization programme managers do conduct reviews of available information regarding immunization uptake and implement measures to address identified issues. However, these reviews are not conducted regularly, and they are not yet based on reliable information to ensure that appropriate decisions are made.

Accessing data on coverage and issues of inequity

143. Even before the beginning of the timeframe under evaluation, the 2017 DHS demonstrated significant inequities in immunization coverage between urban and rural settings, socio-economic levels, and regions of the country.⁸⁶ Since 2017, the DHS, the RCIP and FMCs have utilized a regular monitoring and bi-annual census conducted at health facility level as a guide to track progress toward immunization programme goals and targets. Interviews with healthcare authorities and service providers and international partners (including UNICEF Tajikistan) indicated that the experience of the COVID-19 pandemic and the restrictive containment measures taken to contain its spread strongly affected the attitude of caregivers to the safety, reliability and effectiveness of routine immunization, not least due to a rising tide of disinformation.

144. Both before and after the pandemic, UNICEF has contributed to research projects and studies aimed at identifying the underlying drivers of vaccine uptake in Tajikistan⁸⁷. The results of these reviews and studies have been supported by the findings of RCIP-prepared annual immunization programme performance reports.⁸⁸ One promising approach to addressing inequities noted in many of these reviews has been engaging community leaders and health workers in the planning and implementation of immunization programmes to better understand and adapt services to local cultural, social, and economic factors that affects immunization uptake.

145. Another promising approach, highlighted in RCIP annual immunization programme performance reports, was the provision of evidence-based and trusted information to the population on the importance of routine immunization and vaccines. In response to this need, RCIP reports that in 2023 alone, more than 13 television programmes were broadcast with the participation of MoHSPP specialists to share information about the importance of immunization for the prevention of infectious diseases. Particular focus was given to immunizations against measles-mumps, polio and pneumococcal infections. In addition, similar information was disseminated through 18 programmes on the national radio network.

146. It is notable that interviews with managers responsible for different aspects of the immunization system, as well as external partners, indicate a lack of regular and systematic reviews

⁸⁶ Tajikistan Statistical Agency (2021) *Tajikistan Demographic and Health Survey*.

⁸⁷ Republican Centre for Immuno-Prophylaxis (2019) *Quantitative and Qualitative Research on Immunization and Vaccine Hesitancy in Tajikistan*; Republican Centre for Immuno-Prophylaxis (2023) *Research on immunization and factors influencing vaccine hesitancy in Tajikistan*; Republican Centre for Immuno-Prophylaxis (2023) *Attitude of caregivers and health workers towards immunization*.

⁸⁸ Republican Centre for Immuno-Prophylaxis (2023) *Annual immunization programme performance report*.

of coverage and its dynamic components based on reliable data to support evidence-driven decision making. One factor contributing to the difficulty of regular gathering and review of this data, as reported by almost all immunization system staff, has been the very heavy workload among health staff in PHC institutions. Staff pointed out that health workers are required to perform multiple tasks in addition to immunization interventions, and that this was leading to a decline in the quality of their work. This observation has also been confirmed by studies supported by UNICEF.⁸⁹

5.3.3. Drivers affecting uptake

KEQ 8. Which drivers or groups of drivers influence the change in immunization coverage, positively or negatively at policy, system, services, community and individual level?

Finding 17: While UNICEF and partners have invested in efforts to improve the quality of record keeping and the timeliness and quality of reported data on immunization, the predominance of paper-based recording and reporting systems continues to limit the applicability of data-driven approaches to decision making. UNICEF Tajikistan has supported efforts to assess issues in digitizing EPI data. These efforts indicated a significant opportunity for effective investments in this area.

Finding 18: Despite the limitations of available immunization coverage data, there is an opportunity for UNICEF and national health authorities to make more use of available evidence-based information related to social and behavioural drivers of vaccine uptake to develop targeted interventions to mitigate factors limiting immunization uptake and involve community leaders (jamoat and religious) in planning and public awareness.

Finding 19: Despite reported high coverage rates for immunization, persistent, significant barriers affect immunization uptake. They include a lack of accurate coverage data, widespread misinformation, low awareness of benefits and risks among caregivers, poor support for caregivers with children with a history of adverse reactions, and inadequate use of innovative methods and technologies for vaccine tracking.

Drivers of and barriers to immunization coverage

147. The studies and research projects supported by UNICEF demonstrate that barriers to countrywide immunization coverage can be classified into two domains: demand side (knowledge, awareness and practices of caregivers) and supply side (location and schedule of vaccine provision and availability of vaccines).

Demand-side factors

148. The same assessments clearly indicate that interventions targeting the "demand-side" barriers have an increasingly important role in accelerating progress toward coverage targets. In particular, UNICEF studies⁹⁰ point to a range of factors affecting the uptake rate, such as: low awareness among caregivers about immunization and its role in preventing VPDs; refusal for social reasons; beliefs on contraindications (including overuse of contraindications by physicians); fear of vaccine side effects and experience with adverse outcomes following immunization; worry about the number of vaccines given at one infrequent visit; and a general mistrust in the quality of vaccines.

⁸⁹ United Nations Children's Fund (2019) *Quantitative and Qualitative Research on Immunization and Vaccine Hesitancy in Tajikistan*; United Nations Children's Fund (2023) *Research on immunization and factors influencing vaccine hesitancy in Tajikistan*.

⁹⁰ Ibid.

149. A lack of decision-making power on the part of mothers with regard to vaccination decisions for their children was cited as another factor limiting uptake. In a reported 80 per cent of Tajik families, mothers must receive permission from an older family member to vaccinate a child.⁹¹ FMC staff noted that this could represent another barrier to uptake if messaging and behaviour change efforts focused on mothers as direct caregivers have been successful. It suggests that messaging needs to encompass decision-makers in the family as a whole.

150. In support of these research findings, FMC staff (interviewed by the evaluation at PHC level) identified low awareness among caregivers as a critical barrier to uptake. The staff suggested that a key response strategy involved engagement with mothers and family members to provide more accurate information, using any opportunities arising from visits to health facilities or outreach to homes. Interviews with FMC and HLSC staff indicated they were responding to this opportunity by ensuring that health education programmes delivered by the recently established Community Health Teams (CHTs) incorporated material on the promotion of demand for immunization.

Supply-side factors

151. At the same time, key informants noted supply-side barriers remain to vaccine uptake, as reported to them by caregivers. These included negative attitudes of healthcare workers to poorer rural and peri-urban families, poor communication skills or lack of knowledge among healthcare workers, long waiting times for immunization, and the cost of transportation. The FMC staff also indicated that the use of multi-dose vaccine vials for BCG and MMR vaccines can sometimes be a deterrent for caregivers. The use of vaccines containing multiple antigens, such as the pentavalent (containing five antigens) and MMR, when given alongside other routine vaccines during a single visit, according to FMC staff, can sometimes cause the child to experience a reaction feared by caregivers. Some caregivers may be concerned about the safety of receiving multiple antigens simultaneously, leading to vaccine hesitance or refusal.

152. UNICEF-supported root cause analysis that was included in the narrative proposal for Gavi support in 2022 identified the following barriers to immunization services to achieve and sustain high coverage and prevent future outbreak of VPD (Table 7).⁹²

Table 7. Key barriers identified through root cause analysis

EPI components	Barriers
Health information systems monitoring and learning	Lack of accurate statistical data on zero-dose and under-vaccinated children and disaggregated data on marginalized and hard-to-reach groups.
Programme management	Absence of effective micro-plans to improve routine immunization coverage.
	Weak supportive supervision mechanisms and monitoring for ensuring high-quality service delivery and feedback mechanisms.
Demand generation and community engagement	Insufficient demand for vaccination and engagement of communities for the promotion of immunization in some areas of the country. The workload of health workers.

⁹¹ United Nations Children's Fund (2024) *Research on immunization and factors influencing vaccine hesitancy in Tajikistan*.

⁹² United Nations Children's Fund and Ministry of Health and Social Protection of the Population (2022) *Strategic Narrative for Gavi Support Request*.

Service delivery	The high number of vaccine contraindications, low motivation, turnover of staff affects the performance of the NIP.
Vaccine safety	Insufficient performance in AEFI management and surveillance.
VPD surveillance	Lack of sufficient funding for in-country transportation of lab samples.
Vaccine logistics	Lack of innovative methods and technologies for warehouse management logistics and vaccine tracking.

Source: Ministry of Health and Social Protection of the Population, *Strategic Narrative for Gavi Support Request*, 2022.

153. The KIIs indicated a continuing and growing need to improve vaccination records, particularly those related to immunization coverage. This would require moving from paper-based to digitized reporting, through integration of vaccine reporting into the Digital Health Information System (DHIS2).⁹³ By the time of this evaluation, UNICEF was supporting an effort to build the capacity of healthcare workers to improve timely reporting into DHIS2 of vaccines administered,⁹⁴ to allow for accurate and timely estimates of immunization coverage at local level. Currently, the DHIS2 platform has only been deployed at regional level. Key informants⁹⁵ believed that often paper-based data gathering and analysis led to miscalculation, misinterpretation of data and, ultimately, to incorrect decision-making.⁹⁶

154. As a further response to this need, in 2024, UNICEF supported an assessment of the EPI digital landscape. The assessment found the following challenges in effective implementation of digitization:

- Infrastructure for information technology and communications is underdeveloped and underfunded;
- Poorly equipped PHC institutions and lack of staff capacity in information technology; and
- General shortages of PHC staff.

Ultimately, the assessment found that significantly increased investment is needed in integrating EPI digitization into the existing DHIS2 system.⁹⁷

Using available data and evidence to address barriers to uptake

155. The review of documents, KIIs with healthcare authorities, the immunization service and FMC staff at all levels, and observations from site visits to facilities inside and outside the capital, indicate that the immunization system in Tajikistan exhibited a number of strengths during the period under evaluation. By the end of 2023 the evaluation system was characterized by:

- a strong national political commitment, including mandatory immunization;⁹⁸
- existing extensive healthcare infrastructure;⁹⁹
- dedicated staff at PHC institutions;¹⁰⁰ and

⁹³For a global overview of the system, see <https://dhis2.org/>

⁹⁴ KIIs with the RCIP.

⁹⁵ KIIs with MoHSPP, RCIP, UNICEF CO and FMC.

⁹⁶ Joint National-International Review of the Immunization Programme in Tajikistan (2022).

⁹⁷ United Nations Children's Fund (2024) Assessment of the EPI Digital Landscape.

⁹⁸ KIIs with UNICEF CO, MoHSPP, RCIP and WHO.

⁹⁹ RCIP annual performance reports, site visit observations.

¹⁰⁰ KIIs with FMC staff and site visits.

- RCIP capacity at national and regional level to provide logistics support and ensure a functional supply chain.¹⁰¹

156. Tajikistan relies on the more than 2,800 immunization points available throughout the country regularly providing immunization services, with trained and certified staff.¹⁰² Consultations with field staff have confirmed that vaccines are consistently available for routine immunization and provided free of charge, without reported stock-outs. During consultations, staff from the RCIP and at health facilities indicated that immunization programmes (particularly in relation to the strength of the supply chain and capacity development support to health workers) are generally better resourced than other programmes they implement.

157. MoHSPP staff noted their current efforts to progressively integrate all vertical programmes into PHC and family medicine services. They report that this initiative is intended to enhance service coherence and improve the quality of the comprehensive public health service package and reporting.

5.4. Sustainability

5.4.1. Sustainable system strengthening

KEQ 9. To what extent has UNICEF’s support to immunization at the country level contributed to sustainable system strengthening, including capacity to address factors affecting vaccine uptake/demand?

Finding 20: Immunization services, including interventions supported by UNICEF, are integrated into PHC delivery systems and system performance (vaccination coverage, session management, communications) is a key component of PHC supervision and management. In addition, the development of strategies and approaches to strengthening immunization services is led by MoHSPP and RCIP, with collaborative support from UNICEF and WHO, aimed at facilitating the integrating of investments and programmes into the FMC/PHC system.

Finding 21: The NIP – especially its “high investment components” – is heavily dependent on donor support, making its sustainability precarious. Despite the country's ongoing efforts to enhance its commitment to vaccine procurement and fulfil its obligations, the reliance on external funding remains a critical vulnerability.

Finding 22: The national effort to improve the sustainability of immunization programming includes meeting its agreed financial commitments while improving the structure of immunization and other services delivered by FMCs, by shifting the NIP to a more horizontal alignment.

Finding 23: Negative factors contributing to sustainability risks for immunization programming in Tajikistan include:

- systemic health-sector issues – including limited health system financing, shortages and continuing outward migration of HCWs, and costs for caregivers to access health institutions (transportation costs);
- high levels of dependence on external financial support for immunization investments

¹⁰¹ KIs with UNICEF CO, MoHSPP and RCIP, and site visit observations.

¹⁰² Ministry of Health and Social Protection of the Population (2022) *Strategic Narrative for Gavi Support Request*.

- motivational issues for frontline sector staff, who are underpaid relative to norms in the region.

Finding 24: Positive factors supporting sustainability include the high government priority and high level of political support for the NIP. This is further strengthened by a strong commitment to immunization by national and local authorities as a priority component of public health. Despite high levels of dependence on outside funding, the gradually increased level of domestic funding for procurement of vaccines is a positive development for sustainability.

158. Discussions with key informants of all different types (UNICEF CO, MoHSPP, RCIP and WHO) indicated that the sustainability of immunization programmes in Tajikistan is a multifaceted issue that depends on several critical factors. Key elements noted by the informants include political ownership and commitment at national and local level; a strong legislative and regulatory framework; robust infrastructure; the integration of the immunization programme into family medicine services; and the availability of well-trained human resources. Financial resources are viewed as equally important to ensure the consistent delivery of vaccines and related services. Additionally, public trust in immunization services is a vital component of the programme's sustainability.

159. In addressing KEQ9, the evaluation examined the key elements identified by shareholders, as they were evidence in the immunization system in Tajikistan at the end of the period under evaluation.

Institutional factors in immunization system sustainability

160. **The legal, regulatory and strategic framework:** With the support of international partners, including UNICEF, the MoHSPP was able to develop and/or revise legislations, norms and standards, targeted to support effective implementation of sustainable interventions.¹⁰³

161. In addition, in 2022 the RCIP took the lead for the MoHSPP to develop a national plan to succeed the previous cMYP, which ended in 2020. The resulting NIS 2030 lays out the strategic and operational priorities of the immunization system for the period 2023 to 2030.¹⁰⁴ High-level strategic priorities include: human resources, information systems, access to immunization for uncovered and zero-dose children, vaccine security, cold chain and logistics, and financial sustainability. Planned activities are specified for each high-level strategic priority.

162. **National ownership and commitment:** Interviews with health authorities at all levels and with UNICEF staff and other international partners validated that the NIP programme is regarded as a central and critical component of national public health, especially by the MoHSPP. The decision to integrate immunization indicators into the National DHIS2 system is evidence of the priority the government gives to immunization services. According to stakeholders, this integration would enable regular analysis of collected data and facilitate evidence-based planning in the near future.

¹⁰³ KIs with MoHSPP, RCIP, UNICEF CO. Examples include: Ministry of Health and Social Protection of the Population (2022) *Guideline "On the organization and conduct of days of mass immunization against pneumococcal infection in the Republic of Tajikistan"*; Ministry of Health and Social Protection of the Population (2023) *Guidelines "On the organization and conduct of additional immunization days against measles and mumps in the Republic of Tajikistan"*; Ministry of Health and Social Protection of the Population (2023); *Standard Operating Procedures on Effective Management of Vaccines*; and Ministry of Health and Social Protection of the Population (2024) *Guidelines "On vaccine safety and contraindications to immunization"*.

¹⁰⁴ Ministry of Health and Social Protection of the Population (2022) *National Immunization Strategy 2030*.

163. **Established immunization system management and coordination structures:** The evaluation found that structures for managing and coordinating the operations of the immunization system are strongly embedded within national institutions. For example, according to key informants the RCIP, with a team comprising 35 staff at central level supported by six branch centres (CIPs), demonstrated sufficient capacity to deliver core functions of the system and ensure programmatic sustainability.¹⁰⁵

164. **A commitment to supportive supervision:** Desk research revealed that UNICEF Tajikistan has supported the development of Supportive Supervision (SS) guidelines for immunization. The resulting practice focused on all aspects of the immunization programme, particularly the introduction of vaccines, injection safety practices, open vial policy, immunization waste management, cold chain, continuous temperature monitoring, use of dashboards, and the implementation of Reach Every District Strategy. Following the approval of the guidelines, RCIP conducted supportive supervision in 14 districts of the country (including Gavi HSS districts), and visited 723 primary healthcare facilities, in total.¹⁰⁶

165. **Dedicated service delivery staff and a commitment to FMC strengthening:** Interviews with key informants at all levels and site visits to FMCs strongly indicate that PHC staff delivering immunization services (responsible for everything from planning to conducting vaccination sessions and reporting) were dedicated professionals. In addition, they claimed that MoHSPP efforts to enhance family medicine practices were fundamental to the sustainability of immunization services.

UNICEF support as a factor in institutional sustainability

166. KIIs with all stakeholder groups indicate that support from UNICEF has also been a factor in ensuring the institutionalization of improvements in the immunization system during the evaluation period in areas such as:

- **Cold chain equipment management:** Within the scope of its support for strengthening the cold chain, UNICEF has worked to build the capacity of the technical and managerial staff around effective cold chain management and vaccine handling. UNICEF's approach to strengthening the cold chain system for effective vaccine management underpins the sustainability of the immunization programme. However, timely equipment maintenance remains problematic, due to a lack of technicians and dedicated financial resources from domestic resources for the procurement of spare parts.¹⁰⁷
- **Information systems:** UNICEF CO's support to the integration of immunization indicators into the existing National DHIS2 system, has led to its operationalization at regional level. This integration is intended to provide access to reliable, standardized information, including immunization coverage data.
- **Community engagement and SBC:** By supporting the establishment of a communication unit in RCIP, fully financed by MoHSPP, and working to enhance the capacity of staff, UNICEF supported the institutionalization of an SBC approach which should lead to improvement and sustained efforts directed to demand creation. Training modules developed jointly by UNICEF, HLSC and RCIP-based on the results of a KAPB study, also demonstrate the MoHSPP's intention to sustain this key component of immunization programme. Key informants note that the SBC approach, promoted by UNICEF CO, had strong potential for sustainability, as it

¹⁰⁵ KIIs with UNICEF CO, MoHSPP.

¹⁰⁶ Gavi (2020) *2020 multi-stakeholder dialogue: immunization planning in light of COVID-19 Tajikistan*.

¹⁰⁷ KIIs with UNICEF CO and RCIP staff.

was built within the government framework of community involvement in health issues. However, local healthcare authorities indicate there is a need to further strengthen the capacity of Healthy Lifestyle Centres at the district and regional levels to fully take ownership of the SBC outcomes.¹⁰⁸

167. From late 2022, but especially with the establishment of the SBC section in 2023, the UNICEF CO has been actively advocating the incorporation of SBC into the NIP, underpinned by robust collection of evidence-based data. This initiative has culminated in the formulation of the National SBC Strategy, the primary objective of which is to enhance the coverage of routine immunizations and systematically address barriers through well-defined, targeted interventions.

Financing and sustainability

168. According to key stakeholders, the financial sustainability of the immunization system in Tajikistan is a complex matter. On the positive side, several factors and measures indicate a gradual increase in the share of budgets and expenditures accounted for by domestic public funds. At the same time, other sources of information and other measures of expenditure highlight the challenge Tajikistan faces, and many key informants envisioned declining external funding for health services in general and immunization in particular.

169. On the other hand, despite the challenges Tajikistan faces in meeting its financial obligations and co-financing commitments, the KIIs undertaken by the evaluation with government healthcare authorities indicated a strong willingness of the government to assume responsibility for funding immunization activities. Similarly, RCIP data indicates that domestic government funding of the EPI programme (including co-financing) increased from \$1.53 million in 2018 to \$3.18 million in 2023 (Table 7).

Table 8: EPI Funding by source in \$

Sources of funding /years	2018	2019	2020	2021	2022	2023
Gavi (\$)	2,502,264	2,702,000	1,691,805.64	1,568,813.71	893,493.27	2,435,314.12
Government of Tajikistan (\$)	1,523,892.25	1,820,223.00	1,867,045.00	2,336,920.23	2,634,025.00	3,156,464.00
Government of Tajikistan (\$) including co-financing	1,170,213	1,458,333	1,666,667	1,964, 286	2, 450, 980	2, 710, 280
Government of Japan (\$)	1,035,609	1,000,000	-	-	805,416.82	697,502.88

Source: RCIP account department, 2024.

170. In addition, the national budgetary allocations to the operations of the RCIP (including co-financing obligations) have more than doubled in nominal terms during the evaluation period (Table 8).

171.

¹⁰⁸ KIIs with RCIP and FMC staff.

Table 9: Immunization programme budget allocation from the state budget (in TJS)

Budget line/years	2018	2019	2020	2021	2022	2023
RCIP budget (overall in TJS)	14 476 977	17 476 977	21 134 984	26 453 957	29 501 077	34 721 099
<i>for procurement of vaccines</i>	11 000 000	14 000 000	17 000 000	22 000 000	25 000 000	29 000 000

Source: RCIP Accounts Department, 2024.

172. In addition, Tajikistan has consistently, if gradually, increased its co-financing of vaccines procured with Gavi support during the period under evaluation, from \$1.5 million in 2018 to \$2.7 million in 2023. In 2015, the share of government expenditure for co-financing vaccine procurement was less than 20 per cent. Since that time there has been an increasing trend of dedicated government budgetary contributions for the co-financing element of investment, from 29.4 per cent in 2019 to 32 per cent in 2023. The total implementation cost of the NIP for the period 2021-2025 is estimated at \$39,206,620, from which 61 per cent will be covered by Gavi and 34 per cent co-financed from the national budget.

173. **More challenging to financial sustainability:** According to WHO NHA data, government expenditure to support the immunization programme from the national health budget was less than 1 per cent. In recent years (up to 2023), the share of total general government expenditure (GGE) spent on health has steadily increased from 7 per cent to 8 per cent. Tajikistan remains the only country in the WHO European Region that is not able to cover the cost of traditional vaccines for the population by the end of the evaluation period.

174. KIIs with government and international stakeholders validated that, by the time of this evaluation, the government did not have the fiscal space to allocate the required financial resources to fund the implementation of the NIS 2030. Key informants indicated that financing of non-salary operational and recurrent cost at all levels was fully reliant on partner support. RCIP and FMC field staff reported that insufficient funding for operational expenses – such as transportation of vaccines, performance monitoring and supervision – sometimes forced staff members to use their own financial resources.¹⁰⁹ This reportedly led to financial strains on individuals and affected the quality of services provided.

175. The size of the financial commitment required for immunization services is considerable, as the NIP is one of the most extensive national public health programmes, targeting close to 150,000 new-born children a year with primary doses and more than 700,000 children aged 1-5 years with booster doses. An estimated \$419 million is required to implement the NIS between 2023 and 2027.

¹⁰⁹ KIIs with RCI and FMC field staff.

Table 10. Projected NIP costs, summary by EPI components and years

Immunization system components	Future resource requirements					Total 2023-2027
	2023	2024	2025	2026	2027	
Program management	113,558	210,958	95,558	131,158	84,358	635,590
Human resources management	884,369	672,469	110,381	101,981	0	1,769,200
Vaccine Supply, quality and logistics	83,523,396	80,236,368	82,215,281	83,768,081	85,591,056	415,334,182
Service Delivery	130,300	26,100	6,600	6,600	2,400	172,000
Immunization coverage and AEFI monitoring	266,900	107,400	98,700	1,200	1,200	475,400
Disease Surveillance	136,000	18,000	36,000	18,000	36,000	244,000
Demand Generation	24,000	0	0	0	0	24,000
Total immunization Immunization costs	85,078,523	81,271,295	82,562,520	84,027,020	85,715,014	418,654,372

Source: MoHSPP, NIS 2030, 2022.

176. As illustrated in Table 10, the main cost driver of the NIS resource requirements for 2023-2027 is the “Vaccine supply, quality and logistics” component, which accounts for approximately 99.2 per cent of the total immunization-specific costs.

Other factors affecting sustainability

177. **Integrated immunization and PHC services at FMC level:** KIIs with FMC managers and staff demonstrate that immunization programmes are an integral part of family medicine services at PHC institutions. The same staff also noted that the performance of immunization services is one of the key measurements of the quality of health services, as tracked and reported by FMC staff.¹¹⁰ Additionally, interviewed healthcare workers pointed to the importance of engaging with communities to raise their awareness related to immunization and vaccines as an element of sustainability. Reportedly, all social behavior communication interventions supported by UNICEF were done in close cooperation with district HLSC staff.

178. **Human resources.** The positive correlation between healthcare worker density and immunization coverage is well documented in public health literature, as is the requirement for capable/well trained human resources.¹¹¹ While UNICEF has supported efforts to train healthcare workers at all levels, almost all interviewed staff members of local institutions reported facing staff shortages due to outward migration and low motivation. The RCIP has taken some steps to address this by integrating immunization topics into the curriculum for postgraduate health training. In 2023, a total of 14 health workers (two epidemiologists; five family nurses; and seven assistant epidemiologists) completed training courses.

5.5. Efficiency

5.5.1. Efficiency of policies and Programmes

KEQ 10. How efficient are health system’s immunization policies and programmes to identify and address current and potential bottlenecks or inefficiencies?

¹¹⁰ KIIs with FMC staff

¹¹¹ *International Journal of Public Health Science*, 2014; 11:55–66.

Identifying and diagnosing gaps and bottlenecks

Finding 25: While there are well-established systems to monitor immunization services using appropriate checklists and visits from supervisors, there is a continuing gap in the utilization of findings, and a lack of supportive supervision and feedback for service providers. In addition, there is a significant discrepancy between urban and rural settlements' immunization coverage, and persistently low immunization coverage in some geographic areas, both linked to a risk for transmission of infections of VPDs.

Finding 26: UNICEF Tajikistan has supported national health authorities to address gaps and bottlenecks in the immunization system by strengthening procurement and effective storage and distribution (including the cold chain), thereby reducing wastage and improving efficiency. Similarly, UNICEF's efforts to strengthen the capacity of RCIP staff members and healthcare providers have focused on improving client interaction and reducing drop out. In addition, its support for continuous professional development and training for health workers has focused on equipping them with the skills and knowledge needed to administer vaccines safely and efficiently.

Finding 27: Despite continuing challenges in the availability of human resources, Tajikistan has made progress in improving the ability of the immunization system to optimize resource allocation and utilization, through the introduction of programmes for vaccine tracking and reporting, and by streamlining operations across various levels of healthcare delivery.

179. RCIP staff described the use of a regular internal supportive and monitoring system to identify bottlenecks, barriers and weaknesses in the immunization programme at the health facility level. To facilitate this, the RCIP developed a standardized monitoring form and instructions on its use. During consultations, RCIP staff reported that they regularly conducted supportive supervision and monitoring of healthcare institutions to assess progress in reaching immunization coverage targets, and to identify gaps in services.

180. RCIP staff also emphasized the importance of joint assessments commissioned by international partners. These assessments usually target various components of the immunization programme, and play a critical role in identifying strengths and weaknesses within the programme. They are intended to ensure that the resources are being used effectively, and highlight the areas requiring improvement. Moreover, the insights gained from these assessments are intended to help in shaping policy decisions, improving strategic planning, and driving continuous improvement in service delivery. Key informants report that this collaborative process ultimately contributes to the sustainability and success of the immunization programme. For example, according to RCIP's annual report, supportive supervision and monitoring have revealed issues, facilitated discussions, and identified solutions tailored to the capacities of local health institutions.

181. Regarding ongoing tracking of coverage at the sub-national and facilities level, key informants noted that each healthcare facility is required to update immunization coverage monitoring charts – for key antigens, as well as the dropout rates for selected vaccines – on a monthly basis.¹¹² However, there was limited information available on how these monitoring and supportive supervision visits were translated into practice.

¹¹² The three vaccines tracked are oral polio vaccines 1 and 2, pentavalent (which prevents diphtheria, tetanus, pertussis (whooping cough), hepatitis B and haemophilus influenzae type b (Hib)), and rotavirus vaccines 1 and 2

182. Another significant gap noted by key informants was the absence of disaggregated data at the level of healthcare facilities, on marginalized populations and sex, which impeded effective assessment of immunization programme performance. This lack of detailed information made it challenging for managers to identify and address disparities in healthcare delivery and outcomes. By addressing this data deficiency, national and local health authorities could have better identified areas for improvement, to ensure equitable access to immunization for all segments of the population. Likewise, differences in data reported by different sources – such as the State Statistical Agency (SSA), MoHSPP and the RCIP – are a persistent issue. Some stakeholders believe that these inconsistencies can significantly affect the accuracy of immunization coverage assessments, and can hinder the ability to make informed decisions regarding immunization interventions. These variations can also impede efforts to ensure that immunization programmes are based on reliable data, thereby hindering proper healthcare planning and implementation.

Addressing gaps and improving efficiency

183. The evaluation identified a set of actions taken by health authorities in Tajikistan with support from UNICEF, to address identified weaknesses and gaps during the evaluation period and which are seen by key informants as a direct contribution to improving efficiency.

184. **Support to capacity building for improved quality of service delivery:** During the interviews, RCIP managers emphasized the priority needs for continually strengthening the skills and capabilities of the staff engaged in immunization services. They noted that in 2023 alone over 500 of its personnel, along with FMC staff, received training on the WHO and UNICEF module for “Micro-planning and Vaccine Forecasting.” This training was crucial for improving the planning and execution of the immunization programme, ensuring that vaccines are properly forecast and delivered effectively to those in need.¹¹³

185. Furthermore, with the assistance of WHO and UNICEF, the RCIP has developed and implemented 27 standard operating procedures (SOPs) across various levels. These SOPs were designed to standardize vaccine delivery and sustain the quality of immunization interventions. In addition, the most recent EVM report highlighted that vaccine quality and vaccine efficiency use were scored high across all levels of the supply chain.

186. **Improving outreach to address inequities and reach underserved populations:** In addition to supporting assessments of the needs of underserved populations (see box), UNICEF Tajikistan has contributed to initiatives under the Gavi-funded HSS-2 grant to reach out to under-served children through the establishment of RCIP mobile teams – an initiative which the MoHSPP strongly endorsed. In 2023, with UNICEF support, the RCIP established 12 mobile teams aiming to provide immunization services in underserved districts. However, limited data were available on the operations of these mobile teams. Interviewed staff from PHC institutions and RCIP reported that, generally, mobile teams are employed during supplementation or mass immunization campaigns. Interviewed RCIP/FMC staff reported that while it recognizes the value of mobile teams, the MoHSPP prioritizes the delivery of immunization services primarily through fixed vaccination points in order to ensure a stable and consistent location where most immunizations can be administered. In their view, this has facilitated better planning, resource allocation and accessibility for the population.

¹¹³ Republican Centre for Immuno-Prophylaxis (2023) *National Immunization Programme Annual Report*.

187. Key informants indicated that the establishment of a communications unit within the RCIP, technically assisted by the SBC section of the UNICEF CO, has strengthened the communication component of the immunization programme. In a related effort in 2021 to address public inquiries, engage stakeholders, and enhance awareness about immunization among the general population and health professionals, RCIP launched a dedicated website (www.immuniztsia.tj).

Objectives of Gavi HSS-2 (2017-2023):

- Strengthen the capacity of PHC, with a focus on immunization service quality and safety
- Improve equity in vaccination by increasing immunization coverage in low-performing and hard-to-reach areas.
- Improving implementation of “Population Health of Tajikistan 2010-2020” the National Health Strategy, with a focus on immunization
- Improving the readiness of the population for immunization and MCH services.

188. Finally, a comparison of the baseline (2019) and endline (2024) KAPB studies (undertaken during HSS-2) reveals positive changes in respondents’ understanding of the importance of vaccination: increased correct identification of the purpose of vaccination, increased awareness of infectious diseases, clear understanding of the basics of vaccination, and increased confidence in the effectiveness of vaccination.¹¹⁴ Although vaccine hesitancy among caregivers did not demonstrate any significant positive changes, there were ongoing efforts to address these barriers (fear of adverse reaction; too many vaccines delivered at once, safety of vaccine, and access to vaccination points) and to enhance enabling factors (engage community and religious leaders, training of health workers on IPC, and changes to scheduling).

189. **Setting and pursuing national targets for system strengthening, including improvements in efficiency:** The HSS-2 grant agreement set specific immunization coverage targets and provided comprehensive guidance on improving vaccine uptake. This included strategies for expanding access to immunization services, enhancing the capacity of health workers, improving cold chain logistics, and increasing caregiver and community awareness and engagement.

¹¹⁴ United Nations Children’s Fund, (2023) *Strengthening the Health System in Tajikistan: Final Report to Gavi*.

190. During the Gavi-funded HSS-2 project, national health authorities, supported by UNICEF (in close cooperation with international partners), reported the achievement of significant results across all four articulated objectives of the grant.¹¹⁵ The HSS-2 support was designed to strengthen the programmatic and financial management systems of national immunization services. UNICEF collaborated with UNDP to strengthen the cold chain delivery points for improved supply of vaccines. UNDP provided technical support to improve warehouse and primary health institutions' infrastructure, and UNICEF built the capacity of the cold chain managers and health workers.

191. To improve the management of vaccine stocks at national and sub-national levels, UNICEF supported the RCIP by conducting "training on the introduction of 1C software for automatization of the vaccine reporting system" for 54 staff. This training helped the RCIP specialists to better monitor the vaccine and the management and storage of immunization goods at national and regional levels, as well as in the rayons under republican subordination.

Target achievement of UNICEF during Gavi HSS-2 (2017-2023):

- Vaccine storage capacity was improved at national, and regional hubs through the installation of 170m³ cold rooms for vaccine storage
- The sustainability of the cold chain equipment was improved through the increased technical capacity of 42 technicians, who were trained on repair and maintenance of the cold chain equipment.
- Caregivers' ability to plan vaccination of their child improved by 22 percentage points (baseline 76 per cent - endline 98 per cent).
- Caregivers' awareness about the 10 most frequent vaccine-preventable diseases changed by 6 percentage points (baseline 32 per cent - endline 26 per cent).
- 3,230 specialists at national, subdistrict, and district levels increased their knowledge of microplanning, using a cascade training approach.
- 515 health workers increased their knowledge of proper vaccine storage through UNICEF-supported training.
- 54 RCIP employees at national and sub-national levels were trained and currently operate the vaccine stock management system.

UNICEF, *Strengthening the Health System in Tajikistan: Final Report to Gavi*, (2023).

5.6. Impact

5.6.1. Impact on vaccine coverage and disease prevention

KEQ 11. To what extent have the national health system's policies and programmes (including for demand generation) aiming to improve vaccination rates over the past 5 years had an effect on overall vaccination coverage (including in under-vaccinated populations), vaccine-preventable disease incidence, perceptions and immunization-related behaviors of key stakeholders, such as healthcare providers, and caregivers?

Finding 28: Immunization programme interventions, supported by UNICEF and implemented by health authorities, contributed to high coverage rates and helped curb the epidemics of VPDs during the period under evaluation. However, increases in the incidence of some VPDs demonstrate the persistence of pockets of zero-dose or under-immunized children, who are susceptible to infection. This is indicative of a continuing gap and an urgent need to accelerate work with communities and

¹¹⁵ United Nations Children's Fund, *Tajikistan Gavi HSS final report*, 2023.

families to enrich their awareness and access through the use of evidence-based messaging and more accessible and appropriate service delivery.

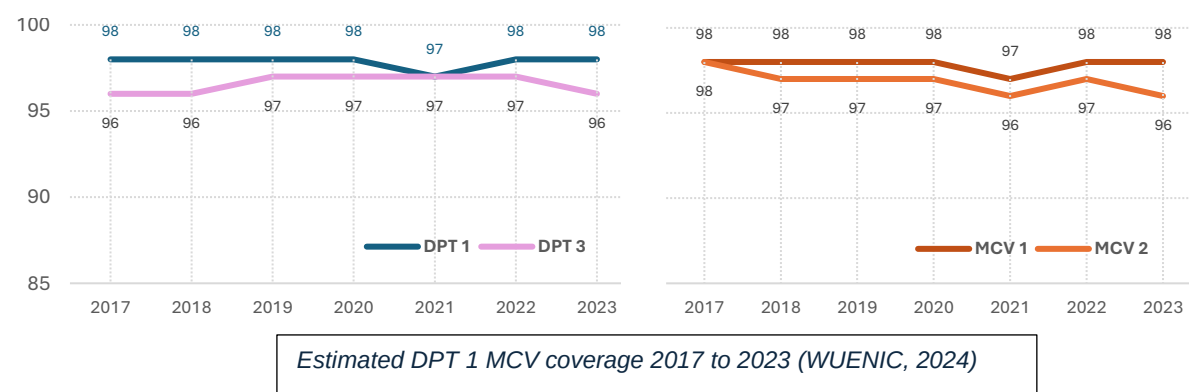
Finding 29: Despite the availability of a wide range of immunization data, there are problems in the variability of data quality on immunization coverage. The reliability and quality of immunization data should be improved, and more disaggregated data should be made available to enable a more thorough assessment of progress, reveal gaps in immunization coverage, and help identify high-risk areas and communities.

192. It is important to note that this evaluation cannot be classified as an “impact evaluation” as commonly understood in the evaluation literature. It does not, for example, attempt to test a counterfactual situation in which Tajikistan or a similar country did not benefit from UNICEF support, and none of the interventions examined were “randomized” to allow a comparison of communities or individuals with or without intervention. In an effort to examine potential impact, the evaluation considered some of the changes over time where it is credible (or not) to infer a UNICEF contribution over the period of the evaluation. The evaluation did not attempt to attribute the trends and changes noted here to support provided by UNICEF Tajikistan. At the same time, the findings presented in the sections above and interviews with key informants of all types indicates that UNICEF support made a significant contribution to the results achieved.

Overall trends in vaccine coverage

193. Data published by WHO and UNICEF in 2024 indicates that Tajikistan maintained high levels of national immunization coverage throughout the period under evaluation, despite a slight dip in coverage during the pandemic (Figure 6).

Figure 6: Estimated national coverage for DPT and MCV vaccines for Tajikistan, 2017 to 2023



Source: WUENIC, July 2024.

194. Similarly, WEUNIC data for 2018 to 2024 (Annex 7) indicate that Tajikistan maintained national immunization coverage levels for most vaccines (BCG, DPT1, DPT3, MCV1, MCV2 and polio 3) between 96 and 99 per cent throughout the period under evaluation. At the same time, it is important to note that the COVID-19 vaccine Post-Introduction Evaluation in Tajikistan highlighted the continuing need to strengthen the NIP, particularly in the areas of planning and coordination, service delivery, waste management training and supervision of health workers, demand generation

and increasing government funding for immunization, to increase immunization coverage, and prevent outbreaks.¹¹⁶

Addressing the challenge of zero-dose children

195. Despite the reported high levels of national vaccine coverage for most antigens, throughout the evaluation period, Tajikistan faced a continuing challenge in reducing the number and percentage of zero-dose and under-vaccinated children.¹¹⁷ WEUNIC estimates, published in 2024, indicate little variation in the proportion of zero-dose children, ranging from 2 to 3 per cent of the cohort of children requiring the vaccine. Overall, Gavi estimated that the number of zero-dose children in Tajikistan increased by 1 percentage point in the period 2019 to 2022.¹¹⁸

196. Available studies indicate that in Tajikistan, zero-dose prevalence varies by urban and rural residence. In 2021, for example, there were an estimated 8,605 zero-dose children, accounting for approximately 3.6 per cent of all surviving infants in the country. Of those, 18.9 per cent (or 1,622) lived in the urban parts of the country and 81.1 per cent (or 6,983) lived in rural settlements¹¹⁹. A 2023 study by the Gavi Monitoring, Evaluation and Learning (MEL) team concluded that the largest number of zero-dose children lived in rural, non-remote areas, despite the slightly higher prevalence rate in remote rural areas.¹²⁰

Table 11: Concentration of zero-dose children by geographic setting

Geographic setting	Percentage of all zero-dose children in Tajikistan	Zero-dose prevalence rate
Remote rural	9	8
Rural non-remote	46	6
Periurban	24	6
Urban	21	7

Source: Gavi MEL Team, *Tajikistan Zero-Dose Analysis*, 2023¹²¹.

197. The same analysis noted that almost half of the zero-dose children in Tajikistan were concentrated in eight districts in the centre-west of the country. Further, it noted that the urban/rural split was the only clear indication of inequity in distribution of zero-dose children, with no significant differences in the zero-dose prevalence rate across sex, income quartile or mother's educational attainment.¹²² However, key informants did note that it can be challenging for the immunization system to engage with internal migrant families moving from rural areas into the capital city.¹²³

¹¹⁶ Report on the COVID-19 vaccine post-introduction evaluation in Tajikistan, 2023.

¹¹⁷ Defined for operational terms by Gavi as "those children who have not received any routine vaccine." For operational purposes, Gavi defines zero-dose children as "those who lack the first dose of diphtheria-tetanus-pertussis containing vaccine (DTP1)."

¹¹⁸ Gavi (n.d.) *Tajikistan Country Profile*: <https://www.gavi.org/programmes-impact/country-hub/europe/tajikistan>, accessed 23 December 2024.

¹¹⁹ Ministry of Health and Social Protection of the Population (2022) *Strategic Narrative for Gavi Support*.

¹²⁰ Gavi Monitoring Evaluation and Learning Team (2023) *Tajikistan Zero Dose Analysis*, Gavi.

¹²¹ Remote rural: Areas more than 3 hours from the nearest city with population over 50,000. Urban: Areas defined as urban centres according to UN Stats. Peri-Urban: Areas defined as dense urban clusters according to UN Stats.

¹²² Gavi, MEL Team (2023), p.8.

¹²³ KIIs with MoHSPP and RCIP staff.

198. A 2023 study commissioned by Gavi concluded that the largest number of zero-dose children lived in rural, non-remote areas, despite the slightly higher prevalence rate in remote rural areas.¹²⁴

Trends in VPDs

199. By 2017, immunization services in Tajikistan had reduced the reported numbers of VPDs to a very low level. In general terms, this has been maintained during the evaluation period, with the exception of periodic outbreaks of measles (2022 and 2023) and polio (2021). Notably, the incidence of measles and pertussis has increased over the past two years, with both diseases exhibiting rising trends.¹²⁵ WHO EpiData surveillance data indicates that the most recent measles outbreak peaked in February 2023.¹²⁶

Table 12: Reported VPD cases in Tajikistan by year

Year	2017	2018	2019	2020	2021	2022	2023
Measles	654	0	7	0	10	454	294
Rubella	3	0	37	0	0	10	0
Poliomyelitis	0	0	0	1	35	0	0

Source: MoHSPP, Form 2, 2024.

Continuing data gaps and their effect on coverage and impacts

200. Interviews with the staff of the institutions involved in managing and delivering the NIP at all levels indicated that planning and implementing the improvements to increase the impact of immunization at local level would require improvements in the availability, quality, frequency and granularity of coverage data (Section 5.3.3).

5.6.2. UNICEF And key stakeholders

KEQ 12. To what extent has UNICEF been able to influence key stakeholders to take actions that can reasonably be expected to result in changes of vaccination rates, and what have been the most impactful UNICEF-supported investments aimed at increasing immunization coverage – including those fully or mostly financed by national governments?

Finding 30: Continued support by UNICEF to strengthen and sustain immunization services – particularly in procurement and delivery of vaccines, the provision of cold chain equipment and support to demand generation – is highly valued by national health authorities and institutional staff at all levels, and by international partners engaged in immunization support.

Finding 31: UNICEF, in collaboration with national health authorities and other partners, has contributed to investments aimed at improving immunization services (particularly in procurement, logistics and cold chain infrastructure and management, capacity development and demand generation). Despite persistent pockets of under-vaccination, the resulting gains have reportedly helped to reduce disparities of immunization coverage and, to some degree, the incidence of VPDs.

¹²⁴ MEL Team, *Tajikistan Zero Dose Analysis*, Gavi 2023.

¹²⁵ Ministry of Health and Social Protection of the Population report, based on Form 2 and World Health Organization (2017) Vaccine Preventable Diseases Surveillance Standards, www.who.int/publications/m/item/vaccine-preventable-diseases-surveillance-standards

¹²⁶ World Health Organization (2024), *WHO EpiData. No. 07/2024*, www.who.int/europe/publications/m/item/epidata-7-2024.

Stakeholder attitudes to UNICEF Tajikistan's contribution to results in immunization

201. In the view of key informants among national health authorities and international partners, UNICEF has played a pivotal role in influencing key stakeholders to take actions that have led to changes in strategies and policies or revisions in immunization programming. Interviewed key informants and financial reports (Section 2.4) suggest that UNICEF Tajikistan's support also contributed to gradual increases in the national budgetary contribution to the co-financing of some vaccines. The majority of health and immunization authorities emphasized that, with UNICEF support, the MoHSPP successfully managed to arrest measles and polio outbreaks, introduce new vaccines, and obtain robust information on the attitudes of caregivers and other stakeholders towards vaccines and immunization.

6.0 Evaluation conclusions

202. This section presents the overall conclusions of the evaluation. Each conclusion is numbered and linked directly to both the evaluation criteria and supporting evaluation findings.

203. **Conclusion One:** UNICEF Tajikistan's support to the immunization system during the evaluation period has been responsive and has adapted to the challenge of maintaining high levels of coverage over time, and in reaction to specific challenges and shocks such as the COVID-19 pandemic and outbreaks of VPDs including measles and polio. Since 2022, this has included a significant effort to advocate and support efforts to address the social and behavioural drivers of vaccine uptake, with more of an effect on changes in communications and demand promotion programming than on alterations to immunization service delivery.

Supporting Findings: 1, 4, 5, 6. **Evaluation Criteria:** Relevance.

204. **Conclusion Two:** UNICEF Tajikistan has worked efficiently with national health authorities to improve both the quality and the availability of comprehensive coverage data at all levels of the system, and to undertake surveys, research studies and reviews to analyse national requirements and identify gaps and inequities in coverage and their underlying causes. This is part of an overall effort to generate and use improved information as the evidence base for strategic and programmatic decision making.

Supporting Findings: 2, 3, 4, 5, 12. **Evaluation Criteria:** Relevance, Coherence, Effectiveness

205. **Conclusion Three:** UNICEF Tajikistan and the relevant national institutions (especially the RCIP) have collaborated effectively to improving capacity for ongoing research and assessment of behavioural drivers of vaccine uptake. However, there is still a gap in use of the resultant information to materially affect the structure and delivery of vaccine services.

Supporting Findings: 1, 5, 12, 25. **Evaluation Criteria:** Relevance, Effectiveness

206. **Conclusion Four:** UNICEF Tajikistan plays a pivotal role in supporting vaccine forecasting and management, as well as capacity building in key areas (vaccine procurement, storage and distribution). Despite the efforts of UNICEF, other technical partners, and the institutions responsible for immunization in Tajikistan, important gaps remain in the availability, timeliness, completeness and reliability of data required for vaccine needs forecasting and management, including sex-disaggregated data on vaccine coverage. This is especially true at sub-national level, with insufficient granularity to identify pockets of under-vaccinated communities and populations. These gaps represent a limitation on effective planning and management efforts to reach under-served

populations, achieve intended results (especially for zero-dose and under-immunized children) and address inequities. They also make it more difficult to design and implement effective system-strengthening initiatives. The absence of sex-disaggregated data limits managers' ability to fully understand potential gender disparities in immunization coverage and ensure more comprehensive and targeted healthcare delivery. Finally, there is an identified gap in supportive supervision and provision of constructive feedback to immunization managers.

Supporting Findings: 3, 6, 14, 15, 16, 17, 18, 19, 25, 29, 31. **Evaluation Criteria:** Relevance, Effectiveness, Efficiency, Impact.

207. **Conclusion Five:** UNICEF's support to the immunization system in Tajikistan during the evaluation period has been fully aligned with (and has contributed to) the development and implementation of national strategies, policies and programmes in immunization. It has also been coherently aligned and coordinated with the work of technical (WHO) and financing (especially Gavi) partners. Working through processes with coordination and priority setting by the Government of Tajikistan, UNICEF has been able to ensure that the activities and investments it supports have also been embedded in national, district and local institutions and programmes of immunization.

Supporting Findings: 9, 10, 11, 14, 30, 31. **Evaluation Criteria:** Coherence, Sustainability

208. **Conclusion Six:** UNICEF in Tajikistan, drawing on the work of a small but capable team of health, immunization and SBC professionals, relying on continuing technical support and adaptable tools provided by the Regional Office, has demonstrated the required technical capacity to effectively support the national immunization system.

Supporting Findings: 12, 13, 30. **Evaluation Criteria:** Effectiveness, Sustainability

209. **Conclusion Seven:** UNICEF support has significantly contributed to the capacity of the national immunization system to effectively respond to the challenge of maintaining high levels of national coverage for routine immunization while responding to outbreaks of VPDs. This is true for all the dimensions of UNICEF support, but it is especially clear in the areas of vaccine procurement, supply chain infrastructure, equipment and management (especially the cold chain), capacity development for managers and service providers, and improving research and information gathering on the social and behavioural drivers of vaccine uptake.

Supporting Findings: 1, 2, 9, 12, 13, 15, 26. **Evaluation Criteria:** Relevance, Coherence, Effectiveness, Impact

210. **Conclusion Eight:** Notwithstanding the overall effectiveness of UNICEF's support and the response of national authorities, persistent, significant barriers remain to immunization uptake, as demonstrated by the reported numbers of zero-dose children and outbreaks of polio and measles. These include a lack of sufficiently accurate, timely, and granular data on coverage to support decision-making and address inequities; low awareness and mistrust of risks and benefits; inadequate responses to caregiver fears of adverse reactions; and persistent levels of misinformation that are increasingly available to under-vaccinated communities.

Supporting Findings: 8, 19, 28. **Evaluation Criteria:** Effectiveness, Impact

211. **Conclusion Nine:** Both UNICEF and its key national partners (MoHSPP, RCIP, HLC, and the PHC/FMC system) have pursued a strategy for the institutional integration of strategies, plans,

programmes and investments supported by UNICEF (and other technical and funding partners) into the national immunization system. As a result of this collaborative approach, the gains made with UNICEF support are apt to be institutionally sustainable despite ongoing financial, human resource and supervisory challenges confronting the immunization system.

Supporting Findings: 2, 7 9, 10, 20, 22. **Evaluation Criteria:** Relevance, Coherence, Effectiveness, Efficiency, Sustainability

212. **Conclusion Ten:** Tajikistan – with support from UNICEF, WHO and Gavi – has made some progress in improving its ability to co-finance vaccine procurement. However, the NIP – both in its current form and as budgeted to 2030 and especially in its “high investment components” – is highly dependent on external support, a reliance that remains a critical vulnerability. While there are positive factors supporting financial sustainability, including the high national priority and political support, the sustainability of the immunization system remains at risk due to overall shortfalls in health system financing (compared to other countries in the region), and high levels of outward migration of key human resources.

Supporting Findings: 21, 22, 23, 24. **Evaluation Criteria:** Sustainability

7.0 Lessons learned

Lesson learned 1: Building on a strong foundation with an integrated system-wide approach

213. The NIP – with the support of UNICEF and other partner agencies – has increasingly relied on evidence-based approaches that address the country’s specific needs; integrating research findings with adjustments in strategies, policies and service implementation. Programming has increasingly been enriched by regular assessments, and analysis of immunization and health system strengths and bottlenecks. These approaches have assisted in establishing realistic objectives and tasks at different stages of programme implementation. Regular, varied and cooperative assessments of specific strategic and operational components of the national system are a high-impact investment in system strengthening.

Lesson learned 2: Partnerships are vital for making a difference

214. Providing effective support to a complex immunization system operating at central, district and local levels and encompassing all activities from forecasting through procurement all the way to service delivery requires intensive cooperation and coordination between UNICEF and other international partner agencies, particularly with sister agency WHO. In addition, coordination and partnership with health authorities and development partners is fundamental for ensuring consistent public messaging and avoiding wasting resources in overlapping efforts. The immunization system in Tajikistan provides an example of a well-coordinated partnership among national health authorities, UNICEF, WHO and Gavi) and other development partners.

Lesson learned 3: Mainstreaming evidence on SBC drivers to improve immunization services

215. UNICEF has supported an increasingly important series of studies and assessments devoted to identifying social and behavioural drivers and constraints to achieving immunization coverage targets and addressing inequities. These interventions have documented many of the barriers to vaccine uptake, with clear implications not only for messaging and community engagement but also for modifying practices in service delivery, especially relating to the attitudes and skills of healthcare professionals and improved outreach to overcome barriers such as travel costs, inconvenient timing and lack of access to registration. There is an opportunity for UNICEF, national authorities, and

external partners to make increased use of these findings to have a greater influence on changes in vaccine service delivery practices, especially for reaching zero-dose children in rural areas in the central and western regions of the country.

Lesson learned 4: The importance of monitoring and feedback in timely decision making

216. The RCIP has developed monitoring systems to track the implementation of the immunization programme, which allows managers to highlight both the strengths of the national system and shortcomings that need to be improved. However, the monitoring system suffers from the absence of systemic approaches and is hampered by limited human resource capacity, while having little or no financial support. Most importantly, managers (at all levels in the system) pointed out the need for more regular, structured feedback and supportive supervision based on high-quality administrative and survey data with disaggregated information including sex, membership in marginalized communities and coverage in hard-to-reach locations.

Lesson learned 5: Routine immunization data can be validated and improved through more frequent use of immunization coverage surveys.

217. The validation of routine immunization data is a critical component in ensuring the efficacy and accuracy of immunization programmes. Immunization coverage surveys, as recommended by WHO and UNICEF, is essential for this process. These surveys provide high-quality coverage data that are credible to national policymakers, offering a representative and reproducible estimate of vaccination coverage. Overall, the validation of routine immunization data through regular immunization coverage surveys and other population-based surveys lays the groundwork for a comprehensive immunization data management system to support timely and appropriate action.

Lesson learned 6: Effective training requires integration into the curriculum of pre- and post- service training institutions.

218. Key informants and reviewed documents made it clear that short-duration, one-time training of health workers is not sufficient to elevate their knowledge and capacity with regard to immunization services. UNICEF and WHO, in close coordination with RCIP, have increasingly supported the integration of immunization topics into pre-and in-service training institutions' curricula (although the RCIP had experience with integrating some elements of immunization training into the curriculum of postgraduate institutions). An integrated approach focusing on regular pre- and in-service training of healthcare workers will provide a stronger basis for the sustainability of human resource capacity building in the future.

Lesson learned 7: Support for strengthening the supply chain infrastructure, logistics, equipment and management capacity (especially for the cold chain) is a high-impact investment.

219. Strengthening the skills of cold chain management personnel and upgrading cold chain infrastructure and equipment have been vital for reinforcing the vaccine distribution system in Tajikistan. UNICEF has shown a strong commitment to advancing infrastructure, creating specialized resource centres, and equipping staff with essential training toolkits. These initiatives were designed to enhance vaccine safety, ensure consistent availability, and boost immunization coverage rates.

8.0 Recommendations

220. The evaluation findings, lessons learned, and (especially) conclusions have been used to develop the recommendations presented in this section. The draft recommendations were first developed following the presentation of preliminary findings to the second meeting of the Evaluation Reference Group in August 2024. Based on feedback from the ERG the evaluation team refined the findings and developed evaluation conclusions. These were shared between the national evaluator

and the central evaluation team in an iterative process to develop the first draft recommendations. The recommendations were further refined based on feedback from the evaluation manager and the UNICEF CO, and further adjusted following comments received at the final ERG meeting in November 2024.

221. For each recommendation, the section includes the recommendation itself, the stakeholders concerned, a brief supporting rationale and a priority rating. Each recommendation is also linked to the supporting conclusions from which it is derived.

222. **Recommendation 1:** That UNICEF Tajikistan should engage with and support the relevant health institutions¹²⁷ to continue to improve the quality, timeliness and granularity (including sex disaggregation) of data used for vaccine needs forecasting and management, especially data on vaccine coverage. This should include increased attention and investment in the digitalization of vaccine coverage reporting from FMCs to central level. It can also be supplemented by more frequent surveys of immunization coverage. The ultimate goal of these changes should be to provide the information required to effectively and efficiently plan and manage immunization services and provide a more complete foundation for systems strengthening.

Rationale: The evaluation has demonstrated that gaps in the current system— especially in the timeliness and sufficient disaggregation of data by sex, location and under-served community or populations – impede effective decision-making to address pockets of zero-dose or under-vaccinated children. *Based on Conclusions:* 2, 4, 8. *Priority:* High

223. **Recommendation 2:** That UNICEF Tajikistan work with the relevant state agencies (the communications unit in the RCIP, the HLSC, and the PHC/FMC system) to further institutionalize SBC activities into the organizational structures and state budget of the NIP. UNICEF Tajikistan should also coordinate with these agencies to encourage further collaboration to ensure the results of UNICEF supported research on the social and behavioural drivers of vaccine uptake are used to adjust systems and practices for immunization service delivery to respond effectively to the identified barriers – including issues impeding access for communities with zero-dose children – so that duty bearers fully recognize disparities in access and take action to address them. The ultimate goal should be to ensure that the improved understanding of social and behavioural drivers of vaccine uptake is used to target zero-dose children as a high-priority activity driven by consistent funding (especially among under-served populations, with a specific focus on those concentrated in non-remote rural settings in central and western regions as well as internal migrant families in urban settings).

Rationale: UNICEF and the RCIP have jointly made advances in the generation and use of evidence on the social and behavioral drivers of vaccine uptake, but these have mainly influenced strategies and approaches to communications. There is an opportunity to extend the learnings from research from an SBC perspective more directly into immunization operations. *Based on Conclusions:* 1, 3, 7. *Priority:* High.

¹²⁷ Ministry of Health and Social Protection of the Population (MoHSPP), Republican Centre for Immuno-Prophylaxis (RCIP), Healthy Lifestyles Centre (HLSC), State Service for Sanitary and Epidemiological Supervision (SSES), Primary Health Care/Family Medicine Centres (PHCs/FMCs).

224. **Recommendation 3.** UNICEF Tajikistan should continue to advocate with national health authorities for more complete integration of immunization services into MCH and PHC practices delivered through the FMC/PHC system.

Rationale: By building on progress to date but also embedding and integrating immunization more fully into PHC services Tajikistan can develop a stronger base for strengthening the overall PHC system, including immunization. This can help improve results in immunization through more efficient use of resources, increased vaccine uptake, and improved overall health outcomes for children. *Based on Conclusion: 8. Priority, High.*

225. **Recommendation 4:** That UNICEF Tajikistan should engage with the MoHSPP, RCIP and PHC/FMC to review and strengthen processes and systems for providing evidence-based feedback and supportive supervision to managers at decentralized levels including FMCs in an effort to improve the quality of information flows in both directions and support improved decision making.

Rationale: Key informant interviews, site visits and selected review reports have highlighted the need to provide more frequent, timely, and supportive feedback and oversight to health care-workers in frontline roles in immunization. Gaps in this area can contribute to data quality and timeliness issues and hinder local responses to gaps in coverage and to outbreaks. *Based on Conclusions: 2, 4, 8. Priority: Medium*

226. **Recommendation 5:** UNICEF Tajikistan, supported by the ECA Regional Office, should develop a medium-term plan for the CO to further leverage both CO and RO technical capacities and tools in all aspects of immunization support (including SBC). This should include planning to leverage financial support to the health sector by external partners – including, among others, the World Bank, the ADB and the European Union – as well as the technical capacities of UNICEF and other partners to more effectively assist in addressing the financial, human resource and supervisory challenges faced by the national immunization system.

Rationale: The UNICEF CO team devoted to immunization has proven itself able to provide the required technical support to national immunization partners (with support from the RO) but this may be difficult to maintain in light of continuing demands for support from national partners and the prospect of a more difficult environment for resource mobilization in the future. The continuing need for UNICEF advocacy and technical support to overcome challenges to the immunization system suggests the need for a robust plan to leverage available resources. *Based on Conclusions: 6, 7. Priority: High*

227. **Recommendation 6:** UNICEF Tajikistan should continue and even further emphasize a strategy of close alignment of support to immunization with national strategies, plans, priorities and programmes. By continuing and deepening this approach, UNICEF Tajikistan can further advance the institutionalization of the initiatives and investments it supports within the national immunization system – with a consequent positive impact on institutional sustainability.

Rationale: Effective collaboration with national partners in the immunization system has been demonstrated as an important factor in ensuring the integration of agreed and shared priorities to address, inequities and to reach under-served populations, as well as a key factor in the stability and sustainability of the national system over time. *Based on Conclusions: 5, 9, 10. Priority: Medium*

228. **Recommendation 7:** UNICEF Tajikistan should engage with the MoHSPP, and the RCIP to review the planning for the NIS 2030 and its component programmes to ensure that it contains

effective measures to overcome the identified barriers to vaccine uptake that have been identified in research supported by UNICEF, with a specific focus on rural districts with the highest concentration of zero-dose children and internal migrant families in urban settings.

Rationale: Despite the high levels of overall national coverage achieved by Tajikistan throughout the evaluation period, outbreaks of VPDs continue, indicating the need for accelerated but efficient efforts to address under-served populations. *Based on Conclusions: 7, 8. Priority: High*

229. **Recommendation 8.** UNICEF Tajikistan should continue advocating with the Government of Tajikistan to ensure increased funding from the national healthcare budget for vaccines and related supplies, as priorities articulated in the National Immunization Strategy 2030.

Rationale: Some of the most promising “high investment” activities supported by UNICEF in areas such as outreach services for under-served populations and better addressing the social and behavioural drivers of uptake are highly reliant on external funding sources. There is an opportunity to build on the strength of the relationship between UNICEF and all elements of the national immunization system to advocate for increased domestic public financing of immunization – supported by resources mobilized from international sources. *Based on Conclusions: 9 and 10. Priority: High*

9.0 Annexes

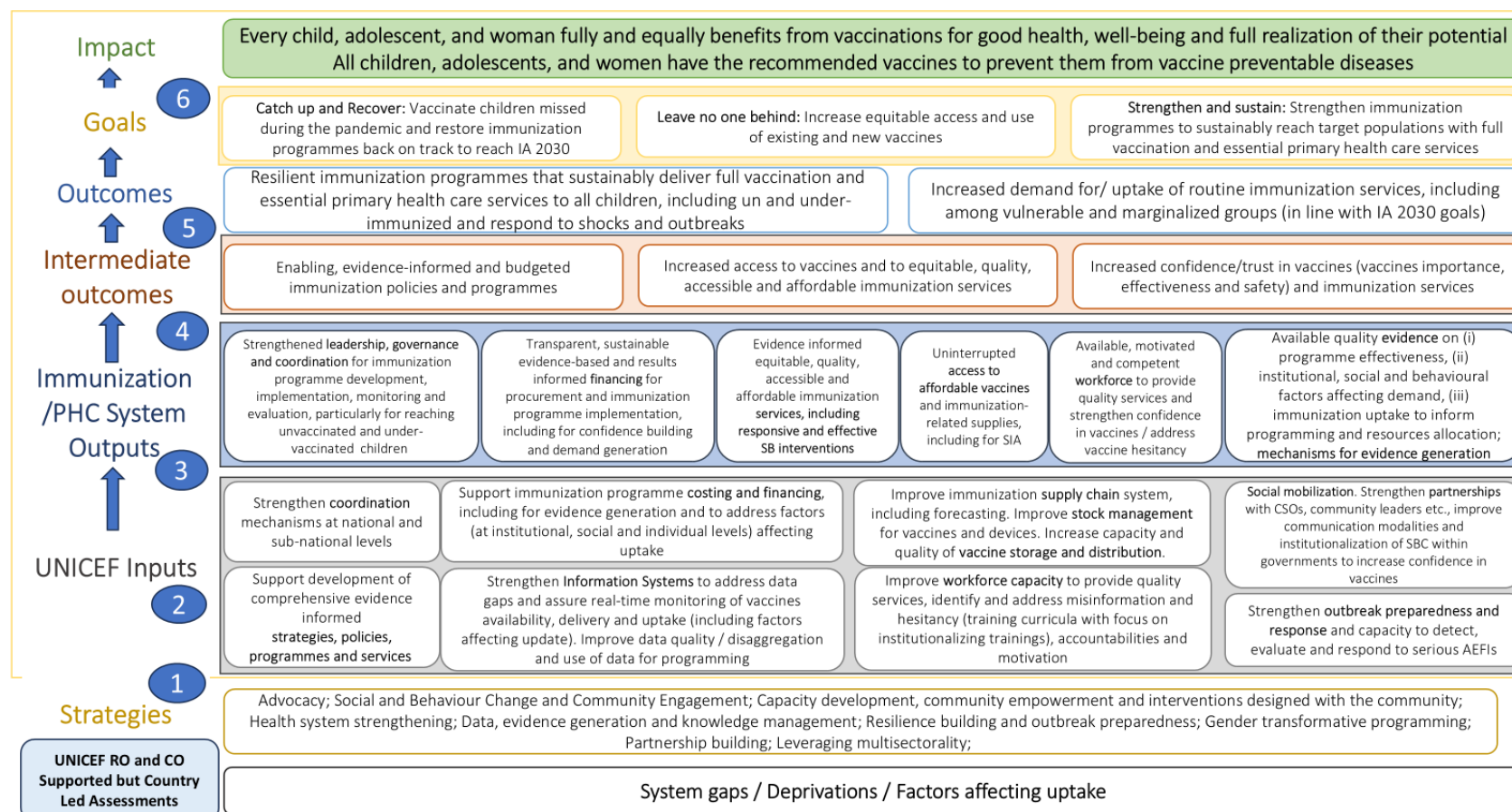
Annex 1: Terms of Reference

The complete Terms of Reference for the Evaluation are available at this link:

[TOR evaluation Immunization FULL.docx](#)

Annex 2: Theory of Change

The theory of change presented here is comprehensive and meant to apply to UNICEF support to each country in the region. However, it recognizes that each UNICEF CO will engage in a selection of the supporting activities and programming illustrated here in accordance with national needs and priorities and the changing national immunization context.



Note: As factors affecting vaccine uptake are often persistent at individual, social and system/institutional levels, SBC is an important strategy to address these determinants and achieve immunization results (outcomes, intermediate outcomes and outputs). SBC should/could be considered across (most) inputs, from evidence generation, to designing and delivering services, strengthening the capacities of the workforce, developing policies informed by behavioural insights.

Annex 3: Methodology and Evaluation Dataset

Part One: Analytical Methods

At both regional and country level, the evaluation relied on two main analytical methods to analyze the evaluation evidence gathered: Contribution Analysis and a simplified form of Process Tracing.

Contribution analysis. The essential value of contribution analysis is that it offers an approach designed to reduce uncertainty about the contribution the intervention is making to the observed results through an increased understanding of why the observed results have occurred and the roles played by the intervention and other internal and external factors (UNEG 2020, p.14). The findings of a contribution analysis are not definitive proof, but rather provide evidence and a line of reasoning from which we the evaluation was able to draw a plausible conclusion that, within some level of confidence, the programme has made an important contribution to the documented results.

The process of contribution analysis involves six main steps (UNEG, 2020, p.14). Table 7 sets out the different steps in contribution analysis and how they have been applied to the country level evaluation in Tajikistan.

Steps in Contribution Analysis as Applied to ECA Immunization Evaluation

Steps in Contribution Analysis	Application to the Evaluation of Immunization Programming in Tajikistan
1. Set out the Contribution Problem (questions to be addressed)	Completed during the inception phase: Evaluation questions (particularly question 1) identify expected UNICEF contributions
2. Develop Theory of Change (results chain with causal links and assumptions)	Regional Theory of Change developed during the Inception phase and vetted by UNICEF Tajikistan CO
3. Gather Evidence (pre-existing and available)	Preliminary document and data review carried out by the central evaluation team during the inception phase (Completed March 2024)
4. Assemble and Assess Evidence (lay out and assess the credibility of the narrative of UNICEF contributions)	Completed by the national evaluator from Mid-April to end of May 2024 with participation by a member of the central evaluation
5. Seek Out More Evidence (gather more primary and secondary data to augment evidence as needed)	Carried out concurrently with step 4 based on weekly team meetings and consultations and interaction between the central evaluation team and the Tajikistan based evaluation team member
6. Revise the Narrative (identify reasonable causal claims wherever supported by evidence)	All country-based team members met with the central evaluation team in Istanbul for a data consolidation workshop to review evidence for each key evaluation question and develop an assessment of the credibility of claims regarding UNICEF actions and their contribution to observed results.

Source: Evaluation of UNICEF Support to Immunization Programmes in ECA, Inception Report, UNICEF 2024.

The claimed contribution is supported by evidence on both achieved results and underlying assumptions.

Process tracing is a methodology in qualitative analysis that examines important positive choices and decisions made (for example a change in strategy, altered curriculum for training, introduction of new vaccines, etc.) and arrives at an assessment of how different actors may have contributed to the change. In applying process tracing the evaluator should identify and describe the process of decision making while paying attention to the question of sequence (for example the timing between advocacy and decision) (Collier, 2011). As such, process tracing is most often used **within a case-study framework**.

Given the complexity and variety of the important changes to the immunization system in Tajikistan over time, the evaluation relied on a simplified approach to process tracing by identifying key changes in the orientation and operation of the immunization system in general and the National Immunization Programme (NIP) in particular (such as incorporating social and behavioral change approaches into the operation of the communications unit of the RCIP). The role of UNICEF in these changes was then examined by cross-triangulation of key stakeholder inputs on the influence of UNICEF Tajikistan engagement and support. It is important to note that process tracing was designed from the beginning as a supplement to the main analytical approach of contribution analysis.

Part two: data collection, analysis and reporting

The evaluation applied a mixed methods approach to data collection, including for each country immunization evaluation a document and data review, key informant interviews and site visits both inside and outside the national capital.

The evaluation team for Tajikistan consisted of a nationally engaged evaluator supported by a member of the central evaluation team.

- The **national evaluation team member** was responsible for data collection and joint analysis and acted as lead author for the preparation of draft and final **Country Evaluation Reports**. The Tajikistan Country Office played a supportive role in country-level data collection to ensure access and guidance, as appropriate. In addition, the evaluation was guided by its own Evaluation Reference Groups (ERG) which included membership from the UNICEF CO and the Government of Tajikistan.
- The **central evaluation team member** (in this case the evaluation team leader) provided input, guidance and oversight to the national evaluator and engaged in joint analysis and preparation of the Draft Country Evaluation Reports. The central evaluation team had responsibility for Quality Assurance of the Country Evaluation Reports and took part in all presentations to the ERG. The evaluation team leader also took part in a brief mission to Tajikistan in April 2024 to join in selected key informant interviews and provide support and oversight to the national evaluator.
- During the data collection phase, the national evaluator for Tajikistan took part in regularly weekly remote meetings of the overall evaluation team. He also participated in the three-day data consolidation and analysis workshop in Istanbul in June, 2024.

Document review

The evaluation conducted a desk review of key strategic, policy, programme and project documents and a review of secondary sources of information and analysis, including documents published by the UNICEF, government and other donors, and immunization and health systems technical documents.

The desk review also identified key priorities, and challenges to be addressed during the evaluation process (KII and field visits), ensuring that efforts were focused on areas needing further enquiry and analysis. The list of key documents consulted can be found in Annex 4.

Quantitative Data Review

Quantitative profiling included collecting quantitative data from the UNICEF reports and immunization programme data sets, related to coverage and other relevant reports and assessments. Quantitative analysis of secondary data analysis included tracking the trend of immunization coverage from 2018 to 2023 in the country using different source of information (Joint Reporting Form (JRF), administrative data and WUENIC data, updated for 2023. Elements from the review of quantitative data are presented in the relevant sections of the report and in Annex 7.

Key informant interviews (KIIs)

Building from a stakeholder map developed in consultation with UNICEF Tajikistan, the list of stakeholders to be interviewed was agreed between the evaluation team and the UNICEF CO. prior to the an in-country mission by the overall evaluation team leader in April 2024. The evaluation conducted semi-structured interviews based on a set of guides tailored to each category of key stakeholder.

The data collection guides allowed the interviewer the flexibility to deviate from the predetermined order. This approach enabled improvisation while ensuring that all key topics were covered, promoting flexibility, empathy, and mutual understanding to encourage the exchange of information. A script was developed to structure the interview content. The evaluation took advantage of many personal interactions to obtain detailed information related to immunization programme components. The direct interactions provided deeper insights into stakeholders' perspectives, experiences, and challenges, which are critical for a thorough and accurate assessment and evaluation. Interviews were conducted in person, virtually or by phone. A success rate of 96 % in data collection was recorded (45 of the proposed 43 KII were completed): (58 per cent female and 42 per cent male respondents).

Table 1: Key informant interviews by institutional type

Institutions	#
Ministry of Health and Social Protection of the Population (MoHSPP)	7
Republic Center for Immuno-prophylaxis (RCIP)	12
Family Medicine Centers (FMC)	10
State Service for Sanitary and Epidemiological Supervision (SSES)	2
UNICEF Country Office	7
International agencies	3
Research institutions	2

Source: Evaluation Dataset, UNICEF (2024).

Site visits and observations

The evaluation used a purposive sampling method for identifying sites for visits. The criteria for selecting sites aimed to ensure that sites both large and small and encompassing different levels of the immunization supply, storage, distribution and service delivery system would be visited. In addition, the sites were chosen to illustrate system operation at central, regional, district and FMC level in both urban and rural settings. Final site selection was done in consultations between the evaluation team and the UNICEF CO.

In addition to collecting documents and conducting KIIs in the offices of key stakeholders in the capital, the evaluation visited regional(obl原因) and district RCIP branches, vaccine storage and distribution centers and rural health facilities. The primary purpose of these site visits was to gather additional evidence by observing immunization services at grassroot levels. The sites to be visited were chosen in consultation with the UNICEF Country Office and the RCIP.

The site visits aided the evaluation in exploring the extent of the contribution to observed results by UNICEF (and other partners) and in identifying barriers and challenges at an operational level. By allowing the evaluation to engage with service managers and providers across a wide variety of contexts, site visits also provide an important lever for triangulation and a validity check on results identified through other data sources such as survey data or research reports.

Part Three: Analysis and Reporting

The analysis phase of the Tajikistan evaluation relied on a collaborative process involving the national evaluation team member, the central evaluation team and evaluators carrying out the other four country studies. It followed the following sequence:

- Evaluation evidence from all sources was entered into an excel data base under each evaluation question with the evidence coded as negative, positive or neutral and with the relevant evidence data point summarized. In this way all relevant data could be organized under each evaluation question for analysis.
- After initial analysis by the country evaluation team member, the evidence for Tajikistan was presented and discussed in the data consolidation workshop in Istanbul in early June with participation by all evaluation team members and the UNICEF Evaluation Office for ECA.
- This process allowed for calibration of the evidence across all five country studies and the identification of themes that can inform the overall regional evaluation report.
- Subsequent to the data consolidation workshop, the national evaluator for Tajikistan prepared the first zero draft of the report with preliminary findings. Analysis was then carried out on an interactive basis with the central evaluation team providing oversight, comments and quality assurance.
- On the identification of an agreed set of evaluation findings, those findings were presented to the Tajikistan Evaluation Reference Group for review and feedback at a meeting held on Friday August 30.
- Subsequent to that meeting, evaluation conclusions and recommendations were developed and incorporated into the draft evaluation report shared with the Evaluation Manager on Monday, September 9, 2024.

- After review by the Evaluation Manager, the draft report was communicated to the members of the Evaluation Reference Group to be finalized after receipt of comments and feedback.
- The final Evaluation Reference Group meeting was held in Dushanbe on November 5, 2024 and comments made there were reflected in the final report.

The challenges and limitations faced by the evaluation and the mitigating strategies used to address those limitations are described in detail in Section 2.0 of the main report.

Part Four Evaluation Data Collection Instruments Evidence Base/Data Set

As noted above, the relevant evaluation evidence was combined in an excel data set organized around the KEQs and in accordance with the indicators presented in the evaluation matrix and gathered using structured data collection instruments. The data collection instruments and evaluation matrix are presented in the Evaluation Inception Report which can be accessed at this link:

[Final ECA Inception Report March 13 TFR.docx](#)

The complete evaluation evidence base/data set for this country evaluation is available through this link:

[Evidence Matrix Tajikistan.xlsx](#)

Annex 4: References

Gavi/MEL Team, 2023. Tajikistan Zero-Dose Analysis.

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www.who.int/europe/news/item/28-04-2022.

WHO, 2023. *Health Financing System Assessment, Tajikistan, 2023*.

WHO. 2024. *EpiData, WHO European Region: No.07/24*.

WHO/UNICEF. 2023. *Updated EVM Improvement Plan*.

WHO/UNICEF, 2024. *Estimates of National Immunization Coverage, July 2024*.

Annex 5: Persons Interviewed

	Category	Entity	Name	Position
1	Government	Ministry of Health, Social protection of population	Dr. Amirzoda Abduholik	Deputy Minister, MoHSPP
2	Government	Ministry of Health, Social protection of population	Navruz Jafarov	Deputy head of state sanitary & epidemiology services
3	Government	Republican Center for Immunoprophylaxis	Saidzoda Fayzali	Director of Republican center for Immunoprophylaxis
4	Government	Republican Center for Immunoprophylaxis	Amira Navruzbekova	RCIP WH manager
5	Government	Healthy Life Style center	Parvina Mukhtarova	Director
6	Government	Republican Center for Immunoprophylaxis	Mohtob Bobohonova	Deputy Director of Republican center for Immunoprophylaxis
7	Government	RCIP Sughd region	Zarina Tojiboeva	Director of Sughd regional RCIP
8	Government	RCIP Sughd region	Mumin Bobojonov	Chief epidemiologist of Sughd regional RCIP
9	Government	City Health Center 1	Nazir Normatov, Dilbar Pulotova	Family medicine staff - Responsibly for immunization
10	Government	City Health Center 2	Davlat Qahorov, Zulfiy Saidolimova	Family medicine staff - Responsibly for immunization
11	Government	RCIP Gafurov district	Dillrabo Jauraeva	Director of RCIP
12	Government	Rural Health center	Ashuron Nosirova	Head of RHC Hae
13	Government	Dushanbe RCIP	Ilhom Gadoev	Director of RCIP Dushanbe
14	Government	RCIP Khatlon region	Umed Kurbonov	Director of Khatlon regional RCIP
15	Government	RCIP Khatlon region	Ravshan	Khatlon RCIP, WH manager
16	Government	FamiliMed Centre, Bokhtar city	Nisso Noxirova	Director of RCIP, Bokhtar city , FMC1,2
17	Government	FamiliMed Centre, Bokhtar city	Nurse from vaccination room	Director of RCIP, Bokhtar city , FMC1,2
18	Government	FamiliMed Centre, Bokhtar city	Nurse from vaccination room	Director of RCIP, Bokhtar city , FMC1,2
19	Government	FamiliMed Centre, Bokhtar city	Nurse in charge for vaccine storage and delivery	Director of RCIP, Bokhtar city , FMC1,2
20	Government	FamiliMed Centre, Bokhtar city	Child caregivers	Child caregivers
21	Government	RCIP GBAO region	Diloro Jonboboeva	Director of GBAO regional RCIP
22 23	Government	Ministry of Health, Social protection of population	Zohir Narzullaev	Head of MCH department of MHSPP
24	Government	Rudaki district RCIP	Azamatjon Isabaev	Director of district RCIP
25	Government	Rudaki district RCIP	Muhayo Sharipova	Epidemiologist of district RCIP
26	Government	Rudaki district RHC	Roziya Akhmedova	Head of Rural Health center
27	Government	Family Medicine Center	Rajabzoda Salohiddin	Director of Family medicine center

28	Government	Family Medicine Center	Farida Khudoidodova	Deputy Director of Family Medicine Centre
29	Government	Ministry of Health, Social protection of population	Murod Olimov	Dep. head of State control service of health and social protection of the population
30	Government	Ministry of Health, Social protection of population	Said Davlatzoda	Head of Sanitary and Epidemiology department
31	Government	Ministry of Health, Social protection of population	Sherali Rakhmatulloev	Advisor to MCH department of MHSP
32	Government	State Sanitary and Epidemiology services	Sokina Shoeva	Epidemiologist, statistician
33	Government	Republican Pediatric Research Center	Turahon Ikromov	Director of the center
34	Government	Republican Pediatric Research Center	Bakhtovar Shamsov	Head of pediatric department
35	Multilateral Organization	WHO	Anvar Narzuddinov	NPO immunization
36	Multilateral Organization	WHO	Salohiddin Saadi	International staff, immunization
37	Multilateral Organization	USAID	Malika Makhkambaeva	Senior Project Management Specialist/Health, USAID Tajikistan
38	Multilateral Organization	WB	Mutriba Latipova	Health and nutrition specialist
39	Multilateral Organization	Abt/USAID	Marina	National expert to Abt/USAID, epidemiologist
40	UNICEF	UNICEF CO	Muhamad Zahoor	Head of SBC section
41	UNICEF	UNICEF CO	Mahbuba Mamadotkhonova	SBC officer
42	UNICEF	UNICEF CO	Saidali Qodirov	EPI officer
43	UNICEF	UNICEF CO	Nurullo Nosirov	Supply officer
44	UNICEF	UNICEF CO	Farida Karimova	Field based CO staff
45	UNICEF	UNICEF CO	Zarina Alizoda	Field based CO staff
46	UNICEF	UNICEF CO	Karamali Karamali	Field based CO staff

Annex 6: Sites Visited

Region	District name	Name of HFs
Dushanbe	Dushanbe	RCIP Central Warehouse
Dushanbe	Dushanbe	Central FMC
Dushanbe	Dushanbe	Central FMC outpatient clinic
Dushanbe	Dushanbe	City RCIP
Dushanbe	Dushanbe	FMC # 2
Rayons Subordination	Republican Rudaki district	District RCIP center
Rayons Subordination	Republican Rudaki district	RHC Chorgulteppa
Bokhtar region	Bokhtar city	Regional RCIP warehouse
Bokhtar region	Bokhtar city	City Health center 1
Sughd	Khudjand city	Regional warehouse
Sughd	Khudjand city	City Health center 1
Sughd	Khudjand city	Coty Health center 5
Sughd	Gafurov	District RCIP
Sughd	Gafurov	Rural Health center Hayoti Naw

Annex 7: Selected Data

UNICEF Tajikistan Expenditures Coded to Immunization 2018 to 2023

Expenditure Code	Intervention	2018	2019	2020	2021	2022	2023
Demand for Immunization			129,500.00	286,319.40	427,857.91	600,199.98	368,567.75
Purchase of Vaccines and Devices		1,116,657.76	21,000.00	34,464.00	21,000.00	146,298.32	1,494,609.16
Polio Social Mobilization and Communications		108,350.96	9,072.19		399,237.22		
SBC and Community Engagement for Immunization						32,064.51	79,735.95
Technical assistance for immunization – Excluding Polio Tech Assistance		211,336.14	197,077.70	1,101,245.67	620,297.21	72,119.90	14,625.84
Other			128,749.87	92,464.36	82,796.21	96,352.08	89,456.69
Annual Total		1,436,344.86	485,399.76	1,514,493.43	1,551,188.55	947,034.79	2,046,995.39

Source: UNICEF Tajikistan Country Office

Tajikistan Immunization Coverage and Regional Average for Selected Antigens: 2018 to 2023

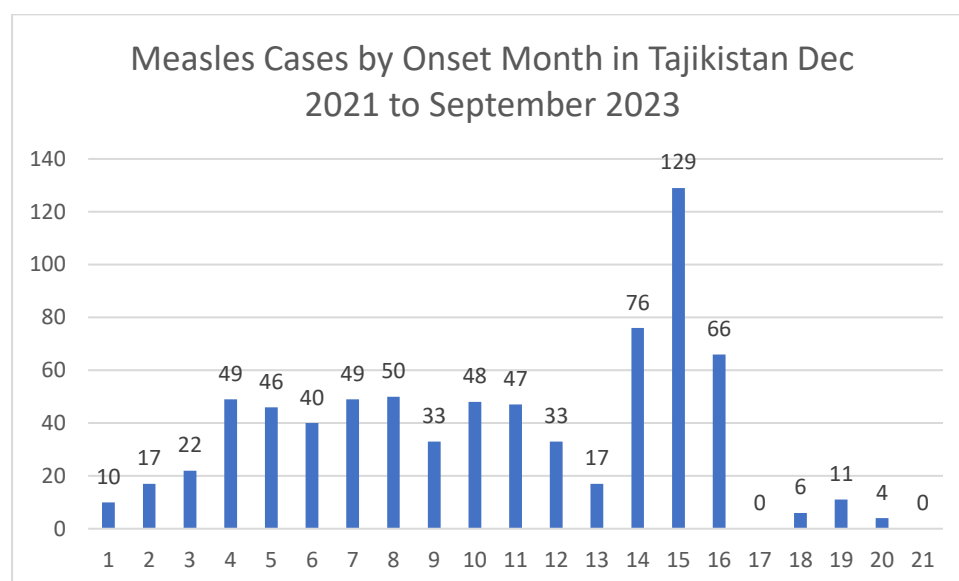
Vaccine	Taj 2018	Regional Avg 2018	Taj 2019	Regional Avg 2019	Taj 2020	Regional Avg 2020	Taj 2021	Regional Avg 2021	Taj 2022	Regional Avg 2022	Taj 2023	Regional Avg 2023
BCG	99	96	98	95	98	96	98	95	99	95	99	96
DPT 1	98	97	98	97	98	96	97	96	98	96	98	97
DPT 3	96	95	97	96	97	94	97	94	97	94	96	96
MCV1	98	96	98	97	98	94	97	95	98	93	98	96
MCV 2	97	94	97	94		92	96	94	97	93	96	94
HPV												
Polio3	96	95	97	96	97	94	97	94	97	95	97	96

Incidence Rate and Cases of Measles in Tajikistan and in ECA Region: 2018 to 2023

Year	2018		2019		2020		2021		2022		2023	
Incidence Rate is # per Million population	Incidence Rate	Total Cases	Incidence Rate	Total Cases	Incidence Rate	Total Cases	Incidence Rate	Total Cases	Incidence Rate	Total Cases	Incidence Rate	Total Cases
ECA Region	89.54	82596	112.07	104248	13.08	12205	0.18	166	0.97	904	62.38	58114
Tajikistan	0	0	0.75	7	17.61	168	1.03	10	45.38	451	28.98	294

Source: WHO EpiData, WHO European Region: No.07/24

Measles Outbreak in Tajikistan December 21 2023 and 2024



Source: WHO EpiData, WHO European Region: No.07/24

Selected UNICEF Results Assessment Module (RAM) Indicators for Immunization in Tajikistan

Indicator	Indicator Type	Baseline Year	Baseline Value	Target Year	Target Value	Actual Value	Rating
DPT3/Penta Coverage	Standard	2020	96.7	2022	98	96.5	Not Achieved
Drop out rate between DPT1 and DPT3 coverage (21-02-L3-05)	Standard	2017	5.4	2022	3	2.2	Fully Achieved
Extent of UNICEF support to the roll-out of COVID-19 vaccines	Core Standard Indicator	2021	7	2022	7	7	Not Rated
Number of children vaccinated against measles through UNICEF-supported programmes	Core Standard Indicator	2021	489515	2022		224625	Not Rated

Source: UNICEF insight Outcome/Output Data Explorer: Updated 05/09/24

Annex 8: Compliance with Norms and Standards in Evaluation

United Nations Evaluation Group Norms and Standards

The evaluation was carried out in accordance with UNEG norms and standards for evaluation. The following table provides an overview of the evaluation design and operational plan as it was carried out in Tajikistan in light of the UNEG general norms for evaluation (UNEG, 2021, pp. 10-12):

UNEG Norms	Evaluation Compliance
Internationally Agreed Principles, goals and targets	The evaluation assessed UNICEF's performance and contribution to goals in immunization, which are integral to the achievement of SDG 3: Ensure well-being and promote healthy living for all at all ages in accordance with SDG target 3b, which includes insuring access to essential medicines and vaccines.
Utility	The evaluation report provides findings, conclusions and recommendations that can inform and guide programming for UNICEF, national authorities and key stakeholders.
Credibility (independence, impartiality and rigorous methodology)	The evaluation was independently managed by the UNICEF ECA Office of Evaluation and conducted by an impartial team of international and national team members recruited through a competitive process and vetted to ensure no conflicts of interest. In addition, the evaluation methods were reviewed by key stakeholders at the regional and national levels.
Independence	In prior evaluations the central and national team members have demonstrated their ability to evaluate without undue influence by any party. The ECA Evaluation Office also provided independent management of the evaluation.
Impartiality	None of the evaluation team members have been or will be directly responsible (in the near future) for policy setting, design or management of immunization programming in the region.
Ethics	Discussed in detail below
Transparency	The evaluation report will be publicly available through the online UNICEF Evaluation Portal
Human Rights and Gender Equality	The evaluation directly focused on access to quality evaluation services for marginalized populations in accordance with the principle of "no-one-left-behind". This is especially relevant in immunization programs. The evaluation addressed in particular the availability of disaggregated data by sex and by marginalized or under-served groups.
National Evaluation Capacities	By engaging the national evaluation team member fully in all aspects of the evaluation the evaluation has contributed to strengthening national capacity in Tajikistan – capacities that can strengthen national systems for evaluation.
Professionalism	All members of the evaluation team were selected based on their experience, knowledge and demonstrated integrity. They followed these norms and applicable ethical standards throughout the evaluation.

Adhering to Ethical Standards

Throughout all phases of the evaluation, the evaluation team has conformed to and upheld the UNICEF Ethical Guidelines for Evaluation as they are organized around the principles of respect, beneficence, integrity, and accountability¹²⁸.

Respect

Respect encompasses access to the evaluation process by relevant stakeholders: powerless to powerful. This was pursued during the Inception Phase of the evaluation by engaging with UNICEF staff at regional and CO levels and by their engagement with national authorities, including for participation in the country Evaluation Reference Group. It also required fair representation of different voices in the evaluation process through engagement with stakeholders across the spectrum of UNICEF CO and RO staff, national health authorities at all levels and, development and implementing partners.

Beneficence

This principle required the evaluation and the evaluators to consider the ongoing risks and benefits arising from the evaluation process and products – including longer term consequences. For this evaluation that meant, among other considerations, ensuring that the costs, including the opportunity cost of staff time devoted by UNICEF staff, national authorities, service providers and other stakeholders, was commensurate with the benefit realized through findings, conclusions and recommendations which can inform and improve future programming. In addition, it required the evaluation to “do no harm” and to ensure the evaluation makes an overall positive contribution to human and natural systems and to the mission of the United Nations. This positive contribution was pursued throughout the commissioning and design of the evaluation and remained a priority during the data collection, analysis and reporting phases.

Integrity

This required the evaluation managers and the evaluation team to commit to honesty and truthfulness in their communications and actions and to demonstrate professionalism and competence through the evaluation process. It also demanded that the evaluation team demonstrate independence, impartiality and incorruptibility. These interdependent and mutually reinforcing principles were supported by an evaluation design that required frequent updating and reporting to key stakeholders at regional and national levels and oversight by the independent ERGs for Tajikistan.

Accountability

Accountability was achieved through transparency regarding the evaluations purpose and actions taken as well as genuine responsiveness to any questions arising during the conduct of the evaluation. It also means that the evaluation manager and team members acted with full responsibility for meeting the evaluation purpose, for exercising due care and for ensuring redress whenever action was needed. The team members remained committed to delivering high quality evaluation products and deliverables on-time and within budget to the extent that these dimensions

¹²⁸ United Nations Children’s Fund PROCEDURE ON ETHICAL STANDARDS IN RESEARCH, EVALUATION, DATA COLLECTION AND ANALYSIS (2021)
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remained within their control. Accountability also required fairly and accurately reporting to stakeholders the decisions, actions and intentions of the evaluation.

UNICEF Ethical Standards in Research

In addition, the evaluation was designed and carried out in accordance with UNICEF ethical standards in research, evaluation, data collection and analysis (UNICEF, 2021). As per these standards (p.2), all team members had completed UNICEF ethics training prior to commencing work and reflections on ethics were embedded in the Quality Assurance process. The evaluation plan was assessed against Instruction 3 of the UNICEF ethical standards (p.12 and 13) and did not require review by an external ethical review board or panel.