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Europe and Central Asia:

Evaluation of Immunization Programming at the System Level 2018-2023

Country Evaluation Report for Kyrgyzstan

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Acronyms

BCG	Bacillus Calmette–Guérin (vaccine for tuberculosis)
BCS	Behaviour change strategy
BI	Behaviour Insights
CA	Contribution analysis
CO	Country Office
COAR	Country Office Annual Report
COVID-19	Coronavirus disease 2019
CSO	Civil society organization
DDP&SES	Department of Disease Prevention and State Epidemiological Surveillance
DTP	Diphtheria, tetanus, and pertussis
DTP3	Diphtheria, tetanus, and pertussis vaccine (third dose)
EAF	Equity Accelerator Funding
ECARO	Europe and Central Asia Regional Office
EU	European Union
EVM	Effective vaccine management
FMC	Family medicine centre
Gavi	Global Alliance for Vaccines and Immunization
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Development Agency)
HPV	Human papillomavirus
HSS	Health system strengthening
IEMDOO	Immunization Digital Information System
JAR	Joint Assessment Review

KAP	Knowledge, attitudes and practices (Studies)
KII	Key informant interview
MICS	Multiple Indicator Cluster Survey
MoH	Ministry of Health of the Kyrgyz Republic
NIP	National Immunization Programme
OECD/DAC	Organisation for Economic Co-operation and Development/ Development Assistance Committee
PHC	Primary health care
RAM	Results Assessment Module
RCI	Republican Centre for Immunization
RCSK	Red Crescent Society of Kyrgyzstan
RCHPMC	Republican Centre for Health Promotion and Mass Communication
SBC	Social and Behavioural Change
SDG	Sustainable Development Goal
ToC	Theory of change
ToR	Terms of reference
UNEG	United Nations Evaluation Group
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WB	World Bank
WUENIC	WHO and UNICEF Estimates of National Immunization Coverage

Executive Summary

Introduction

1. In September 2023, UNICEF Europe and Central Asia Regional Office 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 for the attainment of Sustainable Development Goal 3 "to ensure healthy lives and promote well-being at all ages."
2. The regional evaluation includes a set of five country evaluations of UNICEF immunization programming: Bosnia and Herzegovina, Kyrgyzstan, Kosovo, the Republic of Moldova and Tajikistan.[1] This report presents the results of the evaluation conducted in Kyrgyzstan. 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 Kyrgyzstan in its efforts to maximize immunization coverage. There are four specific evaluation objectives:
    - 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;
    - to determine the effectiveness, impact, coherence, relevance and efficiency of immunization programming with a system lens;
    - to assess the contribution of UNICEF's work to national and sub-national progress (outcome and impact) in immunization coverage, especially for hard-to-reach individuals/communities; and
    - to draw lessons and provide recommendations to further support national governments in their efforts to strengthen immunization programming within the health care system.

Scope of the evaluation

3. The evaluation addresses both the effectiveness of the National Immunization Programme in Kyrgyzstan and the contribution of UNICEF's support to reinforcing those systems to ensure that 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's support to the national response to the COVID-19 pandemic. Geographically, the evaluation covers the operation of immunization programmes and activities in Kyrgyzstan 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 Kyrgyzstan and the health authorities of the Government of the Kyrgyz Republic, especially those engaged

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

in all aspects of immunization programming, including needs forecasting, procurement and storage, primary health-care service delivery, disease surveillance and response and health promotion. The evaluation has been jointly managed by the Evaluation Unit of the Europe and Central Asia Regional Office (ECARO) of UNICEF and the UNICEF Country Office (CO) in Kyrgyzstan. 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 the Kyrgyz Republic.

Evaluation criteria and key evaluation questions

5. The evaluation has assessed immunization programming in Kyrgyzstan through the lens of six evaluation criteria, which were developed by the Development Assistance Committee of the Organization for Economic Cooperation 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 Kyrgyzstan, 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 Kyrgyzstan's capacity to support the national immunization system and the effectiveness of that support in strengthening the health system and reaching underserved populations to improve equity.
7. To apply the Sustainability criteria the evaluation assessed both the institutional and the 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 prevalence of vaccine-preventable diseases, and the contribution made to these results by UNICEF support.

Approach and methodology

8. This evaluation applied a theory-based approach utilizing a theory of change (ToC) for UNICEF's support to immunization developed as a regional model but used (in consultation with the Country Offices) to identify Key Evaluation Questions applicable at country level. Contribution analysis was the main analytical model applied during the evaluation. Data collection and analysis followed a mixed methods approach at country level, combining document and quantitative data reviews with key informant interviews (KIIs) 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 a data consolidation workshop in Istanbul (involving all five country teams) and further analysis during July and August.

Conclusions

9. The evaluation resulted in 19 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 in summary form here (for a more complete description of the conclusions see Section 6.0 of the main report). The numbered findings that are the basis for each evaluation conclusion are presented in brackets at the end of each of the paragraphs.

Relevance

10. Conclusion One: The support provided to the National Immunization Programme by UNICEF Kyrgyzstan has been highly relevant, responding effectively to the country's evolving needs. Importantly, UNICEF's support has increasingly focused on understanding and addressing the social and behavioural drivers of vaccine uptake. [Findings 1 and 3].
11. Conclusion Two: UNICEF Kyrgyzstan is well recognized in its institutional role in supporting immunization. This role is appropriate to its mandate and capacities and comparative advantages in immunization. However, some overlapping of roles and responsibilities between UNICEF and the World Health Organization (WHO) affect the coherence of the technical support provided to the Ministry of Health, leading on some occasions to differences in policy advice to the government. [Findings: 2 and 3].

Coherence

12. Conclusion Three: UNICEF's interventions have demonstrated strong coherence, both internally and externally, by aligning with national health and immunization priorities and complementing the efforts of key partners. As a result, UNICEF-supported initiatives have been closely integrated into the national immunization system and related strategies and programmes. [Findings: 4 and 5]

Effectiveness

13. Conclusion Four: UNICEF Kyrgyzstan, with continued support from UNICEF ECARO, has been able to provide the level of quality technical and programming support that is appropriate to the needs of health authorities responsible for the immunization system in Kyrgyzstan. It will be important for UNICEF Kyrgyzstan to continue to maintain this capacity in the medium-to-longer term. [Findings: 2, 3, 5, 6].
14. Conclusion Five: UNICEF has been effective in supporting the strengthening of Kyrgyzstan's immunization system, particularly through capacity-building initiatives, evidence-based strategies, cold chain improvements, and support to targeted community engagement.[2] The essential nature of UNICEF's support has been demonstrated at every level of the national system. [Findings: 7, 8, 10, 11].
15. Conclusion Six: Support for the generation and use of data and evidence by UNICEF has enhanced the effectiveness of supported interventions, particularly in understanding social and behavioural drivers of vaccine uptake. There is a gap between efforts to improve data quality and capacity development for managers to make use of these improvements. [Findings: 9, 10, 11,12,16].

2 In these areas UNICEF Kyrgyzstan and the Ministry of Health were supported financially and technically through grants from the Global Vaccine Alliance (Gavi) including, for example, grants for health system strengthening and optimizing cold-chain equipment.

Sustainability

16. Conclusion Seven: UNICEF's contributions to the immunization programme have laid the groundwork for sustainable improvements in Kyrgyzstan's immunization system, especially in the area of institutional sustainability. However, continuing high levels of dependence on external funding are a critical risk to the financial sustainability of the improved operation of the immunization system. [Findings: 13, 14, 15].

Efficiency

17. Conclusion Eight: UNICEF's investments and interventions in support of immunization strategies, policies and programmes have contributed to improved efficiency in the system, not least through investments in cold chain logistics, digital data systems, and targeted outreach. However, the evaluation has identified gaps in storage, distribution, and service delivery suggest that indicate that there is still room for optimizing efficiency. [Findings: 15, 16].

Impact

18. Conclusion Nine: UNICEF support has contributed to improving the observed results of the immunization system in Kyrgyzstan programme. However, the extent of this impact has been moderated by ongoing challenges, such as the need to increase levels of trust among caregivers, logistical barriers, and the effects of the COVID-19 pandemic. [Findings: 17 and 18].
19. Conclusion Ten: Investments in modernizing cold-chain infrastructure, improving data quality and availability, deepening understanding of social and behavioural drivers of vaccine uptake and, extending outreach while improving community engagement have been among the most impactful of UNICEF's contributions. [Findings: 16, 18, 19].

Recommendations

20. The evaluation findings and conclusions have been used to develop the following summary evaluation recommendations. A more complete description and rationale for each recommendation is provided in the main report. Each recommendation includes a supporting rationale and an assigned priority.
21. **Recommendation One:** That UNICEF Kyrgyzstan – in consultation with the Ministry of Health of the Kyrgyz Republic, the Republican Centre for Immunization (RCI) and the Republican Centre for Health Promotion and Mass Communications (RCHP) – should work with the office of the WHO representative to clarify further the roles of UNICEF and WHO to agree on the most appropriate roles for each sister United Nations agency in providing technical assistance and policy and programme advice on immunization.

    Rationale: There is a need for more active coordination and consultation between WHO and UNICEF in relation to support to the national government in responding to disease outbreaks and the use of social and behaviour change (SBC) approaches. This will require closer consultation and the harmonizing of appropriate messages. Based on Conclusion 2. Priority: Medium.
22. **Recommendation Two:** That UNICEF Kyrgyzstan, in consultation and cooperation with UNICEF ECARO, develop a medium-term approach and plan to maintain the required level of technical capacity in immunization in the SBC, health and immunization team in the CO.

Rationale: UNICEF Kyrgyzstan, with support from UNICEF ECARO, has been able to provide the required technical and programmatic support to the national immunization system despite the small size of the immunization and health team. However, there is no indication that the workload of this team will diminish in the medium term. Based on Conclusions 3, 4 and 5. Priority: Medium.

23. **Recommendation Three:** That UNICEF Kyrgyzstan – in consultation with the Ministry of Health, RCI and RCHP – should continue to prioritize and, to the extent possible, expand support to immunization outreach services, while also emphasizing support to community engagement initiatives based on identified social and behavioural drivers of vaccine uptake.

    Rationale: Vaccine outreach activities, combined with better trained service providers, have proven to be effective in reaching under-vaccinated communities and children. At the same time, community engagement has proven to be a critical factor in increasing immunization uptake, especially in underserved populations. Based on Conclusions, 1, 5, 10. Priority: High.

24. **Recommendation Four:** That UNICEF Kyrgyzstan – in cooperation with the Ministry of Health, RCI and RCHP – should continue and intensify efforts to promote increased demand for immunization services, particularly among hard-to-serve populations. This should include further development of targeted messaging and community engagement based on increased knowledge of social and behavioural drivers of vaccine uptake, and efforts to enhance the level of trust in health-care services among caregivers.

    Rationale: While outreach activities and community engagement efforts have proven effective at reaching underserved populations, there is continued scope for ensuring that improved understanding of social and behavioural drivers of vaccine uptake can drive improvements in demand promotion and public trust in vaccine services. Based on Conclusions 1, 5, 9. Priority: High.

25. **Recommendation Five:** That UNICEF Kyrgyzstan should collaborate with the Ministry of Health, the RCI and the RCHP to build on the agreed national plan to increase coverage of vaccination and further develop and implement tailored approaches to reach under-vaccinated and unregistered children, particularly internal migrants and those in hard-to-reach areas. In order to further reveal bottlenecks to routine immunization coverage and prevent repetitive outbreaks of vaccine-preventable diseases, UNICEF should propose that the government conduct root cause analysis and update existing plans and strategies.

    Rationale: Despite overall improvements in immunization coverage, significant pockets of under-vaccinated children remain. Targeted strategies are necessary to address these gaps and ensure that all populations are adequately served. Based on Conclusions: 5, 8, 9. Priority: High.

26. **Recommendation Six:** That UNICEF Kyrgyzstan and the Ministry of Health should continue to build on current approved plans for digitalization of immunization coverage data by supporting the integration of immunization reporting into health information systems. In particular, UNICEF Kyrgyzstan should also support training and capacity development so that managers are able to use timely, quality data in planning, managing and monitoring immunization services.

    Rationale: UNICEF support to improve the timeliness and quality of vaccine coverage data through digitalization is an important contribution to system strengthening. However, these efforts need also to be supported so that managers in the system have the required skills to use the resulting data and evidence in programming. Based on Conclusions, 4, 5 6, 10. Priority: High.

27. **Recommendation Seven:** That UNICEF Kyrgyzstan should collaborate with national health authorities, especially the RCI, to ensure that continued priority is assigned to – and technical and programme support provided to – strengthening the cold chain for vaccines and improving supply chain infrastructure and management as it extends out to remote and underserved areas.

    Rationale: Significant progress has been made in improving cold chain logistics, equipment and management and strengthening the overall supply chain for immunization. However, gaps remain, especially in remote regions. Strengthening this infrastructure is essential for maintaining vaccine efficacy and ensuring equitable access to immunization services. Based on Conclusions: 7, 8, 10 Priority: High.

28. **Recommendation Eight:** That UNICEF Kyrgyzstan, in cooperation with WHO, should continue to work with the MoH, RCI and RCHP to ensure that Kyrgyzstan continues to prioritize immunization services as a key component of broader primary health-care reforms and national health strategies, including through integration of the organizational structures that form the foundation of the immunization services, and by diversifying sources of external funding.

    Rationale: Continuing to prioritize immunization services integrated within the broader primary health-care framework will help to ensure that immunization efforts are sustainable and that they contribute to overall health system strengthening. There is, however, an identified need for increased public investment and diversified external support. Based on Conclusions: 3, 5, 7. Priority: Medium.

29. **Recommendation Nine:** That UNICEF Kyrgyzstan should, in collaboration with the Ministry of Health, continue and deepen its support for capacity-building for managers and health-care workers and health promoters engaged in immunization services within the primary healthcare (PHC) system and maternities in Kyrgyzstan. This should include supporting the development of a structured knowledge management and transfer system in order to ensure that capacity development and training (including interpersonal communication) is not only integrated into the curricula for pre-service and in-service training but is also capable of addressing the issue of staff turnover in health-care services.

    Rationale: Support for strengthening the capacity of health-care workers is a high-impact investment to improve the immunization system. This is especially important as research shows that health professionals are among the most trusted sources of information on vaccine safety and efficacy. However, training of health-care professionals should be integrated into overall professional training and sustained over time. Based on Conclusions: 5, 8, 9. Priority: Medium.

Table 1: Summary table of evaluation recommendations

Recommendation	Based on Conclusions	Lead Role	Collaborative Role	Priority
1.That UNICEF Kyrgyzstan should work with the office of the WHO representative to clarify further the roles of UNICEF and WHO to agree on appropriate roles for each.	2	UNICEF	WHO	Medium
2.That UNICEF Kyrgyzstan, in consultation with UNICEF ECARO, develop a medium-term approach and plan to maintain the required level of technical capacity for immunization.	3,4,5	UNICEF CO	UNICEF RO	Medium

3.That UNICEF Kyrgyzstan, in consultation with the Ministry of Health, should continue to prioritize support to immunization outreach services and community engagement initiatives.	1, 5,10	UNICEF	MoH	High
4.That UNICEF Kyrgyzstan – in cooperation with the Ministry of Health, RCI and RCHP – should continue and intensify efforts to promote increased demand for immunization services, particularly among hard-to-serve populations.	1,5,9	UNICEF	MoH	High
5.That the UNICEF CO should collaborate with the MoH/RCI to build on approved national plans to develop and implement tailored approaches for reaching under-vaccinated and unregistered children, particularly internal migrants and those in hard-to-reach areas.	5,8,9	UNICEF	MoH	High
6.That UNICEF Kyrgyzstan should support the Ministry of Health to increase efforts to improve the quality and timeliness of immunization coverage data through digitalization and training.	4,5,6,10	UNICEF	MoH	High
7.That UNICEF Kyrgyzstan should support efforts to ensure that the cold chain for vaccines is strengthening and supply chain infrastructure and management are improved as it extends out to remote and under-served areas.	7,8,10	UNICEF	MoH	High
8.That, UNICEF Kyrgyzstan should continue to work with MoH to ensure that Kyrgyzstan continues to allocate a high priority to more integrated immunization services and increased public investment in immunization as a key component of broader primary health-care strategies.	3,5,7	UNICEF	MoH	Medium
9.That UNICEF Kyrgyzstan should continue and deepen its support to capacity-building for managers and health-care workers engaged in immunization services and support the development of a structured knowledge management and transfer system ensure training is integrated into the curricula for pre-service and in-service training and is sustainable over time.	5,8,9	UNICEF	MoH	Medium

Source: Evaluation Dataset, UNICEF, 2024.

1.0 Introduction

1.1 Background: Regional evaluation and the role of the Kyrgyzstan evaluation

30. In September 2023, UNICEF Europe and Central Asia Regional Office (ECARO) launched an evaluation of UNICEF's support to immunization programmes in the region. The decision to undertake the evaluation in 2023 and 2024 recognized the central role of immunization in the achievement of Sustainable Development Goal 3 "to ensure healthy lives and promote well-being for all at all ages."[3] 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".[4]

31. The regional 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. This report presents the results of the evaluation of UNICEF support to immunization programming in Kyrgyzstan.

32. The role of the Kyrgyzstan evaluation is twofold:

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

33. The evaluation has been co-managed by the UNICEF ECARO (Geneva and Istanbul) and the UNICEF Country Office, with participation and consultation by the Ministry of Health (MoH) of the Kyrgyz Republic. It is supported by an Evaluation Reference Group of key stakeholders.

34. The object under evaluation is UNICEF's programme support to the Kyrgyz Republic 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"[5]. The period under evaluation is the calendar years from 2018 to the end of 2023. In that time, as described in section 4.2 (Table 6), UNICEF Kyrgyzstan programme expenditure coded to immunization activities rose from US$403,239 in 2018 to $1.85 million in 2023. The evaluation focuses on those activities and their contribution to results in the operation of immunization services in Kyrgyzstan at the national, district and facilities level.

1.2 Purpose and objectives

35. *Purpose:* The purpose of the evaluation is to provide a rigorous assessment of UNICEF results to date in contributing to the national system in its efforts to maximize immunization coverage. This

3 See: www.un.org/sustainabledevelopment/health/

4 World Health Organization, Monitoring the Health-Related Sustainable Development Goals (SDGs), 2017, at https://cdn.who.int/media/docs/default-source/searo/hsd/hwf/01-monitoring-the-health-related-sdgs-background-paper.pdf.

5 United Nations Children's Fund Europe and Central Asia Regional Office, 'Evaluation Terms of Reference: Immunization programming at the system level, 2018 to 2023', 2023. p.3.

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.

Objectives:

36. The objectives of the evaluation are:

- to assess the impact of immunization programming in the health care 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;
- to determine the effectiveness, impact, coherence, relevance and efficiency of immunization programming with a system's lens;
- to assess the actual and potential contribution of UNICEF work to the national and sub-national progress (outcome and impact) in immunization coverage, especially the hard-to-reach individuals/ communities; and
- to draw lessons and provide recommendations for the refinement and potential scaling up of good practices to further support national governments in their efforts of strengthening immunization programming within the health care system.

1.3 Scope of the evaluation

37. Thematic: The evaluation addresses both the effectiveness of national immunization systems in Kyrgyzstan 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 Kyrgyzstan at the country, oblast and district level, including at points of delivery for vaccine services.

1.4 Object of the evaluation and stakeholders

38. The object of the evaluation is UNICEF support to immunization programming as it operates within the national immunization and primary health system. Primary stakeholders and users of the evaluation are UNICEF Kyrgyzstan and the national health authorities, especially those engaged in immunization programming, primary health-care service delivery, disease surveillance and response and health promotion. Secondary stakeholders include development partners supporting immunization programming as well as implementing partners directly supported by UNICEF. The evaluation recommendations are directed to UNICEF Kyrgyzstan and national health authorities as appropriate.

1.5 Structure of the report

39. The report is structured as follows:

- Section 1 is this introduction.
- Section 2 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 provides a brief overview of the national context for immunization programming in Kyrgyzstan during the evaluation period.
- Section 4 profiles UNICEF support.
- 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.
- Section 7 builds on conclusions to present a brief overview of lessons learned.
- Section 8.0 presents the evaluation recommendations.

2.0 Methodology and data collection

2.1 Evaluation criteria and key evaluation questions

40. The evaluation applied the evaluation criteria developed by the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) as endorsed by the United Nations Evaluation Group (UNEG). These criteria include relevance, coherence, effectiveness, sustainability, efficiency and impact. The key evaluation questions are presented in Table 1. Taken as a whole, the key evaluation questions encompass all the evaluation criteria.[6]

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 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?
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 Europe and Central Asia?
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?
Effectiveness
KEQ 5. To what extent do ECARO and CO staff have the capacity, tools and incentives to effectively support national actions to address social and behavioural drivers of vaccine uptake as an integral element of support to system strengthening for immunization within primary health care?
KEQ 6. To what extent has UNICEF contributed to strengthening the national system's capacity to improve vaccine uptake?

6 Organisation for Economic Cooperation and Development, Development co-operation evaluation and effectiveness, n.d., at: www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm\, accessed 8 December 2024.

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. Which drivers or groups of drivers influence the change in immunization coverage, positively or negatively at policy, system, services, community and individual level?
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 at identifying and addressing current and potential bottlenecks or inefficiencies?
Impact
KEQ 11. To what extent have the national health system's policies and programmes (including for demand generation) intended to improve vaccination rates over the past five years had an impact on overall vaccination coverage (including in under-vaccinated populations), vaccine-preventable disease incidence, perceptions and immunization-related behaviour of key stakeholders, such as health-care 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 to vaccination rates, and what have been the most impactful UNICEF-supported investments intended to increasing immunization coverage – including those fully or mostly financed by national governments?

Source: Evaluation Terms of Reference (ToR), UNICEF, 2023.

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 enquiry 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) ToC, which is provided in Annex 2. The regional ToC was then used to identify key evaluation assumptions and to articulate the Key Evaluation Questions (KEQs) in Table 1.
43. The predominant analytical model for the evaluation is contribution analysis (CA) which required gathering available documentary and quantitative evidence on the results of UNICEF's support to the immunization system and supplementing 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 (including selecting the sample of country case studies) is provided in the evaluation inception report.[7]
44. The methodology applied specifically for the Kyrgyzstan evaluation is described in detail in Annex 3. The same source also provides a link to the evaluation interception report which includes the detailed evaluation matrix and all data

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

collection instruments.[8] Finally, Annex 3 includes a link to the evaluation evidence base matrix, which summarizes the evidence gathered from all sources organized by KEQ. Providing links to these documents enables readers to access the information as required, while avoiding excessively lengthy annexes.

2.3 Data collection methods and results

45. The central evaluation team carried out a preliminary profiling of quantitative data and a review of documents uploaded by the UNICEF CO during the inception phase of the evaluation (September 2023 to March 2024). The national evaluator collected data in Kyrgyzstan from the beginning of April to the end of June 2024.

Document review

46. The evaluators 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. All the references are listed in Annex 4.

Key informant interviews

47. Building from a stakeholder map developed in consultation with UNICEF Kyrgyzstan, the list of stakeholders to be interviewed was agreed between the evaluation team and the UNICEF CO before 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.

48. The Kyrgyzstan evaluation team engaged with UNICEF ECARO, the UNICEF CO, government authorities, public institutions, civil society organizations (CSOs), and other development agencies to ensure that the evaluation responded to the needs and priorities of key stakeholders. Semi-structured interviews were an important means of engaging with national partners, reflecting the nature of the programme and the status of the respondents.[9]

Table 3: Distribution of KIIs

Category	Number of interviews
UNICEF Kyrgyzstan CO	6
Government of Kyrgyzstan (Ministry of Health, RCI)	10
Service providers on site	17
Other key stakeholders (United Nations agencies, multilateral organizations, CSOs)	9
Total	42

Source: Evaluation Dataset, UNICEF, 2024.

49. In total, 42 individual interviews (with 34 females and 8 males) were conducted by the national evaluation consultant. Questions for each interview were tailored as appropriate to make best use of the position and knowledge of the interviewee. The list of key informants is provided in Annex 5. Structured data collection/interview guides were used for all KIIs.

8 Ibid.

9 United Nations Children's Fund Europe and Central Asia Regional Office, 'Evaluation of Immunization Programming at the System Level (2018-2023): Annex 5 data collection instruments'.

Site visits

50. Site visits were conducted to health facilities in Bishkek city and Chuy Oblast to observe the immunization process, assess infrastructure, and engage with staff while observing service delivery. These visits included family medicine centres (FMCs), and other centres and provided insights into the operational aspects of the immunization programme, including vaccine storage, community outreach, and record-keeping practices. While sites in the southern districts were not accessible during the evaluation period, the evaluation did conduct remote interviews with health-care professionals and staff of CSOs and implementing partners operating in districts in Jalal Abad and Batken oblasts.

Table 4: Immunization sites visited

Region	District	Health Facility
Bishkek	Bishkek	Family Medicine Centre (FMC) 1
Bishkek	Bishkek	FMC 3
Bishkek	Bishkek	FMC 10
Chuy	Jaiyl	Territorial Hospital of Jaiyl District
Chuy	Jaiyl	Vaccine Warehouse
Chuy	Sokuluk	FMC of Sokuluk
Chuy	Issyk Ata	FMC of Issyk Ata
Chuy	Issyk Ata	Territorial Hospital of Issyk Ata District
Chuy	Issyk Ata	Vaccine Warehouse

Source: Evaluation Dataset, UNICEF, 2024.

Quantitative data analysis

51. Quantitative data analysis was an important component of this evaluation, enabling the assessment of trend and, identification of gaps, and providing an overall picture of progress in achieving immunization results. The analysis focused on several key indicators: vaccination coverage rates, geographical disparities in coverage, quantitative tracking of disease outbreaks, and the impact of COVID-19 on immunization. Selected data elements reviewed are presented in more detail in Annex 6.

Triangulation

52. To ensure the reliability and validity of the findings, data from multiple sources were triangulated. This approach involved cross-referencing information obtained from document reviews, interviews, site visits, and quantitative data analysis to identify consistencies and discrepancies. Triangulation helped to build a comprehensive understanding of the immunization programme's performance and outcomes.

2.4 Limitations

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

Table 5: Limitations and mitigation strategies

Limitations and constraints	Mitigation strategies deployed
In some cases, lack of availability of designated key informants for in-person interviews.	-Follow up contacts with key informants supported by the UNICEF CO and the use of remote interviews for selected KIIs.
Incomplete or inconsistent data sets on coverage – especially in light of outbreaks of vaccine-preventable diseases.	-Reviewing and comparing data sets on expenditure, immunization coverage and reported results (Section 4.0). -Supplementing data reported at national level with sub-national data reported in studies and surveys compiled during the document review.
Limited access to sites in remote regions during the data collection period because of severe flooding in the southern regions – Osh and Jalal Abad oblasts.	-Where regional site visits were not possible due to the emergency conditions, the evaluation conducted remote interviews with key informants to ensure the regional and local perspective was not lost.

Source: Evaluation Dataset, UNICEF, 2024.

54. Overall, the evaluation was able to address the data limitations noted above and to gather the evaluation evidence required to develop and validate the findings and conclusions presented below.

3.0 Immunization structures in Kyrgyzstan: The national context

55. Kyrgyzstan is a landlocked and predominantly mountainous country situated in Central Asia. With a population of 7 million people, it shares borders with Kazakhstan to the north, Uzbekistan to the west, Tajikistan to the south, and China to the east. The capital city, Bishkek, is located in the north, while Osh, the second-largest city, lies in the southwest.

56. Despite its rich natural resources, Kyrgyzstan faces challenges such as political instability, economic volatility and social inequality, which affect various sectors, including health care. Kyrgyzstan's demographic profile is diverse, with a significant proportion of the population being young. Almost half of the population is under the age of 25, which presents both opportunities and challenges for the country's development.[10] The country is predominantly rural, with 65.8 per cent of its population living in rural areas.[11] This rural nature influences many aspects of life, including access to health care and education. Ethnic diversity is also notable, with more than 100 minority ethnic communities constituting over a quarter of the population. The largest minority groups are Uzbeks and Russians, primarily residing in the southern regions. Ethnic relations have been stable in recent years, but issues such as the underrepresentation of minorities and perceived unfair treatment by law enforcement continue to pose challenges.

3.1 Institutional structure

57. Interviews with key informants and the review of programme documents illustrate that the immunization programme in Kyrgyzstan is managed by a defined organizational structure intended to ensure comprehensive vaccine coverage. The Ministry of Health (MoH) is the central authority responsible for national health policies, including immunization strategies.[12]

58. Within the MoH, the Republican Centre for Immunization (RCI) plays a pivotal role in implementing immunization plans, coordinating with regional health departments, and maintaining vaccine logistics. The RCI ensures nationwide implementation of immunization schedules, and monitors vaccine coverage. It is the coordinating and controlling body for the development, implementation and monitoring of the entire range of measures to combat infectious diseases prevented by vaccines. It provides organizational, methodological and consulting assistance to health-care organizations.

59. Meanwhile, the Republican Centre for Health Promotion (RCHP) focuses on public health education, promoting immunization through various communication channels and addressing vaccine hesitancy.

60. Regional Health Departments, spread across the seven oblasts and major cities, implement immunization programmes at local level, ensuring vaccines reach even the most remote areas. These regional

10 National Statistical Committee of the Kyrgyz Republic website, accessed at https://stat.gov.kg/ru/ on November 16, 2024.

11 National Statistical Committee of the Kyrgyz Republic (2023), Men and Women of the Kyrgyz Republic, Accessed at: https://stat.gov.kg/media/publicationarchive/197e5d29-1a02-4078-b91d-782be10c9ded.pd .

12 Ministry of Health of the Kyrgyz Republic (2023), Immunization Demand Promotion Plan in the Frame of the National Immunization Calendar of the Kyrgyz Republic for 2024-2030.

entities report immunization data back to the RCI, enabling centralized monitoring and evaluation of the programme's effectiveness. Collaboration between different levels of government and international partners like UNICEF, WHO, and Gavi, the global vaccine alliance[13] is crucial. These partners provide financial assistance, technical expertise and guidance to align national programmes with global standards. The integration of efforts from the national to the local level is intended to ensure a cohesive approach to immunization, addressing challenges and leveraging opportunities for improved health outcomes across the country. Additionally, the health authorities rely on involving local communities and health workers in planning and implementing immunization activities, to help ensure that programmes are culturally appropriate and widely accepted.

3.2 The vaccine supply chain

61. The vaccine supply chain in Kyrgyzstan is a complex process managed with the intent of ensuring the safe and efficient delivery of vaccines from procurement to administration. Vaccines are primarily procured through international organizations (including UNICEF Supply Division in Copenhagen), which provide high-quality vaccines at subsidized rates. Once procured, vaccines are transported to Kyrgyzstan, where they undergo customs clearance and quality inspections before being stored in the central cold storage facility managed by the RCI.

62. This central warehouse is equipped with advanced refrigeration systems to maintain the cold chain, preserving the vaccines' efficacy. From the central storage, vaccines are distributed to regional warehouses using specialized refrigerated vehicles, in order to ensure that the cold chain is maintained throughout transportation. Regional health departments then distribute vaccines to local health facilities, including hospitals, clinics, and maternity wards, where health-care workers are trained to administer them in accordance with the national immunization schedule.

63. Key informants note that in remote and hard-to-reach areas, mobile health units are deployed in an effort to ensure that all populations have access to essential vaccines, overcoming geographical and logistical barriers. This supply chain is designed to ensure that vaccines remain potent and are delivered efficiently to all corners of the country. Additionally, continuous monitoring and evaluation of the supply chain processes is intended to identify potential issues and ensure that timely corrective actions are taken, ensuring uninterrupted vaccine availability.

3.3 Overview of immunization coverage

64. Immunization coverage in Kyrgyzstan has seen both progress and setbacks between 2018 and 2023, reflecting the dynamic challenges and efforts within the national system. In 2018, the coverage for key vaccines such as DTP3 (diphtheria, tetanus and pertussis) was reported as 94 per cent, MCV1 (measles-containing-vaccine first dose) was 96 per cent, MCV2 (measles-containing-vaccine second dose) was 96 per cent, BCG (bacillus Calmette–Guérin) was 97 per cent, and polio was 92 per cent.[14] These high coverage rates indicated a robust immunization infrastructure and effective public health strategies. However, the advent of the COVID-19 pandemic in early 2020 significantly disrupted routine immunization services, diverting resources and attention to pandemic response efforts. By 2021, the coverage rates had declined, with

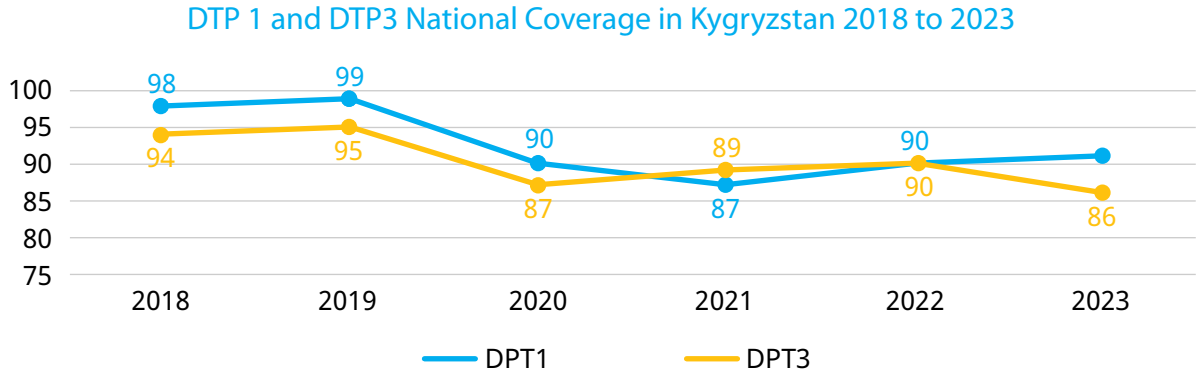
13 The Global Vaccine Alliance.

14 World Health Organization and United Nations Children's Fund, Vaccine coverage data Estimates of National Immunization Coverage (WEUNIC), July 2024, at https://cdn.who.int/media/docs/default-source/country-profiles/immunization/2024-country-profiles/immunization-2024-kgz.pdf?sfvrsn=26020708_3&download=true.

DTP3 dropping to 89 per cent,[15] reflecting the challenges posed by lockdowns, restricted movement, and health system strain. According to Kyrgyzstan's 2023 Multiple Indicator Cluster Survey (MICS 2023), vaccination coverage for key vaccines in the country showed strong uptake in early doses but some decline in later ones. BCG and Hepatitis B at birth both had coverage rates of 93 per cent. For polio, the first dose reached 91 per cent, but coverage for the third dose fell to 83 per cent. Similarly, the third dose of pentavalent vaccine (DTP-HepB-Hib) reached 82 per cent, and the third dose of pneumococcal vaccine (PCV) was 84 per cent. Rotavirus vaccination followed a similar trend, with 87 per cent for the first dose and 80 per cent for the third dose. Measles, mumps and rubella (MMR) vaccination coverage for children aged 24-35 months was 89 per cent. Despite the strong initial vaccination rates, there are still gaps in maintaining high coverage for all doses across various vaccines.[16] Trends in overall coverage rates for key vaccines are compared to the regional averages in Annex 6.

65. In response to these challenges, the MoH – supported by international partners – launched initiatives to restore immunization coverage. Mobile immunization teams were deployed to reach remote areas and communities affected by the pandemic. Public awareness campaigns were intensified to address vaccine hesitancy and misinformation, particularly concerning the COVID-19 vaccine. By 2022, efforts to integrate COVID-19 vaccination into routine immunization schedules began to show positive results, with a gradual increase in coverage rates for both routine and COVID-19 vaccines (for example, DTP3 coverage was 90 per cent). However, data for 2023 indicate a decline in DTP3 vaccine coverage to 86 per cent.[17]

Figure 1: DTP 1 and 3 National Coverage Estimates for Kyrgyzstan 2018 to 2023 (WUENIC, July 2024)



Source: Vaccine Coverage Data, WEUNIC, July 2024.

3.4 Challenges and issues

66. The period from 2018 to 2023 presented numerous challenges for Kyrgyzstan's immunization programme, reflecting broader issues in the health-care system. The COVID-19 pandemic was a significant disruptor, causing a decline in routine immunization coverage as resources were diverted to manage the pandemic (Figure 1). Lockdowns and movement restrictions hindered access to health-care services, particularly in rural and remote areas, exacerbating existing disparities in health service delivery.

15 Ibid.

16 United Nations Children's Fund, Kyrgyz Republic Multiple Indicator Cluster Survey 2023, Snapshots of Key findings, July 2024, at www.unicef.org/kyrgyzstan/publications/mics-kyrgyz-republic-2023.

17 WEUNIC, 2024.

67. Additionally, key informants indicate that the pandemic and the resulting public health response encountered various forms of pushback and resistance which contributed to vaccine hesitancy, with misinformation spreading rapidly through social media and other channels, in turn leading to increased public reluctance to accept both routine and COVID-19 vaccines. As discussed in Section 5.0, the National Immunization Programme (NIP), with UNICEF support, has engaged in efforts to better understand the positive and negative factors driving vaccine uptake in the period since the pandemic.

68. The health-care system also faced logistical challenges, including the costs and managerial challenges of maintaining the cold chain for vaccine storage and transportation, which was further strained during the pandemic. Inadequate infrastructure in some regions, particularly remote and mountainous areas, posed significant barriers to efficient vaccine delivery. Human resource constraints, including a shortage of trained health-care workers, further complicated the immunization efforts.

69. Most notably, Kyrgyzstan experienced outbreaks of measles during this period, underscoring gaps in immunization coverage and the need for robust disease surveillance and response mechanisms. Despite these challenges, the MoH and its partners worked to address the gaps and restore immunization services. Initiatives such as mobile immunization units and enhanced public awareness campaigns played a crucial role in mitigating the impact of the pandemic on routine immunization. The period also underscored the need for continued investment in health-care infrastructure and workforce development to build a more resilient and responsive health system capable of withstanding future crises.

4.0 UNICEF support to immunization

4.1 Dimensions of UNICEF support

70. In Kyrgyzstan, UNICEF is engaged in supporting the immunization system and enhancing access to health care for all children, particularly those in rural and hard-to-reach areas. The organization operates through its CO in Bishkek and collaborates with regional health authorities and international partners such as WHO, Gavi and the United States Agency for International Development (USAID) to achieve the country's immunization goals. Over the evaluation period, UNICEF Kyrgyzstan has focused on increasing vaccine coverage, strengthening the cold chain, and improving community engagement through social, and behaviour change interventions. By working closely with the Ministry of Health and FMCs, UNICEF has improved service delivery, especially in remote regions where health infrastructure is weaker.

4.2 UNICEF Kyrgyzstan expenditures on support to immunization

71. Table 6 presents an overview of UNICEF's expenditure on immunization-related activities in Kyrgyzstan between 2018 and 2023. This expenditure covers various aspects of immunization support, from vaccine procurement to social mobilization efforts aimed at increasing demand for immunization.

Table 6: UNICEF Kyrgyzstan expenditure on immunization by expenditure code: 2018 to 2023 ($)

Expenditure and intervention code	2018	2019	2020	2021	2022	2023
Immunization supply chain, including cold chain	29,221	111,083	208,524	164,786	603,758	790,392
Purchase of vaccines and devices	45,000	45,000	45,000	45,000	45,000	50,000
Polio continuous social mobilization and communication					794,750	
SBC and community engagement for immunization	329,018	591,914	559,304	745,714	369,298	520,191
Evidence generation and policy advocacy for immunization					45,700	491,645
Total	403,239	747,997	812,828	955,500	1,858,506	1,852,228

Source: UNICEF Kyrgyzstan CO – Areas with no data indicate that no expenditure was coded to those activities that year.

4.3 Key areas of UNICEF support

72. Between 2018 and 2023, UNICEF support to immunization has consistently featured the following characteristics:[18]

- a focus on coverage and equity;
- introduction of new vaccines;
- cold chain strengthening;
- communication and demand promotion; and
- policy development and operational support.

Focus on coverage and equity

73. One of the most prominent stated goals of UNICEF Kyrgyzstan's support to immunization is to increase equitable vaccine coverage across the country, ensuring that every child has access to life-saving immunizations, regardless of location or socio-economic status. This includes targeting children in remote and mountainous regions, where access to health services is often limited. UNICEF has worked closely with the MoH to improve the extent to which vaccines reach these areas by strengthening supply chain logistics, training health-care workers, and engaging local communities. Increasingly in recent years, UNICEF has focused on closing the coverage gap for marginalized groups and addressing drop-out rates, where children receive the first dose of vaccines but miss subsequent doses.

Introduction of new vaccines

74. Supporting the introduction of new vaccines in Kyrgyzstan has been a priority for UNICEF as part of its broader strategy to protect children from vaccine-preventable diseases.[19] Over the evaluation period, UNICEF supported the successful introduction of the rotavirus vaccine and the HPV vaccine into the national immunization schedule. UNICEF, together with WHO, supported introduction of the pneumococcal conjugate vaccine in 2016, inactivated polio vaccine in 2018, rotavirus vaccine in 2019, and HPV vaccine in 2022.[20] The introduction of the HPV vaccine is expected to reduce cervical cancer rates among women and improve overall public health. This process was facilitated by UNICEF in coordination with the MoH, health workers, and public outreach efforts to explain the importance of these new vaccines.

Cold chain strengthening

75. A well-functioning cold chain is essential to s the potency and safety of vaccines. In Kyrgyzstan, UNICEF support has played a key role in upgrading the cold chain infrastructure to ensure that vaccines are stored and transported at the correct temperatures, even in remote areas. This included providing technical support and financial investment to acquire cold chain equipment, such as refrigerators and freezers, and training health workers on cold chain management.[21] KIIs and site visits indicate that UNICEF support has strongly focused on improving vaccine supply security and reducing wastage, ensuring vaccines reach children safely.

Communication and demand promotion

76. To combat vaccine hesitancy and improve demand for immunization services, UNICEF has assisted the MoH to implement comprehensive communication strategies.[22] These initiatives focus on promoting accurate information on vaccines, addressing common myths, and encouraging

18 United Nations Children's Fund, UNICEF Kyrgyzstan Country Office Annual Reports 2018 to 2022, Accessed at: 2018 COAR Report Kyrgyzstan Final.pdf; 2019 COAR Report Kyrgyzstan Final.pdf; Kyrgyzstan-2020-COAR.pdf; ECAR - Republic of Kyrgyzstan-2021-COAR.pdf: Republic of Kyrgyzstan-2022-COAR.pdf.

19 Key informant interviews with UNICEF CO, MoH, RCI.

20 United Nations Children's Fund Kyrgyzstan, European Immunization Week in Kyrgyzstan: Every vaccine dose matters to protect you and those you love, Press Release, April 2023, at www.unicef.org/kyrgyzstan/press-releases/european-immunization-week-kyrgyzstan-every-vaccine-dose-matters-protect-you-and.

21 UNICEF Kyrgyzstan Country Office Annual Reports 2018 to 2022.

22 Key informant interviews with UNICEF CO, MoH, RCI and UNICEF COARS 2020, 2022.

parents to vaccinate their children. One such campaign was launched in response to a measles outbreak in 2021, where UNICEF worked with community health workers and local leaders to dispel misinformation and promote vaccine uptake. These efforts included the development and dissemination of information through radio, social media and community-based communication platforms.

Policy development and operational support

77. UNICEF has supported the MoH to develop national immunization policies and operational guidelines. This included conducting assessments of the immunization programme and providing technical assistance to improve service delivery. UNICEF also supported efforts to align the immunization programme with global best practices, ensuring that Kyrgyzstan adheres to international standards while addressing local challenges, such as immunization in rural and mountainous regions.[23]

4.4 Partnership and engagement with other support providers

78. UNICEF's partnerships with other key players, such as WHO, Gavi, and national stakeholders, have been essential to the success of Kyrgyzstan's immunization programme. These partnerships have enabled a coordinated approach to resource mobilization, technical assistance, and advocacy, ensuring that immunization remains a national priority.

79. UNICEF's involvement in the COVAX[24] initiative during the COVID-19 pandemic highlighted the importance of these partnerships.[25] Through COVAX, UNICEF helped secure the delivery of over 2 million COVID-19 vaccine doses to Kyrgyzstan, ensuring that health-care workers and the general population could be vaccinated promptly. Additionally, UNICEF provided technical support to train health-care workers on cold chain management, microplanning, and interpersonal communication related to the COVID-19 vaccination rollout. UNICEF's collaboration with the Red Crescent Society of Kyrgyzstan (RCSK) was an important component of UNICEF engagement in the response to the COVID-19 pandemic.[26] This partnership was reported by key informants as a critical pillar supporting the government's efforts to manage the pandemic and keep frontline health workers safe.

80. Similarly, UNICEF's engagement at local level, through its partnerships with FMCs and regional health authorities, has been intended to ensure that immunization services are delivered consistently and efficiently. These partnerships were tasked with monitoring vaccine distribution, assessing cold chain functionality, and coordinating health worker training to meet national immunization goals.[27]

23 Including, for example, the Gavi-funded Equity Accelerator Fund (EAF) grant (2023) and the development of the National Immunization Strategy (NIS) 2023.

24 COVAX was the vaccines pillar of the Access to COVID-19 Tools (ACT) Accelerator.

25 Key informant interview with UNICEF CO, the MoH, RCI and UNICEF COAR 2021.

26 Red Crescent Society of Kyrgyzstan, Social mobilization on immunization in Bishkek, Osh cities, Chui, Osh Provinces, 2021.

27 United Nations Children's Fund, UNICEF Insight: Outcome Impact Data Explorer: Results Assessment Module, 2024.

5.0 Evaluation findings

5.1. Relevance of UNICEF support to national systems

Key Evaluation Question 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?

5.1.1 Adaptation to changes and trends

Finding 1: UNICEF has demonstrated the ability to adapt to changes and trends in Kyrgyzstan during the period under evaluation. This adaptability is reflected in the relationship between UNICEF-supported reviews and assessments and the evolution of programmes and initiatives to strengthen immunization services as well as vaccine uptake. In addition, UNICEF has demonstrated flexibility and responsiveness to the national context in working to identify the behavioural and social drivers of vaccine uptake, innovate in the use of digital platforms, increase community engagement and strengthen advocacy.

Addressing infrastructure and service delivery through reviews and research

81. During the period under evaluation, UNICEF has engaged in and supported regular efforts to review immunization programming and identify gaps in services or barriers to uptake. One important dimension of this engagement has been UNICEF's participation in periodic reviews of the NIP in collaboration with the MoH, the RCI and other stakeholders.[28] These reviews have highlighted key areas requiring improvement, such as cold chain management, health worker training, and community engagement. For instance, the NIP review in 2019 revealed that vaccine coverage rates for the third dose of DTP had fallen from 97 per cent in 2013 to 93 per cent in 2018, indicating the need for targeted interventions to boost immunization uptake.[29]

82. These UNICEF-supported reviews helped to identify significant gaps in cold chain infrastructure, especially in rural areas. For instance, the 2019 review revealed that many health facilities lacked reliable refrigeration equipment, leading to frequent vaccine spoilage.[30] UNICEF responded by providing modern refrigeration units and training health workers in cold chain management, which increased the proportion of vaccination points with adequate cold chain equipment from 49 per cent to 85 per cent between 2018 and 2020.[31]Additionally, assessments highlighted that the cold storage capacity at subnational and district levels was insufficient to meet the needs of the

28 Ministry of Health et al, Joint Annual Review (JAR), 2021.

29 World Health Organization Europe and United Nations Children's Fund Europe and Central Asia, Effective Vaccine Management, Kyrgyzstan, 2022.

30 JAR (2019).

31 COARs 2018-2020.

immunization programme, leading to challenges such as overstocking and underutilization of vaccines. Key informants noted that UNICEF's support for expanding and upgrading cold storage facilities has been crucial for addressing these issues, particularly during the increased demand for vaccine storage during the COVID-19 pandemic.[32]

83. In addition, these reviews have underlined the need for enhanced training for health workers, as many were found to lack updated knowledge on vaccine administration, cold chain management, and data reporting, which negatively impacted immunization quality.[33] In response, with UNICEF Kyrgyzstan support, the MoH developed training programmes to address these gaps, focusing on technical aspects of vaccine management and improving communication skills to better engage communities.[34] By 2020, over 1,500 health workers had participated in these training sessions delivered by the RCI and RCHP, with the goal of contributing to improved vaccine handling practices and more effective delivery of immunization.[35]

84. Moreover, UNICEF supported the development and implementation of standard operating procedures (SOPs) and guidelines in alignment with WHO recommendations, in order to help standardize vaccine management practices across all levels of the health system. Key informants indicate that these initiatives have collectively contributed to strengthening the infrastructure and service delivery mechanisms of Kyrgyzstan's immunization programme, addressing critical gaps and enhancing overall programme effectiveness.

Studying and responding to issues in vaccine uptake

85. In 2018, UNICEF conducted a comprehensive study to understand the behavioural and social drivers affecting vaccine uptake.[36] The study identified key barriers such as fear of side effects, lack of trust in health authorities, and misinformation about vaccines.

86. Based on these findings, UNICEF designed targeted communication campaigns to address these barriers. For instance, in 2019, a campaign focused on educating parents about the safety and efficacy of vaccines, which reportedly resulted in a 10 per cent increase in the intention to vaccinate among hesitant parents.[37] In 2021, UNICEF built on the earlier study by commissioning Oxford Policy Management to research capacity needs and entry points for demand

Addressing vaccine hesitancy in Osh Oblast

In Osh Oblast, key informants described how UNICEF worked with influential religious leaders to create and disseminate messages on the importance and safety of vaccines. UNICEF also organized numerous community dialogues and educational sessions facilitated by trained local health workers and influencers. These sessions provided a platform for open discussion, allowing community members to voice their concerns and receive information on vaccines.

32 Key informant interviews with the MoH, RCI and Gavi.

33 JAR, 2021.

34 Ministry of Health of the Kyrgyz Republic, (2018), Routine Immunization Communications Strategy and Action Plan.

35 Ministry of Health of the Kyrgyz Republic, (2018), Community Engagement for Immunization Strategy for 2019-2020 Kyrgyzstan.

36 Ministry of Health of the Kyrgyz Republic, (2018), Routine Immunization Communications Strategy and Action Plan 2018 to 2020.

37 National Statistical Committee of the Kyrgyz Republic and UNICEF, Kyrgyz Republic Multiple Indicator Cluster Survey 2018, https://mics-surveys-prod.s3.amazonaws.com/MICS6/Europe%20and%20Central%20Asia/Kyrgyzstan/2018/Survey%20findings/Kyrgyzstan%20MICS%202018_English.pdf.

generation.[38] In 2023, UNICEF launched a Behavioural Insights (BI)[39] study to identify drivers of immunization-related behaviour. This initiative included focus group discussions, surveys and interviews with parents and caregivers to gather insights into their concerns and beliefs about vaccines. The initiative revealed that more than 25 per cent of parents were hesitant to vaccinate their children due to fears of potential side effects. In response, UNICEF developed and disseminated educational materials that provided clear, evidence-based information about vaccine safety.

87. Interviewed health authorities noted that the educational campaigns were effective because the information was clear, concise, and backed by scientific evidence, and this helped counteract the misinformation that was prevalent in many communities.[40]

88. UNICEF has used insights from behavioural studies to tailor demand promotion interventions to specific communities, addressing unique challenges and leveraging local strengths to improve vaccine uptake. These studies revealed that misinformation and myths about vaccines were particularly rampant in rural areas. Common misconceptions included fear of vaccines causing infertility and other severe side effects, and mistrust towards government health initiatives.[41]

89. To address these challenges, in 2023 UNICEF supported CSO engagement with local leaders, including religious figures, community elders, and respected local influencers under the Gavi grant for the Kyrgyzstan Equity Accelerator Fund programme.[42] These individuals hold significant sway over community opinions, and were instrumental in dispelling myths about vaccines.[43] Interviews with national health authorities (MoH/RCI) confirmed that these improvements were directly linked to the targeted interventions and to educational campaigns.[44]

90. In Naryn Oblast, educational sessions were held in schools, community centres and local marketplaces. Health workers used visual aids and simple language to explain how vaccines work and their benefits, addressing specific myths and misconceptions prevalent in the communities.[45] Health authorities report that these tailored interventions had a significant effect on vaccine uptake. In the regions where local leaders were actively involved, vaccine coverage increased by 15 per cent from 2019 to 2021. For example, as noted in the 2023 BI report, in Batken Oblast, DTP3 coverage rose from 80 per cent in 2018 to 92 per cent in 2021, a clear indication of the effectiveness of these targeted efforts.[46] Interviewed local health authorities reported a noticeable shift in public opinion and increased willingness to vaccinate, attributing this change to the efforts of respected local figures and influencers.[47]

Studying and addressing drivers of vaccine behaviour in urban settings.

91. In urban areas, vaccine uptake faces a different set of challenges, including how best to reach a diverse population with varying levels of health literacy, and

38 Oxford Policy Management Group, Mapping of Institutional Capacity Needs and Entry Points for Demand Generation in National Immunization Policies Plans and Budgets in Kyrgyzstan, UNICEF Kyrgyzstan, 2021.

39 Euro Health Group, Behaviour Insights Research on Drivers Influencing Childhood Immunization-Related Behaviours in Kyrgyzstan, UNICEF, 2023, https://www.unicef.org/kyrgyzstan/media/8706/file/Behaviour%20Insights%20on%20Immunization%20-%20ENG.pdf.pdf.

40 Key informant interviews with health authorities.

41 Behaviour insights research.

42 Grant Agreement: Gavi/WHO/Government of Kyrgyzstan: Equity Accelerator Programme (2023).

43 Behaviour insights research.

44 Key informant interviews with national health authorities.

45 Key informant interviews with FMC staff.

46 Behaviour insights research.

47 Key informant interviews with local health authorities.

A parent's view on online information.

One parent said, "The online sessions were very helpful. I could ask questions directly and get answers from doctors. It made me feel more secure about vaccinating my children."

how to counteract the rapid spread of misinformation through social media. Parents in urban settings have access to a vast array of information, both accurate and inaccurate, making it crucial to provide reliable and engaging content.[48] UNICEF has provided considerable support for the utilization of digital platforms in an effort to reach urban populations. Social media campaigns were designed to address common concerns and provide factual information about vaccines.[49] These campaigns included infographics, videos, testimonials from health professionals, and interactive question-and-answer (Q&A) sessions with experts. According to the interviewed health workers, urban parents reported that the digital campaigns helped them make informed decisions.[50] UNICEF Kyrgyzstan noted that in 2020, a series of UNICEF-supported Facebook and Instagram posts reached over 200,000 urban residents, with messages focusing on debunking myths, explaining the benefits of vaccination, and providing practical information on where and how to get vaccinated.

92. UNICEF also facilitated online webinars and virtual workshops aimed at educating urban parents. These sessions were led by paediatricians, immunologists, and public health experts, who addressed live questions from participants. A notable example is the "Vaccination Q&A" series launched in 2021, which featured weekly live sessions on social media platforms.[51] These sessions attracted thousands of viewers, significantly boosting public confidence in vaccines.[52] These digital interventions led to a significant increase in vaccine acceptance in urban areas.

93. Surveys conducted in 2021 and referred to in the Joint Annual Review (JAR) for 2023, showed that vaccine acceptance rates among urban residents improved by 20 per cent compared to 2019.[53] For example, in Bishkek, acceptance of the MMR vaccine reportedly increased from 70 per cent in 2019 to 90 per cent in 2021, demonstrating the effectiveness of targeted digital outreach. However, key informants note that coverage of the primary vaccines complex for children under one year remains below 90 per cent.[54] Overall urban immunization coverage for key vaccines such as DTP3 and MMR saw a marked improvement with an increase of 18 percentage points in coverage rates from 2019 to 2021.[55]

48 Gavi and UNICEF Kyrgyzstan, Joint Appraisal Report (2023), 2023.

49 Ministry of Health of the Kyrgyz Republic, Planned and implemented activities engaging communities and shaping social norms for immunization 2018 to 2020, 2021.

50 Key informant interviews with FMC staff.

51 Republican Centre for Immunization of the Kyrgyz Republic: website www.privivka.kg, a Facebook site ''Vaccines are working'' (www.facebook.com/rcikg/), and an Instagram site (privivka.kg at @privivka.kg • Instagram photos and videos), Immunization promotion in Instagram started based on @молодые_мамочки.kg.

52 Key informant interviews with UNICEF staff.

53 Gavi/UNICEF/WHO, Joint Annual Review: Applying behavioural science to increase demand for childhood vaccination in Kyrgyzstan, 2023.

54 Key informant interviews with RCI and UNICEF CO staff.

55 COARS 2018-2022.

5.1.2 The institutional role of UNICEF

Key Evaluation Question 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 2: UNICEF has assumed a recognized and important institutional role in supporting immunization in Kyrgyzstan. This role is highly valued by key stakeholders. However, UNICEF Kyrgyzstan faces internal and external challenges, which can hinder it from realizing the full potential of its important role in immunization support. Internally, decision-making and resource allocation and funding processes sometimes caused delays – including when providing resources to field offices – which sometimes limits the effectiveness of the response, especially in emergency situations. Externally, diverging technical viewpoints between WHO and UNICEF sometimes lead to conflicting policy advice to the government.

Finding 3: UNICEF Kyrgyzstan has made progress in orienting its support to national immunization programming to take account of the social and behavioural drivers of vaccine uptake and integrating immunization into broader health initiatives. However, there is a continuing gap in the national immunization system's resilience and capacity to respond to outbreaks of vaccine-preventable diseases.

94. According to key informants, UNICEF Kyrgyzstan has made considerable efforts to align its support to the national immunization programme, national priorities and identified needs. UNICEF efforts to ensure that children receive essential vaccines in a timely manner are also reflected in strategic plans, and in the resources allocated to immunization at country level.

Overall strategic alignment

95. The current UNICEF strategy to support immunization in Kyrgyzstan (as reported in Country Office Annual Reports (COARs) and emphasized in meetings with CO staff) is to leverage UNICEF technical expertise to provide high-quality support for immunization programmes. This has included the development and dissemination of guidelines, training materials, and best practices for vaccine administration and cold chain management. Capacity building is another core component of UNICEF's strategy. By training health workers and providing technical assistance, UNICEF aims to enhance the skills and knowledge of local health=care providers, ensuring that immunization services are delivered effectively and efficiently. For example, training programmes supported by UNICEF for health workers on cold chain logistics and vaccine handling aimed to significantly improved vaccine storage and transportation, reducing wastage and ensuring vaccine potency. All of these interventions have been described by key informants as well aligned with national plans and priorities for improving vaccine coverage and access.

Alignment with key technical partners in the United Nations Country Team

96. Finally, it is worth noting that policy differences do sometimes arise among United Nations Country Team (UNCT) member agencies in the area of immunization support. Most notably in Kyrgyzstan, WHO and UNICEF (as confirmed in interviews at UNCT and MoH levels) took differing positions on the most appropriate response to the measles outbreak in 2023. Key informants reported that UNICEF Kyrgyzstan argued for an intensive national campaign, while the WHO opted to support a more locally focused response, concentrating on the districts with the most significant numbers of cases. In addition, the same interviews indicated that UNICEF and WHO have sometimes differed on the most appropriate and effective content for campaign messaging, and for course content in interpersonal skills development for immunization service delivery staff.

97. These differences have not necessarily hindered UNICEF Kyrgyzstan from assuming its most appropriate institutional role in the immunization support space, but they do represent areas of overlap, and may place national partners in a difficult position as they sometimes receive conflicting technical advice.

From communications for development to emphasis on social and behavioural change

98. During the period under evaluation, UNICEF Kyrgyzstan (supported by UNICEF ECARO) moved from a predominant focus on use of communications – including mass communications and campaigns – in support of immunization uptake to a more broadly based effort to understand and influence social and behavioural drivers of vaccine uptake (although elements of this approach were evident as early as 2018).[56] By 2023, understanding and addressing social and behavioural drivers of vaccine uptake had become a key aspect of the UNICEF approach. Most recently (in 2023), by conducting behavioural insights studies and engaging with communities, UNICEF Kyrgyzstan has sought to tailor its support to interventions addressing specific concerns and misconceptions about vaccines.[57]

UNICEF support for data collection and analysis

99. UNICEF Kyrgyzstan has also emphasized data collection and analysis to inform approaches to supporting immunization over time. The stated aim, according to UNICEF CO staff, is to contribute to evidence-based decision-making through the identification of gaps and areas needing improvement. Through initiatives such as the MICS and support to improve and develop Health Management Information Systems, UNICEF collects and analyses data on immunization coverage, vaccine stock levels, and cold chain performance. These insights have then been used to guide programme adjustments and policy recommendations.[58] According to key informants, in response to data showing lower immunization coverage in rural areas and among specific population groups, health-care authorities decided to deploy mobile vaccination units to these underserved areas.

Barriers to institutional success

100. Despite UNICEF's significant institutional role in supporting the immunization system of Kyrgyzstan, key informants also noted internal challenges which sometimes hinder it from fully realizing its mandate, capacities, and comparative advantages in supporting immunization programmes. UNICEF CO and partner agency staff, as well as

56 The Ministry of Health of the Kyrgyz Republic, Kyrgyzstan Routine Immunization Communications Strategy and Action Plan, 2023.

57 Applying behavioural science to increase demand for childhood vaccination in Kyrgyzstan, 2023.

58 OARs 2018-2022.

health authorities, note that decision-making processes are complex and time consuming, which sometimes delays the implementation of critical immunization activities. The need for multiple levels of approval and adherence to stringent protocols can lengthen response times, particularly in emergency situations.[59] For example, the procurement and distribution of vaccines and cold chain equipment often involve several layers of approval, which can delay the delivery of essential supplies to the field.[60]

101. Bureaucratic delays in the allocation and disbursement of funds also impede the timely execution of immunization activities.[61] This observation was further validated by informants from multilateral organizations, who mentioned that the Osh Field Office often faces challenges accessing funds quickly, which can affect the planning and implementation of vaccination campaigns.[62]

Addressing the cross-sectoral implications of the immunization programme

102. UNICEF in Kyrgyzstan works to address the cross-sectoral implications of immunization programming by integrating its efforts with broader health, education, and community development initiatives while working closely with UNCT counterparts in areas such as maternal and child health (MCH). This approach is intended to ensure that immunization programmes not only improve vaccine coverage but also contribute to overall child health and community well-being.[63]

103. According to UNICEF Kyrgyzstan staff and annual reports, immunization support efforts of UNICEF are closely linked to support to MCH programmes. By supporting the provision of immunization services alongside antenatal care, postnatal care, and child health services, UNICEF aims to ensure that national health authorities follow a comprehensive approach to child health.[64]

104. This view was confirmed by health workers interviewed at FMCs, who pointed out that during routine immunization campaigns mothers are also educated on the importance of breastfeeding, nutrition and hygiene, which contributes to improved overall health outcomes for children and mothers.[65]

105. UNICEF also has worked to leverage support to education programmes to promote awareness and acceptance of immunization. By integrating immunization messages into school and kindergarten curricula (public meetings with parents) and community education initiatives, local health authorities and UNICEF work to enhance the reach and impact of immunization campaigns.[66]

106. UNICEF Kyrgyzstan notes that community engagement is a cornerstone of UNICEF's strategy to address the cross-sectoral implications of immunization within PHC. With UNICEF support, the RCHP is seeking to engage with communities for more effective communication on immunization by involving community leaders, local influencers, and health volunteers. For example, in 2021 collaboration, UNICEF trained 30 UNICEF-supported volunteers and 95 RSCK volunteers to raise public awareness on immunization issues. The intent of these efforts was to ensure that

59 COARs 2018-2022.

60 Key informant interviews with UNICEF CO staff and development partners.

61 Gavi UNICEF Joint Appraisal Report (2023).

62 Key informant interviews with multilateral organizations

63 Kyrgyzstan: Routine Immunization Communication Strategy and Action Plan (2018 – 2020).

64 COARs 2018-2022.

65 Key informant interviews with FMC staff.

66 Key informant interviews with UNICEF CO and local health authorities.

immunization messages were culturally relevant and widely disseminated.[67]

107. Interviewed health authority staff confirmed that social mobilization efforts – such as community meetings, dialogues, round tables and health fairs – provided platforms for discussing the importance of immunization and addressing any concerns or misconceptions.[68]

Engaging on outbreaks of vaccine-preventable diseases

108. In recent years, Kyrgyzstan has faced significant challenges with measles outbreaks, underscoring the critical need for robust immunization efforts and public health responses. The Republican Centre for Immunization of the MoH informs that as of 12 March 2024, 5,446 cases of measles were registered in the country.[69] To combat the spread of measles, Kyrgyzstan's health authorities – with support from UNICEF and other international partners – have implemented a series of vaccination campaigns.[70] These campaigns are part of broader efforts to increase immunization coverage and prevent outbreaks.

109. As noted above, key informants have identified some differences in the positions taken by UNICEF and WHO in Kyrgyzstan regarding the most effective approach to respond to the measles outbreak. However, key informants from both agencies and other stakeholders noted that a common approach and a nationwide response to increase coverage in response to the outbreak have now been agreed upon and are being implemented.[71] At the same time, it seems clear that the recurrence and persistence of outbreaks points to a need for priority attention by UNICEF and national stakeholders to the question of how to build more resilience and a more rapid and effective response capacity into the national system.

5.2 Coherence of UNICEF support within national systems

5.2.1 Alignment with key partners

Key Evaluation Question 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 4: UNICEF's support to strengthening immunization systems in the ECA region has been marked by significant alignment and complementarity with actions taken by various stakeholders. This collaborative approach has been essential for enhancing vaccination coverage and addressing immunization challenges effectively.

67 RHCP, Communication on Immunization 2018-2021, 2021.

68 Key informant interviews with National Health Authorities.

69 Republican Immunization Centre, Situatsiya po kori [Measles Situation], 15 March 2024, https://privivka.kg/novosti/respublikanskij-czentr-immunoprofilaktiki-mzkr-informiruet-chto-na-12-marta-2024-goda-v-strane-zaregistrirovano-5446-sluchaev-kori/

70 World Health Organization, Measles and rubella vaccine arrives in Kyrgyzstan to help stop measles outbreak, 26 September 2023, www.who.int/azerbaijan/news/item/26-09-2023-measles-and-rubella-vaccine-arrives-in-kyrgyzstan-to-help-stop-measles-outbreak

71 Key informant interviews with UNICEF CO and WHO.

Collaboration with key partners

110. As noted in COARs, UNICEF Kyrgyzstan collaborates with a wide range of partners – including government agencies, CSOs and international organizations – to address the cross-sectoral implications of immunization. These partnerships are formed in order to ensure a coordinated and comprehensive approach to health and development.[72]

111. In addition, as noted in Section 5.1, UNICEF Kyrgyzstan has aimed to build on the findings of structured reviews and research to inform support that is tailored to the specific needs and capacities of national authorities. UNICEF CO staff and national health authorities indicate that UNICEF has worked closely with the MoH to ensure that immunization programmes are integrated with national health initiatives. This includes providing technical assistance for strategic planning, capacity building for health workers, and supporting the national immunization programme's implementation.

112. Key informants also indicated that UNICEF's support is closely aligned with and complementary to that provided by other stakeholders and partners. They note that UNICEF works in partnership with national health authorities, international organizations such as Gavi as a main donor, WHO, the Red Crescent and civil society. This was confirmed not only by UNICEF staff but also by key informants from the agencies concerned.

113. As an example of inter-donor cooperation, UNICEF's support for strengthening the cold chain programme involved UNICEF purchasing refrigerators for more than 100 regional and district-level medical institutions, followed by the installation of $10m^3$ and $30m^3$ cold rooms in 11 Centers for Disease Prevention and State Epidemiological Surveillance with support from a Canadian donor.[73]

114. Throughout the period under evaluation, Gavi has been a key source of funding for support to the immunization system in Kyrgyzstan, not least through the second Health System Strengthening Grant (HSS2). UNICEF was a key technical partner of the MoH during implementation of HSS2 and was responsible for administering 4$.09 million of the grant total of $6.85 million.[74] Under HSS2, Gavi supported UNICEF immunization initiatives through financial aid and technical expertise.[75] In November 2023, Gavi, UNICEF and the Government of the Kyrgyz Republic entered into a grant agreement of $977,327 to fund immunization programming under the Equity Accelerator Funding (EAF) platform, with UNICEF acting as the grant administrator.[76] The latter grant runs concurrently with the HSS3 grant, which succeeded HSS2 in 2023.

115. UNICEF CO staff indicated that Gavi's involvement was crucial for the procurement of vaccines and cold chain equipment, enhancing the infrastructure required for effective immunization delivery. Gavi also supports strategic planning and funding allocation.[77] In addition. WHO provides technical guidance and support, particularly in areas related to immunization standards, protocols, and response strategies during health emergencies. UNICEF, WHO and Gavi collaboration ensures that the immunization programmes are in line with global health standards and practices.[78]

72 COARs 2018-2022.

73 Key informant interviews with UNICEF CO.

74 Gavi, Kyrgyz Republic 2020 multi-stakeholder dialogue: immunisation planning in light of COVID-19, 2021.

75 Gavi, Measles & Rubella vaccine support guidelines, 2023.

76 Gavi, UNICEF, the Ministry of Health of the Kyrgyz Republic, Grant Agreement: Kyrgyzstan Equity Accelerator Fund Programme of the Government of Kyrgyzstan, 2023.

77 Key informant interview with UNICEF CO.

78 Key informant interviews with the MoH, Gavi and UNICEF CO.

116. UNICEF Kyrgyzstan also works with local NGOs and implementing partners to implement grassroots-level immunization campaigns. These organizations play a significant role in community engagement, conducting educational sessions, and facilitating dialogue with local leaders to enhance vaccine acceptance.[79]

117. Collaboration and coordination mechanisms are in place to avoid duplication of efforts and maximize impact. Regular coordination meetings and joint planning sessions with stakeholders ensure that UNICEF support is harmonized with the actions of other partners. For example, the Gavi UNICEF Joint Appraisal Report (2023) notes that the Demand Generation Strategy was drafted by the MoH Immunization Working Group under the leadership of RCI. Key informants from all categories (UNICEF CO, MoH, RCI and international partners, indicated that the UNICEF CO plays a positive and constructive role in mechanisms and platforms for coordination in immunization support.

118. This collaborative approach has facilitated the sharing of resources and expertise, leading to more effective and efficient immunization strategies. For instance, Gavi and UNICEF conduct annual reviews to evaluate the impact of their collaborative efforts on immunization coverage.[80] These reviews help identify areas that need improvement and ensure that resources are allocated effectively. Key informants from outside both organizations noted that Gavi makes recommendations based on these assessments, which are then communicated to the country and partners through formal letters, ensuring that critical issues are addressed promptly.[81]

119. During the COVID-19 pandemic, UNICEF led a supply procurement coordination group that included the MoH, the World Bank, and other United Nations agencies.[82] This group met regularly to coordinate the procurement and distribution of essential supplies, ensuring that efforts were not duplicated, and resources were used efficiently.[83]

5.2.2 Integration of UNICEF Support and National Action

Key Evaluation Question 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 5: UNICEF support has made an important contribution to identifying barriers to immunization in Kyrgyzstan. This has been accompanied by efforts to develop and implement programmes and actions to address identified barriers which have been integrated into national health policies and strategies. However, challenges such as infrastructure limitations, social and behavioural barriers, and financial constraints continue to act as barriers to the full adoption of these changes by health authorities.

79 Implementing partner PCA Reports for: Association for Health Promotion; Centre for Child Protection; Mutakalim and International Red Cross and Red Crescent.

80 Gavi UNICEF Joint Appraisal Report (2023).

81 Key informant interviews with national health authorities.

82 OARs 2018-2022.

83 Key informant interviews with UNICEF CO.

UNICEF support for a strengthened evidence base

120. UNICEF has supported and participated in regular studies and reviews of immunization system performance including Effective Vaccine Management (EVM) reviews in 2015 and 2022 and annual JARs undertaken with Gavi and national authorities. In addition, UNICEF Kyrgyzstan has commissioned detailed research into the behavioural and social drivers behind vaccine uptake. Reports such as the Behavioural Insights Report[84] and the HPV Formative Research Report[85] provided valuable insights into why certain populations were under-served and hesitant to vaccinate and identified strategies to address these issues. This research informed targeted communication campaigns and interventions designed to increase vaccine acceptance.

121. The Understanding Behaviours Report[86] specifically highlighted the misconceptions and fears that were leading to vaccine hesitancy. The findings from this report were used to tailor communication and engagement strategies that directly addressed these concerns, changes which were reported by the UNICEF CO and national authorities as improving the overall effectiveness of immunization programmes.

122. Interviewed health authorities in Bishkek noted that UNICEF is always ready to share its research, recommendations and expertise, which are used to jointly develop response strategies. According to the health authorities, the involvement of UNICEF has been pivotal in designing communications strategies that emphasize the importance of community engagement. Developed with UNICEF support, the Immunization Demand Promotion Plan 2024 to 2030, explicitly draws on UNICEF-supported research on drivers of immunization-related behaviour.[87] The Plan elaborates on these strategies, highlighting the need for tailored communication efforts to different demographic groups.

123. As advocated by UNICEF, continuous professional development for health-care workers is a cornerstone of the national plan. Training programmes focus on improving health-care providers' knowledge about vaccines, effective communication with patients, and handling vaccine-related concerns. This is also detailed in the tripartite grant agreement, which outlines the collaborative efforts between the government, UNICEF, and Gavi to enhance health-care worker competencies.[88]

124. In confirming this point, health authorities highlighted UNICEF support to the development of 11 standard clinical protocols on vaccine-preventable diseases. These protocols ensure that health-care providers have clear, standardized guidelines to follow, thereby improving the quality and consistency of care.[89] UNICEF involvement extends beyond protocol development to include the replication of these standards, training of trainers, and supported implementation within health-care offices. Furthermore, in collaboration with the Centre for e-Health, UNICEF has contributed to the establishment of telemedicine standards. This initiative is intended to leverage technology to enhance health-care delivery, making services more accessible, especially in remote areas.[90]

125. During site visits to FMCs in Bishkek,

84 Behaviour insights research on drivers influencing childhood immunization-related behaviours in Kyrgyzstan, 2023.

85 Kyrgyzstan HPV Vaccine Introduction, Rapid Formative Research Results 2022.

86 Understanding Behavioural Aspects and Context, Report on behavioural aspects of routine immunization in Kyrgyzstan 2022.

87 RCI, Immunization Demand Promotion Plan 2024 to 2030, 2023.

88 Grant Agreement 2022.

89 Key informant interview with National Health Authorities.

90 Key informant interview with UNICEF CO.

Issyk-Ata, and Jaiyl districts, the effective integration of UNICEF-supported programmes into immunization services was clearly evident. As examples, the integration of digital immunization records and enhanced cold chain management were notable in all the visited health-care facilities. Staff reported improved workflow and data accuracy due to digital tools, including specialized software for immunization tracking, continuous temperature monitoring devices, and standardized data management systems provided by the MoH and supported by UNICEF.

126. Interviews during the site visit to the Jaiyl FMC provided detailed insights into the current state of immunization efforts, challenges, and strategies in the district. The staff emphasized that maintaining a vaccination coverage rate above 95 per cent is crucial for achieving herd immunity and preventing outbreaks.

127. However, they also note that there has been a decline in vaccination rates due to an increase in vaccine refusals since 2014. A significant reason for vaccine refusals is misinformation about vaccine contents, such as the false belief that vaccines contain harmful substances like pig blood. Some refusals are based on religious grounds. However, the requirement of proof of vaccination to travel to religious sites like Mecca has helped mitigate this issue as people comply to fulfil their religious obligations.

128. The staff of the FMC report using various strategies to educate the community, including comparing the harms of alcohol and nicotine to emphasize the benefits of vaccination. Personal anecdotes and examples are used to illustrate the severe consequences of preventable diseases, which have successfully persuaded some parents to vaccinate their children. The FMC staff pointed to stronger policies at national level, such as requiring vaccinations for school and daycare enrolment, as an approach to ensure higher vaccination rates and prevent outbreaks.[91]

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

5.3.1 UNICEF capacity

Key Evaluation Question 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 behavioural drivers of vaccine uptake as an integral element of support to system strengthening for immunization within PHC?

Finding 6: UNICEF ECARO and CO staff have demonstrated significant and well-regarded technical capacity to effectively support national programming in immunization. The capacities of CO staff are also well supported by tools, approaches and support from RO level. Most recently, there has been increased emphasis on research and analytical tools to identify and address the social and behavioural drivers of vaccine uptake. The clearest examples of how these capacities influence programming has been found in the areas of demand promotion and the content of health service training.

91 Site visit and Key informant interviews with FMC staff.

129. In addressing the question of UNICEF Kyrgyzstan capacity, the evaluation assessed: a) the overall technical capacity in immunization; b) the availability of required tools and technical support, including support from UNICEF ECARO; and c) the extent that UNICEF support has assisted national authorities in identifying and addressing drivers of vaccine uptake.

130. Support for vaccination programming in Kyrgyzstan is provided by UNICEF CO health team, which currently includes nine staff members. This team encompasses roles in health, procurement and administration, as well as two local SBC specialists. The CO's overall operations engage 56 staff, including personnel based in the Osh office. The current staffing levels reflect the increased operational demands resulting from ongoing health emergencies and programmatic needs across the country.

Technical capacity in immunization

131. Interviews with health authorities, service providers, and other external (non-UNICEF) key stakeholders indicate that UNICEF CO staff have the required technical capacity to effectively support immunization efforts. Further, the technical support from the UNICEF CO is informing efforts to ensure that primary health-care staff at FMC level have access to required skills in immunization.[92]

132. 138.The same informants indicate that this capacity enables effective support for national actions to address social and behavioural drivers of vaccine uptake as an integral element of system strengthening for immunization within PHC. For instance, one interviewed stakeholder from a multilateral organization noted that there is always a shortage of personnel in every agency, but the UNICEF project implementation team, with significant experience in immunization programming, has a high level of technical capacity.

Availability of required tools and technical support

133. UNICEF CO staff engaged in immunization support also noted that tools and modules developed by ECARO allowed UNICEF Kyrgyzstan to deploy up-to-date methods such as behavioural insights[93] research to address the drivers of vaccine uptake.[94] In addition, ECARRO has been able to assist in engaging and deploying expertise from external, contracted technical resources as required, for example in the engagement of Oxford Policy Management to study institutional capacity development needs in demand promotion (2021).[95] The UNICEF CO has also shown it has the capacity to support the leveraging of digital tools such as social listening to monitor conversations and trends across social media to gather insights into public sentiment in immunization. After an early period of reluctance, the MoH has reportedly come to view social listening as an essential tool for adapting communications and messaging to meet concerns of the public.

134. ECARO provides UNICEF Kyrgyzstan and other COs in the region with comprehensive toolkits that include guidelines on best practices, behavioural insights research, and digital tools for immunization programming. These toolkits are viewed by UNICEF Kyrgyzstan staff as essential for standardizing efforts across different regions and ensuring consistency

92 OARS 2018-2022.

93 Understanding Behavioural Aspects and Context, Report on behavioural aspects of routine immunization in Kyrgyzstan 2022.

94 Behaviour insights research.

95 Oxford Policy Management/UNICEF, Mapping of institutional capacity needs: Assessment report for the Kyrgyz Republic, 2021.

in implementation of immunization programmes.[96]

135. ECARO support includes detailed guidance on leveraging behavioural insights to address vaccine hesitancy and improve community engagement. This support is reflected in the Behavioural Insights report, which provides frameworks for engaging communities and addressing social and behavioural barriers to vaccine uptake.[97] UNICEF CO staff noted that ECARO provides templates and technical guidelines for developing effective programme strategies tailored to local contexts.[98]

136. The reviewed evaluation documents and reports also highlight the support provided by ECARO[99] to more operational elements of the immunization system, including assistance with cold chain management, vaccine logistics, and monitoring and evaluation systems. This technical support is crucial for addressing operational challenges and enhancing the overall effectiveness of immunization programmes.[100]

Identifying and addressing drivers of vaccine uptake

137. National authorities and service providers met during site visits indicate that insights on the drivers of vaccine uptake identified in research based on the tools and technical support provided by UNICEF are being integrated into training modules and operational strategies to enhance the effectiveness of immunization programmes.[101] However, this is a recent phenomenon (2022/2023) and the extent to which these efforts are affecting vaccine uptake is not yet clear.

138. According to KIIs, there is also some concern that the UNICEF (and health authority) response to these insights has overly focused on two areas: a) informing demand promotion activities including messaging in campaigns and engaging with local communities; and b) influencing the training of health service providers through, for example, updating content on inter-personal skills training. There is less evidence that improved, more granular, knowledge of the drivers of uptake has informed the operational design and delivery of services at the health facility level.

5.3.2 Strengthened National Capacity to Address Improve Vaccine Uptake

Key Evaluation Question 6: To what extent has UNICEF contributed to strengthening national systems' capacity to improve vaccine uptake?

Finding 7: UNICEF has supported efforts to strengthen Kyrgyzstan's national immunization system by developing evidence-based strategies to address social and behavioural drivers of vaccine uptake to improve acceptance, including support to targeted initiatives to reach vulnerable populations. UNICEF (jointly with WHO) has also supported efforts to address the recent/current measles outbreak and thereby enhance the outbreak response. It is not clear, however,

96 Key informant interview with UNICEF CO.

97 Behaviour insights research.

98 Key informant interviews with UNICEF CO

99 UNICEF, Evaluation of the UNICEF Project – Strengthening Refugee and Migrant Children's Health Status in Southern and South-Eastern Europe (RMChild-Health Project), 2022.

100 COARs 2018-2022.

101 Behaviour insights research.

to what extent UNICEF support and engagement will improve the resilience and responsiveness of the national system to react to outbreaks in the medium term.

Finding 8: UNICEF has provided support for vaccine storage and refrigeration at regional and district level and thereby aided the national system to improve availability and access at local levels. In addition, UNICEF Kyrgyzstan has provided support to health authorities to engage with communities and monitor social network content to improve messaging and demand generation activities at local level.

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

139. As already noted, UNICEF Kyrgyzstan has supported the development of evidence-based understanding of the social and behavioural drivers of vaccine uptake. This process involves UNICEF working to commission and finance research and data collection efforts to identify barriers to vaccination and develop targeted solutions. The evaluation reviewed research reports which provide examples of in-depth studies conducted to uncover social norms, misconceptions, and other factors affecting vaccine acceptance. The reviewed reports also provide actionable insights for tailoring communication and engagement strategies.[102]

140. In addition, UNICEF Kyrgyzstan has supported efforts to understand addressing barriers faced by marginalized groups. The National Plan for Increasing Immunization Coverage (2023) and interviews with health authorities point out that there are no officially recognized marginalized groups in the country in terms of access to immunization.[103] However, key stakeholders agree that there are some groups (as presented below) that have been more affected by vaccine-preventable diseases in recent years, specifically those most affected by measles outbreaks.

Working to improve acceptance and confidence including among marginalized groups

141. Quantitative and qualitative studies in Kyrgyzstan have shown that the three main under-vaccinated risk groups are:
    - families not included in the state registration and/or not assigned to a specific FMC;
    - vulnerable children (children in isolated rural settings, children in conflict-affected areas, children of internal migrant families, children with disabilities, children from single-parent families, children from low-income families, and children from external migrant worker families who are in the care of relatives); and
    - children of doubtful or fearful parents and guardians/or "refusers" who do not bring their children for vaccination.[104]

142. The National Immunization Programme (2020 to 2024) highlights specific strategies to engage these groups, in an effort to ensure that planned interventions are inclusive and equitable. Activities under the Gavi-funded HSS2 grant (2016-2022) also included measures to address critical issues for the provision of immunization services including, among others:
    - the creation and organization of mobile teams to reach under-served children;

102 UNICFE, Understanding Behavioural Aspects and Context, Report on behavioural aspects of routine immunization in Kyrgyzstan, 2022.

103 MoH/RCI, National Action Plan to Improve Preventive Vaccination Coverage of Unvaccinated and Under-Vaccinated Children and Missed Communities, February 2023.

104 RCI, National Plan for Increasing Vaccination Coverage, 2023.

- strengthening supportive supervision processes;
- development of clinical protocols for adverse events after immunization;
- measures to improve management of medical contraindications and precautions for vaccination; and
- strengthening work with social networks and attracting volunteers.

143. The National Plan for Increasing Vaccination Coverage reports that these interventions, enabled the country to significantly increase DTP3 coverage at national level. In 2019 it reached 94.4 per cent, compared to 92 per cent in 2018.[105]

144. UNICEF Kyrgyzstan staff noted that UNICEF has supported outreach efforts targeting vulnerable populations, such as the communities in peri-urban areas (with the biggest newbuild settlements in Bishkek and Osh) and regional districts. These efforts include supporting the establishment and operation of mobile vaccination teams equipped with cold chain equipment to reach remote and underserved areas.[106] Supported efforts also include working with community leaders, religious figures, and local influencers to build trust and promote vaccination among marginalized and unvaccinated populations. Respondents highlighted partnerships with health authorities, imams and media outlets as key components of UNICEF's strategy.[107]

Strengthening national systems for outbreak preparedness and response

145. UNICEF Kyrgyzstan was intensively engaged in providing technical support for the development of the 2023/24 National Plan of Action to respond to the outbreaks of vaccine-preventable diseases.[108] The plan outlines steps for responding to measles and rubella outbreaks, including rapid response teams, supplemental vaccination campaigns, and communication strategies to manage public perception during outbreaks. The plan is intended to ensure that national authorities are better equipped to handle vaccine-preventable disease outbreaks, reducing the risk of widespread transmission.[109]

146. Key informants note that the reported high levels of coverage at national level may mask pockets of low coverage at local level, resulting in the accumulation of vulnerable individuals. Despite the high reported coverage of routine vaccination with all antigens, including MCV1 and MCV2, there is currently a measles outbreak in the country (See Annex 6 for data on the 2023/2024 measles outbreak).

147. In response, key informants note that the MoH has overseen a package of preventive and anti-epidemic measures to reduce incidence of measles. Oversight over routine immunization of children against measles and rubella in accordance with the vaccination calendar has been strengthened. Given the importance of responding quickly to measles outbreaks with interventions to stop the disease's further spread. UNICEF (along with WHO and the RCI) directly supported a multi-step review, analysis and action process to respond to the outbreak. This included rapid situation analysis, communications and promotion, emergency vaccine supply, and final delivery of outreach supplementary immunization activities.

148. In July 2024, the RCI reported a decrease in the incidence of measles: between 1 and 15 July , 360 cases of measles were registered in the country[110] (in May 2024, the RCI reported that a total of 9,509 cases of measles had been registered from January to May 2024[111]). Circulation

105 RCI, National Plan for Increasing Vaccination Coverage, 2023.

106 Key informant interview with UNICEF CO.

107 Key informant interview with UNICEF CO and FMC staff.

108 Gavi, Action plan for a two-phase measles-rubella immunization campaign, 2023.

109 Gavi, Action plan for a two-phase measles-rubella immunization campaign, 2023.

110 Republican Immunization Centre, V Kyrgyzstane snizhayetsya zabolevayemost' kor'yu [Measles cases are declining in Kyrgyzstan], 16 July 2024, https://privivka.kg/novosti/v-kyrgyzstane-snizhaetsya-zabolevaemost-koryu/

of the measles virus was less than average months, but active transmission was still observed in the cities in Bishkek, and Chui and Osh oblasts, where viruses are carried out due to stationary foci. Despite the monthly registration of new cases of measles, the virus is still active. The main cause of morbidity remains the large number of refusals from routine immunization against measles and rubella among children and adults.[112]

5.3.3 Understanding and addressing factors limiting access

Key Evaluation Question 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?

Finding 9: Especially in the later years of the evaluation period (2022/23), the health authorities, with UNICEF support , have developed better understanding of the factors affecting their ability to reach the most vulnerable populations.

Finding 10: In response to UNICEF-supported efforts to better understand barriers to reaching under-served populations, the health authorities in Kyrgyzstan have implemented outreach strategies including mobile vaccination teams. There is evidence that these strategies have been an effective response to reaching vulnerable populations but there are persistent challenges, especially relating to unregistered internal migrant families.

Identifying under-served populations and the factors affecting service uptake

149. As already noted in Section 5.3.2 UNICEF Kyrgyzstan has provided considerable support to health-care institutions to identify high-risk groups for under-vaccination, such as families not included in state registration, vulnerable children, and children of doubtful or fearful caregivers. UNICEF Kyrgyzstan and health service staff also noted that disruption to immunization services during the COVID-19 pandemic has contributed to the persistence of a high number of zero-dose (estimated at 15,298 in 2022)[113] and partially unvaccinated children. Another factor that has played an important role in the persistence in the numbers of zero-dose cases is the significant numbers of undocumented children, mostly from migrant families, who lack access to basic health care. As a result, these children were not included in district immunization plans and therefore were not normally counted in the official denominator identifying the population of children requiring vaccination.[114]

150. Mapping of the problem of unregistered, and potentially under-served, children illustrates the following dimensions:

- The largest number of unregistered children are children under one

111 Republican Immunization Centre, V Kyrgyzstane snizhayetsya kolichestvo zabolevshikh kor'yu [Measles cases are declining in Kyrgyzstan], 9 May 2024, https://privivka.kg/novosti/v-kyrgyzstane-snizhaetsya-kolichest-vo-zabolevshih-koryu/

112 Measles cases are declining in Kyrgyzstan, 21 October 2024, Kyrgyzstan Receives Half a Million Doses of Measles-Rubella Vaccine to Bolster Child Immunisation.

113 Accessed on 12 July 2024, at: www.Gavi.org/programmes-impact/country-hub/europe/kyrgyzstan

114 COARs 2018-2022.

year of age (96.9 per cent) (East COMP, 2018); there is a discrepancy between the number of people registered in newbuild settlements and the number assigned to medical institutions (between 8,305 and 47,130 residents of newbuild settlements in Bishkek still lack registration).

- Bishkek and Chui Oblast) have lower coverage (about 60-71 per cent) than other regions, where coverage exceeds 90 per cent. Bishkek is the capital of the country; most internal migrants from southern and northern regions are concentrated here. There are 49 newbuild settlements around Bishkek, the residents of which have not received official registration of housing ownership.[115]
- The accumulation of a vulnerable group (without immunity) of children from among unregistered internal migrants in the regions, especially in newbuild settlements in Bishkek and the districts of Chuy Oblast bordering Bishkek, was noted as a cause of periodic outbreaks of measles between 2017 and 2020. In these areas 33 per cent of cases over the past 2 years occurred between 1 and 5 years of age; these are zero-dose children.
- According to statistics from the National Statistics Committee, the highest intensity of interregional migration was noted from Naryn Oblast (8.9 people per 1,000 population), followed by Talas Oblast (5.4 per 1,000) and Issyk-Kul Oblast (4.8 per 1,000).[116] Most of the migration flow occurs in Bishkek, and in Osh and Chuy oblasts.
- Although the state's population registration procedure controls and regulates internal migration, the procedure itself and its complexity create grounds for citizens reside without registration in certain territories. Under the existing registration system, internal migrants often prefer to find informal work, pay for medical services and receive educational benefits. The legal framework only covers registered citizens, while most internal migrants are unregistered and remain outside the scope of government services. Officially, health-care systems cannot provide medical care to illegal migrants (those not registered at their place of residence).

151. A review of legislation relating to the registration of urban migrants and their access to health services – carried out in the framework of the Adaptation of the Immunization Programme Project (API, WHO) in 2018, showed that the percentage of refusals to provide free health care, including immunization, on the basis of lack of registration is 41.7 per cent.[117]

152. These considerations were confirmed by the MICS in 2018, which confirmed that DTP3 coverage among children aged 12-23 months was 83.9 per cent, and MCV1 coverage was 62.3 per cent. The proportion of children who had not received a single dose of DTP vaccine ('zero-dose' children) was 9.8 per cent, while 12.3 per cent of children had not received the third dose of DTP vaccine).[118]

153. There has been an encouraging reduction in the estimated number of zero-dose children in the latter years of the evaluation period, to 17,114 in 2021[119] and 15,298 in 2023. However, key informants indicate that problems identifying families of children lacking

115 RCI, National Plan of the Kyrgyz Republic to Increase the Coverage of Preventive Vaccinations of Unvaccinated, Incompletely Vaccinated Children and Missed Communities, 2023.

116 Available at https://stat.gov.kg/ru/statistics/

117 GAVI, Action plan for a two-phase measles-rubella immunization campaign, 2023.

118 Multiple Indicator Cluster Survey, 2018.

119 UNICEF, State of the World's Children 2023, 2023, www.unicef.org/eca/reports/sowc2023-eca#coverage

immunization and addressing the concerns of parents with limited access or sceptical of immunization remains a challenge throughout the country, and contributes to missed opportunities.

154. In 2018, for example, the dropout rate between DTP-1 (90.6 per cent) and DTP-3 (86.4 per cent) in 2018 was 4.2 percentage points, and between PVP-1 (90.4 per cent) and PVP-3 (79.7 per cent) it was 10.7 percentage points. Urban migrant coverage survey data also showed that 45.2 per cent of children in Bishkek and 70.9 per cent in Osh were fully vaccinated children. Lost vaccination opportunities (LOVs) were highest between PCV1 and PCV3, reaching 29.6 percentage points in Bishkek and 11.1 percentage points in Osh. This indicates the limited ability of the immunization service to identify and track children aged 2 to 12 months with the prescribed immunization schedule.[120]

155. The combination of international migration and relatively open borders has been cited by key informants as a factor enabling the measles virus to enter the country relatively unchecked, resulting in wide geographic dispersion due to nosocomial transmission.

Developing and implementing strategies to reach under-served populations

156. With UNICEF support, Kyrgyzstan's immunization system has responded to these challenges by altering vaccine services to ensure higher quality and acceptability among vulnerable populations. Improvements in services have included the use of mobile vaccination units, home visits, enhanced training for health-care workers, and the establishment of supportive supervision processes. Key informants verified that the development and dissemination of clinical protocols for managing adverse events has been crucial in efforts to maintain public trust and confidence in immunization services.[121]

157. As noted above, an important contribution by UNICEF to improving outreach has been working to strengthen the supply chain and vaccine storage capacity at sub-national level to deliver vaccines to all. Through provision of cold chain equipment, access to specialized refrigeration equipment at vaccine points increased from 49 per cent to 85 per cent nationwide.

158. Key informants emphasized the unique challenges of meeting the immunization needs of internal migrants in Kyrgyzstan. In contrast to external migrants, internal migrants often move seasonally for work and for other reasons. In Bishkek alone, there are over 40 newbuild settlements where people live in temporary shelters or barrack-type housing. These populations are often characterized by low incomes and large family sizes, and they frequently lack official registration or registration with medical institutions, which directly affects their access to health services, including immunization.

159. Although the country has made efforts in recent years to ensure that lack of registration does not impede access to vaccination, challenges remain. For instance, during a visit to one of these new residential areas, the evaluation encountered a mother who had recently moved from a rural region with her children. They were living in temporary accommodation and were not registered or assigned to a medical institution. The

> "The UNICEF immunization support programme makes an important contribution to the Gavi programme component of the Equity Accelerating Funding, which is specifically aimed at internal migrants. This population is crucial for ensuring full vaccination coverage due to their mobility and transient lifestyle."
>
> *UNICEF Kyrgyzstan Staff*

120 RCI, National Plan for Increasing Vaccination Coverage, 2023.

121 Key informant interviews with staff of UNICEF, RCI and FMC.

mother was unaware of this situation and had not taken her children to the hospital for vaccination because the transportation costs were prohibitive – KGS 80 for a round trip – and she preferred to spend this money on essential items like bread.

160. As noted by key informants at all levels, mobile vaccination teams play a crucial role in addressing these challenges.[122] They are essential for reaching areas that are far from regional centres, especially during winter, when passes are often closed, cutting off access to vaccinations for up to six months.

Key informants report that the most effective investment in reaching under-served populations has been the deployment of mobile teams, with a reported 100 per cent success rate. Calculations have shown that mobile teams have significantly increased overall vaccination coverage, ensuring equitable access to immunization services and health-care systems. This approach has "allowed individuals with low socioeconomic determinants to be protected from vaccine-preventable diseases, thus reducing their risk and improving health outcomes."[123]

5.3.4 Drivers affecting uptake

Key Evaluation Question 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 11: UNICEF and its partners made significant investments in data collection and evidence generation to facilitate the development of targeted interventions addressing social norms, misinformation, and logistical and service quality barriers.

Finding 12: UNICEF-supported investments in research and evidence generation have been used to develop and implement strategies for enhancing community engagement, improving access to vaccination services, and introducing the digital immunization information system. These efforts have contributed to the work of building trust in the health-care system. In addition, health authorities have taken important measures to improve the timeliness and accuracy of data for coverage of selected vaccines through the introduction of a digital immunization information system in 2024.

Investments in research to identify drivers of uptake

161. As already noted, UNICEF-supported research efforts have identified key social and behavioural drivers of vaccine uptake and offered suggestions for actionable strategies to address these barriers through targeted interventions and community engagement.[124]

162. In addition to the factors discussed in Section 5.3.2, trust in health-care providers and the health-care system

122 Key informant interviews with staff of UNICEF CO, RCI, FMC and service delivery staff interviewed during site visits.

123 Key informant interviews with UNICEF CO and national health authorities.

124 Understanding Behavioural Aspects and Context; Behaviour insights research on drivers influencing childhood immunization-related behaviours in Kyrgyzstan, 2023; Applying behavioural science to increase demand for childhood vaccination in Kyrgyzstan, 2023; Behaviour Insights Research on Drivers Influencing Childhood Immunization Related Behaviours in Kyrgyzstan, 2024.

was found to be a critical driver of vaccine uptake.[125] Low levels of trust – due to past negative experiences or perceived lack of transparency – has often led to reluctance in accepting vaccines. Moreover, physical and logistical barriers (such as distance to health-care facilities, lack of transportation and financial constraints) also significantly affected vaccine uptake. It is important to note that issues related to transport or scheduling should not be classified as vaccine hesitancy or refusal.

163. Research documented in reports in 2022, 2023 and 2024 pointed to specific strategies to overcome the abovementioned barriers. Those strategies incorporated targeted communication (to develop targeted communication strategies that address specific myths and misconceptions prevalent in different communities, and ensure messages are clear, evidence-based, and culturally sensitive to effectively counteract misinformation) and education. The cited research studies also supported the implementation of widespread educational campaigns using various media platforms to disseminate accurate information about the benefits and safety of vaccines. These include traditional media (radio and television) and digital platforms (social media and websites), and community engagement.

164. Community engagement was recognized by stakeholders as a means to involve trusted community leaders, religious figures, and local influencers in promoting vaccination: individuals can play a crucial role in changing attitudes and building trust within their communities.[126]

165. The same key informants identified a package of actions to improve access to vaccination services:

- continuing to deploy mobile vaccination units to reach remote and underserved areas;
- ensuring that logistical barriers do not prevent families from accessing vaccines;
- offering flexible vaccination schedules, including weekend and after-hours clinics, to accommodate families' varying schedules and reduce barriers to access;
- strengthening health-care provider training (by providing health-care providers with enhanced training on communication skills, focusing on how to address vaccine hesitancy and build trust with patients); and
- strengthening monitoring and feedback mechanisms (utilizing social listening tools to monitor public sentiment and identify emerging concerns about vaccines in real-time).[127]

The transition from communications for development to social and behavioural change

166. UNICEF Kyrgyzstan staff noted that the transition from a focus on communication for development (C4D) to social and behavioural change (SBC) has been pivotal in improving efforts to address the drivers of vaccine uptake. This change emphasizes not only conveying information but also obtaining feedback and understanding how the operational parameters of vaccine service delivery may positively affect uptake.

167. Key informants indicated that while the C4D approach focused mainly on population behaviour, an SBC approach encompasses a broader perspective taking into account the role of service providers. As one major barrier to

125 Ibid. and key informant interviews with staff of UNICEF CO, MoH, and RCI.

126 Key informant interviews with UNICEF CO, RCI and FMC.

127 Understanding Behavioural Aspects and Context; Behaviour insights research on drivers influencing childhood immunization-related behaviours in Kyrgyzstan, 2023; Applying behavioural science to increase demand for childhood vaccination in Kyrgyzstan, 2023, Behaviour insights research on drivers influencing childhood immunization related behaviours in Kyrgyzstan, 2024.

vaccination is the declining trust in vaccines and the health-care system there is a need for services to respond in a way which helps to build trust.

168. The behavioural research supported by UNICEF indicates that historical trust in medical advice has shifted towards a need for parents to understand and take responsibility, which has led to increased scepticism, made worse by spread of misinformation. Efforts to engage parents in discussions about vaccination have shown that many apparent refusals are based on misunderstandings or past negative experiences with the health-care system. Behavioural Insight (BI) research has been noted as crucial in identifying specific drivers of vaccination behaviour. For instance, it was found that family influence is a significant factor in caregiver compliance with preventive measures, and that the father or mother-in-law in has a very significant influence on decision-making.

169. Another example of the use of research to support the design and implementation of vaccine programming can be found in 2022 HPV vaccine introduction report. The report provided important insights into social norms, misconceptions, and behavioural factors affecting vaccine acceptance. It highlighted the need for tailored communication strategies to address specific concerns and barriers because of the fact that social norms, particularly in certain communities, dictated negative attitudes towards the HPV vaccine.

170. These norms were often influenced by misinformation and/or a lack of reliable information. The report emphasized the need for tailored communication strategies that address specific concerns and barriers identified in different communities. This includes creating messages that directly counteract prevalent misconceptions and provide clear, evidence-based information about the safety and efficacy of the HPV vaccine. The report suggested utilizing various communication channels to reach different segments of the population effectively. This includes traditional media (such as radio and television), social media platforms, and face-to-face community meetings.[128]

Support for digital immunization information systems

171. WHO (with funding from the European Union) and UNICEF have also supported the development and implementation of a digital immunization information system (the IEMDOO e-system), which is intended to significantly improve data quality and accessibility. The system enables real-time tracking of vaccination status, identification of coverage gaps, and better planning for immunization programmes.[129] Health authorities indicated that the IEMDOO e-system was a new registry for tracking vaccinations against COVID-19 and other scheduled vaccines, developed in collaboration with the Centre for Electronic Health (CEH). This system is based on an older registry and was officially launched on 1 January 2024, after a pilot phase in 2023.

172. The IEMDOO system records information about HPV, HBV, AIDS, and COVID-19 vaccines, as well as BCG and BGV vaccines administered in maternity hospitals (80 units). To ensure effective use of the system, 2,500 medical staff were trained between 2022 and 2023.

173. The above-mentioned training and technical assistance were supported by the Gavi HSS3 grant, with technical support from WHO and UNICEF and implementation by RCI and the MoH. At the regional level, a WHO-led working group with UNICEF participating coordinates implementation of the IEMDOO system, addressing budget and programming issues, and holding coordination calls with Gavi twice a month. While UNICEF administers HSS3, RCI handles substantial documentation, which reportedly can sometimes delay issue resolution for up to a month due

128 Warsi, Dr S. K., Kyrgyzstan HPV Vaccine Introduction 2022, Rapid Formative Research Results, 2022.
129 Roadmap for digitalization of the immunization information system in Kyrgyzstan, 2022.

to its strict compliance requirements. However, key informants also pointed out the although the IEMDOO system is being actively used for registration and monitoring, a lack of computer equipment is hindering its nationwide adoption. There are also concerns about the sustainability of initiatives like IEMDOO and online resources after external funding ends.

5.4 Sustainability

5.4.1 Sustainable System Strengthening

Key Evaluation Question 9: To what extent has UNICEF's support for immunization at country level contributed to sustainable system strengthening, including capacity to address factors affecting vaccine uptake/demand?

Finding 13: Key stakeholders agree that UNICEF support has been instrumental in strengthening the national immunization system in Kyrgyzstan, especially in the area of institutional sustainability. UNICEF has contributed to sustainability by investing in capacity building and the integration of immunization strategies within the PHC systrem. UNICEF Kyrgyzstan has also assisted health authorities to leverage funds from other organizations and incorporate immunization plans into national budgets. UNICEF CO staff and those involved in administering the immunization system at national and local levels agree that continuous community engagement, use of digital tools, flexible service delivery, long-term funding, and comprehensive education campaigns are essential strategies for sustaining outreach efforts and vaccination coverage among vulnerable groups.

Finding 14: Despite noted progress in strengthening the institutional sustainability of the immunization system in Kyrgyzstan, and ongoing efforts to increase domestic public investment in immunization, the National Plan for Increasing Immunization Coverage in 2024 to 2030 continues to be heavily dependent on external resources for funding.

Institutional sustainability

174. UNICEF, in partnership with Gavi and other key organizations, has supported a range of investments and interventions which are intended to have the effect over time of improving the sustainability of efforts to strengthen the national immunization system, although considerable challenges to sustainability remain. Examples of positive contributions by UNICEF Kyrgyzstan to the institutional sustainability of immunization services include:

- extensive support for the training of healthcare providers;
- supporting the design and implementation of digital immunization information systems;
- developing targeted community engagement and national communication strategies;
- strengthening the cold chain and improving distribution and storage of vaccines closer to points of delivery outside the capital; and,
- implementing changes in service delivery to better reach under-served communities and families.

175. National authorities have also integrated immunization strategies, plans, and programmes supported by UNICEF into the primary health-

care system. This integration includes the use of SBC strategies to boost vaccine demand and address barriers to immunization. Interviewed health authority representatives highlighted the integration of immunization strategies within PHC, supported by comprehensive communication strategies developed with UNICEF's assistance.[130]

Financial sustainability, including domestic and external resource mobilization.

176. In addition, UNICEF has supported national health authorities to leverage funds from other organizations (such as Gavi, WHO, and other granting agencies) to advance the immunization agenda and improve coverage. With specific reference to the current Gavi grant agreement, key informants pointed out that each country enters into specific grant management requirement agreements. Under the current grant agreements for Gavi HSS3 and EAF support to Kyrgyzstan, UNICEF has taken on the role of grant administrator. Quality control is carried out directly by UNICEF using all UNICEF procedures. However, a challenge arises due to UNICEF's administrative requirements and procedures. These involve extensive checks and numerous audits. While key informants note that this is beneficial for the functional management of funds, they also indicate there is an accompanying unintended effect of slowing down the overall programme compared to HSS-2.

177. In general terms Kyrgyzstan spends about 1 per cent of gross domestic product (GDP) on PHC (which includes immunization services), from public sources. In 2019, public spending (including external funding) on PHC was 1.07 per cent of GDP, which is comparable with other countries with similar income levels. However, per person, public spending on PHC is still among the lowest in the WHO European Region.[131] For a regional comparison, as a percentage of GDP, Kyrgyzstan public spending on PHC is higher than for Tajikistan (0.8 per cent) and lower than the Republic of Moldova at 1.4 per cent. Like for other countries in the region, the WHO notes that out-of-pocket expenditure by individuals is a challenge to equitable provision of PHC in Kyrgyzstan.

178. There is, however, evidence of an increase in the national priority given to immunization services during the evaluation period. This increasing priority is supported by strategic plans and financial allocations detailed in documents such as the current Grant Agreement with Gavi and the Targeted Country Assistance (TCA) 2022-2025 Multi-Year Proposal.[132]

179. National health authorities are of the strong view that vaccination is one of the most successful and cost-effective public health interventions, significantly

Training across sectors

From a training perspective, the medical staff appear to be well-trained and knowledgeable about their work. However, there are significant challenges in communication strategies for raising public awareness and promoting timely immunization among the population. Currently, this responsibility falls heavily on doctors, but it should extend beyond the health-care system. Local governments and educational systems need to be involved, as children's ages vary, and the health-care system lacks sufficient resources for extensive outreach activities like medical walks and yard rounds.

Development Partner Staff

130 Key informant interviews with national health authorities.

131 World Health Organization, Strengthening primary health care financing: policy considerations for Kyrgyzstan, 2023, www.who.int/europe/publications/i/item/WHO-EURO-2023-7677-47444-69732, p.12.

132 Gavi, Targeted Country Assistance 2022-2025 Multi-Year Proposal Template.

reducing disease burden and social inequality, and contributing to poverty reduction in Kyrgyzstan. The Kyrgyz Republic currently adheres to WHO's 2030 Immunization Agenda, and, with UNICEF's support, has developed a National Immunization Strategy for 2024-2030 to increase vaccination coverage. This strategy is based on comprehensive data and research, incorporating insights on behavioural drivers and barriers to immunization.[133]

180. The total cost of carrying out two stages of the strategy is estimated at $1,180,215 (anti-measles campaign). The government co-financed $53,223 of the entire budget for the outbreak response immunization and supplementary immunization activities and requested $1,126,992 from Gavi. Key informants noted, however, a continuing need to develop and fund specific strategies to identify and ensure vaccination of partially vaccinated and zero-dose children, as well as specific population groups such as grassland populations, residents of newbuild settlements, people living in hard-to-reach geographic areas and religious groups. The outbreak response immunization and supplementary immunization activities should be integrated with other health services, such as catch-up immunization and home visiting.[134]

181. Current strategies for sustaining outreach efforts do include those already identified (community engagement), digital tools and platforms such as WhatsApp and YouTube, flexible service delivery, long-term partnerships, education and tailored awareness campaigns.[135] However, key informants also noted challenges and opportunities to ensuring that responsibility for messaging and communications to address drivers of vaccine uptake is expanded beyond the cadre of medical professionals, but this will require increased financial commitments which will be difficult to sustain.

182. In summary, despite financial commitments by the government to the requirements of the National Immunization Strategy 2024 to 2030, there is an ongoing financial risk to sustainability, in particular in relation to 'high-investment' activities such as outreach to under-vaccinated communities and individuals. When asked if this was the case, national health authorities strongly agreed, and noted the high level of dependence on Gavi support and other external sources of finance.

5.5 Efficiency

5.5.1 Efficiency of policies and programmes

Key Evaluation Question 10: How efficient are the health system's immunization policies and programmes to identify and address current and potential bottlenecks or inefficiencies?

Finding 15: Immunization policies and programmes in Kyrgyzstan have demonstrated effectiveness in identifying and developing approaches to address gaps and bottlenecks through strategic enhancements in cold chain logistics, digital immunization information systems, and targeted outreach efforts. However, there are persistent gaps in storage, distribution and service

133 Immunization Demand Promotion Plan in the Frame of the National Immunization Calendar of the Kyrgyz Republic for 2024-2030.

134 Gavi, Action plan for a two-phase measles-rubella immunization campaign, 2023.

135 COARs 2018-2022.

delivery. Key informants identified a lack of clarity in responsibilities and limited coordination among organizational units responsible for immunization services in Kyrgyzstan as one limiting factor. In particular, they cited an unclear articulation of responsibilities among the RCI, the RCHP, Department of Disease Prevention and State Epidemiological Surveillance, and the Public Health Department of the MoH.

Finding 16: While UNICEF and the national health authorities, with support from Gavi, have worked to identify bottlenecks and gaps and responded with appropriate strategies and programmes that are national in reach, there are still significant challenges in fully addressing these through investment in improved infrastructure, health service staff training and community engagement. These challenges are made more difficult by the lack of clarity in the inter-organizational set-up of institutions and departments implementing immunization services, and the absence of minimum standards and state budget allocations for community engagement.

Similarly, investments in digitalization and improvement of reporting on immunization, while they can improve the timeliness and accuracy of data, may not yet be fully used in planning and managing immunization services, and this will limit the contribution of these investments to improved efficiency and effectiveness.

Identifying gaps and bottlenecks in national immunization planning

183. The National Plan for Increasing Vaccination Coverage includes specific measures for identifying service delivery gaps. These measures are based on data analysis and community feedback, with the goal of enhancing the overall efficiency of the immunization programme.

184. An identified bottleneck in the national immunization supply chain was the need to prioritize improvements in cold chain logistics to ensure vaccines are stored and transported under optimal conditions. The National Plan details investments in cold chain equipment and infrastructure to reduce vaccine wastage and improve distribution efficiency.[136]

185. However, KIIs conducted at health facilities indicate that, although significant improvements have been made, there are still gaps in cold chain infrastructure, particularly in remote areas. This has been highlighted in documents such as Gavi support documentation and the 2022 EVM report,[137] which both stress the need for continuous upgrades and maintenance.[138]

186. In addition, key informants noted that the goal of addressing identified gaps in immunization services is impeded to some degree by the lack of a clearly articulated structure with well-defined roles and responsibilities (both unique and shared) among key departments and institutions responsible for immunization services.[139] Specifically, these informants pointed to issues relating to the lack of clear articulation of responsibilities among the RCI, RCHP, SES and Public Health Department of the MoH.

Working to address gaps in data collection, management and utilization

187. Key informants agreed that effective and efficient immunization programmes

136 RCI, National Plan for Increasing Vaccination Coverage, 2023.

137 WHO, Effective Vaccine Management (EVM) Kyrgyzstan, 2022.

138 Gavi, Action plan for a two-phase measles-rubella immunization campaign, 2023.

139 Key informant interviews with UNICEF CO, CSO staff, and multilateral institution staff.

rely for continuous improvement on the availability of accurate and timely data. Bottlenecks in data collection, management, and utilization can hinder the identification of coverage gaps and the implementation of targeted interventions. As discussed in Section 5.3.4, interviewed stakeholders noted that the implementation of the IEMDOO digital immunization information system has played a role in addressing inefficiencies by improving data tracking and accessibility. The system enables real-time monitoring of vaccination status, identification of coverage gaps, and better planning for immunization programmes.

188. While key informants among development partners agree that introduction of the IEMDOO system has been a significant step forward, they also note that challenges remain in ensuring that data are consistently accurate and accessible.[140] A 2021 RCI desk review pointed out that computers are available at FMCs and district-level institutions, but they are not always used to manage immunization data, prepare monthly reports, and/or analyse available information. At regional level, Excel spreadsheets are used to prepare periodic immunization reports, but computers are either not used or have limited use to analyse the available data.[141]

The role of external monitoring and evaluation support

189. Regular evaluations and feedback mechanisms are seen by key informants as integral for improving the efficiency and effectiveness of immunization policies and programmes. As noted in the Joint Appraisal report for 2023, these processes can help to ensure that the strategies remain relevant and effective in addressing emerging challenges and bottlenecks.[142] Interviewed health authority staff emphasized that evaluations conducted by international partners like Gavi and WHO provide valuable insights into the strengths and weaknesses of the current immunization strategies, leading to continuous improvements.[143]

Addressing weaknesses in immunization service delivery to improve efficiency and effectiveness

190. Best practices indicated that service delivery is a critical element of an immunization programme in achieving immunization goals. The National Plan includes specific interventions to strengthen the capacity and skills of health personnel in mapping unvaccinated and incompletely vaccinated children, as well as identifying missed opportunities for vaccination. The RCI and UNICEF are collaborating to provide training to medical staff and NGO representatives in recording and mapping these children and communities.[144] Additionally the RCI, with UNICEF support, provided training to Bishkek and Osh PHC staff to develop specific micro-immunization plans tailored to each region, with a view to effective service delivery and adequate coverage of the target population with routine and preventive vaccinations[145].[146]

191. Initiatives to increase coverage by ensuring equitable, high-quality supply face challenges in reaching sufficient scale to achieve national immunization coverage goals. Although efforts are underway to enhance supply chains, strengthen cold chain systems, organize

140 Key informant interviews with development partners.

141 RCI, 'Desk Review of Key Findings and Recommendations from Immunization Data and Information System Assessments in Kyrgyzstan', August 2022.

142 RCI, Gavi Joint Appraisal, 2023.

143 Key informant interviews with national health authorities.

144 RCI, National Plan for Increasing Vaccination Coverage: Event Plan, 2023.

145 RCI, National Plan for Increasing Vaccination Coverage, 2023.

146 RCI, GAVI Joint Appraisal, 2023,

mobile teams to reach newbuild settlements and remote regions, and ensure vaccine availability, limitations in infrastructure, logistics, and human resources may constrain the reach and impact of these initiatives.[147] During the site visit to Issyk-Ata PHC facility, medical workers noted that 3,000 people are officially registered in the area, of whom 250 were refusals initially, and 125 have already come and received the measles vaccine (only because they are not allowed into kindergarten and school without the vaccine).[148]

Initiatives are national in reach

192. Initiatives to increase immunization coverage in Kyrgyzstan by improving supply have demonstrated sufficient reach to effect national results. Enhancing cold chain logistics, implementing digital immunization systems, supplementary immunization activities, mobile vaccination units, community engagement, and health-care worker training have collectively significantly improved immunization coverage. However, as already noted, gaps and challenges to effective coverage remain and continuous efforts are needed to ensure equitable access to immunization services.

5.6 Impact

5.6.1 Impact on vaccine coverage and disease prevention

Key Evaluation Question 11: To what extent have national health system policies and programmes (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 behaviours of key stakeholders, such as health-care providers, and caregivers?

Finding 17: National health system policies and programmes over the past five years, including the National Programme of Immunization 2020-2024 and community engagement strategies, have been intended to improve vaccination rates and address barriers. These efforts, supported by UNICEF, have contributed to sustaining and, to some extent, recovering immunization coverage levels during and after the COVID-19 pandemic. In particular the initiatives have had some success in increasing awareness and addressing misconceptions. However, while coverage has recovered to some extent from the decline experienced due to COVID-19, pockets of unvaccinated or under-vaccinated children have contributed to outbreaks of vaccine-preventable diseases such as measles and rubella, indicating ongoing challenges in achieving and maintaining high immunization rates.

193. Kyrgyzstan, with support from UNICEF (and WHO and Gavi), has developed and implemented national strategies and programmes to increase (and recover) immunization coverage rates during the evaluation period. For example, the comprehensive, Multi-Year National Programme of Immunization of 2020 to 2024 and the current National Immunization Plan

147 Key informant interviews with UNICEF CO and national and local health authorities.
148 Site visit and key informant interviews with local health authorities.

(NIP) were both intended to sustain and enhance immunization coverage across the country. The NIP includes specific objectives such as increasing awareness about the national immunization calendar, ensuring vaccine availability, and improving the cold chain. The programme also outlines monitoring and evaluation strategies to measure progress and identify areas needing improvement. It emphasizes the modernization of cold chain equipment to replace household equipment with specialized, more reliable options to ensure vaccine efficacy.[149]

Addressing vaccine uptake through community engagement and improved information

194. Consistently over the evaluation period UNICEF has supported health authorities to sustain and increase immunization coverage by increasing awareness among targeted populations of caregivers. At the outset, the Community Engagement Strategy (2019-2020) focused on increasing knowledge among caregivers, addressing misconceptions, and improving the interpersonal communication skills of health-care providers. The Community Engagement Strategy was further developed based on findings from the knowledge, attitudes and practices (KAP) study conducted by UNICEF in 2018. The Strategy targeted three key geographic areas: Bishkek, Chui Oblast and Talas Oblast, and focused on communities with high vaccine refusal rates. It involved mobilizing local leaders, religious leaders, and community health committees to support vaccination efforts and promote positive social norms around immunization.[150]

195. In addition, UNICEF supported the provision of interpersonal communications skills training to health-care providers under the community engagement plan (2018 to 2020). The training was intended to enable service providers to explain the immunization process thoroughly and address any concerns caregivers might have about side effects or vaccine composition.[151] Despite this, UNICEF Kyrgyzstan staff reported that there are still communication issues on the PHC level: the medical workers themselves sometimes do not recommend vaccinations and do not insist on the need for vaccinations for children. This may be due to the individual positions of the medical workers and insufficient knowledge about the composition of each vaccine that comes into the country.

196. Prior to the evaluation period (in 2013 and 2017) there was a modest but noticeable decline in vaccination coverage for key vaccines in Kyrgyzstan. This period saw a steady decrease in the proportion of children receiving full immunization coverage as reported by the MICS.[152] The specific trends for essential vaccines are as follows:

- Oral polio vaccine (OPV3): coverage decreased from 96.8 per cent in 2013 to 94.5 per cent in 2017;
- Pentavalent vaccine (Penta3): coverage dropped from 97 per cent in 2013 to 95 per cent in 2017;
- Hepatitis B vaccine (HBV): coverage reduced from 97 per cent in 2013 to 95 per cent in 2017; and
- Measles, mumps, and rubella vaccine (MMR1): coverage fell from 98.6 per cent in 2013 to 95.9 per cent in 2017.

197. This decline in vaccination coverage before 2018 points to challenges independent of the stress experienced by the immunization system during

149 Republic Immunization Centre, Utverzhdena programma «immunoprofilaktika» na 2020-2024 Gody [The Immunization Programme for 2020-2024 has been Approved], 12 February 2021, https://privivka.kg/novosti/ut-verzhdena-programma-immunoprofilaktika-na-2020-2024-gody-2/

150 The Kyrgyz Republic, Community Engagement for Immunization Strategy for 2019-2020, 2020.

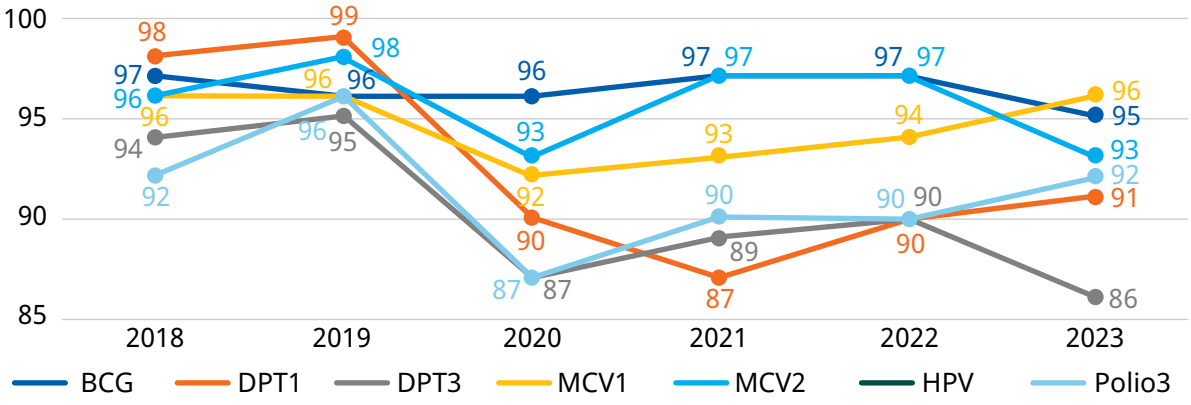
151 Key informant interviews with UNICEF CO, national health authorities and FMC staff.

152 UNICEF, Multiple Indicator Cluster Survey, 2018.

the pandemic. These challenges were attributed to various factors, including logistical issues, vaccine supply constraints, and vaccine hesitancy among certain populations. The COVID-19 pandemic exacerbated the existing challenges and led to a further decline in routine immunization rates.

198. Overall, the pattern of immunization coverage in Kyrgyzstan during the evaluation period is one of relatively high levels achieved in 2019 for most antigens, followed by a decline in 2020 during the COVID-19 pandemic and a partial recovery in estimated levels by 2022 but with a worrying drop in DTP3 and MCV2 coverage in 2023. Of course, what is not known is what levels of vaccination coverage would have been achieved in the absence of support from UNICEF, WHO, Gavi and other external partners. It is clear from the KIIs and site visits that UNICEF support in all areas of procurement, supply, supply chain management, cold chain management and infrastructure support, staff training at all levels in the immunization system have had an effect on improving and sustaining the operations of the immunization system in Kyrgyzstan throughout the evaluation period.

Figure 2: Trends in estimated immunization coverage, 2018 to 2023



Source: WUENIC, 2024.

199. In addition, the persistently high number of zero-dose and under-vaccinated children during the evaluation period (15,298 as estimated by Gavi in 2022) and recent experience with outbreaks – in particular of measles – indicate that the important gaps remain in coverage which limit the impact of the immunization system in reducing and eliminating vaccine-preventable diseases. As illustrated in Table 7, the measles incidence rate in Kyrgyzstan peaked at 1,045 per million in 2023, with 7,044 cases reported during the year. It began declining in 2024 from a peak of 2,710 cases reported in the month of January to 928 reported in June.[153]

Table 7: Incidence rate and case numbers for measles in Kyrgyzstan, 2018 to 2023

Year	2018		2019		2020		2021		2022		2023	
Incidence rate = cases per million population.	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases
Kyrgyzstan	164.36	1008	356	2,284	108.52	708	0.45	3	3.02	20	1,045.83	7,044

Source: WHO ePidata: Summary of epidemiological data in WHO European Region: 07/2024.

153 World Health Organization, WHO ePidata: No. 07/24, August 2024, https://cdn.who.int/media/docs/librariesprovider2/euro-health-topics/vaccines-and-immunization/2024-07-epi_data_en_july-2024.pdf?sfvrsn=b75dda7_2&download=true.

5.6.2 UNICEF And key stakeholders

Key Evaluation Question 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 18: Reports from implementing partners and interviews with key stakeholders indicate that UNICEF has contributed to strengthening Kyrgyzstan's immunization efforts by supporting the co-development of strategies, plans and programmes that have influenced the actions of key stakeholders at the national and local levels.

Finding 19: The evaluation found that the most impactful UNICEF-supported investments in strengthening immunization systems in Kyrgyzstan during the evaluation period include:

- Investments in modernizing and improving the cold chain and related elements of the vaccine procurement, transport, storage and distribution system to allow for efficient delivery (with reduced wastage) at local level.
- Investments in understanding the social and behavioural drivers of vaccine hesitancy, to support tailored messaging, address misinformation and improve community engagement.
- Investments in promoting evidence-based policies and programmes, including research on social and behavioural drivers of vaccine uptake and the digitization of immunization reporting.

Importantly, the sustainability of the results of these investments is still in question.

200. Key informants noted that UNICEF support has had an important influence on actions by key stakeholders, especially health authorities from the national to the local level. In particular, UNICEF support for programmes focusing on community engagement, digital adaptation, and collaboration with medical workers, religious and local leaders have proven effective in addressing vaccine hesitancy and misinformation.

201. In addition, UNICEF has provided direct support to implementing partners who have undertaken significant work on improving immunization at a sub-national level. These include:

- UNICEF support to the work of the Association for Health Promotion (2021 and 2022) working on mobilizing the community in Bazar-Korgon and Nooken districts to improve immunization coverage;
- support to the Centre for Child Protection, engaging in focused efforts to increase awareness on vaccine safety and importance during the COVID-19 pandemic in both rural and urban settings;
- support to Mutakalim in an initiative to promote immunization and non-violent parenting among religious communities by targeting religious leaders and influencers; and
- support to Red Crescent Kyrgyzstan in its efforts to increase vaccination rates by addressing misinformation

and building trust in vaccines among parents and caregivers.

202. Overall, it is important to emphasize that key international partners (such as GAVI, WHO, the World Bank, GIZ and the EU) acknowledged UNICEF's significant role and influence through provision of technical support and capacity building for national immunization programmes. UNICEF is seen as a crucial player in coordinating efforts and advocating immunization. In addition, national health authorities and health workers at all levels noted that UNICEF (with its sister agency the WHO) is effective in working with the national institutions to support the development and implementation of strategies, plans, programmes and activities in immunization.

Impactful investments

203. Similarly, interviews with key informants including the UNICEF CO staff, national health authorities, immunization service delivery staff combined with site visits observations and the document review (including EVM reports) indicate that the following have been high-impact investments for improving vaccine uptake in Kyrgyzstan during the evaluation period.

- investments in modernizing and improving the cold chain and related elements of the vaccine procurement, transport, storage and distribution system to enable efficient delivery (with reduced wastage) at local level;
- investments in understanding the social and behavioural drivers of vaccine hesitancy to support tailored messaging, address misinformation and improve community engagement; and
- investments in promoting evidence-based policies and programmes, including research on social and behavioural drivers of vaccine uptake and support for digitization of immunization reporting.

204. However, challenges in data availability and quality were consistently noted as areas requiring improvement by a wide range of key informants.[154]

154 Key informant interviews with UNICEF CO, RCI, MoH, Gavi. JAR 2023.

6.0 Evaluation conclusions

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

Relevance

206. Conclusion One: The support provided by UNICEF Kyrgyzstan to the National Immunization Programme has been highly relevant, responding effectively to the country's evolving needs. The organization has successfully adapted its strategies to address emerging challenges, such as the COVID-19 pandemic and outbreaks of vaccine-preventable diseases. Importantly, UNICEF support has increasingly focused on understanding and addressing the social and behavioural drivers of vaccine uptake. Supporting Findings: [1 and 3].

207. Conclusion Two: UNICEF Kyrgyzstan is well recognized for its institutional role in supporting immunization. This role is appropriate to its mandate and capacities and comparative advantages in immunization. However, some overlapping of roles and responsibilities between UNICEF and WHO affects the coherence of the technical support provided to the Ministry of Health, leading on some occasions to differences in policy advice to the government. Supporting Findings: [2 and 3].

Coherence

208. Conclusion Three: UNICEF's interventions have demonstrated strong coherence, both internally and externally, by aligning with national health and immunization priorities and complementing the efforts of key partners. Importantly, because of this strong alignment and complementarity, UNICEF-supported initiatives have been closely integrated into the national immunization system and related strategies and programmes. Despite this, full adoption of the supported changes in programmes has been somewhat constrained by challenges relating to infrastructure in isolated rural areas, staff capacity and finances. Supporting Findings: [4 and 5].

Effectiveness

209. Conclusion Four: UNICEF Kyrgyzstan, with continued support from UNICEF ECARO, has been able to provide the level of quality technical and programming support that is appropriate to the needs of health authorities responsible for the immunization system in Kyrgyzstan. Given the continuing requirement for technical support associated with the National Plan 2024 to 2030, it will be important that UNICEF Kyrgyzstan continues to maintain this capacity in the medium-to-longer term. Supporting Findings: [2, 3, 5].

210. Conclusion Five: UNICEF has been effective at supporting the strengthening of Kyrgyzstan's immunization system, particularly through capacity-building initiatives, evidence-based strategies, cold chain improvements, and support to targeted community engagement. The essential nature of UNICEF's support in achieving and maintaining continued delivery of safe, quality vaccines has been demonstrated at every level of the national system. There is evidence that UNICEF efforts have contributed to increased vaccination coverage in some areas, though challenges remain in maintaining high coverage

rates, especially in under-vaccinated populations. Supporting Findings: [7, 8, 10, 11].

211. Conclusion Six: Support for the generation and use of data and evidence by UNICEF has enhanced the effectiveness of supported interventions, particularly in understanding social and behavioural drivers of vaccine uptake. Supported investments in research and the implementation of digital immunization information systems have improved the accuracy of data and informed targeted interventions. However, investments in digitization and improvements in the timeliness and quality of immunization coverage data are not yet reflected in the planning and management of operations. There is a gap between efforts to improve data quality and capacity development for managers make use of these improvements. Supporting Findings: [9, 10, 11, 12, 16].

Sustainability

212. Conclusion Seven: UNICEF's contributions to the immunization programme have laid the groundwork for sustainable improvements in Kyrgyzstan's immunization system, especially in the area of institutional sustainability. The focus on integrating immunization operations within primary health care and leveraging funds from other organizations has strengthened the system's capacity to sustain these efforts. However, continuing high levels of dependence on external funding are a critical risk to the financial sustainability of the improved operation of the immunization system achieved in recent years. Supporting Findings: [13, 14, 15].

Efficiency

213. Conclusion Eight: UNICEF's investments and interventions in support of immunization strategies, policies and programmes have contributed to improved efficiency in the system, not least through investments in cold-chain logistics, digital data systems, and targeted outreach. Despite these improvements, the evaluation identified gaps in storage, distribution, and service delivery, which indicate that that there is still room for optimizing efficiency. Supporting Findings: [15, 16].

Impact

214. Conclusion 9: UNICEF's support has contributed to improving the observed results of the immunization system in Kyrgyzstan programme, particularly in terms of increasing immunization coverage and reducing vaccine-preventable disease outbreaks in certain areas. However, the extent of this impact has been moderated by ongoing challenges, such as the need to increase levels of trust among caregivers, logistical barriers, and the effects of the COVID-19 pandemic. Supporting Findings: [17 and 18].

215. Conclusion 10: Investments in modernizing the cold-chain infrastructure, improving data quality and availability, deepening understanding of social and behavioural drivers of vaccine uptake, and extending outreach while improving community engagement have been among the most impactful of UNICEF's contributions, leading to measurable improvements in vaccine storage, distribution, and uptake. There is a continuing gap, however, in utilizing improved understanding of drivers to make essential adjustments in vaccine service delivery. Supporting Findings: [16, 18, 19].

216. The above listed conclusions collectively summarize the strengths and areas for improvement in UNICEF's support to Kyrgyzstan's immunization programme, drawing directly from the findings detailed in the evaluation.

7.0 Lessons Learned

Lesson 1: Flexibility and adaptation are crucial for programme success

217. Ability to adapt quickly to changing circumstances, such as the COVID-19 pandemic, has been vital in maintaining the effectiveness of immunization programmes. UNICEF's flexibility in adjusting its strategies to address new challenges and emerging needs has demonstrated that programmes need to be dynamic and responsive to be effective. This lesson emphasizes the importance of building adaptive capacity within both UNICEF and national health systems to ensure that programmes can continue to meet their objectives, even in the face of unforeseen events.

Lesson 2: Collaborative partnerships enhance programme impact

218. Strong collaboration between UNICEF, national governments and key partners – such as WHO and Gavi – has been critical in achieving significant improvements in immunization coverage. These partnerships have enabled the pooling of resources, expertise, and strategic alignment, leading to more comprehensive and effective interventions. The lesson here is that sustained and well-coordinated partnerships are essential for scaling up successful initiatives and ensuring that efforts are not duplicated, thus maximizing impact.

Lesson 3: Data-driven decision-making improves programme outcomes

219. Investments in data collection and analysis, including the implementation of digital immunization information systems, can significantly improve the ability of managers to monitor, evaluate, and respond to immunization challenges. The lesson is that data-driven decision-making should be central to programme design and implementation, as it enables more targeted and effective interventions. Programmes that prioritize evidence generation and use data to guide their strategies are more likely to achieve their intended outcomes and adapt to changing contexts. It is also essential that investments in improving the quality and availability of data on immunization are supported by necessary investments in training and supporting managers to use timely, higher quality data to support analysis and decision making.

Lesson 4: Community outreach engagement is key for strengthening trust and improving uptake

220. Effective community engagement has proven to be a critical factor in restoring trust and increasing immunization uptake, particularly in hard-to-reach populations. The lesson learned is that programmes need to invest in building trust and engaging with communities through culturally appropriate and locally tailored approaches. Utilizing local influencers, religious leaders, and community organizations can significantly enhance acceptance of immunization efforts. When trust building measures are combined with outreach efforts to provide in-person counselling and service delivery as required, progress in improving equity

and reducing the number of zero-dose and under-vaccinated children can be accelerated.

Lesson 5: Sustainable system strengthening requires long-term commitment

221. While UNICEF's efforts have laid a strong foundation for sustainable improvements in Kyrgyzstan's immunization system, ongoing challenges such as infrastructure limitations and resource constraints highlight the need for long-term commitment and continuous investment. The lesson here is that achieving sustainable system strengthening is a gradual process that requires persistent effort, long-term planning, and the integration of programmes into broader national health strategies.

Lesson 6: Balancing efficiency with comprehensive coverage is challenging

222. While efforts to enhance efficiency, such as through cold chain improvements and digital data systems, have been successful, maintaining comprehensive immunization coverage remains a challenge, especially in under-served areas. The lesson is that efficiency gains must be balanced with strategies to ensure that no populations are left behind, particularly vulnerable groups that may be harder to reach. This requires targeted investments and innovative approaches to service delivery, including outreach programmes which can pose important questions regarding resource availability.

8.0 Recommendations

223. The evaluation findings, lessons learned, and (especially) conclusions have been used to develop the recommendations presented in this section. For each recommendation the section includes the overall recommendation, the stakeholders concerned, a brief supporting rationale and a priority rating. Each recommendation is also linked to the supporting conclusion(s) from which it is derived.

224. **Recommendation One:** That UNICEF Kyrgyzstan – in consultation with the MoH, RCI and RCHP – should work with WHO's representative office to clarify further the roles of UNICEF and WHO and the most appropriate roles for each agency in providing technical assistance and policy and programme advice on immunization – especially, but not only, in relation to vaccine system resilience and response to outbreaks of vaccine-preventable diseases.

    Rationale: The evaluation has found that, at least at times, UNICEF Kyrgyzstan and WHO Kyrgyzstan have provided different advice to the MoH and RCI on appropriate responses to outbreaks of vaccine-preventable diseases and have sometimes provided overlapping support in areas such as the training of vaccine delivering health care workers. There is a need for more active coordination and consultation between UNICEF and the WHO, especially regarding support to SBC. This will require closer harmonizing of appropriate messages by the two most important technical partners in immunization. Based on Conclusion 2. Priority: Medium.

225. **Recommendation Two:** That UNICEF Kyrgyzstan, in consultation and cooperation with UNICEF ECARO, develop a medium-term strategy to maintain the required level of technical capacity in immunization (including in SBC) in the health/immunization team in the CO. This is especially true in light of the anticipated reduction in external financing of UNICEF immunization activities and donors are faced with increasing demands in other regions. The strategy should also take account of the ECARO capacity to continue to provide both tools and technical support to immunization programming to the UNICEF CO.

    Rationale: The evaluation has found that UNICEF Kyrgyzstan, with support from the UNICEF ECA RO, has been able to provide the required technical and programmatic support to the national immunization system despite the small size of the team in immunization and health. However, there is no indication that the workload of this team will diminish in the medium-term future given the expressed needs of the health authorities for continued support. Based on Conclusions 3, 4 and 5. Priority: Medium.

226. **Recommendation Three:** That UNICEF Kyrgyzstan, in consultation with the Ministry of Health, RCI and RCHP should continue to prioritize and, to the extent possible, expand support to immunization outreach services while also emphasizing support to community engagement initiatives based on identified social and behavioural drivers of vaccine uptake.

    Rationale: Vaccine outreach activities, combined with better trained service providers have proven to be effective in reaching under-vaccinated communities and children. Community engagement has to address vaccine hesitancy. At the same time, community engagement has proven to be a critical factor in increasing immunization uptake, especially in underserved populations. Strengthening these efforts will build trust and improve vaccine coverage,

addressing persistent barriers to immunization. Based on Conclusions: 1, 5, 10. Priority: High.

227. **Recommendation Four:** That UNICEF Kyrgyzstan, in cooperation with the Ministry of Health, RCI and RCHP should continue and intensify efforts to promote increased demand for immunization services, particularly in hard-to-serve populations. This should include further development of targeted messages and community engagement based on increased knowledge of social and behavioural drivers of vaccine uptake and efforts to enhance the level of trust in health-care services among caregivers.

    Rationale: While outreach activities and community engagement efforts have proven effective at reaching under-served populations there is continued scope for ensuring that improved understanding of social and behavioural drivers of vaccine uptake can drive improvements in demand promotion and public trust in vaccine services. Based on Conclusions: 1, 5, 9. Priority: High.

228. **Recommendation Five:** That the UNICEF Country Office should collaborate with the Ministry of Health, RCI and the RCHP to build on the agreed national plan on increasing coverage of vaccines to implement tailored approaches for reaching under-vaccinated and unregistered children, particularly internal migrants and those in hard-to-reach areas. These strategies would build on the implementation of recommendation 3 above and provide an overall framework for enhancing investments, strategies, policies and programmes to extent coverage to those not being reached currently. In order to further reveal bottlenecks of routine immunization coverage and to prevent repetitive outbreaks of vaccine-preventable diseases, UNICEF should propose that the government conduct root cause analysis and update existing plans and strategies.

    Rationale: Despite overall improvements in immunization coverage, significant pockets of under-vaccinated children remain. Targeted strategies are necessary to address these gaps and ensure that all populations are adequately served. Based on Conclusions: 5, 8, 9. Priority: High.

229. **Recommendation Six:** That UNICEF Kyrgyzstan and the Ministry of Health should continue to build on current approved plans for digitalization of immunization coverage data by supporting the integration of immunization reporting into health information systems. Most importantly, as these efforts proceed, UNICEF Kyrgyzstan should support training and capacity development so that managers at all levels in the national immunization system are able to use timely, quality data in planning, managing and monitoring immunization services.

    Rationale: The evaluation has shown that UNICEF support to improved timeliness and quality of vaccine coverage data through digitization is an important contribution to system strengthening. However, these efforts need to be sustained and supported by capacity development work so that managers in the system have the required skills and opportunity to use the resulting data and evidence in programming. Based on Conclusions, 4, 5, 6, 10. Priority: High.

230. **Recommendation Seven:** That UNICEF Kyrgyzstan should collaborate with national health authorities, especially the RCI to ensure that continued priority is assigned and technical and programme support providing to strengthening the cold-chain for vaccines and improving supply chain infrastructure and management as it extends out to remote and under-served areas to ensure safe storage and distribution of vaccines.

    Rationale: The evaluation found that significant progress has been made in improving cold chain logistics, equipment and management and strengthening the overall supply chain

for immunization. However, gaps remain, especially in remote regions. Strengthening this infrastructure is essential to maintaining vaccine efficacy and ensuring equitable access to immunization services. Based on Conclusions: 7, 8, 10. Priority: High.

231. **Recommendation Eight:** That, UNICEF Kyrgyzstan in cooperation with WHO should continue to work with the MoH, RCI and RCHP to ensure that Kyrgyzstan continues to allocate a high priority to immunization services as a key component of broader primary health-care reforms and national health strategies. This should include a clear path to integrating MoH managed structures that form the foundation of the immunization service to reduce fragmentation and dependency on external funding. Most importantly, this should include supporting (through resource mobilization efforts among donors) increased public investment in immunization services as a key component of PHC.

    Rationale: A continued high priority for immunization services integrated with the broader primary health-care framework will help to ensure that immunization efforts are sustainable and that they contribute to overall health system strengthening, addressing long-term challenges in service delivery. However, this will require increased public investment from domestic funding, based on a more integrated organizational structure for planning and implementing immunization services along with diversified external support in an era of anticipated reductions as donors are increasingly drawn to crises in other regions. Based on Conclusions: 3, 5, 7. Priority: Medium.

232. **Recommendation Nine:** That UNICEF Kyrgyzstan should, in collaboration with the Ministry of Health, continue and deepen its support to capacity-building for managers and health care workers engaged in immunization services within the PHC system. This should include supporting the development of a structured knowledge management/ transfer system in order to ensure that capacity development and training including interpersonal communication is not only integrated into the curricula for pre-service and in-service training but also capable of addressing the issue of staff turnover in PHC services. Sustainable support for improving communication and other inter-personal skills should aim to help health-care workers build trust and address the fears and concerns of care givers. At the same time, the Ministry of Health and UNICEF Kyrgyzstan should ensure that capacity development and training are integrated into the curricula of pre-service and in-service training so that they become self-reinforcing and are sustained over time rather than provided as a one-off, short-term solution.

    Rationale: The evaluation has shown that support for strengthening the capacity of health-care workers can represent a high impact investment to improve service delivery and strengthen community trust in the immunization system. This is especially important as research shows that health professionals are among the most trusted sources of information on vaccine safety and efficacy. However, training of health-care professionals needs to be integrated into their overall professional training and sustained over time. Based on Conclusions: 5, 8, 9. Priority: Medium.

Annexes

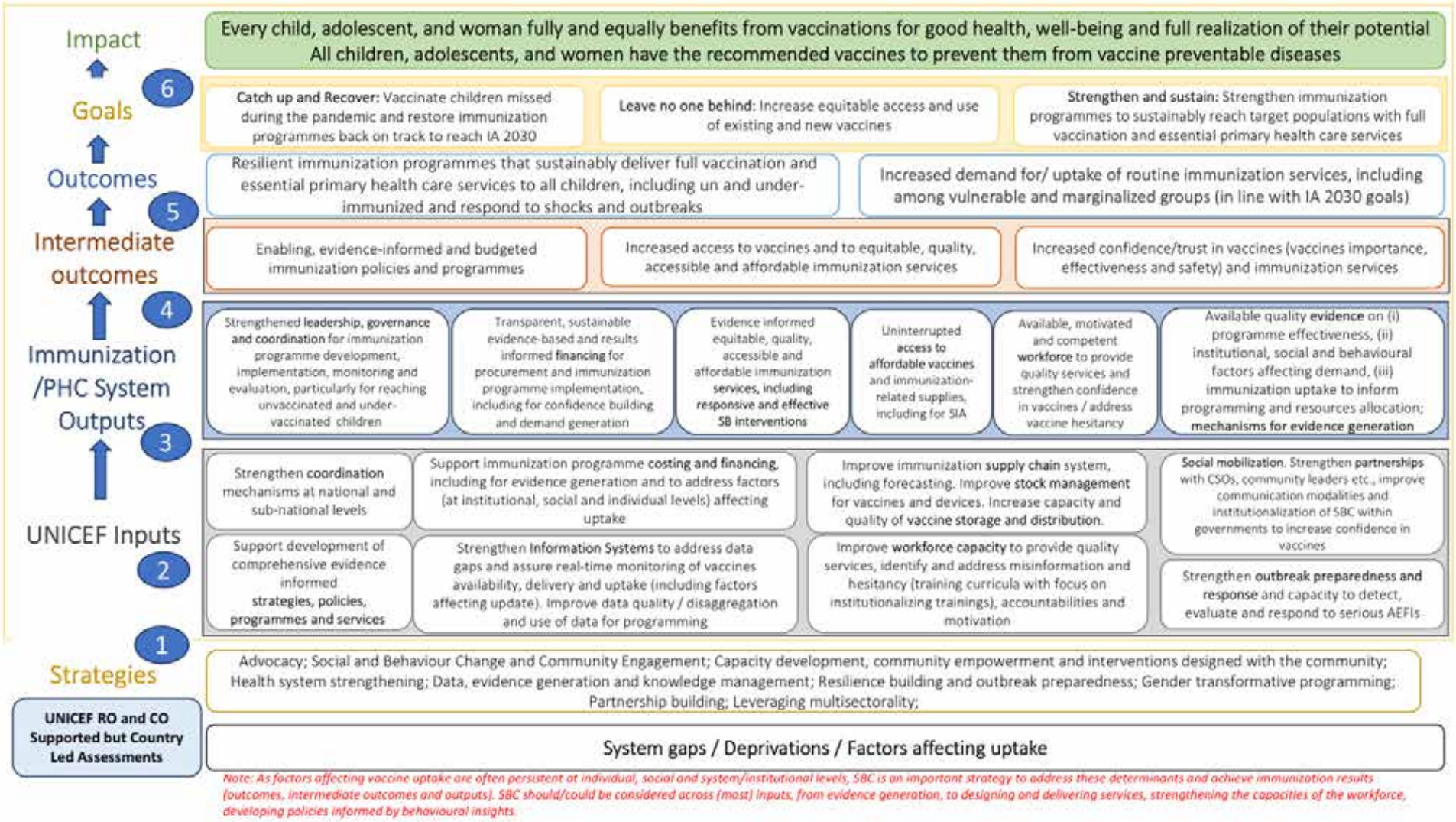
Annex 1: Terms of Reference

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.



Assumptions

1	1.1 UNICEF is able to occupy a position within the architecture of support to immunization which is appropriate to its mandate and capacities given the regional and national context. 1.2 UNICEF supported assessment identify most critical and salient gaps in system coverage and effectiveness. 1.3 National strategies, plans and policies respond to identified gaps– including required financing and budgeting.
2	2.1 UNICEF RO and CO have required capacity to support national authorities and partners in implementing agreed plans and commitments integrating immunization within resilient PHC systems which are responsive to outbreaks. 2.2 UNICEF support is context-specific and appropriate to strengthening national systems for improved access to equitable services and demand generation (including addressing social and behavioural drivers of vaccine uptake).
3	3.1 National authorities and other partner are able to implement agreed commitments around plans, strategies, budgets and programs to improve system outputs in immunization and resilient and sustainable PHC. 3.2 UNICEF support to systems strengthening for immunization is appropriate and coherent with national efforts and commitments and the support of other partners.
4	4.1 National authorities (with appropriate UNICEF support) respond to ensure sustainable investment in system strengthening to improving the enabling environment for immunization within a resilient PHC system including leadership, governance and budgeting. 4.2 A strengthened health workforce, with appropriate capabilities, opportunities and incentives is able to provide quality immunization services appropriate to needs of excluded populations. 4.3 Immunization and PHC system strengthening as in 4.2 contributes to improved public trust and increased demand.
5	5.1 A strengthened and sustainable enabling environment for immunization within a resilient PHC system combines with more equitable access and increased demand to contribute to immunization goals.
6	6.1 Increases in access and sustained improvements in strengthened immunization systems are met with increased demand and, ultimately, to every child, adolescent and woman receiving recommended vaccines

Annex 3: Methodology and Evaluation Evidence Base/Data Set

Part One: Analytical Methods

At both regional and country level, the evaluation relied on two main analytical methods to analyse 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 Kyrgyzstan.

Steps in Contribution Analysis as Applied to ECA Immunization Evaluation

Steps in Contribution Analysis	Application to the Evaluation of Immunization Programming in Kyrgyzstan
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 Kyrgyzstan 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 Kyrgyzstan 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.

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 Kyrgyzstan 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 behavioural change approaches into the operation of the Communications Team of the RCI). The role of UNICEF in these changes was then examined by cross-triangulation of key stakeholder inputs on the influence of UNICEF Kyrgyzstan 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, KIIs and site visits both inside and outside the national capital.

The evaluation team for Kyrgyzstan 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 Kyrgyzstan 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 Kyrgyzstan.
- 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 Kyrgyzstan in April 2024 to join in selected KIIs and provide support and oversight to the national evaluator.
- During the data collection phase, the national evaluator for Kyrgyzstan 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 3.

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 6.

Key informant interviews

Building from a stakeholder map developed in consultation with UNICEF Kyrgyzstan, 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 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.[155]

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 95 per cent in data collection was recorded (41 of the proposed 43 KII were completed): (80 per cent female and 20 per cent male respondents).

Key informant interviews by institutional type

Institutions	#
Ministry of Health	6
Republic Centre for Immunization (RCI)	4
Family Medicine Centres (FMC)	16
Republican Centre for Health Promotion and Mass Communication	1
UNICEF Country Office	6
International agencies	7
CSOs	2
Total	**42**

Source: Evaluation Dataset, UNICEF (2024).

Site visits and observations

155 Evaluation of Immunization Programming at the System Level (2018-2023): Annex 5 data collection instruments.

In addition to collecting documents and conducting KIIs in the offices of key stakeholders in the capital, the evaluation visited regional (oblast) and district RCI 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 grassroot levels. The sites to be visited were chosen in consultation with the UNICEF Country Office and the RCI.

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 Kyrgyzstan 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 Kyrgyzstan 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 Kyrgyzstan 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.
- Evaluation conclusions and recommendations were developed and incorporated into the draft evaluation report shared with the Evaluation Manager on Wednesday, September 18, 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 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 Instruments, Evaluation Matrix and 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 completed evaluation evidence base/data set for the Kyrgyzstan country evaluation is available through this link:

Completed Evidence Matrix for Kyrgyzstan.xlsx

Annex 4: References

1. Association Health Promotion (2022). Standard quarterly progress report.
2. Centre Child Promotion (2020). Standard quarterly progress report.
3. Dr Sahil K Warsi (2022). Kyrgyzstan HPV Vaccine Introduction 2022. Rapid Formative Research Results.
4. GAVI (2023). Action plan for a two-phase measles-rubella immunization campaign. Kyrgyzstan.
5. GAVI (2023). Measles & Rubella vaccine support guidelines.
6. GAVI, UNICEF, Government of the Kyrgyz Republic (2022). Tripartite grant agreement.
7. GAVI, UNICEF, Government of the Kyrgyz Republic (2023). Tripartite grant agreement.
8. GAVI, UNICEF (2023). Joint Appraisal Report.
9. Kyrgyzstan: Routine Immunization communication Strategy and action plan 2018 - 2020.
10. Ministry of Health of the Kyrgyz Republic (2023). National Immunization Strategy 2030 – Kyrgyz Republic. Bishkek.
11. Ministry of Health of the Kyrgyz Republic (2023). Order on approval of the "Roadmap for digitalization in the field of immunization in the Kyrgyz Republic".
12. Ministry of Health of the Kyrgyz Republic (2023). Plan of Action for Outbreak Response Immunization (Annex 1 of the Measles & Rubella Initiative Outbreak Response Funds Application).
13. Ministry of Health of the Kyrgyz Republic (2023). Immunization demand promotion plan in the frame of the National Immunization calendar of the Kyrgyz Republic for 2024-2030.
14. Mutakalim (2020). Standard quarterly progress report.
15. National Statistical Committee of the Kyrgyz Republic and UNICEF (2019). 2018 Kyrgyzstan Multiple Indicator Cluster Survey, Snapshots of Key Findings. Bishkek, Kyrgyzstan: National Statistical Committee of the Kyrgyz Republic and UNICEF.
16. Red Crescent Society of Kyrgyzstan (2021). Standard quarterly progress report.
17. Republican Centre for Immunization of the Kyrgyz Republic (2022). Roadmap for digitalization of the immunization information system in Kyrgyzstan.
18. Republican Centre for Immunization of the Kyrgyz Republic (2023). National Plan of the Kyrgyz Republic to increase the coverage of preventive vaccinations of unvaccinated, incompletely vaccinated children and missed communities. Bishkek.
19. Republican Centre for Immunization of the Kyrgyz Republic (2022). ESV Recommendations.
20. Republican Health Promotion and Public Communications Centre (RHPC) (2021). Communication on Immunization 2018-2021.
21. Svetlana Stefanet (2021). Immunization in Europe and Central Asia. Situation, challenges, priorities.
22. Table of Monthly Vaccine Stock Report (2023). KGZ national, SN, and LD level data.
23. Table of Plan to support the implementation of the district health information system platform - (DHIS-2) within the framework of the roadmap for digitalization in immunization in the Kyrgyz Republic for 2023.
24. Terms of Reference - Conducting assessment of the gender-related barriers to immunization in Kyrgyzstan (2023).
25. UNICEF (2017). Country Programme Document (CPD).
26. UNICEF (2020). Children of migrants left without parental care in Kyrgyzstan: Multiple Indicator Cluster Survey (MICS) Data Analysis.
27. UNICEF (2021). UNICEF PROCEDURE ON ETHICAL STANDARDS IN RESEARCH,

EVALUATION, DATA COLLECTION AND ANALYSIS (2021) Document Number: PROCEDURE/OOR/2021/001
28. UNICEF ECA Regional Office (2018). Regional Office Annual Report 2018.
29. UNICEF ECA Regional Office (2019). Regional Office Annual Report 2019.
30. UNICEF ECA Regional Office (2020). Regional Office Annual Report 2020.
31. UNICEF ECA Regional Office (2021). Regional Office Annual Report 2021.
32. UNICEF ECA Regional Office (2022). Regional Office Annual Report 2022.
33. UNICEF ECA Regional Office (2020). Terms of reference. Institutional consultancy. Social listening in the context of COVID-19.
34. UNICEF ECA Regional Office (2021). Institutional consultancy to conduct mapping of institutional capacity needs and entry points for mainstreaming demand generation in national immunisation policies, programmes, and budgets. Assessment Report for the Kyrgyz Republic.
35. UNICEF ECA Regional Office (2021). Mapping of institutional capacity needs and entry points for mainstreaming demand generation in national immunisation policies, programmes, and budgets. Entry points for mainstreaming demand generation for immunisation in the Kyrgyz Republic.
36. UNICEF ECA Regional Office (2022). Evaluation of the UNICEF Project – Strengthening Refugee and Migrant Children's Health Status in Southern and South-Eastern Europe (RM Child-Health Project). Final Evaluation Report.
37. UNICEF ECA Regional Office (2022). Multi-Country Programme Evaluation. UNICEF Europe and Central Asia (ECA) Region – Bulgaria, Kyrgyzstan, Republic of Moldova and Ukraine. Country Programme Evaluation report – Kyrgyzstan.
38. UNICEF Kyrgyzstan Country Office (2018). Country Office Annual Report. Republic of Kyrgyzstan.
39. UNICEF Kyrgyzstan Country Office (2019). Country Office Annual Report. Republic of Kyrgyzstan.
40. UNICEF Kyrgyzstan Country Office (2020). Country Office Annual Report. Republic of Kyrgyzstan.
41. UNICEF Kyrgyzstan Country Office (2021). Country Office Annual Report. Republic of Kyrgyzstan.
42. UNICEF Kyrgyzstan Country Office (2022). Country Office Annual Report. Republic of Kyrgyzstan.
43. UNICEF Kyrgyzstan Country Office. Kuban Monolbaev (2023). Immunization Output Report Presentation.
44. UNICEF Kyrgyzstan (2020). Understanding Behavioural Aspects and Context. Report on behavioural aspects of routine immunization in Kyrgyzstan.
45. WHO, 2017, Monitoring the Health-Related Sustainable Development Goals (SDGs).
46. WHO (2022). Desk Review of Key Findings and Recommendations from Immunization Data and Information System Assessments in Kyrgyzstan.
47. WHO Europe (2022). COVID-19 Vaccination Managing System Assessment in Kyrgyzstan. Assessment Report.
48. WHO, UNICEF (2022). Effective Vaccine Management (EVM) Kyrgyzstan 2022.

Annex 5: Persons Interviewed

	Category	Entity	Name	Position
1	Government	Ministry of Health	Bermet Samaganova	Head of the development of the managerial experts of the MOH
2	Government	Ministry of Health	Anara Mambetisaeva	Head and Leading Specialist of MOH
3	Government	Ministry of Health	Gulmira Najimidinova	Expert on Paediatrics of MoH, Associate Professor, Department of Paediatrics, Higher School of Medicine
4	Government	Ministry of Health	Jyldyz Artykbaeva	Senior Paediatrician
5	Government	Ministry of Health	Nurgul Ibraeva	Head of Treatment prophylaxis department
6	Government	Ministry of Health	Nurilya Altymysheva	Director of the Republican Centre for Health Promotion and Mass Communication
7	Government	Republican Centre for Immunization	Gulbara Ishenapysova	Director of Republican Centre for Immunization
8	Government	Republican Centre for Immunization	Gulnara Jumagulova	Dep. Director of Republican Centre for Immunization
9	Government	Republican Centre for Immunization	Arabiy Ulanbek uulu	M&E Specialist
10	Government	Republican Centre for Immunization	Nurai Jakypbekova	Warehouse Specialist
11	Government	FMC 1	Burul Chookbaeva	Immunization Specialist
12	Government	FMC 1	Choro Sataev	Director of FMC 1
13	Government	FMC 1	Nurses from vaccination room	Staff of FMC 1
14	Government	FMC 3	Mariya Mukambetova	Director of FMC 3
15	Government	FMC 3	Nazira Aitalyeva	Immunization Specialist
16	Government	FMC 3	Nurses from vaccination room	Staff of FMC 3
17	Government	FMC, Jaiyl district	Liudmila Kosuhina	Immunization Specialist
18	Government	FMC, Jaiyl district	Ainura Kozhobekova	Director of FMC, Jaiyl district
19	Government	FMC, Jaiyl district	Nurse from vaccination room	Staff of FMC, Jaiyl district
20	Government	FMC, Sokuluk district	Emilbek Janarbekov	Director of FMC, Sokuluk district
21	Government	FMC, Sokuluk district	Nurse from vaccination room	Staff of FMC, Sokuluk district
22	Government	FMC, Issyk Ata district	Azamat Kulaliev	Director of FMC, Issyk Ata district

23	Government	FMC, Issyk Ata district	Nurse from vaccination room	Staff of FMC, Issyk Ata district
24	Government	FMC 10	Farisa Sydykova	Deputy Director
25	Government	FMC 10	Nurse from vaccination room	Staff of FMC 10
26	Government	Jalal-Abad Regional Centre for Immunization	Aliya Arykbaeva	Immunization Specialist
27	Multilateral Organization	WHO	Zhanara Bekenova	Immunization Specialist
28	Multilateral Organization	WHO	Elnura Duishenalieva	National Prophylaxis Officer on Immunization
29	Multilateral Organization	WHO	Akjibek Beishebaeva	Vaccine demand & Acceptance Officer
30	Multilateral Organization	GAVI	Timur Cherikov	Consultant
31	Multilateral Organization	World Bank	Jyldyz Turgunbaeva	Health Specialist
32	Multilateral Organization	GIZ	Cholpon Asambaeva	Head of Programme “Improving Mother and Child Health in Central Asia”
33	Multilateral Organization	European Union	Cosimo Lamberti -Fossati	Regional Programme Manager
34	CSO / Implementing partner	PF “Aijan”, Batken oblast	Chynara Ahmedova	Director
35	CSO / Implementing partner	PF “Daanazat”, Batken oblast	Gulbarchyn Amirova	Director
36	UNICEF	UNICEF CO	Cholpon Imanalieva	Health Specialist
37	UNICEF	UNICEF CO	Kubanychbek Monolbaev	Immunization Specialist
38	UNICEF	UNICEF CO	Rima Imarova	Procurement Services Officer
39	UNICEF	UNICEF CO	Galina Solodunova	Head of SBC
40	UNICEF	UNICEF CO	Asylgul Akimjanova	SBC Specialist
41	UNICEF	UNICEF CO	Surenchimeg Vanchinkhuu	Health Sector Advisor

Annex 6: Sites Visited

Region	District name	Name of HFs
Bishkek	Bishkek	FMC 1
Bishkek	Bishkek	FMC 3
Bishkek	Bishkek	FMC 10
Chuy	Jaiyl	Territorial hospital of Jaiyl district
Chuy	Jaiyl	Warehouse
Chuy	Sokuluk	FMC of Sokuluk
Chuy	Issyk Ata	FMC of Issyk Ata
Chuy	Issyk Ata	Territorial hospital of Issyk Ata district
Chuy	Issyk Ata	Warehouse

Annex 7: Selected Data

UNICEF Kyrgyzstan Expenditures by Expenditure Code: 2018 to 2023

Expenditure and Intervention Code	2018	2019	2020	2021	2022	2023
Immunization supply chain, including cold chain	29,221	111,083	208,524	164,786	603,758	790,392
Purchase of vaccines and devices	45,000	45,000	45,000	45,000	45,000	50,000
Polio continuous social mobilization and communication	No data	No data	No data		794,750	
SBC and community engagement for immunization	329,018	591,914	559,304	745,714	369,298	520,191
Evidence generation and policy advocacy for immunization	No data	No data	No data	No Data	45,700	491,645
Total	403,239	747,997	812,828	955,500	1,858,506	1,852,228

Source: UNICEF Country Office for Kyrgyzstan.

Estimated Vaccine Coverage for Selected Antigens in Kyrgyzstan: 2018 to 2023 (Source: WUENIC, 2024)

Vaccine	Kyr 2018	Reg Avg 2018	Kyr 2019	Reg Avg 2019	Kyr 2020	Reg Avg 2020	Kyr 2021	Reg Avg 2021	Kyr 2022	Reg Avg 2022	Kyr 2023	Reg Avg 2023
BCG	97	96	96	95	96	96	97	95	97	95	95	96
DTP 1	98	97	99	97	90	96	87	96	90	96	91	97
DTP 3	94	95	95	96	87	94	89	94	90	94	86	96
MCV1	96	96	96	97	92	94	93	95	94	93	96	96
MCV 2	96	94	98	94	93	92	97	94	97	93	93	94
HPV												
Polio3	92	95	96	96	87	94	90	94	90	95	92	96

Selected Results Indicators in Immunization as Reported in UNICEF Results Assessment Modul

Kyrgyzstan							
Indicator Name	**Type**	**Baseline Year**	**Baseline Value**	**Target Year**	**Target Value**	**Actual Value**	**Rating**
Extent of UNICEF-response provided to outbreaks or other public health emergencies	CSI	2021	9	2022		7	

Level of strength of the primary health care system, achieved with UNICEF support	CSI	2021	27	2022		24	
Number of children vaccinated against measles through UNICEF-supported programmes	CSI	2021	0	2022		111649	
Extent of UNICEF support to the roll-out of COVID-19 vaccines	CSI	2021	7	2022	0	7	
Generation and use of social, behavioural and communication data and evidence meets quality standards	Std	2017	0	2022	4	4	Fully Achieved
Existence of a Multi-Year Plan (MYP) for immunisation (21-02-L3-06)	Std	2022	Not available	2023	National Plan Developed	NIS for 2025-2030	Fully Achieved
per cent of targeted mothers reached through continuous social mobilization and communication to promote immunization	CSI	2017	0	2022	30	90	Fully Achieved

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

CSI = Core Standard Indicator, Std = Standard Indicator

Annual Measles Incidence Rate and Reported Cases in Kyrgyzstan 2018 to 2023

Year	2018		2019		2020		2021		2022		2023	
Incidence Rate = Cases per 1 million population.	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases
ECA Region	89.54	82596	112.07	104248	13.08	12205	0.18	166	0.97	904	62.38	58114
Kyrgyzstan	164.36	1008	356	2284	108.52	708	0.45	3	3.02	20	1045.83	7044

Source: WHO, ePidata: August (2024).

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 Kyrgyzstan in light of the UNEG general norms for evaluation (UNEG, 2021, pp. 10-12):

UNEG Norms	Evaluation Compliance
1.Internationally Agreed Principles, goals and targets	The evaluation assessed UNICEF 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.
2.Utility	The evaluation report provides findings, conclusions and recommendations that can inform and guide programming for UNICEF, national authorities and key stakeholders in Kyrgyzstan.
3.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 regional and national level.
4.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.
5.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.
6.Ethics	Discussed in detail below
7.Transparency	The evaluation report will be publicly available through the online UNICEF Evaluation Portal
8.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 programmes. The evaluation addressed in particular the availability of disaggregated data by sex and by marginalized or under-served groups.
9.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 Kyrgyzstan – capacities that can strengthen national systems for evaluation.
10.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, beneficience, integrity, and accountability.[United Nations Children's Fund, UNICEF Procedure on Ethical Standards in Research, Evaluation, Data Collection and Analysis, 2021, Document Number: PROCEDURE/OOR/2021/001.]

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 Groups. 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 Kyrgyzstan.

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 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.

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