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Health Projects evaluation

EVALUATION OF THE SWISS-FUNDED HEALTH PROJECTS IN KYRGYZSTAN, IMPLEMENTED DURING 2020-2026

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Evaluation Report

Evaluation of the Swiss-funded health projects in Kyrgyzstan, implemented during 2020-2026

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Abbreviations

ADP	Additional Drug Package
AIDS	Acquired Immunodeficiency Syndrome
ARB	Angiotensin II receptor blocker
AP	Arterial (blood) pressure
CA	Contribution analysis
CAH	Community Action for Health [project]
CFR	Case fatality ratio
CGC	Consulting Group Curatio Sarl
CHMTD	Center for Healthcare and Medical Technology Development
CHSD&MT	Center of Health System Development and Medical Technologies
COC	Catalog of competencies
COPD	Chronic obstructive pulmonary disease
CME	Continuous medical education
COC	Catalog of Competencies
CAD	Coronary artery disease
CPD	Continuing Professional Development
CVD	Cardiovascular disease
DAC	Development Assistance Committee
DALY	Disability adjusted life years
DHC	District health committee
DLI	Disbursement-linked indicators
DPs	Development partners
DR	Desk-review
ECA	Europe & Central Asia (excluding high income)
ENDS	Electronic Nicotine Delivery Systems
FCTC	WHO Framework Convention on Tobacco Control
FDA	[U.S.] Food and Drug Administration
FGD	Focus group discussion
FGPA	Association of Family Group Practitioners and Family Nurses
FM	Family Medicine
FMC	Family medicine center
GP	General practitioner
GPC	Group practice center
HCOs	Healthcare organizations
HF	Hearth failure
HFA	Health Facility Autonomy (project)
HFM	Health facility manager
HWF	Health workforce
HO	Healthcare organization
HRH	Human resources for health
HSPA	Health system performance assessment
HTN	Hypertension (arterial)
HTP	Heated tobacco products
ICCA	Independent Center for Competency Assessment
IME	Initiatives in Medical Education
IMF	International Monetary Fund
IMP	Impact [as a prefix in labels of results and indicators)
INN	International nonproprietary name

IRI	Intermediate results indicator
KAP	Knowledge, attitude and practice
KII	Key informant interview
KMA	Kyrgyz Medical Association
KMIRCE	Kyrgyz Medical Institute for Retraining and Continuous Education[1]
KNA	Kyrgyz Nursing Association
KSMA	Kyrgyz State Medical Academy
KSMIRCME	Kyrgyz State Medical Institute for Retraining and Continuous Medical Education
KSMIRPD	Kyrgyz State Medical Institute of Retraining and Professional Development
LSGs	Local self-governments
LTOUTC	Long-term outcome
MER	Medical Education Reform (project)
MHIF	Mandatory Health Insurance Fund
MoES	Ministry of Education and Science
MOH	Ministry of Health
NCD project	Effective Management and Prevention of NCD Project
NCDs	Non-communicable diseases
NGOs	Non-governmental organizations
NLMA	National health labor market analysis
OshSU	Osh State University
OUTC	Outcome
PGME	Postgraduate medical education
PHCQIP	Primary Health Care Quality Improvement Program
PMA	Professional medical association
PRP	Professional Retraining Program
SDC	Swiss Development and Cooperation Agency
SEFF	Small Expenditure Financing Facility
SGBP	State-Guaranteed Benefits Package
SSES	State Sanitary-Epidemiologic Center
STEPS	STEPwise approach to NCD risk factor surveillance
TEC	Europe & Central Asia (IDA & IBRD countries)
TH	Territorial hospital (at district level)
ToC	Theory of change
ToT	Training of trainers
TOR	Terms of reference
UFA	Uniform Final Attestation
UHC	Universal health coverage
UN	United Nations
UNIATF	UN Inter-Agency Task Force on NCDs
WDI	World Development Indicators
WHO	World Health Organization

1 The English translation of the organization name varies across background documents. Therefore, different abbreviations are used to refer to it; KMIRCE and KSMIRCME are the most common. However, the name on the official website is “Kyrgyz State Medical Institute of Retraining and Professional Development,” and we use the corresponding abbreviation KSMIRPD

1 Executive summary

This evaluation assesses the contribution of three Swiss-funded bilateral health projects – Medical Education Reforms (MER), Health Facilities Autonomy (HFA), and Effective Management and Prevention of NCDs (NCD) – to changes in population and health in Kyrgyzstan. MER and HFA closed at the end of 2024 and are assessed ex post, whereas NCD runs to June 2026 and is assessed before closure. Evidence comes from desk review of project and national data and key informant interviews conducted in December 2025 and February 2026, including site visits to Chuy and Osh regions.

What changed?

International sources indicate that population health improved in Kyrgyzstan in the last two decades: life expectancy increased (72.2 years at birth), and the burden of major non-communicable diseases (NCDs) decreased (despite a slight increase in diabetes and neoplasms). Mortality from NCDs reduced by 25% (from 442 to 309) according to the national statistics.

The evaluation finds a plausible contribution of the Swiss-funded portfolio to these improvements.

How do we know that?

Premature mortality (the probability of dying between ages 30 and 70 from the selected NCDs, and from cardiovascular diseases in particular) declined in the project's target regions, and the timing of those declines tracks the geographical sequence of the interventions. The evidence for this is data compiled by the project team based on national health statistics.

The analysis found that alternative hypotheses such as economic growth, poverty trends, financial protection from healthcare-related risks, or wider social change were not sufficient to explain the observed reduction in premature CVD mortality.

Where activities overlapped, notably the World Bank/KfW/SDC Primary Health Care Quality Improvement Programme and a JICA-funded referral project in Chui – the available evidence suggests that their independent contribution to the observed changes was limited relative to the scale and duration of the Swiss portfolio.

How was this possible?

First of all, the contribution came through "*system strengthening*" interventions at the service-delivery level - these interventions helped actors to perform their functions better:

- **Medical facilities** were supported by improvements in the quality of clinical services with the introduction of evidence-based clinical protocols, intense training, and quality assurance mechanisms, and reduced behavioral risks by counseling patients about the consequences of harmful consumption, low physical activity and being overweight
- **Village Health Committees (VHC)**[2] contributed to earlier detection of NCDs by recognizing warning signs and encouraging community members to visit family doctors, and promoted healthy lifestyles by organizing sports events, improving infrastructure, and educating villagers. (VHCs were established under an earlier Swiss-funded project, and were engaged, not created by, the NCD project).

A second group of "*system changing*" interventions created a potential to sustain and intensify these contributions:

2 Effective since 2002 thanks to another Swiss-funded intervention ""Community Action for Health" (CAH)

- **Medical education reform** at all three levels made it possible to supply the country with a labor force meeting higher professional standards; it takes at least 5 years to cover the entire health workforce through a continuous professional development system and a unified, independent competency certification mechanism. The influx of better-trained family medicine specialists (doctors and nurses) takes longer.
- **Health Facility Autonomy**-interventions introduced competency-based selection and appointment of healthcare managers, creating a national reserve of qualified managers and a competitive appointment mechanism. Even within the existing regulatory framework and operating mode, these managers have the potential to improve revenues and distribute resources more efficiently to achieve better results (medical outcomes). This system change will have a significant impact after the share of competency-based appointed managers exceeds 60-70%, and when health organizations in Kyrgyzstan receive high managerial autonomy.

	Supply side	Demand side
System strengthening	Better clinical practice for the detection and management of NCDs	Improved prevention - lower behavior risks Better adherence to treatment
	Better engagement of the communities in NCD management	Promotion of a healthy lifestyle
System changes	More and more competent doctors and nurses are available	
	Competent professionals can manage health organizations	

Could the impact have been better?

Yes, and several factors have been identified that limited the scale of the contribution.

Inpatient care: Premature mortality depends on the quality of medical interventions in both outpatient (which were targeted in the interventions) and inpatient settings (which were out of scope of these interventions). When hospitals cannot save more lives of patients admitted because of CVD complications (myocardial infarction or stroke) due to the poor quality of services, the reduction in premature mortality is modest. Swiss-funded interventions contributed to improving service delivery at the primary healthcare level, aiming to reduce the complications of CVDs. Neither Swiss-funded project nor other interventions cover hospitals directly to reduce *fatality ratio* from myocardial infarction and stroke (like investing in infrastructure and specialists to use modern invasive medical interventions for effective treatment of CVD complications in emergency areas).

COVID-19 disrupted Swiss-funded interventions and delayed results.

Government regulations: behavioral risks would have been reduced more if the government had applied a more comprehensive and consistent approach to regulating the marketing and consumption of salt, sugar, trans fats/fatty acids, and alcohol in the northern regions.

Will Swiss-funded project contributions last?

Unevenly, and the distinction matters for what happens next.

Contributions made at the service delivery level are the most durable: the clinical practice and community engagement results scored as "established" in the institutionalization assessment, and evaluators consider they could last 10-15 years if the core medical teams are retained and qualified professionals join them to replace retired staff or fill existing vacancies.

Contributions from system-level change are more fragile. Five of seven assessed results scored only "emerging," including both the competency-based appointment of managers and the reduction of NCD-related behavioral risk. The Swiss-funded interventions invested heavily in professionals, in mechanisms and guidelines, in financial flows to sustain changes after the end of projects, and in building a strong "defensive wall" through legislation.

All these measures were sufficient to sustain project achievements - even after the removal of a Health Minister's discretionary appointment power but felt short of becoming routine or to become stable in a new power landscape. For the institutionalization of the contributions, the existence of a mechanisms matters less than the scale at which it operates.

Sustaining and building on these contributions requires

- the ongoing supply and competitive appointment of a *certain number* of certified healthcare managers;
- that periodic attestation must be effective to keep the management practice up to standards;
- that medical education continues to supply the *required numbers* of competent family nurses and doctors; and
- that the health system attracts and retains the critical health workforce at the PHC level.

Implication for future support

Swiss-funded interventions relied largely on technical-level efforts to institutionalize system-level changes, including amendments to laws and new regulations, transferring skills and knowledge to higher education organizations, professional associations and new independent entities). However, when decisions are taken at a political level and driven by business or personal interests, legislative protection alone may not work, as happened with postgraduate education.

Therefore, future interventions would improve their chances of institutionalization by balancing technical achievements with political engagement: increasing support for reform among beneficiaries as well as mobilizing a critical mass of political actors and mitigating the resistance of those who stand to lose status or influence.

2 Introduction

2.1 Objectives and Scope

Per the Terms of Reference, the reason for the evaluation is to document achievements and contributions of the Swiss-funded Health projects implemented in Kyrgyzstan with the purpose to share with national and international stakeholders for learning and applying in their potential interventions. The objective of this evaluation is to evaluate impact of the Swiss-funded Health projects and contribution to the improvement of the health system in Kyrgyzstan.

The evaluation will explore relationships between the intervention and its results, indicating why and how effects were achieved. It assesses results of the 3 Swiss-funded Health projects in Kyrgyzstan. The timeframe is limited to the last 6 years from 2020 to 2026. The geographical scope includes all regions of Kyrgyzstan with the focus on key beneficiaries of the Kyrgyz Health System. The three projects evaluated were:

The **Health Facility Autonomy (HFA) project** – phase II (08.2020-10.2024) aimed to improve the effectiveness and quality of health services by upgrading competencies of health facility managers, and to support national partners in the development and creation of a sustainable system for improving the managerial competencies of health facility managers.

The **Medical Education Reforms (MER) project** (09.2021-12.2024, CHF 2'439'016 budget) had the goal that health professionals provide quality services at Primary Care level, to address the Kyrgz population's health needs.

Finally, the **Effective Management and Prevention of Noncommunicable Diseases (NCD) project** had the goal of contributing to the improvement of the health and wellbeing of the Kyrgz population. Its first phase (01.2018-06-2022) was in the northern regions of the country, while the second phase (07.2022-06.2026) operated in the southern regions.

2.2 Context

Kyrgyzstan's health system has been reforming since 1995 – reducing hospital capacity, introducing mandatory insurance, building family medicine – but remains underfunded, with heavy out-of-pocket costs, rural-urban gaps, and insurance coverage gaps. The country faces both communicable and non-communicable disease burdens. Government reform efforts are urgent but fragmented, and Ministry of Health leadership turnover repeatedly interrupts them, weakening the workforce, care quality, and financial protection.

Against this backdrop, Switzerland has funded sectoral and policy-level health reforms: community health promotion, medical waste management, hospital-acquired infection control, PHC strengthening, medical education modernization, and health management systems. All Swiss-funded bilateral projects were evaluated as effective and sustainable, fully endorsed by the MoH beforehand, with most outcomes retained after closing – though MoH turnover slowed their integration.

The Swiss Embassy in Kyrgyzstan commissioned Consulting Group Curatio Sarl (CGC) to evaluate the impact of Swiss-funded health projects in Kyrgyzstan. The evaluation team, in close cooperation with the Swiss Embassy in Kyrgyzstan, and the project teams elaborated the evaluation methodology. It includes two frameworks for the analysis: "contribution analysis" (CA) and "institutionalization maturity," and the data collection matrix. The inception phase included an intensive first round of desk review of project documents and context-related publications (including official statistics). It helped to tailor primary data collection (in the first half of February 2026) through key informant

interviews and site visits. The second round of desk review helped verify observations from qualitative data collection and gain better insight into the areas necessary for robust analysis.

2.3 Use of referencing in the report

Facts established during this evaluation are recorded as numbered observations in the annex. The analysis then cites those observations rather than restating them.

This convention serves three purposes: it allows the reader to trace an analytical claim back to the evidence, to judge that evidence independently of the conclusions drawn from it, and it facilitates reading.

Four devices are used:

Observations are numbered at two levels in the annex. The second level identifies a specific point within an observation, so that the analysis can cite a single detail rather than an entire passage.

Footnotes carry the references. Where an analytical claim rests on an observation, a footnote names that observation and links to it. Footnotes also direct the reader to other parts of the report including the bibliography and the list of organizations consulted.

Figures are numbered and listed in the table of figures.

Sources are numbered in the bibliography and cited in the text or footnotes by that number.

References are live hyperlinks in the Word desktop application. To follow one, click it (on Windows hold Ctrl while clicking). To return to where you were reading Alt+← on Windows or Shift+F5 on macOS. The table of contents and table of figures behave the same way. In printed or PDF form, the numbering allows the same items to be located directly.

3 Evaluation Methodology

3.1 Overview

The evaluation is intended to assess the contribution of the three selected Swiss-funded bilateral health projects to desired changes at the population health level impact.

Initial 3 questions groupings, each with sub-questions, were set out in the ToR as follows:

Group 1: What are the measurable improvements in the three bilateral programmes over the entire time of the intervention?

a. What results suggest the comparison of baseline data with endline data (either from project data or other, e.g., public, statistics) for the three different programmes and the projects under each programme?
b. What is the reliability of the indicators for which data are available (i.e., do they measure what they pretend to measure, do they capture the intended outcome or something else?)
c. What are the gaps in data to establish the change achieved in each programme and project, and what additional data might be used?
d. What is the magnitude of change in intervention areas compared with that in non-intervention areas?

Group 2: What is the contribution of the bilateral programme to the change identified?

e. What causal pathways can be identified and supported with evidence that link the changes observed in Q1 to the interventions of the Swiss programme?

f. What are potential alternative explanations (other health interventions by donors, govt, economic influence, others) that contributed to the change, and what is the evidence for their validity?

Group 3: How did the interventions work or not, why, for whom, and in what contexts?

g. What are the links between the triggering of mechanisms and contextual factors through project interventions, and how did they work/play out over the intervention period?

h. What are the links between the action of these mechanisms and the occurrence of outcomes?

The TOR also highlighted the importance of understanding the projects' contribution to health sector improvement and sustainability of results.

The inception phase of this evaluation analyzed existing evaluations of the projects (focused on OECD DAC criteria) and determined whether existing performance reports, project documents, and context-specific publications led to the identification of data gaps and the shaping of the data collection matrix.

3.2 Three evaluation approaches

The Inception Report largely responded to the first set of questions ("group 1"), and a summary of this is included in the Analysis section of this evaluation. To respond to question groups 2 and 3, as well as the questions around sustainability, three complementary approaches were used. Contribution Analysis (CA), Realist Evaluation (RE), and Institutional Maturity Assessment (IMA). Their usefulness in addressing the main evaluation question groups is described as follows:

	Main question	Illustrative/extended questions
Contribution Analysis (CA)	Did interventions contribute to the impact? (Question Group 2)	Is it plausible to think that the intervention results contributed to the impact? Can the impact be explained by other factors?
Realist Evaluation (RE)	How do the interventions make the changes? (Question Group 3)	Due to which mechanism(s) does each intervention work out in the given context? Which factors in the context were essential, the causal or observed mechanisms, to produce given outcomes?
Institutional Maturity Assessment (IMA)	Will the impact of contributions last? (Sustainability)	Have the results of the intervention (whether structural or behavioral changes) become part of everyday life? Has the system reached a balance after the structural changes (i.e., "point of no return"), or is there a high risk of returning to its original state?

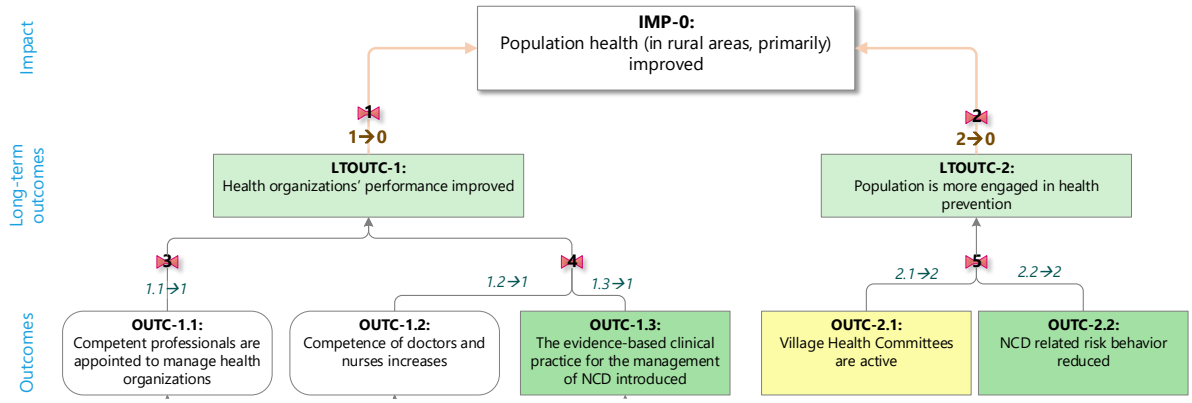
3.2.1 Contribution Analysis

In order to conduct a contribution analysis, the evaluators created an overall theory of change encompassing the three projects. This theory of change was built from three components: the original project-specific theories of change, the results reported by the three projects, and the assumption that these three Swiss-funded interventions used two pathways to contribute to population health improvement: a supply pathway and a demand pathway.

On the supply side, the theory of change assumes that if healthcare organizations are managed by qualified health managers, staffed with competent doctors and nurses, and capable of delivering evidence-based (low-cost, high-impact) medical interventions, then the healthcare organization's performance improves.

On the demand side, the theory of change assumes that if the population understands the importance of a healthy lifestyle, changes risk behaviors, and mobilizes to support community health promotion and disease prevention, then the population's role in health prevention and management increases and it will reduce the workload on PHCs and result in more effective service delivery.

Below is a chain of results diagram representing these two pathways.



These two supply and demand pathways contribute to high-level impact on the population's health. The contribution analysis uses data from the NCD project results and indicators.

In the results diagram above, the supply side is indicated on the left and is directly linked to the outputs of the projects. The contribution analysis uses data from the HFA and MER project results and indicators, as well as other sources.

The demand side, on the bottom right of the diagram, represents the results of the NCD project in Phase I and Phase II.

Three contextual factors were identified as likely influencing contribution to the impact: Governance / public administration modalities; health financing; public health emergencies.

3.2.2 Realist Evaluation

Realist evaluation looks deeper into the context to identify transformation mechanisms, namely, how the resources and opportunities provided by projects (through interventions) influenced the reasoning (and behavior) of actors that led to changes (in the design or performance). Realist evaluation treats programs (a bundle of interventions) and context as open, dynamic elements – contexts evolve on their own, or interventions can modify some of their components (meaning that the outcome of one intervention can become a better/worse context for another intervention). The mapping and expert analysis of the "chemistry" – "Context + Mechanism → Outcome" in a systematic

way helps us to understand the likelihood that interventions can be replicated successfully (in similar context and with similar actors), and whether mechanisms remain effective over the time in the given context so that changes (results/contributions) become institutionalized.

3.2.3 Institutional Maturity Assessment

Routine project performance evaluations have already assessed SDC projects according to the DAC criteria of sustainability; to respond to further questions around sustainability in the evaluation's TOR, we developed a complementary analytical framework that examines the maturity of institutionalization of the projects' contributions to impact population health. The assessment of each defined aspect in the framework draws on this evaluation's quantitative and qualitative data, and the ultimate scoring is based on the evaluator's judgement.

3.3 Data Collection & Limitations

Two rounds of in-country consultations, key informant interviews and site visits took place in December 2025 and February 2026, along with online meetings and allowed us to collect rich qualitative data as per the data collection plan.[3] It triggered another round of intensive desk review to get deeper insight into the context and verify certain points reported by key informants.[4]

We could not interview some high-level politicians due to their unavailability (despite the scheduled appointments). Three persons served as the Minister of Health from November 2025 to February 2026. It kept the MOH leadership and middle-level management under pressure due to pending restructuring and re-staffing, which affected the quality of interviews.

We found discrepancies in health statistics across sources, undermining the credibility of the data. However, it did not affect the analysis.

We could not find data on need for family doctors or nurses, or quantified health workforce projections.

The evaluation does not apply a full realist design (e.g., theory-driven sampling and iterative hypothesis testing) but rather introduces realist reasoning as an analytical layer within a contribution analysis framework.

In addition to the above, the application of a realist evaluation perspective introduces certain methodological limitations:

- The identification of mechanisms is based primarily on retrospective interpretation of qualitative evidence and documented results rather than direct observation of actors' reasoning processes. As a result, mechanisms are inferred and should be understood as plausible explanations of how outcomes were generated, rather than empirically verified causal processes.
- Furthermore, the initial program theory presented in this report simplifies complex causal pathways by focusing on expected mechanisms and does not fully capture competing or countervailing mechanisms, which are explored in the analytical sections.
- Finally, given the portfolio-level scope of the evaluation, the analysis prioritizes major causal pathways over exhaustive coverage of all possible configurations

[3] See section Organizations/persons met and sites visited , "Organizations/persons met and sites visited"

[4] see Bibliography "Bibliography"

4 Analysis

This evaluation's Inception Report responded to the first group of questions, and a summary of this is included here.

Q1 What are the measurable improvements in the three bilateral programmes over the entire time of the intervention?

a. What results suggest the comparison of baseline data with endline data (either from project data or other, e.g., public, statistics) for the three different programmes and the projects under each programme?

The three projects achieved change at different levels of the results hierarchy. The NCD project demonstrated change at the highest level — population health — in the Phase I northern regions, with equivalent results reported for the southern regions through 2024 (see the project profiles in the annex). HFA's outcome-level improvement is deferred: the system began appointing certified managers only in March 2025, and change takes time to register. MER demonstrated outcome-level improvement, almost meeting the target on its impact-level indicator MER-III-0>2 ("number and proportion of doctors and nurses registered and admitted to professional practice through the independent competency assessment system"); on current trends, all practicing doctors and nurses would pass certification within five years. A further improvement emerged for nurses, although the target for MER-III-0>3 (share of nurse graduates employed by the health system) was not met on time.

b. What is the reliability of the indicators for which data are available (i.e., do they measure what they pretend to measure, do they capture the intended outcome or something else?

The relevance of some indicators is debatable: most measure change, but not all of that change relates to the stated outcomes. We therefore remapped existing project indicators onto the results in the contribution analysis theory of change. Two MER indicators originally set at impact level (MER-III-0>2 and MER-III-0>3), together with the outcome-level MER-II-2>4, were used to measure OUTC-1.2. Four NCD detection-rate indicators — hypertension, breast cancer, cervical cancer and type 2 diabetes — originally mapped to the NCD project's outcome level, were used to evidence improved health organization performance at PHC level (LTOUTC-1). A full evaluability assessment of the 100-plus indicators in the three log frames was not undertaken, as it would not have added to the evaluation given the indicators selected.

c. What are the gaps in data to establish the change achieved in each programme and project, and what additional data might be used?

The projects' monitoring frameworks rely primarily on routine statistics supplemented by applied research, and data were available for most indicators used here. Gaps remain. Results for 2025 — the NCD project's final year — were not available to the evaluation team, as national medical statistics for that year were expected no earlier than May 2026. Consequently, the impact indicator NCD-II-0>2 (premature mortality), patient satisfaction (NCD-II-1>3) and MER-III-0>3 are not reported. The formal end-of-phase assessment of NCD Phase II remains pending, and the results reported here should be read as interim.

d. What is the magnitude of change in intervention areas compared with that in non-intervention areas?

There is no intervention in the area aimed at improving population health by reducing NCD-related premature death (or disease burden measured in DALYs). The NCD project covered the entire country in two phases: the north regions in Phase I and the south regions in Phase II. However, we will use ex-ante and ex-post morbidity for each region (reported by the project as baseline and actual) to demonstrate changes in population health. In addition, we can compare NCD-related health in southern regions (used as non-intervention areas in Phase I) with changes in the northern regions.

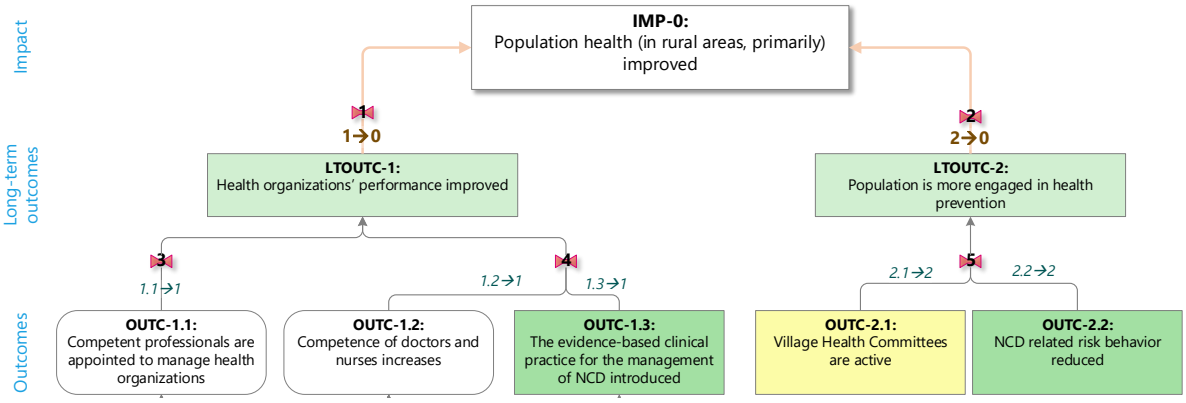
4.1 Contribution analysis

As explained in the methodology section of this report, we developed the Theory of Change uniting the 3 projects during the inception phase with the objective to conduct a contribution analysis. The following section therefore does not assess project results against their original logframes alone; it assesses whether those results provide evidence for high-level results and their corresponding causal pathways specified in the portfolio-level Theory of Change.

Q2 What is the contribution of the bilateral program to the change identified?

e. What causal pathways can be identified and supported with evidence that link the changes observed in Q1 to the interventions of the Swiss program?

f. What are potential alternative explanations (other health interventions by donors, government, economic influence, others) that contributed to the change, and what is the evidence for their validity?"



At the **impact level**, one of the three Swiss-funded bilateral programs is likely to have contributed to improving population health.

Implementation of the NCD project in Northern regions when compared to zones where the NCD project was not (yet) implemented points to potentially encouraging findings. Among the available metrics, we selected premature mortality (ages 30-70) from cardiovascular diseases (CVDs) as the most specific and sensitive indicator to demonstrate the impact of the Swiss programs.

The positive trend in premature mortality reduction persisted in two northern regions (Issyk-Kul and Chui) even after the Swiss-funded NCD phase 1 project had advanced to Phase II in the southern regions. Meanwhile, the upward trend in the Jalalabad region in the south (used as a control in 2017-2021) reverted to the decline in 2021-2024. This finding, however, should be tempered since a trend similar to Jalalabad was also observed in two project phase 1 regions (Naryn and Talas).

	All causes (option I)			CVD Only (Option III)		
	2017	2021	2024	2017	2021	2024
Kyrgyzstan	17.57	17.54		16.13	16.15	
All target	**18.89**	**18.52**	**14.62**	**17.56**	**17.31**	**13.40**
Issyk-Kul	18.40	↓ 16.82	↓ 14.26	16.94	↓ 15.62	↓ 12.83
Naryn	17.63	↑ 19.15	↓ 14.61	16.33	↑ 17,28	↓ 13.44
Talas	19.25	↑ 20.85	↓ 16.00	18.38	↑ 19,68	↓ 14.75
Chui	19.33	↓ 18.62	↓ 14.62	18.01	↓ 17,57	↓ 13.36
Jalalabad	18.86	↑ 20.93	15.2%	17.02	↑ 18.74	

At the **Long-Term Outcome level** (LTOUTC-1 and LTOUTC-2), the collected evidence shows that almost all outcome results in the Theory of Change were achieved.

Long-term outcome 1 (LTOUTC-1): Health Organization's Performance Improved - Indicator Table

NCD-II-(12).2>4	Newly detected cases of hypertension per 100,000 populations have increased	330% → 396% | > 363%
NCD-II-(12).2>5	Newly detected cases of breast cancer per 100,000 female population aged 18 and above have increased.	31.59% → 33.7% | > 33.16%
NCD-II-(12).2>6	Newly detected cases of cervical cancer per 100,000 female population aged 18 and above have increased.	17.58% → 19.36% | > 18.63%
NCD-II-(12).2>7	Newly detected cases of type 2 diabetes per 100,000 population aged 18 and above have increased.	159% → 337% | > 155 (55)%
NCD-II-1>3	% of patients (M/F and age groups) satisfied with the quality of PHC services has increased, % of FMCs/CGPs	Southern Reg 73.5 → 88.1| >80.9 Bishkek City 47.5 → 96.7| >52.3 Osh City 78.3 → 92.1| >86.2
NCD-II-1>4	% of FMCs/CGPs implementing the Budget Transparency Process (BTP) in the target regions	4% → 100% | 100%
NCD-I-1>4	# of PEN indicators introduced in the per capita payment mechanism of MHIF	0 → 3 | < 4 (abolished in 2021)
NCD-I-(12).1>4	% of nurses/midwives trained to manage NCDs using PEN protocol	156 → 2,398 (100%) | =100%
NCD-I-(12).2>6	% of treatment compliance (M/F) for hypertension	All: 47.32% → 80% | >56.78%

Causal pathway #1: on the "supply side", the improvement of health organizations' performance (LTOUTC-1) through the introduction of the evidence-based clinical practices (OUTC-1.3) likely contributed to the reduction of NCD burden. In addition to measuring outcomes using the selected quantitative indicators, qualitative information collected during site visits[5], and feedback from key

[5] See observation #Health professionals in both FMCs visited were grateful to the projects for providing valuable support in several areas:

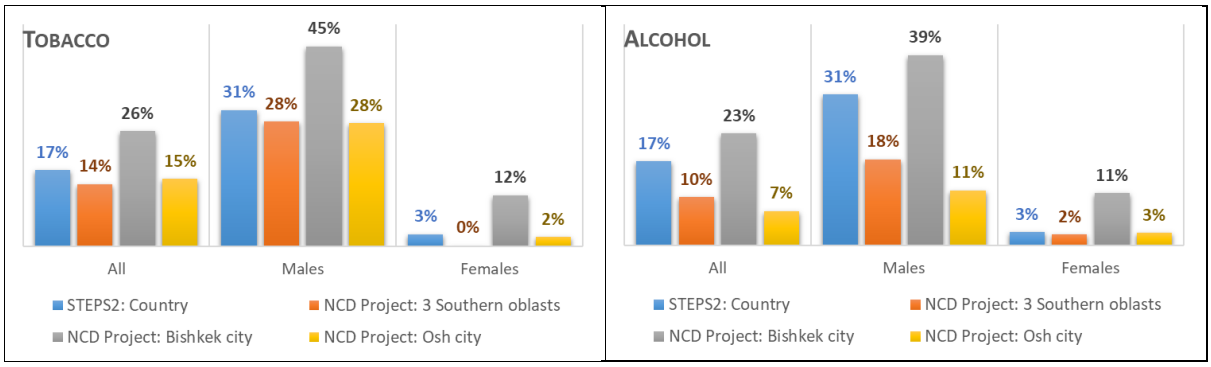
informants[6] support a contribution of the Swiss projects to improved health organization performance.

Long-term outcome 2 (LTOUTC-2): Population more engaged in Health Prevention - Indicator Table

NCD-II-2>2	% of men in target regions visiting a family doctor at least once per year increased	Southern 23.5 → 52 | >30.3 Bishkek City 31.9 → 39 | >38.2 Osh City 33.1 → 56 | >39.7

Causal pathway #2: on the "demand side", the population's role in NCD prevention increased (LTOUTC-2) thanks to positive changes in the behavior risks closely tracked by the NCD project. Figure below illustrates side by side the snapshot of tobacco and alcohol consumption country-wide compared to project locations as measured by two independent studies: STEPS carried out by WHO in 2023[7], and KAP surveys implemented by the NCD project[8].

Figure 3.1 Comparison of the selecting findings of the STEPS and KAP surveys conducted by the NCD Project



Source: Unpublished project reports provided by the NCD project team

6 For instance, observation #Representatives of the Ministry of Health (including the consultants), familiar with the NCD projects, highly valued the interventions and highlighted the following support:

7 see observation #According to the World Development Indicators (8), the reduction in premature mortality in Kyrgyzstan followed the dynamics in the region of Europe and Central Asia until 2020, but dropped to 18.8 (both sexes) against regional averages of 20.2 and 20.8 in 2021 (see Figure 5-14 below).

.1The difference was more noticeable among males between Kyrgyzstan and countries in the region in the same income group (as per the World Bank grouping into TEC – "Europe & Central Asia (IDA & IBRD countries)" – 25.0 to 28.1, respectively (see Figure 5-15 below).

.2In the richest country in Central Asia, Kazakhstan, premature mortality from NCDs (both sexes) decreased from 38.2% in 2001 to 20.8% in 2021, remaining higher than in Kyrgyzstan (18.8%).

The STEPS (STEPwise approach to NCD risk factor surveillance) study was conducted in 2013 (9) and 2023 in Kyrgyzstan.

8 see observation #The project achieved remarkable results in reducing behavioral risk factors in northern (see Figure 5-18 below) and southern regions (see Figure 5-20 below):

Active engagement of Village Health Committees (OUTC-2.1) falls within this causal pathway, but it was not formally introduced by any of the three bilateral programs (and we colored it in yellow). Many key informants were vocal about the importance of this Swiss-funded innovation established in 2010.[9]

What about the remaining two bilateral programs? Both programs need time to contribute to improving health by enhancing the effect of Causal pathway #1. Therefore, we can consider OUTC-1.1 → LTOUTC-1 → IMP-0 and OUTC-1.2 → LTOUTC-1 → IMP-0 pathways as logically plausible but not ready to enhance the health organization performance through the appointment of competent managers or increasing the qualification of medical staff at the PHC level:

- Pathway OUTC-1.2 → LTOUTC-1 → IMP-0 has already started contribution thanks to the integration of PEN protocols in the retraining program and the unified certification of medical staff by the Independent Competencies Assessment Center. Once the inflow of graduates from the new "family nursing" program increases, the role of this causal pathway will rise as well.

Another pathway may have some positive effect, with 82 certified health facility managers occupying managerial positions[10] despite limited health facility autonomy. However, this contribution is not traceable unless the periodic attestation becomes effective[11].

4.1.1 Discussion of alternative explanations that contributed to change

On the Impact level, several key indicators show that population health improved generally in the last decade in Kyrgyzstan[12] - life expectancy increased at birth and at the ages of 15, 45, and 65, and non-communicable diseases (NCDs) burden also reduced significantly.[13]

We could not find any apparent health intervention that can explain the improvement of the population health at the observed scale and pace:

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9 Association of Village Health Committees (AVHC) represents a union of DHC and was established in 2010 (47). Its main function is to advocate for empowering communities to address public health priorities, in close cooperation with primary healthcare providers and local governments.

10 see observation #(A) = 169 people (or 36% of all people in the reserve) passed the test and received the certificate (A) = 169 people (or 36% of all people in the reserve) passed the test and received the certificate

11 see observation #**Error! Reference source not found.**

12 see observations #According to the United Nations Development Program's (UNDP) Human Development Reports, life expectancy at birth in Kyrgyzstan increased by 6.36 years from 65.32 years (in 2006) to 71.68 years (in 2023) (see Figure 5-12 below). and According to official statistics (6), life expectancy at defined ages increased slightly in 2024 compared to 2015, from 32.8 years in Females and 26.5 years in males at age 45 to 33.8 and 26.6, respectively (as shown in Figure 5-2 below).

13 see observations #NCD-related mortality reduced by a quarter in the last decade, or by 90.8 deaths (per 100,000 population), according to the official health statistics (see Figure 2-1 below): and #According to the Institute for Health Metrics and Evaluation (IHME), the burden of diseases (measured in Disability Adjusted Life Years (DALYs)) related to CVD and CRD reduced in Kyrgyzstan from the highest 8712 and 1609 (respectively) per 100 000 population in 1994 to 5,408 and 1,355 in 2023 (as shown in Figure 5-3 below). More details can be found in Figure 5-47 and Figure 5-48 on below.

- Economic growth and improvements in the human index[14] are not sufficient to translate into a reduction in premature mortality from NCDs.
  - Kazakhstan's economy is the largest in the region; yet the premature mortality from NCDs remained higher than in Kyrgyzstan.[15]
  - Life expectancy at birth in Turkmenistan was the lowest in the region and far below Kyrgyzstan[16], despite its ranking 2nd by GDP per capita in Central Asia.
- Despite intense reforms in the health sector, challenges remain in the supply of the health workforce[17] and in financing.[1819] Financial protection of the population against health-related risks remains low.[20]
- No large-scale project/intervention was implemented with donor support in the last two decades to address primary prevention and effective management of NCDs in the country.

Nevertheless, several policy initiatives are likely to contribute to the observed health improvement, either indirectly (by creating a conducive environment) or directly. For instance:

- Inclusion of the medicines for the treatment of CVDs, diabetes, and chronic respiratory diseases in the drug packages reimbursed by the MHIF.[21]

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[14] see observation #Kazakhstan and Turkmenistan demonstrated the highest economic growth in the region when measured by gross domestic product (GDP) per capita (as shown in Figure 5-10 below):
GDP per capita in Kazakhstan was 14,155 USD per capita in 2024, up from 1,422 in 2001 (a ten-fold increase over 25 years)
.3GDP per capita in Kyrgyzstan increased 8 times in the same period, from 308 USD to 2,420, positioning the country by income between Uzbekistan (3,162 USD) and above Tajikistan (1,341 USD)
Human Development Index increased from 0.65 in 2005 to 0.72 in 2023 (see Figure 5-11 below):

[15] see observation In the richest country in Central Asia, Kazakhstan, premature mortality from NCDs (both sexes) decreased from 38.2% in 2001 to 20.8% in 2021, remaining higher than in Kyrgyzstan (18.8%).

[16] see observation #According to the United Nations Development Program's (UNDP) Human Development Reports, life expectancy at birth in Kyrgyzstan increased by 6.36 years from 65.32 years (in 2006) to 71.68 years (in 2023) (see Figure 5-12 below). The World Bank provides slightly different figures (see Figure 5-13 below); however, trends are similar:

[17] see observations #The recent health system review by the WHO (33) highlighted the following health workforce trends: and #According to the unpublished draft report "Analysis of the health labor market in Kyrgyzstan", prepared by the WHO team,

[18] see observation #According to the official labor statistics, wages in the health and social sector increased gradually over 25 years, but remained less than 2/3 of national averages and half of wages in enterprises (as shown in Figure 2-9 below)

[19] #According to the Global Health Expenditure Database (GHED), the current health expenditure per capita increased 8-fold from 12 USD in 2000 to 97 in 2023 in Kyrgyzstan, on par with Tajikistan (see Figure 5-26 below). Despite the observed growth in absolute terms, the share of healthcare in the economy dropped from the highest value 8.5% in 2012 to 4.5% in 2023 (see Figure 5-27 below).

[20] (→ observation #According to the World Bank estimates (8), 9.6% of the population faced financial hard-ship due to out-of-pocket health expenditures in 2022 (in other words, spent more than 40% of household discretionary budget on out-of-pocket health expenditure), three times less than in Tajikistan in 2019 (see Figure 5-23 below).

[21] observation #The directory of the medicines reimbursed by the Mandatory Health Insurance Fund (MHIF) under the Additional Drug Package (ADP) and State-Guaranteed Benefits Package (SGBP) at the PHC level

- Primary healthcare Quality Improvement Program (co-financed by the WB, KfW, and SDC) contributed to the better performance of FMCs.[22]
- State regulations and healthy lifestyle promotion activities played an important role in reducing tobacco and alcohol consumption[23]

includes a wide range of pharmaceuticals prescribed for the treatment of arterial hypertension and ischemic heart diseases (such as beta-blockers (Bisoprolol, Carvedilol), calcium channel blockers (such as amlodipine,) ACE inhibitors (enalapril, lisinopril, ramipril), angiotensin receptor blockers (such as losartan, valsartan), Nitrites (such as isosorbide dinitrate, nitroglycerin), statins (such as atorvastatin), diuretics (such as hydrochlorothiazide, indapamide)) (41). The full list of medicines used for the management of NCDs at the PHC level and covered by the state (as of December 2025) is shown in Figure 5-52 below.

[22] see observation #Almost all PHC organizations received reports from the Ministry of Health Quality Improvement (QI) Unit on their own performance with benchmarking in 2025, as reported by the World Bank (intermediate results indicator 113) (40). Moreover, the Quality Committees received training on quality improvement (at least once a year) in 2025 (up from 15 in 2024).

[23] see # Tobacco control: and #Alcohol control:

4.1.2 Discussion of barriers/factors hindering the contribution

We identified two factors that can affect the impact directly:

Barrier #1: We collected evidence that supported the assumption that lives could have been saved in the hospitals if proper clinical practices and diagnostic and treatment methods had been available. Swiss-funded health projects focused solely on the PHC level and had no direct influence on the quality or outcomes of inpatient care. The case fatality rates for acute myocardial infarctions and stroke[24] remain high, especially at the district level, compared to the countries with modern methods of invasive diagnostics and treatment during emergencies. Many key informants confirmed that this is the main factor hindering the contribution (of the interventions at the PHC level) to the population.

Barrier #2: Irrational consumption of drugs for arterial hypertension and ischemic heart disease due to the widespread self-treatment. We could not find evidence to quantify the scale and dept of the problem. High out-of-pocket expenditures on pharmaceuticals (despite the inclusion of essential drugs in the directory of reimbursable drugs and retail price regulations) illustrate that unregulated access to pharmaceuticals (without prescriptions) and aggressive marketing by the pharmaceutical industry result in inflated consumption of pharmaceuticals.[25] There is no data to assess the share of drugs for CVDs purchased by households without prescriptions (bypassing the family doctor). Professionals knowledgeable about existing practices and consumption patterns confirmed that the problem exists and undermines the case management approach at the PHC level supported by the bilateral programs.

The next set of factors (#3, 4, and 5) hinder the contribution of outcomes to the long-term outcomes:

- **Barrier #3**: low remuneration of family medicine teams (despite recent or pending increases in the base salary)[26] and absence of financial incentives[27] make it difficult to attract or retain qualified human resources and motivate them to deliver quality care. Key informants confirmed that gaps in the health workforce and reimbursement-related problems hinder performance improvements at the PHC level.
- **Barrier #4**: insufficient health facility autonomy hinders performance improvement, limiting the space to address remuneration (and staffing) problems, even with the existing level of FMCs'

[24] see **The case fatality ratio** (CFR) for acute myocardial infarction remained above 8% nationwide.

[25] see #Pharmaceuticals were the main cost drivers of households' out-of-pocket payments in Kyrgyzstan, accounting for0-70% across income quantiles in 2014 (42). According to the latest health accounts studies,

[26] see # (36) and #According to the Ministry of Finance, by the end of 2026, monthly wages will increase (37): According to the Ministry of Finance, by the end of 2026, monthly wages will increase (37):)

[27] see #Incentive payments to family doctors and nurses were introduced in November 2018 and lasted 2.5 years. 4 out of 12 performance indicators were related to NCDs. The incentive for the maximum possible performance score amounted to 19,809 KGS (approximately 233 EURO). (39) Incentive payments to family doctors and nurses were introduced in November 2018 and lasted 2.5 years. 4 out of 12 performance indicators were related to NCDs. The incentive for the maximum possible performance score amounted to 19,809 KGS (approximately 233 EURO). (39))

revenues. There are some initiatives for supporting broader health facility autonomy[28][29]. The negative influence of this factor can decline in the nearest feature.

- **Barrier #5**: It affects causal pathway #2 on the demand side by altering healthcare-seeking behavior due to competing priorities during health emergencies. The severity and scale of COVID19 epidemy were so high that it affected both the supply/service delivery side and the demand side. As reported by the projects, interviews confirmed that COVID-19 hindered project implementation and the delivery of the planned results.

4.1.3 Other considerations

Frequent changes in political leadership in the healthcare sector in Kyrgyzstan have become almost a tradition and no longer surprise anyone. Nevertheless, the frustration and weariness caused by these frequent changes in the ministry's leadership remain very much present among middle management, development partners and other key stakeholders:

02[28] (see →#Association of Health Managers (AHM) established by the HFA project aimed "*to promote the development of a sustainable and effective health facilities management system by strengthening the HFM community and interactions of health managers to improve delivery of medical care and public health services for the population of the KR*" ([FDFD/SDC. End of Project Report. 2024.Unpublished]. In 2023 AHM board approved a 5-year Organization Development Plan (ODP) for 2024-2024, which includes three key areas of activities:

(1) Increasing institutional and financial sustainability;

(2) Assistance in creating favorable conditions for strengthening HF management: the legislative framework improvement through the legal acts and regulatory mechanisms development and systematization;

(3) strengthening the capacity of HFMs on healthcare management issues" (23)

03The President issued an order to pilot health facility managerial autonomy in selected health facilities in 2026 to strengthen the capacity and competitiveness of public healthcare organizations (24). Association of Health Managers (AHM) established by the HFA project aimed "*to promote the development of a sustainable and effective health facilities management system by strengthening the HFM community and interactions of health managers to improve delivery of medical care and public health services for the population of the KR*" ([FDFD/SDC. End of Project Report. 2024.Unpublished]. In 2023 AHM board approved a 5-year Organization Development Plan (ODP) for 2024-2024, which includes three key areas of activities:

(1) Increasing institutional and financial sustainability;

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(3) strengthening the capacity of HFMs on healthcare management issues" (23)

The President issued an order to pilot health facility managerial autonomy in selected health facilities in 2026 to strengthen the capacity and competitiveness of public healthcare organizations (24).

[29] #The World Bank issued two tender notices last year to support the Kyrgyz government in two areas: The World Bank issued two tender notices last year to support the Kyrgyz government in two areas:)

- Usually, it remains a mystery why another minister has replaced one: was the reshuffling a sign of a redirection in the reform vector, or just poor performance by the ministry leadership in meeting expectations, or both?
- Newcomers in the Ministry of Health were often unaware of past or ongoing reform initiatives implemented by predecessors; partners and middle-level managers had to explain the merits of ongoing or planned changes, as well as the consequences of inaction.
- Not always have these efforts succeeded in preventing damage to reform initiatives; two Swiss-supported bilateral projects: HFA and MER (ones designed primarily for changing the "anatomy" of health system components) suffered most. The project teams built up high protective legal fences that have mitigated the damage; however, the lack of informed acceptance of the reform concepts of and adherence to the core principles (underpinning the reforms) among the leadership has led the national policy to favor short-term business interests of powerful stakeholders over long-term transformations in the quality and volume of professionals critical for the health system.

Why have we not included this factor (unexplained and unpredictable changes in the Ministry of Health leadership) as a barrier in the theory of change (while acknowledging its detrimental influence on long-term outcomes, the so-called enablers or catalyzers augmenting the Swiss-funded project contribution to the impact)?

We had several reasons for not doing so:

- Frequent leadership changes (occurring without clear explanations and accompanied by reshuffles at the highest levels) are characteristic of developing countries and are most likely a sign of the political system's maturity on the path to democratic development. This feature is part of the context of real life (long known to all stakeholders); it is an inevitability, not a risk; it presents a challenge for development initiatives, requiring specific approaches, but is not an obstacle to overcome.
- The frequent changes in the Ministry of Health have not directly affected national health policy: official sectoral health strategies are neither revoked nor rewritten, and it is hard to recall public criticism of predecessors' reform initiatives. It is not surprising that new leaders are becoming increasingly distant from the vision and aspirations favored by the development partner and do not feel obliged to respect commitments made by predecessors to donors/development partners (as was the case with the decision to embark on health facility autonomy). Formally, the national policies remain intact; however, we have all witnessed the Mandatory Health Insurance Fund becoming a subordinated structural unit of the Ministry of Health, or the merger of primary healthcare outpatient clinics with hospitals. Discussions of whether this "anomaly" indicates that there is something wrong with the quality of the national health policies ("declarative" vs "honest", "imposed by donors" or "genuine"), or whether it is an inevitable collateral damage from the endless power struggle, go beyond the scope of this evaluation.

Although we have not reflected the frequent changes in leadership and the perceived downscaling or distancing from the structural reforms in the health sector in the theory of change (for contribution analysis), this does not mean we don't understand their importance. We believe the "frequent leadership changes" vis-à-vis structural reforms in the healthcare sector (with long-term support from the Swiss government and other development partners) are critical for understanding the maturity of institutionalization of bilateral project contributions, which is covered in the next section.

4.2 Realist refinement of selected causal pathways

The following ICAMO configurations refine the causal pathways identified in Section Contribution analysis by explicitly linking intervention resources, actor responses, and contextual conditions. From a realist perspective, these pathways do not produce outcomes directly; rather, they operate by triggering mechanisms among actors whose responses are shaped by context.

The configurations below set out the evaluation team's interpretation of how the interventions worked. Mechanisms are inferred from qualitative evidence and documented results rather than directly observed, and should be read as plausible explanations rather than verified causal processes.

Refined HFA ICAMO configuration - competency-based selection and appointment of healthcare managers

Intervention (I)

The HFA project introduced a competency-based system for the selection and appointment of healthcare managers. Its main resources included a reserve and e-register of candidates, competency assessment and attestation mechanisms, a catalog of competencies, a retraining program in healthcare management, support to the Association of Health Managers, and a legal framework regulating reserve formation, selection, and attestation.

Context (C)

These reforms were introduced into a governance environment historically shaped by patronage, informal appointments, and strong ministerial discretion. The pathway unfolded in a context of political volatility, frequent leadership changes, unresolved legal and business model flaws, delayed approval of periodic attestation, and ongoing competition for control of training and appointment functions.

Actors (A)

The main actors through whom this pathway operated were aspiring and existing healthcare managers, the Center for Health System Development and Medical Technologies (CHSD&MT) and its competency testing function, the Association of Health Managers (AHM), higher education institutions involved in management training, and political and administrative leaders in the Ministry of Health, whose acceptance or resistance directly shaped whether the system could function as intended.

Mechanisms (M)

The intervention appears to have activated both enabling and countervailing mechanisms.

a. Enabling mechanisms
   i. a sense that professional merit could finally be recognized through a fair and transparent process rather than through patronage;
   ii. increased professional self-recognition and legitimacy among managers and candidates who saw health management as a distinct profession;
   iii. expectation that competence-based advancement could open a new and more credible career pathway;
   iv. confidence among reform supporters that the legal and institutional architecture could protect the model from arbitrary interference.

b. Countervailing mechanisms
   i. anticipated political risk and fear of retaliation among potential candidates and implementers when powerful actors signaled hostility to the model;
   ii. defensive resistance among actors who stood to lose discretionary appointment power or control over management training;
   iii. declining confidence in the system when bypass appointments continued, periodic attestation remained unapproved, and the institutional roles of CHSD&MT, AHM, and training providers became contested or dysfunctional. The report's observation that even trained managers "did not dare" to take the primary attestation test is especially strong evidence of a fear-based counter-mechanism.

Outcome (O)

The pathway generated a partial and fragile outcome:

c. On the one hand, the intervention created a functioning legal and institutional architecture. It produced a visible cohort of certified and competitively selected managers: the reserve included certified candidates, appointments through the

competitive process had begun, and a new professional field in healthcare management had been established.

d. On the other hand, the mechanism did not consolidate into routine practice at scale: bypass appointments continued, many certified candidates remained unappointed, periodic attestation had not yet started, and the model's operations were described as dysfunctional and vulnerable to political interference. In the report's own institutionalization analysis, this pathway therefore remains "emerging" rather than established.

This ICAMO configuration explains why the HFA pathway is analytically important but only weakly traceable as a contribution to improved performance at the system scale: the intervention successfully created a new governance mechanism, but its intended mechanisms were only partially activated and were repeatedly counteracted by fear, political resistance, and an unfavorable balance between reform winners and losers.

Refined MER ICAMO configuration: MER pathway – professional regulation and postgraduate medical education

Intervention (I)

The MER project introduced reforms to medical education, postgraduate training, and professional regulation. Key resources included curriculum modernization, decentralization of training to regional clinical bases, strengthening of professional medical associations, support to independent competency assessment through the ICCA, and legal reforms intended to separate training, standard-setting, and independent assessment functions.

Context (C)

These reforms were introduced into a medical education system characterized by centralized control, monopoly functions, weak orientation toward workforce quality, and later policy reversals. The pathway unfolded in a context where incumbent institutions retained strong influence, the legitimacy of new actors was contested, and reform continuity was weakened by political decisions such as the reinstatement of the one-year internship and moves toward renewed monopolization of medical education.

Actors (A)

The main actors through whom this pathway operated were:

e. medical graduates and residents, especially those considering family medicine;

f. practicing doctors and nurses engaging in continuous professional development and competence certification;

g. professional medical associations involved in standards and testing;

h. educational institutions such as KSMA, OshSU, medical colleges, and KSMIRPD;

i. ICCA as the new assessment body; and

j. policymakers in the Ministry of Health and related state structures whose support or reversal shaped the institutional environment.

Mechanisms (M)

The intervention appears to have activated both **enabling** and **countervailing** mechanisms.

k. **Enabling mechanisms**

i. stronger belief that professional competence could be assessed more fairly and meaningfully than under the old system;

ii. increased motivation among some students, residents, and professionals to invest in competency upgrading because standards were clearer and linked more directly to practice;

iii. enhanced legitimacy of practice-oriented training and regional clinical placement, which made family medicine and regional employment more professionally meaningful for at least part of the target group;

iv. increased trust among reform supporters that objective standards and independent assessment could improve the quality and credibility of professional development.

l. **Countervailing mechanisms**

i. defensive resistance among institutions and actors whose monopoly, authority, or market position was threatened by the reassignment of training and assessment functions;

ii. skepticism toward “independent” bodies, especially where independence was interpreted as “private” and therefore normatively illegitimate within a public-administrative mindset;

iii. uncertainty and declining confidence among trainees and professionals when reforms were only partially institutionalized, when the one-year internship was reinstated, and when policy signals became contradictory;

iv. Weakened incentives to choose family medicine when reform continuity broke down, and the expected career logic of the new model became blurred.

Outcome (O)

The pathway generated **substantial but uneven system change**. On the positive side, curricula were modernized, regional clinical training capacity expanded, professional medical associations became more capable, and ICCA and related assessment mechanisms were created and used. Reform also contributed to stronger practice-oriented postgraduate training and initially improved regional retention and attractiveness of family medicine. However, the pathway did not consolidate fully: the reinstatement of the internship, incomplete institutionalization of postgraduate reform, and continuing contestation by incumbent institutions weakened incentives, reduced continuity, and contributed to a sharp decline in the number of residents choosing family medicine. In the report’s own logic, this helps explain why the MER pathway is analytically plausible and important, but only partially activated and not yet mature as a contribution to population-level performance.

The contribution of the MER project can be explained through an ICAMO configuration in which reforms to curricula, postgraduate training, standards, and independent competency assessment were introduced into a medical education system historically shaped by monopoly control and weak quality orientation.

- For some actors, these reforms triggered enabling mechanisms, such as greater trust in fairer competence recognition, motivation to invest in professional upgrading, and stronger legitimacy for practice-oriented training.
- At the same time, the reforms activated countervailing mechanisms among actors whose authority or monopoly position was challenged, while policy reversals and incomplete institutionalization created uncertainty among trainees and weakened incentives to choose family medicine.
- As a result, MER produced substantial system redesign and capacity that can benefit the health system in the long run, but its mechanism activation remained uneven and politically fragile, which explains the partial and delayed nature of its contribution.

Refined NCD ICAMO: NCD service-delivery pathway

This ICAMO configuration helps explain why service-delivery improvements generated observable population-level effects within a single project cycle, in contrast to governance-level interventions whose mechanisms depend on longer-term institutionalization and political alignment.

The contribution of the NCD project to improved population health can be explained through the following ICAMO configuration, which illustrates how observed outcomes emerged from the interaction of intervention resources, actors, mechanisms and context.

Intervention (I)

The NCD project introduced a package of evidence-based service-delivery interventions at the primary health-care level, including:

(i) adoption and implementation of WHO PEN protocols;

(ii) repeated training of family doctors and family nurses;

(iii) establishment of quality committees and peer-review groups; and

(iv) digital tools supporting clinical decision-making and referrals.

Context (C)

These interventions were implemented in a primary health-care system characterized by high workload, workforce shortages and a historically weak quality-improvement culture, but operating within a policy environment where the Ministry of Health had explicitly prioritized strengthening PHC and NCD control and where few other large-scale NCD service-delivery interventions were in place.

Actors (A)

The primary actors through whom the interventions operated were family doctors, family nurses and PHC facility teams responsible for the detection, management and follow-up of NCD patients.

Mechanisms (M)

The intervention activated several reinforcing mechanisms among these actors, including:

a. increased clinical confidence and clarity regarding appropriate case management;
b. enhanced professional legitimacy of standardized protocols endorsed at the national level;

c. increased perceived feasibility of delivering quality NCD care within routine workload constraints; and

d. peer-based accountability created through quality committees and peer-review discussions.

Outcomes (O)

As a result of these mechanisms, PHC facilities demonstrated improved performance in the management of NCDs, reflected in increased detection of hypertension, diabetes, and selected cancers; improved adherence to evidence-based clinical practices; higher patient satisfaction; and reduced unnecessary hospitalizations, contributing plausibly to the observed reductions in premature NCD-related mortality.

Taken together, these ICAMO configurations refine the initial program theory based on each project's individual TOC. The initial program theory assumed that system-level reforms—such as competency-based selection of managers and modernization of medical education—would trigger merit-based behavior, improved professional competence, and ultimately better performance of health services.

The analysis shows that these mechanisms are not automatically activated. Their activation depends on political, institutional, and organizational context, and is frequently shaped by competing interests and power relations. In particular, system-changing interventions tend to activate both enabling and countervailing mechanisms, resulting in partial, delayed, or fragile outcomes rather than linear effects.

This helps explain the divergence observed across the portfolio: while service-delivery and behavior-change pathways (e.g. under the NCD project) generated faster and more observable effects, governance and professional regulation pathways (HFA and MER) require longer time horizons and stronger institutionalization to consolidate their impact. In realist terms, these pathways are characterized by conditional and uneven mechanism activation, where outcomes depend on whether enabling mechanisms are sustained and countervailing mechanisms are mitigated over time.

4.3 Institutionalization

4.3.1 Maturity assessment

We assessed the institutionalization maturity across six dimensions and got the following results (see Figure 5-54 below). As explained in the methodology section, the assessment of each defined dimension in the framework draws on this evaluation's quantitative and qualitative data, and the ultimate scoring is based on the evaluator's judgement.

- Out of 5 outcomes (direct results of the bilateral programs), only two received an average score of "Established" (>=2)
- Two outcomes: one related to the appointment of a competent health facility manager and another about behavior risk reduction (OUTC-2:2) received the lowest score (1.0)

What is the rationale behind assigned scores?

"OUTC-1.1: Competent professionals are appointed to manage health organizations"

Low scores for "OUTC-1.1: Competent professionals are appointed to manage health organizations" reflect the model's dysfunctional current state and unclear prospects.

"Integrated into legislation (making it mandatory to respect / follow)": we did not give the highest score 3, despite the existence of related norms in the law, governmental resolutions and ministerial orders (which survived severe attacks from the political leadership) because:

1. The "flaw" in the order 188 (article 19) that allows certified education organizations to develop healthcare management programs, retrain managers and add to the reserve, bypassing primary attestation tests
2. The regulation to initiate periodic attestation has not been approved (and it is unclear whether it will get approval)
3. The draft order (from the Ministry of Health) is under review, temporarily suspending certain important provisions of the competency-based selection model.

"Adequate financing secured" – we scored it "emerging" (1) because the existing financing of key components/functions of the model is unclear and does not seem to be adequate for operation. Furthermore, questions surrounding AHM funding (AHM withholding a small amount of admin overhead from the tuition fees received from the trainees and paying teachers directly) are a source of controversy, allowing opponents to allege corruption without any basis. While distancing from payments for training (asking trainees to pay higher education institutions directly), AHM can rely fully on consultancy/service fees and membership fees (and grants).

"Strong recognition and support from key stakeholders" – we score it "0" despite its popularity among different stakeholders; the actors who value this innovation do seem to have enough power to protect the model from external pressure. On the contrary, opponents have more power, and their interests override the model, replacing it with a different version. In other words, the power balance is not in favor of supporters.

OUTC-2.2: NCD-related risk behavior reduces

We did not expect that these outcomes would receive such a low maturity score.

"Integration into national policies (strategies, health programs)" – although health promotion is mentioned often in different national plans/strategies, it does not specify (behavior change) targets, means for achievement them, and responsibilities of key actors. That's why score "1" (Emerging) was assigned.

"Strong recognition and support from key stakeholders" – again, despite verbal support or recognition of the importance, the stakeholders have demonstrated power or willingness to minimize the influence of market actors on unhealthy consumption (sugar, trans fats).

"Capacity / resource requirements are met" – as of now, the main actor in changing behavior risks are medical staff and their interaction with patients and their families. However, it is unclear whether they will continue promoting a healthy lifestyle after the NCD project ends. However, improvement in behavioral risks in northern regions after the project relocated to the south instills optimism.

"Captured by HMIS and is tracked with KPI (through HSPA)" – the performance of PHC facilities, be it family medicine times or health promotion units, in reducing behavior risks or implementing other preventive measures in not captured by the existing information platforms. In other words, the performance of HPUs remains invisible to the system and is not included in the quality measurements.

What are the prognosis and implications?

5 out of 7 results contributing to health improvement were scored as "Emerging"; the low maturity level suggests that the contribution of the bilateral programs won't last long, or that the effect of the "causal pathways" on population health will fade.

Can the prognosis be improved? Theoretically, yes – by completing some minor unfinished job and fixing problems. It might require high-level advocacy and the mobilization of support from diverse stakeholder groups. We delve deeper into this issue in the next section (before arriving at concussions and, presumably, formulating remedial actions).

4.3.2 Deep dive into the institutionalization of contributions

Understanding of the maturity of institutionalization of contributions could further benefit from tailoring the interpretation of the results to the nature of contributions (and contributing interventions).

Health reform interventions do not always entail changing health system components. They can strive for the existing actor to do their job better, without revising their role or its interconnections with other actors in the health system. For the sake of simplicity, we can call this type of intervention "system strengthening" through investment in physical and human resources (infrastructure, equipment, technology, business process organization, skills and knowledge). These interventions might also entail micro changes at the organizational/actor level, but they are "invisible" to outsiders and do not affect existing power verticals or accountability lines.

Another group of interventions cannot be implemented without redistribution of power between key actors, as long as they modify the foundational structures of the health systems: roles, rules and interaction between actors (including data and financial flows) without focusing on programmatic or service level improvements. Let's call them "system changers".

Figure 3-2: Review of the contributions by the nature/type and characteristics

Contribution	OUTC-1.1 Competent professionals are appointed to manage the health organization	OUTC-1.2 Competences of doctors and nurses increase	OUTC-2.1 VHCs are active		OUTC-2.2 NCD-related risk behavior reduced	OUTC-1.2 The evidence-based clinical practice for the management of NCD was introduced.
Institutionalization Maturity	Emerging (1.00)	Emerging (1.75)	Established (2.33)		Emerging (1.00)	Established (2.25)
Intervention	HFA	MER	CAH	NCD	NCD	NCD
Type	System changing			System strengthening		
Health system component	Service delivery + governance	Resource generation (HWF)	Gover-nance	Service delivery	Service delivery	Service delivery
Main type of interventions	System redesign	System redesign	Empow-erment	Engage-ment	Capacity strengthening	Capacity strengthening
Changes in the system	New functions New actors & New rules	New actors New rules	New actors		No system-level changes	No system-level changes

						New entities or actors within medical facilities
Pace of changes	Relatively slow	Very slow	Fast	Fast	Relatively fast	Fast
Power landscape / struggle	Challenging the exclusive authority of the Minister	Ending the monopoly on re-training and CPD	No power struggle	Comple-mentary	No power struggle	No power struggle
Winners (+) vs Looser (-)	**+ / - - -**	**++ / - -**	**+++**	**+++ / -**	**++**	**+++**

We tried to connect the typology of Swiss-funded interventions to the contributions in the theory of change for contribution analysis and their institutionalization maturity (the two top rows in Figure 3-2 above) to compare the role the selected outcomes play in contributing to the impact, and most importantly, to determine whether intervention characteristics can explain the maturity of institutionalized contributions.

When an actor does not serve its purpose properly, and population health (related to NCDs) suffers, any set of interventions that improve its operation at an adequate scale (across all actors, not just those in a pilot) can leave a notable footprint on health. This is exactly what the NCD project interventions did (and did well) – in several years, they succeeded in changing how frontline health professionals perform, the ones who are critical to preventing, detecting and treating NCDs. That's the merit of true "system strengthening" interviews at the service delivery level (that went beyond traditional boundaries of facility-based services and engaged local communities): enormous volume of work with professionals (transferring new skills, knowledge, and confidence), streamlining operations, helping the deployment of modern electronic ambulatory cards and introducing many useful innovations. The results (at the population level – a reduction in premature mortality from cardiovascular disease) were not long in coming.

However, if we are interested in the projects not only to keep contributing to the impact but to intensify those contributions, we need structural changes in the system: better-managed PHC facilities (at least) and more component health care workers (family doctors and nurses in particular). And that's where "system changing" interventions are irreplaceable. Yes, the changes take longer, especially when we count contributions by the number of new health facility managers selected through competency-based competitive mechanisms, and the new generation of family doctors certified by independent agents after completing postgraduate education.

- It takes at least 5 years for the system changes brought by MER to improve practicing physicians' knowledge for better management of NCDS, and at least 15-20 years to train the next generation of family doctors and nurses.
- A new generation of health facility managers can completely change the landscape in 10 years if the authorities introduce the missing (pending approval) component (periodical attestation) and the President's initiative to promote health facility autonomy does not get lost in competing priorities.

In other words, the Swiss projects with "system changing" interventions created capacity that can benefit the country in the long run by continuing to reduce premature mortality and the burden from

NCDs, if the system changes these interventions (i.e., their contributions) bring about are sufficiently institutionalized.

And that's where we are coming to the main findings regarding institutionalization of the contributions entailing the system changes:

- When an intervention changes system elements (by bringing in a new actor, reassigning roles/functions, or altering how actors interact), it is a painful process and takes time for the system to restore balance (irrespective of how prudently these changes are designed and implemented). Getting through this phase successfully (changes → balance) depends on mobilizing support or at least understanding the benefits of these changes. It also depends on who the winners and losers are, whose voice is stronger, and who is more influential and can resist changes (and even roll back).
    a. Introduction of new actors through CAH project – village health committees, changed the health system (in its the service delivery component), but it was relatively most safe "surgery" when the appearance of new actor – empowered community groups striving for better health of their constituencies, was accepted by the system (presumably, because of the clear need in such an actor and function). This system change turned out to be the best embed, and time proved not only its resilience, but high recognition and usefulness – there it was natural that another "system strengthening" intervention – NCD project engaged them as irreplaceable actors in the NCD management (be it behavior change or detection). As a result, this is the only contribution born of system change to receive a high ranking in institutionalization maturity.
    b. HFA was on the other end of the "surgery complexity curve" – it implanted a new subsystem into the traditional paradigm of public administration (the legacy of the Soviet). It was hard to imagine a surprise: a new minister discovering that they are not allowed to appoint whomever they want as head of health organizations, and that candidates should be selected from a pool of competent health care managers through a well-structured competency assessment process. The governance system responded with a "barrage of fire", but another surprise awaited the Ministry leadership —the new sub-system withstood the attack and held firm. The survival came at a high cost – the new mechanisms have not recovered yet. *Then why was the HFA project's contribution to institutional maturity scored so low*? We will answer this question in the next bullet point, where we discuss the importance of two more characteristics: "Power landscape / struggle" and "Winners (+) vs Losers (-)".
- The MER project was relatively modest in its changes to the system: it did not implement a new subsystem but reassigned existing functions to new actors (such as PMA and ICCA, or peer review groups at PHC facilities). And it had its downside: the project broke the monopoly and took key responsibilities away from the sole player (KSMIRPD) that had held them for a long time. It was painful indeed, and difficult to digest for the establishment, for whom "independent" means "private," because it does not follow the commands of public administration/authorities but operates under its mandate. The system's resistance (medical education at the PGME and CME) was high, it tried to counterattack. It was understandable: "nothing personal just business." "Resurrection" of the internship is the best illustration.

However, the medical education system seems to be reaching a new equilibrium, despite resistance to new approaches in certain circles.

a. Power struggle, consequences or side effects of changing the existing order, is inevitable and known by scientists and practitioners. There are no good or bad guys; it is how "system-changing" interventions are implemented. It is hard to assess which was more difficult: to handle a "furious Minister" denied the use of discrete power, or for a higher medical education institute to lose its monopoly or business. Where the project ready for that? More yes than no, but it could have been prepared better.

b. The *proportion of winners to losers*, or the balance of influence they have either to safeguard or to avenge against innovations – this is the last, but not least, characteristic in our list. When CAH gave birth to VHC, they were no losers, only winners; later, some losers appeared (for instance, staff of the Health Promotion Units at PHC centers who did not want to do their jobs but VHC "disturbed" them). MER project produced losers: people who lost power (and influence, "weight in the societal circles"), or health professionals with poor knowledge, unable to meet new requirements. And there were winners: well-trained professionals finally excited by being noticed through objective testing, specialists spending more time in clinical practice, and higher medical institutions like KSMA receiving international recognition and becoming key players in overseeing higher medical education quality. We cannot compare the influence of winners and losers in measurement units. But their influence seems to be on par. The situation looks different in the case of *HFA*:

    i. HFA project cultivated a few but powerful "losers" of the system change: those who used to select and appoint candidates without a transparent, fair selection process and who enjoyed a monopoly over professional development (such as preparing health care managers). The project has winners – a new cohort of health care managers and their association, higher education institutions certified to teach a "health care management" retraining program. They could be more than two hundred, but all together are much weaker than their opponents. Therefore, the threat to institutionalization (and the low maturity score) results from the opponent's superiority. Changes in the Ministry leadership can change the equation in favor of "system change supporters," but this (a) is unpredictable and (b) does not guarantee that the supporters seize the opportunity properly (as it happened in 2025).

    ii. The HFA project seems to be the most ambitious in terms of "system change complexity," but at the same time underestimated the consequences of an unfavorable ratio of winners to losers and, after overlooking some minor flows in the business model, made it easier for opponents to prevent the mechanism from functioning properly.

    iii. Furthermore, both HFA and MER projects closed down any theoretical possibility of corruption related to granting credentials to health care managers, appointing them to administrative positions, or testing and confirming the competencies of health workers after residency or upon completing each continuous education cycle. Two independent bodies, Independent Competency Certification Agency in particular,

protected from administrative pressure and any form of favoritism, set a new precedent for a fair (merit-based) and transparent mechanism for career development.

iv. Finally, the II phase of the project ended in July 2023; there was no exit phase III, and the team may had no opportunity to provide supportive supervision to the newly established mechanism: (a) by helping them restore its operation after passing "survival test", (b) updating the business model/legal framework to increase its resilience, (c) mobilizing more supporters among powerful actors (including the parliament and other ministries who started copying this model).

Conclusions

1. The evidence supports a plausible contribution of the Swiss-funded health projects to the observed improvement of population health, measured in the reduction in premature mortality between the ages of 30 and 70 due to cardiovascular disease (CVD). This conclusion rests of the project's monitoring data compiled from national statistics.

2. Alternative explanations examined do not appear sufficient to account for the observed change, although the Swiss-funded projects were not the only contributors. The analysis found that economic growth, poverty reduction, financial protection or social change were not sufficient to explain the decline in premature mortality. Government policy initiatives — the inclusion of NCD medicines in reimbursed drug packages, tobacco and alcohol regulation — and other donor programmes contributed alongside the Swiss projects.

3. The projects succeeded at two distinct levels, with different consequences. System strengthening at service-delivery level — nationwide evidence-based clinical practice for NCD management, reduced behavioral risk, and Village Health Committee engagement in prevention and early detection — produced observable results within a single project cycle. System-level change in medical education and health facility management — new actors, reassigned functions for standard-setting and certification, and a new competency-based appointment mechanism — created capacity whose effects are slower to appear.

4. These two levels contributed differently. Service-delivery change improved detection and management of NCDs, plausibly reducing complications and, through them, mortality. System-level change has not yet produced measurable improvement; it creates the conditions for scaling and intensifying the contribution, through better-qualified family doctors and nurses and a growing share of facilities led by competent managers.

5. Several factors constrained the potential contribution to population health. These included weaknesses in inpatient management of CVD complications especially at the district level; limited flexibility at health facilities to introduce financial and non-financial performance incentives and increase base salaries to attract qualified medical staff; and incomplete or inconsistent government regulation of salt, sugar, trans fats and alcohol.

6. Durability differs sharply between the two levels. The evaluation estimates that service delivery contributions could persist for 10-15 years. System-level contributions are at risk: five of seven assessed results scored only "emerging" on institutionalization. The chances of revitalizing the competency-based selection model for health facility managers are low without high-level advocacy and broader public support. The postgraduate and continuing medical education reforms appear to have stabilized, but the prospects for scaling and institutionalizing nursing-related interventions remain unclear.

7. How and why the interventions produced results. The realist analysis indicates that interventions produced outcomes by activating mechanisms among actors rather than through direct causal effect: shift in professional confidence, perceived legitimacy, motivation, and expectation, rather than technical solutions alone. Service delivery interventions appear to have triggered enabling mechanisms consistently, while governance and system-level reforms proved more sensitive to political and institutional context, activating counterbalancing mechanisms such as resistance,

uncertainty, and the protection of institutional interests alongside the intended mechanisms. This helps explain why outcomes are partial and uneven across pathways and why institutionalization, rather than initial results, determine whether effects last. These mechanisms and configurations are the evaluation team's interpretation, inferred retrospectively from qualitative evidence and documented results rather than directly observed.

8. Implication for future programming. Sustained impact from system-changing interventions requires more than sound technical design. It requires alignment with political incentives, institutional roles and stakeholder interests, so that enabling mechanisms are reinforced and counterbalancing dynamics are anticipated and managed during the life of the project and beyond.

Annexes

4.4 Observations

4.4.1 Desk review

4.4.2 Health policy

*We selected observations that provide the context needed to assess **institutional maturity**. It shows the dynamics of system changes and the government's priorities relevant to the subject of contribution analysis and the institutionalization maturity of contributions. We shared the observations on the national policy on the prevention of non-communicable diseases (NCDs) in the sub-section Primary prevention of non-communicable diseases, "Primary prevention of non-communicable diseases" (below)*

01 The Government of Kyrgyzstan initiated health reforms in the early 90s with the support of development partners and donors (2); the reforms have covered all areas of the health system. Despite remarkable progress in the transformation from the "*central command and administration to a system based on cooperation, clear division of functions, …result-oriented management methods*", the recent health system review identified several challenges, such as:

.1 "Financing still relies to a large extent on out-of-pocket payments

.2 There are geographical imbalances in health workers, and family doctors are lacking

.3 There is a continued focus on specialized care

.4 Access to health services remains a challenge." (3)

"Despite major efforts to ensure equitable access to health services, there are still marked disparities in provision between rural and urban areas, and barriers linked to out-of-pocket payments and gaps in mandatory health insurance coverage."
Source: (3)

02 The Government's health strategy for 2020-2030 "Healthy person – prosperous country", defined the following expected result (among 11 "main expected results): "Reduced premature mortality of non-communicable diseases by one third (cardiovascular diseases, neoplasms, Diabetes, chronic obstructive lung diseases) through prevention and treatment and maintaining mental health and wellbeing." (2)

03 The president approved (by Executive Order #314 dated 17 November 2025) the National Program "Healthy Heart" 2025-2030 (4).

.1 The Program intends to reduce the NCD-related mortality by 25% by 20230 and increase arterial hypertension control in the population by 20% (5)

.2 The Program includes four strategies, out of which:

- The strategy #1 on the risk stratification and integrated prevention of CVDs and NCDs considers village health committees as the target group, along with the family doctors and nurses
- The strategy #3 on increasing access and quality of care aims at establishing high-technology cardiovascular centers (cat labs) at the regional and district levels to reduce acute myocardial infarction-related fatality through invasive procedures (including stenting and thrombolytic therapy)

4.4.3 Population health

The observation below provides the context of population health in Kyrgyzstan and neighboring countries. These observations are important for the contribution analysis because they allow us to check whether the claimed (a) the evidence from alternative credible sources supports improvements in health, and (b) changes in contributions (such as behavioral risks).

04 According to the United Nations Development Program's (UNDP) Human Development Reports, life expectancy at birth in Kyrgyzstan increased by 6.36 years from 65.32 years (in 2006) to 71.68 years (in 2023) (see Figure 5-12 below). The World Bank provides slightly different figures (see Figure 5-13 below); however, trends are similar:

.1 The highest life expectancy in the region was observed in Kazakhstan (74.4), and the lowest in Turkmenistan (70.07) in 2023

.2 The upward trends and fluctuations in life expectancy at birth in Kyrgyzstan follow the sub-regional pattern (according to UNDP estimates).

05 According to official statistics (6), life expectancy at defined ages increased slightly in 2024 compared to 2015, from 32.8 years in Females and 26.5 years in males at age 45 to 33.8 and 26.6, respectively (as shown in Figure 5-2 below).

06 NCD-related mortality reduced by a quarter in the last decade, or by 90.8 deaths (per 100,000 population), according to the official health statistics (see Figure 2-1 below):

.1 Cardiovascular disease (CVD) related mortality reduced by 74.8 (deaths per 100,000 population), or by 24% (twice as neoplasm and three times as diabetes).

.2 The largest decline in mortality was observed in chronic respiratory diseases (CRD), by 9 deaths per 100,000 population, or - 42% compared to 2014 and 68% compared to 2007.

.3 Nevertheless, cardiovascular diseases remain the leading cause of mortality, accounting for 52% of all cases of death in 2024 (up from 38% in 1990) (6)

Figure 2-1: Mortality rates (per 100,000 population) caused by NCD diseases in Kyrgyzstan

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
All NCDs	400.1	386.4	369.8	362.6	354.9	353.7	408.5	377.9	306.0	309.3
Cardiovascular diseases (CVD)	307.0	297.0	279.7	276.0	265.7	266.2	317.7	297.1	234.5	232.7
Neoplasm	64.3	64.5	64.4	62.2	65.6	64.1	63.8	59.5	54.7	57.3
Diabetes	7.2	6.0	6.7	6.8	7.3	7.0	9.8	7.1	6.2	6.7
Chronic respiratory diseases (CRD)	21.6	18.9	19.0	17.6	16.3	16.4	17.2	14.2	10.6	12.6

Source: (7)

07 According to the Institute for Health Metrics and Evaluation (IHME), the burden of diseases (measured in Disability Adjusted Life Years (DALYs)) related to CVD and CRD reduced in Kyrgyzstan from the highest 8712 and 1609 (respectively) per 100 000 population in 1994 to 5,408 and 1,355 in 2023 (as shown in Figure 5-3 below). More details can be found in Figure 5-47 and Figure 5-48 on below.

08 According to the World Development Indicators (8), the reduction in premature mortality in Kyrgyzstan followed the dynamics in the region of Europe and Central Asia until 2020, but dropped to 18.8 (both sexes) against regional averages of 20.2 and 20.8 in 2021 (see Figure 5-14 below).

.1 The difference was more noticeable among males between Kyrgyzstan and countries in the region in the same income group (as per the World Bank grouping into TEC – "Europe & Central Asia (IDA & IBRD countries)" – 25.0 to 28.1, respectively (see Figure 5-15 below).

.2In the richest country in Central Asia, Kazakhstan, premature mortality from NCDs (both sexes) decreased from 38.2% in 2001 to 20.8% in 2021, remaining higher than in Kyrgyzstan (18.8%).

09The STEPS (STEPwise approach to NCD risk factor surveillance) study was conducted in 2013 (9) and 2023 in Kyrgyzstan.

.1According to the preliminary findings of the latest study (10),

- The share of the population aged 18-69 with high arterial pressure (AP) (i.e., prevalence of arterial hypertension (HTN)) was 32.3% (34.6% among men and 29.8% among women), lower than 10 years ago (42.9% both sexes, 42.7% among men and 43% among women)
- 51.9% of the population aged 40-69 had high AP (51% among men and 53% among women) in 2023

.217.1% of the population aged 18-69 (30.% among men and 2.7% among women) smoked, down from 25.7% in 2013 (48.2% among men and 2.7% among women). Smokers constituted 20.6% of the population aged 40-69 (36.7% among men and 3.3% among women) in 2023.

.3The share of the population who consumed alcohol in the last 30 days declined from 31.4% in 2013 to 11.5% in 2023

.4Consumption of fruits and vegetables did not change over the decade: on average, 74% in 2013 and 75.9% consumed fewer than 5 portions per day.

.5The share of the population who always or often add salt to the food increased slightly from 18% in 2013 to 20.8% in 2023 (both sexes, all age groups)

.668.3% did not report engaging in physical activity in 2023, down from 88.46% in 2013.

4.4.4 Primary prevention of non-communicable diseases

We dedicated this section to the area of prevention the NCD project contributed the most: observations on the behavior change will serve as a means for verification of project results; another set of observations below provides important context of the national policy related to NCDs' primary prevention (to be used during the analysis of the alternative explanations of the impact)

10 Tobacco control:

.1The country introduced the law (#121) “On protecting the health of citizens of the Kyrgyz Republic from the consequences of tobacco consumption, nicotine and exposure to second-hand tobacco smoke and aerosol” in 2021 to implement the provisions of the WHO Framework Convention on Tobacco Control (11). The law stipulated

- The creation of smoke-free public places & workplaces, including public transport and taxis (airport smoking rooms only)
- Complete ban on tobacco advertising, promotion, and sponsorship, including display bans at points of sale.
- Ban on sales to minors and on impersonal sales (vending machines)
- The introduction of pictorial health warnings covering 65% of packaging for all tobacco and nicotine products.
- Ban on misleading claims and restrictions on novel products (ENDS, HTP, nasvay (12) and hookah (13)).

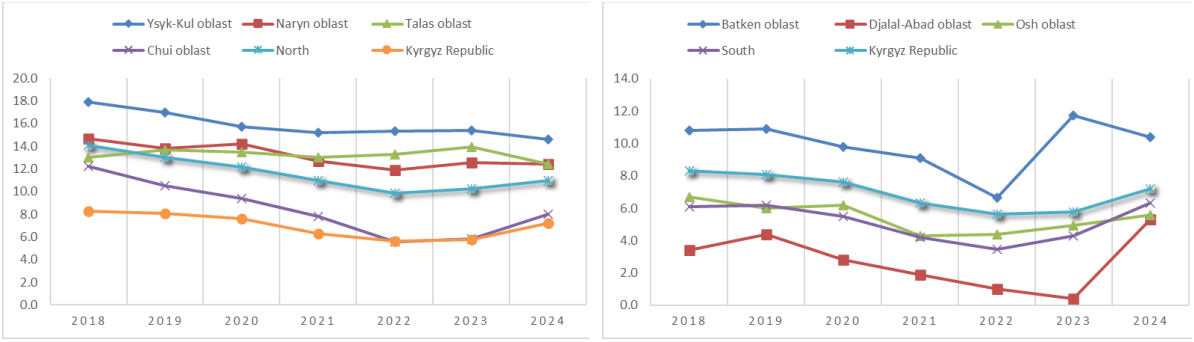
.2The Law was amended in 2024 (#186) to prohibit the importation, circulation, and use of electronic cigarettes nationwide and introduce fines for the use and illegal sale of e-cigarettes

.3According to the National Statistical Committee, tobacco use reduced by 13% on average compared to 2018 (or by 1.1 percentage points from 8.3% in 2018 to 7.1% in 2024)

- It was lowest in 2021-2023 (as low as 5.7% in 2022)

- Smoking was less popular in southern oblasts (6.1%) than in the north (14.1%) in 2018; it remained at the same level (6.2%) in 2014, while it reduced in the north to 11% in 2024 (see Figure 2-2 below)

Figure 2-2: SDG Indicator 3.a.1 "Age-standardized prevalence of current tobacco use among persons aged 15 years and older" (by north and south regions, both genders)



Source: (14), aggregated/grouped by northern and southern regions by the evaluation team

11 Alcohol control:

.1 "The Ministry of Economy and Commerce has initiated a draft resolution of the Cabinet of Ministers to amend tax legislation. The document provides for a gradual increase in excise tax rates on alcoholic beverages from 2026 to 2029, as well as the abolition of excise tax exemptions and mandatory labeling for children's sugar-containing beverages." (15)

.2 According to the National Statistical Committee, alcohol dependency has decreased 6 times since 2010 to 9.5 new cases detected per 100,000 population (16). As shown in Figure 5-42 (below)

- Alcohol dependence was highest in the northern regions (164.9 in Bishkek, 60.6 in Chui, and 43 in Talas oblasts) and remains high compared to other regions; the only exception is Issyk-Kul oblast, where dependence was relatively low (19 in 2010) and reduced 52 times to 0.4 in 2024.
- Alcohol dependency remains the lowest in the south (ranging from 4.0 in Jalal-Abad to 12.2 in Osh oblast).

12 Sugar control: "The current excise tax rate in 2025 is set for waters, including mineral and carbonated waters containing added sugar or other sweetening or flavoring substances, at three Soms per liter; … and for energy soft drinks at six Soms per liter." (17)

13 Salt control:

.1 The Department of State Sanitary and Epidemiological Surveillance and the WHO Representative Office in Kyrgyzstan, in cooperation, launched an information campaign, «Let's shake the salting habit», in 2023, aiming to raise awareness of the risks of excessive salt consumption and encourage healthier lifestyles. (18)

.2 Kyrgyzstan does not yet have a national mandatory salt-reduction regulation (e.g., sodium limits for processed foods; the review conducted 9 years ago (19) stated that "No specific policy measures are in place to reduce salt intake in Kyrgyzstan. Most initiatives on salt have focused on iodine deficiency and salt iodization, without real effort to balance salt reduction with concurrent iodine supplementation."

14 There is no information on restrictions for using Trans Fats/Fatty Acids, nor the recent official data on the status of obesity and weight control interventions.

4.4.5 Social and economic context

The primary reason for collecting these observations was to gain insight into factors (of different natures) that could have influenced the effectiveness of contributions, even explain NCD-related health improvements, or determine the likelihood of survival of these contributions. Regional comparisons are also helpful in understanding the role of the social and economic context in mortality reduction.

15 Kazakhstan and Turkmenistan demonstrated the highest economic growth in the region when measured by gross domestic product (GDP) per capita (as shown in Figure 5-10 below):

.1 GDP per capita in Kazakhstan was 14,155 USD per capita in 2024, up from 1,422 in 2001 (a ten-fold increase over 25 years)

.2 GDP per capita in Kyrgyzstan increased 8 times in the same period, from 308 USD to 2,420, positioning the country by income between Uzbekistan (3,162 USD) and above Tajikistan (1,341 USD)

16 Human Development Index increased from 0.65 in 2005 to 0.72 in 2023 (see Figure 5-11 below):

.1 Kyrgyzstan ranked 117 in 2023 among 195 countries, lagging after Turkmenistan (95) and Uzbekistan (107) (20)

.2 The largest increase was observed in Turkmenistan (0.11 points) and Uzbekistan (0.102 points), 0.04 and 0.02 points higher than Kyrgyzstan (despite a significant difference in GDP).

17 The share of the population at or below the national poverty line was 25.7% in 2024, down from 39.9% in 2006 (8). It was higher than in Tajikistan (19.8%, down from 53.1% in 2007) and Uzbekistan (8.9%, down from 25.8% in 2005), as shown in Figure 5-21 below.

.1 2.7% of the population consumed less than $3 a day (2021 PPP) in 2023 (on par with Uzbekistan), down from 36.6% in 2005 (see Figure 5-22 below).

.2 Almost three-quarters of the population consumed less than $8.3 a day (2011 PPP) in 2023, much higher than in Uzbekistan (20.7%) or Tajikistan (20.7), as shown in Figure 5-25 (below)

18 According to the Global Health Expenditure Database (GHED), the current health expenditure per capita increased 8-fold from 12 USD in 2000 to 97 in 2023 in Kyrgyzstan, on par with Tajikistan (see Figure 5-26 below). Despite the observed growth in absolute terms, the share of healthcare in the economy dropped from the highest value 8.5% in 2012 to 4.5% in 2023 (see Figure 5-27 below).

.1 The government spending has accounted for half of the current health expenditure (higher than other countries in the sub-region, except Kazakhstan) (see Figure 5-28 below) while allocating less than 8% of the state budget to healthcare (see Figure 5-29 below), down from 14.5% in 2006.

.2 According to the World Bank estimates (8), 9.6% of the population faced financial hardship due to out-of-pocket health expenditures in 2022 (in other words, spent more than 40% of household discretionary budget on out-of-pocket health expenditure), three times less than in Tajikistan in 2019 (see Figure 5-23 below).

- 7.3% of the population faced impoverishment in 2023[30]
- Less than 1% of the population was pushed into poverty by OOP health expenditure in 2023 (see Figure 5-24 below).

30 "Impoverishment" is defined by the World Bank as follows: "Proportion of population spending more than 100% of household discretionary budget on out-of-pocket health expenditure (%). This includes people living in poverty who are further impoverished due to out-of-pocket health expenditure, as well as people who are pushed into poverty by out-of-pocket health expenditure".

.3Primary health expenditures per capita remained below 50 USD in 2016-2019, but constituted more than 55% of the current health expenditures (see Figure 5-51 below)

4.4.6 Results reported by the Swiss-funded health projects

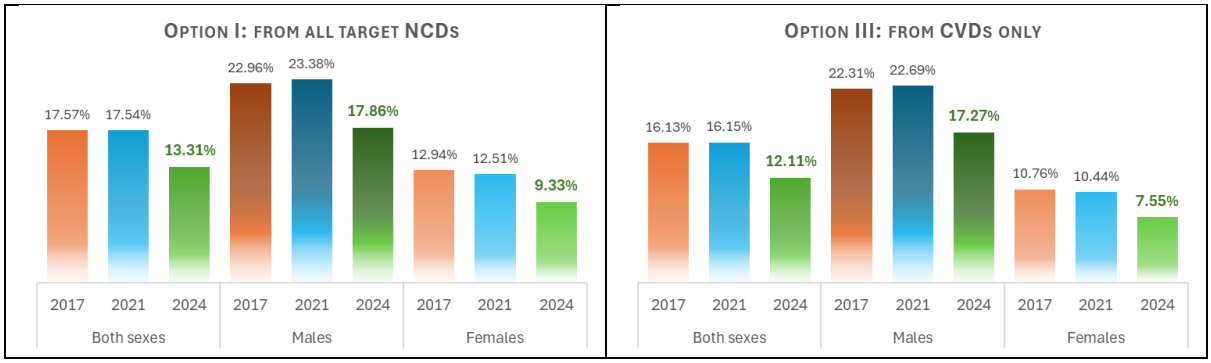
In this section, we present observations mainly related to the NCD project for two reasons:

Reason 1: As explained in the introduction section, this evaluation is neither about assessing the performance of each bilateral project (following the DAC criteria of "effectiveness" or "relevance") nor the reasons behind achievements or failures. Nevertheless, we will overview the results of the MER and HFA projects from the standpoint of changing the health system (the interrelation of its key components) in areas of human resources for health and service delivery (without following the M&E metrics). These observations are important from a standpoint of institutionalization maturity assessment.

Reason 2: We focus on the NCD project results because they are directly accountable for the impact and main contributions. Besides, its 2nd phase has not been assessed (pending the availability of medical statistics for 2025, not earlier than May 2026), and we tried to look beyond M&E metrics. Deeper insight into premature mortality from NCDs by phases (regional clusters) helps to visualize the contribution and explain the observed impact.

19According to the NCD project reports (unpublished), the premature mortality (probability of dying between ages 30 and 70) from NCDs (namely, cardiovascular diseases (CVD), diabetes mellitus (DM), chronic kidney disease caused by diabetes, breast cancer and cervical cancer), reduced more than planned:

Figure 2-3: Premature mortality: probability of dying from selected NCDs between ages 30 and 70 in Kyrgyzstan, by gender



Source: Special M&E report prepared by the NCD project team for the evaluation

.1In phase I, in four target northern regions, it reduced (see Figure 2-4 below)

- All the **above-mentioned causes**, from 18.89% in 2017 to 17.56% in 2021, while *it increased in the control region (Jalalabad)* from 18.86% to 20.93% during the same period. After three years, the situation improved remarkably - the premature mortality dropped to 14.62%

Figure 2-4: Probability of dying (in %) between ages 30 and 70 from NCDs (phase 1)

	All causes (option I)			CVD Only (Option III)		
	2017	2021	2024	2017	2021	2024
Kyrgyzstan	17.57	17.54		16.13	16.15	
All target	**18.89**	**18.52**	**14.62**	**17.56**	**17.31**	**13.40**
Issyk-Kul	18.40	↓ 16.82	↓ 14.26	16.94	↓ 15.62	↓ 12.83
Naryn	17.63	↑ 19.15	↓ 14.61	16.33	↑ 17,28	↓ 13.44
Talas	19.25	↑ 20.85	↓ 16.00	18.38	↑ 19,68	↓ 14.75
Chui	19.33	↓ 18.62	↓ 14.62	18.01	↓ 17,57	↓ 13.36
Jalalabad	18.86	↑ 20.93	15.2%	17.02	↑ 18.74	

Source: Compiled from the reports/unpublished documents provided by the NCD project team

- **CVDs only**, from 17.56% in 2017 to 17.31% in 2021, while it increased in the control region from 17.02% to 18.74%
- Chui and Issyk-Kul accounted for the observed reduction, which was offset by the increase in two other regions (still not as steep as in Jalalabad)

.2In phase II, in three southern regions and the cities of Bishkek and Osh, it was reduced from

- **All abovementioned causes**, from 16.97% in 2021 to 12.71% in 2024 (below the target of 15.95%)
- **CVDs only**, from 15.49% in 2021 to 11.47% in 2024 (below the target of 14.56%), with the largest reduction in Jalalabad oblast and the city of Osh (by 28%)

.3It is worth noting that premature mortality:

- continued to decline in the northern regions after the project moved to a different cluster (down to 14.26% from all NCDs and 12.83% from CVDs only)
- Reduced in Jalalabad once the project moved to the south (to 15.2% from all NCDs, down from 20.93% in 2021).

20The project achieved remarkable results in reducing behavioral risk factors in northern (see Figure 5-18 below) and southern regions (see Figure 5-20 below):

.1Smoking: The share of the smoking population dropped to 19.8% in the northern regions and 11.5% in the southern regions (against the target values of 20.7% and 13.4%, respectively)

.2Alcohol consumption (measured as a % of the population drinking alcohol in the past 30 days) dropped below the target (21% in the northern regions and 9.7%) to 15.6% and 11.5% (respectively) for both sexes

.3Healthy diet:

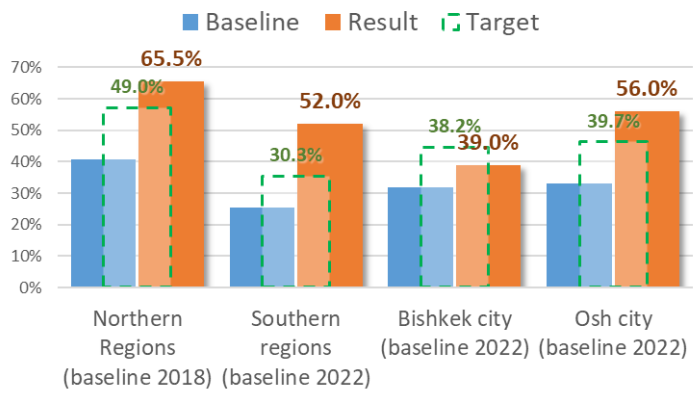
- The share of the population not eating vegetables regularly reduced significantly to 37% in the northern regions (against the target of 63.1%) and 16.4% in the southern regions (against the target of 47.6%)
- The share of the population consuming salty food reduced to 65.3% in the northern regions (against the target of 74.6%) and 73.7% in the southern regions (against the target of 76.5%)
- Daily consumption of animal fat was reported by 7.9% of the population in the southern regions (far below the target of 31.2%), while it remained at the level of 3.3% in the northern regions (below the target of 3.6%)

.4Physical activity: the share of the population who walk less than 30 minutes per day halved in the northern regions to 28.2% (far below the target of 56.8%) and reduced to 43.3% in the southern regions (below the target of 76.3%)

21 The share of men visiting family doctors increased in both regions (see Figure 2-5 below):

- It doubled in northern regions, reaching 52% in 2025

Figure 2-5: Utilization of family doctor services by men by regions

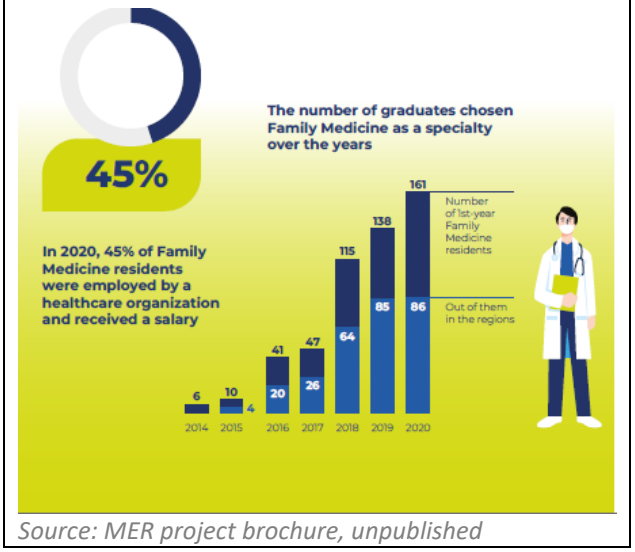


- Interestingly, although at the lower scale, the increase was observed in the two largest cities (Bishkek and Osh).

22 As highlighted by the external end of the 1st phase evaluation of the NCD project (21), several factors that hindered the achievement of results and could pose risks to sustainability in the future, such as:

- COVID19 pandemic
- Changes in the governance landscape (such as "merger of the Ministry of Health and the Ministry of Social Protection into one ministry, integration of the Mandatory Health Insurance Fund and Social Agency")

Figure 2-6: Impact of the medical education reform on the health workforce development



Source: MER project brochure, unpublished

- Consolidation of FMCs with hospitals at the district level in 2021

23 According to the project documents, the Medical Education Reform Project changed critical elements of the education system at all three levels, including the reassignment of roles to existing actors (such as the Ministry of Health) and new actors (such as the professional medical associations and the Independent Center for Competency Assessment (ICCA)).

.1 The overview of these system changes is summarized in Figure 5-44 (below); Figure 2-6 above illustrates the influence of these system changes on the structure of health workforce inflows to the labor market.

.2 The achievements of the project (results against targets) at impact, outcome and input levels are schematically presented in Figure 5-31 "MER project profile - achievements by the level of results for all phases" (below). The indicators used for the measurement of the achievements are listed in Figure 5-32 (below)

24 The HFA project introduced an innovative model for competency-based selection of health facility managers (see Figure 5-45 below).

.1 The innovation entailed changes in different areas of the health system (governance directly and service delivery indirectly), such as

- Capacity building of the key public actor hosting the National Register of Managers/E-Register (that automates "the functions of formation and utilization of the Reserve of managerial cadre for health facilities") - the Center for Health System Development and Medical Technology (established in 2019)
- Establishment of the Association of Health Care Managers
- Development and approval of the Catalog of Competencies (COC) of Heads of Health Care Organizations
- The new professional retraining program in Health Care Management,
- The new system of attestation/certification of health managers for practicing in health management positions enabling HFMs to undergo two types or stages attestation: primary (initial) attestation and periodic (follow-up) attestation.
- Knowledge Management Resource Center (KMRC), established within the CHSD&MT.

.2 As of January 2026, 34 health managers have been appointed through the competency-based selection process (as reported by the CHSD & MT and discussed in more detail below). The data extracted from the electronic database (E-Register) in December 2025 showed that 8 out of 28 appointed managers in 2025 were deployed to PHC organizations (4 to Family Medical Centers and 4 to Family Group Practices) (see Figure 5-41 below).

.3 The achievements of the project (results against targets) at impact, outcome and input levels are schematically presented in Figure 5-33 "HFA project profile - achievements by the level of results for all phases" (below. The indicators used to measure achievements are listed in Figure 5-33 (below).

4.4.7 Sustainability

This section describes the understanding of the project sustainability of the implementing partners (as defined in the credit proposals and annexes with log frames) and actual progress in this regard (as described in the project annual reports and other documents). It focuses on meeting financial/resource requirements after the end of Swiss funding (an important condition but insufficient to institutionalize the changes in health systems and population health demonstrated by the projects).

25 "*To create a sustained model and behavior (behavior sustainability) and ensure the potential for expansion and further development of all interventions beyond the timeline of the HFA Phase II project*" ((22), (23)), the HFA project identified five critical factors of sustainability:

Sustained commitment	The authorities remain committed to the vision of strengthening the health management system, with an emphasis on competency and effectiveness.
Sustained resources	Health managers have uninterrupted, unobstructed access to resources to perform effective management.
Sustained capacity	Health managers can continue to strengthen their technical and managerial knowledge and skills.
Sustained motivation	Health managers can better use their increased autonomy.
Sustained linkages	Health managers have incentives for better performance.

26 According to the final report (23), the HFA project ensured sustainability through deep institutional integration, strong legal foundations, nationwide capacity building, the creation of a professional association, robust knowledge systems, policy integration, and the formalized handover of all technical outputs. These elements together establish a durable, locally owned health management system capable of operating independently after project completion.

.1 "To sustain the new health facility management policy and actions supported by the Project, new approaches and interventions of strengthening health management cadre were integrated into a new addition of the National Program Healthy Person Health Nation 2030 (revision took place in 2024)."

27 Legal framework for regulating the creation of a reserve of competent health facility managers (HFMs) and competitive selection and appointment of the managers of healthcare organizations (HCOs) includes 15 legal acts (as shown in Figure 5-17 below); the most important ones are highlighted below (in a chronological order):

Area / working title	Legislation	Date	Level / issue
Reserve for Managerial Cadre and Appointment of Health Facility Managers	Resolution #39	25 Jan 2023	The Cabinet of Ministers
Attestation and Registration of Heads of Health Care Organizations	Order #188	27 Feb 2023	Ministry of Health
Amendments in the Law on Health Protection	Law on Health Protection (#14)	**Jan 2024**	Parliament

.1 Article 19 of the Ministerial Order #188 states that "Successful *completion of a professional retraining program within the framework of additional professional education in the qualification 'Healthcare Management' at accredited educational institutions is* **equated to passing the primary attestation**."

28 The reserve of health facility managers comprised 478 people (as of 1 February 2025). As shown in Figure 5-7 below:

.1 Almost two-thirds (=B/(A+B) of people in the reserve do not have a competence certificate (n=303);

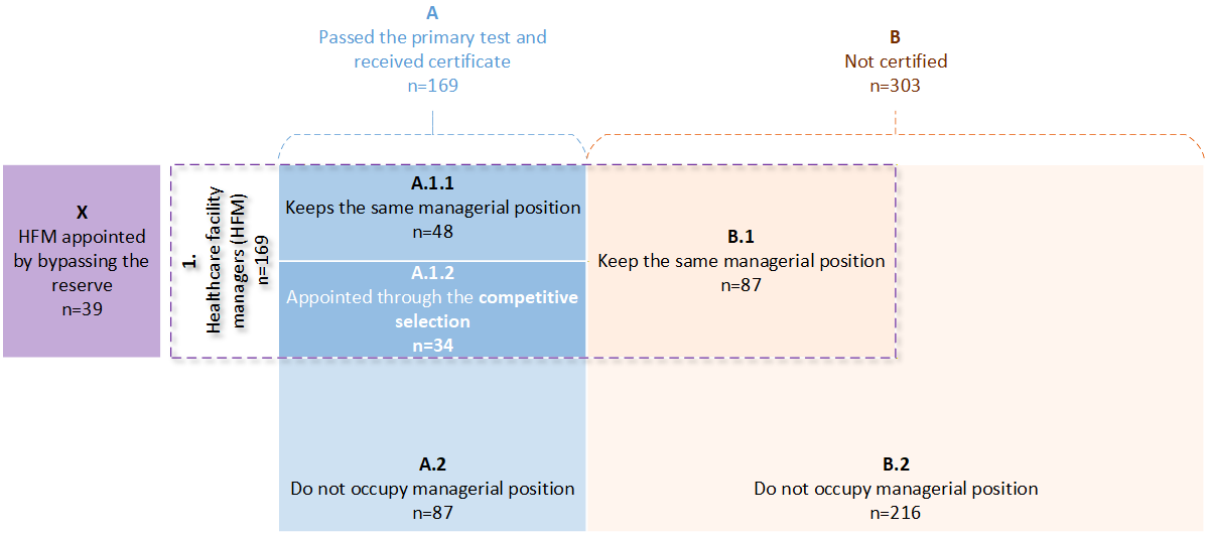
- B.1 = 87 people without the certificate in the reserve occupy managerial positions: that's 29% of people without a certificate (=B.1/B), or 51% of 169 persons in the reserve occupying managerial positions (=B.1/(A.1+B.1))
- B.2 = the remaining 216 people (B.2) can increase the chances of taking managerial positions if they pass the primary test and get the certificate.

.2 (A) = 169 people (or 36% of all people in the reserve) passed the test and received the certificate

- A.1 = 82 persons (=A.1.1+A.1.2) with the certificate in the reserve occupy managerial positions, which is 36% of the reserve or 49% of 169 persons in the reserve occupying managerial positions (= (A.1.1+A.1.2) / "1")
- A.2 = 87 people with the certificate in the reserve do not occupy any managerial position.

(X) = 39 persons were not in the reserve while appointed as HFMs, that is, 19% of the existing managers of 208 (= "1" + X) healthcare organizations.

Figure 2-7: Composition of the HFM reserve by the availability of certificate (A and B), position (managerial vs other),



Source: Unpublished data on the register of HFM at the CHSD&MT

29 Association of Health Managers (AHM) established by the HFA project aimed "*to promote the development of a sustainable and effective health facilities management system by strengthening the HFM community and interactions of health managers to improve delivery of medical care and public health services for the population of the KR*" ([FDFD/SDC. End of Project Report. 2024.Unpublished]. In 2023 AHM board approved a 5-year Organization Development Plan (ODP) for 2024-2024, which includes three key areas of activities:

(1) Increasing institutional and financial sustainability;

(2) Assistance in creating favorable conditions for strengthening HF management: the legislative framework improvement through the legal acts and regulatory mechanisms development and systematization;

(3) strengthening the capacity of HFMs on healthcare management issues" (23)

30 The President issued an order to pilot health facility managerial autonomy in selected health facilities in 2026 to strengthen the capacity and competitiveness of public healthcare organizations (24).

31 To implement the Presidential Decree on the piloting of health facility autonomy, the Ministry of Health prepared a draft resolution and published it for public review (before it gets approved by the government). The initiative to provide greater autonomy to public health organizations to expand their powers in management and financial activities, enabling operational decisions on the introduction of modern personnel management methods and the development and improvement of paid services to optimize budget spending. (25)

32 MER project directed efforts in the last phase "for further sustainability" to the following areas: (1) "Legal framework", (2) "Institutional sustainability", (3) "Sustainability of the political commitment", and (4) "Financial sustainability." (26)

33 The key stakeholders discussed, among others, the sustainability of the results achieved by the MER project at the conference "Medical Education Reforms in the Kyrgyz Republic: outcomes and new Horizons" in November 2024 (27). Regarding the sustainability, the panel discussion #3 concluded that "sustainability of the Independent Center for Competency Assessment, and for this: The introduction of testing fees through transparent and affordable payment mechanisms." (28)

34 End of the 1st phase (2018 – 2022) evaluation of the NCD project highlighted the following contributors to the sustainability and scalability of the NCD Model (21):

- "Establishment of the NCD Coordination Committee" (at the Ministry of Health)
- "Consistent regulations are in place."
- "Institutionalization of the NCD service delivery modalities."
- "Capacity building system of PHC physicians and nurses in NCDs."
- "Streamlining of NCD-related data collection and reporting functions."

35 The President issued Decree #250 (on 28 August 2025"On the Establishment of a State Monopoly on the Training of Medical Professionals". (29)

.1 According to the Decree, only the Kyrgyz State Medical Academy I.K. Akhunbaev (KSMA) is granted the exclusive right to:

- train students in higher medical and pharmaceutical education,
- provide retraining and professional development,
- conduct scientific research in the key healthcare area

.2 Regarding Accreditation and Standardization,

- The decree calls for the introduction of
  - state accreditation for all medical educational organizations.
  - a unified state educational standard for medical specialties.
- The government (the cabinet of ministers) was mandated to develop and approve the new rules for accreditation of private higher medical education institutions.

36 The MER project integrated the key provisions for the establishment and operation of the independent assessment, competences development and registration system, into the national legislation, as outlined in Figure 5-37 (below).

4.4.8 Other observations from desk review

In this section, we collected observations that fill the gap in the evidence necessary for contribution analysis (which cannot be obtained from project M&E reports). For instance, information on the fatality ratio from cardiovascular diseases will be used to validate one of the assumptions of the Theory of Change. Other observations help contextualize the analysis of institutionalization maturity.

37 **The case fatality ratio** (CFR)[31] for acute myocardial infarction remained above 8% nationwide.

.1 However, it was twice as high at the district level compared to the tertiary hospitals, as shown in Figure 2-8 below, irrespective of the availability of contemporary (invasive) diagnostic and treatment interventions. More details can be found in Figure 5-38 (below).

.2 All this time, the CFR for AMI remained 2-3 times higher compared to many countries in Europe:

31 = The proportion of patients who die from a specific condition among all patients admitted or diagnosed with that same condition during a defined reporting period

- For instance, in-hospital case fatality was 2.3-2.4% in Switzerland in 2004 (30).

Figure 2-8: Case fatality ratio for acute myocardial infarction (AMI) by hospital categories and years

	2018	2019	2020	2021	2022	2023	2024	2025	Average
1 Tertiary	**9.4%**	**12.3%**	**11.4%**	**9.2%**	**9.6%**	**7.5%**	**8.0%**	**7.2%**	**8.9%**
2 General (regional)	**4.9%**	**5.8%**	**6.1%**	**7.1%**	**4.2%**	**6.8%**	**6.8%**	**7.0%**	**6.0%**
3 General basic	**17.2%**	**17.5%**	**16.1%**	**20.6%**	**24.3%**	**16.3%**	**16.5%**	**16.7%**	**18.0%**
Average	**9.9%**	**12.3%**	**12.0%**	**10.9%**	**11.5%**	**9.0%**	**9.3%**	**8.9%**	**10.3%**

Source: The Center of Health System Development (national statistics)

- Figure 5-50 (below)"Case mortality rates within 30 days of admission to hospital for AMI using unlinked data – that is, only counting deaths that occurred in the hospital where the patient was initially admitted – among patients aged 45 and over. The lowest rates in 2021 were in Iceland, Norway, the Netherlands, Australia and Sweden (less than 4%), while the highest rates were in Latvia (15.9%) and Mexico (23.7%)[32]." (31)

.3According to a recent study (32), OECD AMI hospital mortality rates must be interpreted with caution:

- "OECD indicator 'AMI hospital mortality' does not allow valid conclusions on the quality of acute care.
- AMI hospital mortality is strongly influenced by patient registration rules and healthcare organization, namely, frequency of patient transfers and length of stay in hospital after AMI."

38The recent health system review by the WHO (33) highlighted the following health workforce trends:

.1"Rates of health workers per population are declining":

The rate of doctors decreased from 226 per 100 000 population in 2013 to 215 in 2021

The rate of nurses decreased from 558 per 100 000 population in 2013 to 407 in 2020

.2"Aging of doctors is a major concern in primary care and in rural areas": "Over 50% of family doctors are at retirement age, with rates of family doctors at retirement age reaching as high as 75% in areas such as Naryn (73%) and Issyk-Kul (75%)."

"The share of generalist medical practitioners is declining."

"Many health workers are migrating abroad."

39According to the unpublished draft report "Analysis of the health labor market in Kyrgyzstan", prepared by the WHO team,

.1"In Kyrgyzstan in 2023, the share of physicians aged 55 and over was almost 36%, while for professionals with a secondary medical education, it was 42%. This is 20% higher than the WHO European Region average for physicians (30% in 2020) and 2.3 times higher for professionals with a secondary medical education (18% in 2020)."

- "The highest share of physicians in this age group in 2023 was recorded in the Batken region (44.3%) and Osh city (41.7%), which points to problems in attracting and retaining young professionals to replace retiring physicians in these places."

32 "In Mexico, many hospitals lack the capacity to perform AMI diagnosis, and pharmacological and mechanical reperfusion (Pérez-Cuevas et al., 2020[z-Cuevas, R. et al. (2020), "Gaps between supply and demand of acute myocardial infarction treatment in Mexico", Salud Pública de México, Vol. 62/5, Sep-Oct, pp. 540-549, https://doi.org/10.21149/11032.]), and this might be associated with high AMI mortality rates." (17)

.2 "2024 analysis of the population per filled family doctor position showed that, on average across the country, one filled family doctor position serves 1.7 times more people than stipulated in the normative documents. This situation is observed in all of Kyrgyzstan's regions without exception, which indicates that family doctors are overloaded with work across the country. The highest number of people per filled family doctor position is in the Talas region (1.9 times the norm), and in Chuy, Jalal-Abad and Osh regions (1.8 times the norm)"(as shown in Figure 5-40 below)

.3 "The availability of family doctors and nurses in Kyrgyzstan is substantially lower than the averages for the WHO European Region and Central Asian countries (by factors of 2.7 and 1.6, respectively), which indicates an increased workload for existing health staff and a lower quality of PHC services."

.4 "Based on the demand for health professionals, around *70% of State-funded places are allocated to the family medicine residency program*. However, the introduction of State-funded residency and internship programs in family medicine has had little impact on the situation."

.5 Despite the introduced measures, there is a noticeable decline in residents' interest in the family medicine specialty. For instance, in 2024, only 49 residents chose family medicine for their postgraduate training (Figure 5-39 (below). This is a cause for concern, as the shortage of family doctors remains a pressing issue, particularly outside of the larger cities. "

40 According to an unpublished report prepared by the MER project team, the recognition of FM as a specialty, the availability of dedicated postgraduate education, and national policies increased enrollment among medical school graduates. However, the introduction of a one-year internship "General practitioner" in 2023 reduced the number of graduates choosing specialist "Family medicine" (referring to the same unpublished draft report of the WHO Team, see Figure 5-39 (below).

41 The Ministry of Health approved the Program of the Development of Nursing and Midwifery and Education in the Kyrgyz Republic 2024-2030 (34) (Order #1091 dated 7 October 2024). The Program includes three "strategic directions":

- Education: Meeting or exceeding the demand for midwives and nurses (M&N) with the necessary knowledge, competencies, and attitudes to work in line with national health system priorities
- Number of medical staff: increasing the number of medical workers through continuous and effective recruitment and retention of local midwives and nurses, as well as ethically sound management of international mobility and staff migration.
- Professional leadership: increasing the share and expanding powers of A&M in leadership positions in healthcare and educational institutions, and the continuous process of forming a new generation of leaders of midwifery and nursing.
- Organization of the healthcare system: Healthcare workers should be able to fully utilize their education and training in safe and favorable working conditions.

42 SDC has supported health promotion through the project "Community Action for Health" (CAH) since 2002. "CAH model designed to facilitate communities to gain more control over their health, through the formation and capacity development of Village Health Committees (VHCs) elected by their communities and responsible for conducting health promotion activities on priorities jointly identified with the population." (35)

.1 Despite the decline in the number of VHC (from 1,676 in 2018 to 1,532 in 2025), the coverage remained high – 83% (see Figure 5-43 below)

.2 The number of volunteers engaged in the VHC has exceeded 12 thousand, as shown in Figure 5-19 (below) (36)

VHC pursued two goals: "enabling rural communities to act on their own and to take informed choices to improve their health, and enable healthcare system, especially the PHC and health promotion system, to

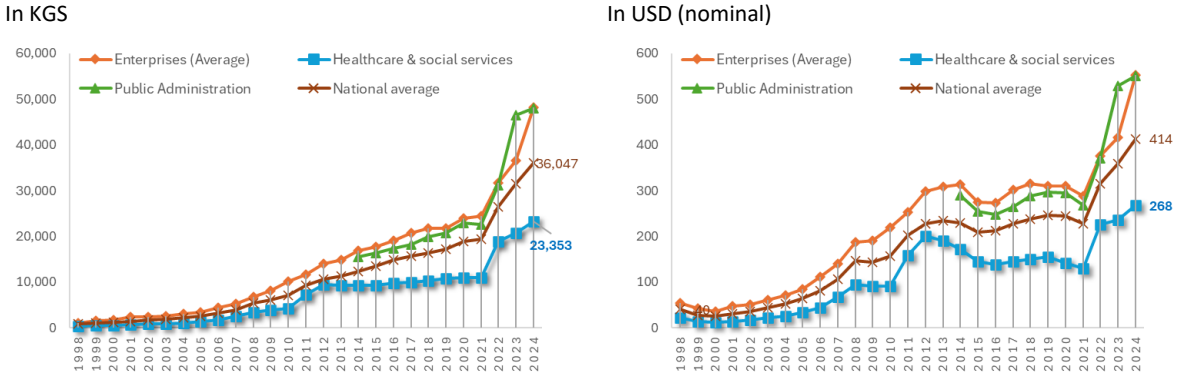
- A doctor in the national hospital with 40 years of experience received a salary of 23,000 soms. “One or two doctors in the country receive a salary of 100,000 soms; they practically live in the hospital — they are constantly on call and have a high workload,» the minister said.
- As noted by the Minister, “this year, according to the Ministry of Finance, the salaries … will be increased, next year - by 50 percent for everyone — doctors, nurses, nursing aids, as well as accountants and economists working in hospitals.”

43 According to the Ministry of Finance, by the end of 2026, monthly wages will increase (37):

- Doctors: from 33,620 KGS to 47,450
- Nurse: from 23,270 KGS to 32,030

44 According to the official labor statistics, wages in the health and social sector increased gradually over 25 years, but remained less than 2/3 of national averages and half of wages in enterprises (as shown in Figure 2-9 below)

Figure 2-9: Monthly wages (averages) by economic activity and years in KGS and USD



Source: (38), (8)

.2 Incentive payments to family doctors and nurses were introduced in November 2018 and lasted 2.5 years. 4 out of 12 performance indicators were related to NCDs. The incentive for the maximum possible performance score amounted to 19,809 KGS (approximately 233 EURO). (39)

45 Almost all PHC organizations received reports from the Ministry of Health Quality Improvement (QI) Unit on their own performance with benchmarking in 2025, as reported by the World Bank (intermediate results indicator 113) (40). Moreover, the Quality Committees received training on quality improvement (at least once a year) in 2025 (up from 15 in 2024).

46 The directory of the medicines reimbursed by the Mandatory Health Insurance Fund (MHIF) under the Additional Drug Package (ADP) and State-Guaranteed Benefits Package (SGBP) at the PHC level includes a wide range of pharmaceuticals prescribed for the treatment of arterial hypertension and ischemic heart diseases (such as beta-blockers (Bisoprolol, Carvedilol), calcium channel blockers (such as amlodipine,) ACE inhibitors (enalapril, lisinopril, ramipril), angiotensin receptor blockers (such as losartan, valsartan), Nitrites (such as isosorbide dinitrate, nitroglycerin), statins (such as atorvastatin), diuretics (such as hydrochlorothiazide, indapamide)) (41). The full list of medicines used for the management of NCDs at the PHC level and covered by the state (as of December 2025) is shown in Figure 5-52 below.

47 Pharmaceuticals were the main cost drivers of households' out-of-pocket payments in Kyrgyzstan, accounting for0-70% across income quantiles in 2014 (42). According to the latest health accounts studies,

- Private sources (households) accounted for 94% of expenditures on pharmaceuticals (and other non-durable goods) (as shown in Figure 2-10 below).
- The share of medical goods in out-of-pocket expenditures remained at 61% or higher (as shown in Figure 2-11 below).

Figure 2-10: Current expenditures by source (of financing), in million KGZ

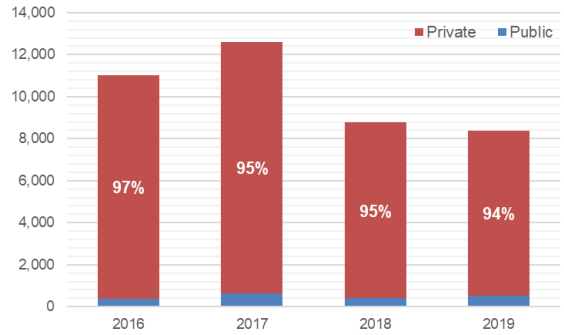
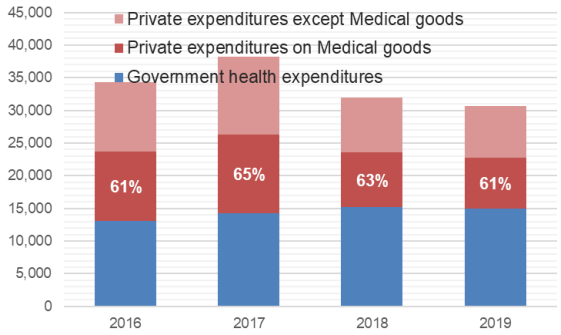


Figure 2-11: Structure of current health expenditures, and private expenditures on medical goods as % of all private expenditures



Source: (43)

48 The World Bank issued two tender notices last year to support the Kyrgyz government in two areas:

.1 Health workforce planning (44): according to the Terms of Reference for "Modeling for health workforce planning in the Kyrgyz Republic", the objective of technical assistance was: "to develop a comprehensive evidence base for strategic health workforce planning in the Kyrgyz Republic by (i) projecting the availability, skill-mix, and rural-urban distribution of health workers over the next 30 years under various policy scenarios, and (ii) assessing the health and economic implications of these scenarios on population health outcomes and productivity"

49 Promotion of health facility autonomy (45): support the President's pilot initiative to change "change the financing modalities and managerial and financial autonomy of care providers" (see observation Association of Health Managers (AHM) established by the HFA project aimed "*to promote the development of a sustainable and effective health facilities management system by strengthening the HFM community and interactions of health managers to improve delivery of medical care and public health services for the population of the KR*" ([FDFD/SDC. End of Project Report. 2024.Unpublished]. In 2023 AHM board approved a 5-year Organization Development Plan (ODP) for 2024-2024, which includes three key areas of activities:

(1) Increasing institutional and financial sustainability;

(2) Assistance in creating favorable conditions for strengthening HF management: the legislative framework improvement through the legal acts and regulatory mechanisms development and systematization;

(3) strengthening the capacity of HFMs on healthcare management issues" (23)

.2 The President issued an order to pilot health facility managerial autonomy in selected health facilities in 2026 to strengthen the capacity and competitiveness of public healthcare organizations (24). above). According to the Terms of Reference for "Monitoring, Evaluation, and Learning [MEL] Program for Kyrgyz Republic Health Financing Pilot", the objective of the assignment was "to establish, implement and report on a robust MEL framework for the pilot program".

.3Both assignments were supposed to start in 2026 and be completed in 2027. However, no information regarding the tender outcome was announced at the time the current report was prepared.

50The government abolished a 1-year internship and set the duration of postgraduate medical education at 2 years for family medicine and 3-5 years in other specialties (Government Resolution #798) in December 2017. However, the 1-year internship was restored in September 2023 by the Government Resolution #444 (dated 4 September 2023)

Primary (qualitative) data collection

4.4.9 Key informant interviews

51The Swiss-funded project gave birth to village health committees by mobilizing the volunteers (active villagers, usually women of retirement age or housewives) to serve their communities, as reported by the director of the Association of Village Health Committees (AVHC) (and confirmed by the representatives of local self-governments and PHC facilities). They continue operation after the project ended (only around 20 VHC disappeared out of 1,600 established with the project support) (46).

.1VHC leaders unite to form district health committees (DHC); district health committees plan joint activities and help mobilize resources at the district level (for instance, financing from district budgets) or distribute funding channeled by the association (AVHC).

.2The Association of Village Health Committees (AVHC) represents a union of DHC and was established in 2010 (47). Its main function is to advocate for empowering communities to address public health priorities, in close cooperation with primary healthcare providers and local governments.

52As reported by several key informants, the business model of a roster of certified candidates and the mechanism of appointing managers through a competence-based selection has been copied and/or piloted in the education sector, and in the system of the Ministry of Emergency Situations.

53Representatives of the Ministry of Health (including the consultants), familiar with the NCD projects, highly valued the interventions and highlighted the following support:

.1Contribution of the project to the institutionalization of quality of care, such as:

- Thorough study of the operational context and establishment of the quality units at PHC facilities, investing in the capacity of the medical staff
- Upgrading the status of the quality units to family medicine
- Development of the national strategy of quality of care
- Collegial discussion groups ("*doctors at the PHC facilities started talking to each other on clinical topics and their experiences*")

.2Contribution to the introduction of modern digital health solutions

- Helping PHC facility staff in transition from paper-based to electronic medical records, such as the design of user interfaces and increasing computer literacy
- Introduction of a selected set of performance indicators and improvement of the quality of data (used for the measurement), which eventually helped to identify gaps and improve service delivery quality

.3Development of regulations and advocacy to formalize the innovations in the organization and delivery of care at the PHC level

.4 Some health officials and development partners stressed horizontal cooperation (at the service delivery or policy levels) and even synergies across the Swiss-funded health projects and other interventions:

.5 The design of the HFA, MER and NCD projects, and the sequence of their implementation, were logically structured and well thought-out

.6 Most respondents noted that while the Swiss-funded bilateral health projects address health policy priorities, they often do not overlap with other government- or development partner-supported interventions. On the contrary, they complemented capacity strengthening and performance improvement of the actors at the PHC level. For instance,

- Investments in maternal and child health supported by GIZ and UNICEF entailed sharing the same platform - family medicine teams and Village Health Committees.
- While the Swiss-funded NCD project focused on the service delivery at the PHC level (in all regions), the Ministry of Health implemented the project for Reinforcement of the Pilot Referral Systems on Detection and Treatment of Non-communicable Diseases at an early Stage (2022 – 2026) in the Chui region (funded by JICA) (48)
- The government intends to strengthen emergency health services to deliver timely and effective emergency care in rural and remote areas (49), which complements NCD project efforts to strengthen PHC services for NCD management.

.7 One of the Swiss-funded projects not included in the evaluation – "Health Care Waste Management with Hospital Acquired Infection Control" project in Kyrgyz Hospitals (HCWM/HAI), implemented by the Swiss Red Cross in 2010-2019, was mentioned several times as one of the valuable investments in healthcare quality and patients' safety. In addition to long-term benefits, the project increased the country's readiness to handle nosocomial infections during COVID19.

.8 The Swiss investment in community-level health initiatives created significant potential for engaging the population in public health, and the Village Health Committees became resilient and indispensable actors.

.9

54 Representatives of the institutions involved in implementing the competency-based system for health-facility managers reported that the model has faced operational and institutional challenges since the completion of the HFA project:

.1 As of January 2026, 34 appointments had been made through competitive selection, while 39 managers had been appointed through other procedures.

.2 Of the 169 candidates who had passed primary attestation and received certificates, 87 did not hold managerial positions.

.3 Respondents indicated that periods of limited political support and uncertainty concerning the competency-based selection model reduced participation in primary attestation and slowed implementation.

.4 At the same time, the KSMIRPD introduced a separate healthcare-management training programme. Differences in training, certification and access to the managerial reserve have created uncertainty among the institutions involved regarding how the two pathways should operate together.

.5 The CHSD&MT and the Association of Health Managers were subject to an official investigation concerning their activities. The investigation was subsequently discontinued, but respondents reported that it contributed to further disruption and reputational uncertainty.

.6 Interest in healthcare-management training reportedly continues. However, coordination among prospective candidates, training providers and the institutions responsible for certification and registration remains limited.

.7 The regulatory framework for periodic attestation of health-facility managers has not yet become operational.

.8 Overall, the competency-based model remains formally established, but implementation is incomplete, and its future performance will depend on clearer institutional responsibilities, consistent application of the regulatory framework, and renewed support from the relevant authorities.

55 The leadership of the Kyrgyz State Medical Institute of Retraining and Professional Development (KSMIRPD) reported that the MER project did not serve its purpose and even damaged the education system:

.1 The country reverted to the old approach (internship and "ordinatura") despite the original promises of the MER project (regarding transition to the modern approach of post-graduate medical education)

.2 The professional medical associations supported by the project remain unfit for the new role and are often one-person organizations with low credibility among medical professionals.

.3 The Independent Center for Competency Assessment (ICCA) is a private entity (as it cannot be administered directly by any government structure); therefore, the "private entity" is not suitable to assess the outcome of post-graduate medical education. Moreover, the quality of tests and the entire testing methodology are questionable.

56 The KSMIRPD leadership highly praised the idea behind the HFA project (especially phase II) and appreciated the engagement from the beginning. However, the respondent believed that the cooperation ended in the later phase because the HFA project team failed to fulfill its promises.

.1 The institute developed its own program for training health facility managers.

- The enrollment/learning is free.
- There are no capacity constraints, and the Institute is ready to increase output if the government's policy (like the scaling up of health facility autonomy after the pilot) requires so

.2 The graduates of the health facility manager program (with a certificate of course completion) are eligible to be added directly to the reserve/register of health facility managers, without primary attestation by the Competence Testing Center at the Center for Health System Development and Medical Technologies (CHSD&MT).

- As clarified by the respondents, the legislation (Ministerial Order 188, dated 27 Feb 2023) stipulates that graduates of accredited educational institutions are not required to take tests to be included in the reserve and to participate in a competency-based selection.
- However, the team at the CHSD&MT treats the KSMIRPD "Healthcare Management" graduates unfairly, citing limitations or requirements of the electronic registry management system and procedural issues.

.3 KSMIRPD representatives expressed concern that the current arrangements create uncertainty regarding the implementation of the competency-based management system and the interaction between training, certification, registration and appointment processes. According to these respondents, the coexistence of different institutional arrangements and procedures may result in inconsistent application of regulations and reduce transparency. risks.

- Respondents stated that the Association of Health Facility Managers functions as a training provider by engaging external lecturers to deliver the healthcare management programme. They expressed concerns regarding the transparency of these arrangements and their alignment with existing education regulations.
- Respondents argued that the original health facility management programme cannot be fully implemented without KSMIRPD because of its institutional mandate and expertise in health system and healthcare management training.
- Respondents noted that potential reorganization of the CHSD&MT could create uncertainty regarding the future implementation of Ministerial Order No. 188 and related procedures.
-

.4The leadership does not consider it advisable to restore cooperation with non-functioning ("unrecoverable") structures; they are confident that they can continue implementing this idea on their own.

57According to the members of the team involved in regular monitoring of the MER project:

.1The MER project, implemented since 2013, has provided a systematic update of medical education in the Kyrgyz Republic.

- The Kyrgyz State Medical Academy named after I.K. Akhunbaev (KSMA) and Osh State University modernized their educational programs, focusing on general medical practice and a competency-based approach, and significantly strengthened faculty capacity in modern teaching and assessment methods.
- OSCE-trained instructors have been prepared, methodological materials have been developed, and a team of trainers has been formed.
- At KSMA, the infrastructure (simulation centers, assessment center, electronic library) was also strengthened through the Project, clinical bases were expanded, and practice was decentralized with the preparation of mentors in the regions.
- The project's investment in the KSMA enabled the establishment of an institutional foundation for assigning KGMA the role of a system-forming organization within the framework of implementing the Decree of the President of the Kyrgyz Republic on the monopolization of medical education.

.2The MER project made a significant contribution to retaining medical personnel in the regions by reforming postgraduate medical education (PGME) and strengthening practice-oriented training.

- Residency programs were transformed into a model of actual work in clinical bases with paid employment, where up to 90% of training takes place in healthcare organizations, including regional CSCs and hospitals.
- Decentralization of training — through the development of more than 100 regional clinical bases, mentor training, and the implementation of distance learning — enabled education to be brought closer to the future workplace.
- The priority development of family medicine (up to 70% of budget-funded seats) and the early involvement of residents in practice contributed to increased employment of graduates in the regions and the formation of a sustainable workforce at the primary healthcare level.

.3A structural reform of postgraduate medical education (PGME) was carried out:

- The one-year internship in clinical specialties was canceled, and a 2- to 4-year residency program (depending on the profile) was introduced, with a unified basic first year covering general clinical disciplines (therapy, surgery, pediatrics, obstetrics and gynecology, emergency care).
- However, in 2023, by government decree, the one-year internship in primary care was reinstated, blurring the logic of training and creating uncertainty about the delineation of competencies and professional roles between internship graduates and two-year residency graduates in family medicine.
- This negatively affected the project's results: the number of residents choosing family medicine and working in the regions sharply decreased (from 173 graduates in 2022 to 49 family medicine residents).

- The decline in indicators is also related to the fact that the MER project completed the implementation of activities in the PDME in 2021 and handed over the developed mechanisms to the Ministry of Health of the Kyrgyz Republic; however, their institutionalization and systemic support were not fully ensured. As a result, incentives to choose family medicine weakened, the continuity of reforms was disrupted, and the effectiveness of the previously established model for improving the supply of medical personnel in the regions decreased.

.4 Professional medical associations have achieved significant institutional development and recognition from the Ministry of Health and other key stakeholders. The project facilitated the unification of associations across specialties, and the Kyrgyz Medical Association (KMA) and the Kyrgyz Nursing Association (KNA) have considerably enhanced their organizational and professional capacity.

- PMAs are actively involved in developing professional standards and preparing matrices and specifications for test items in accordance with these standards, ensuring that assessments are linked to the actual competencies of specialists.
- The associations work closely with the ICCA and are engaged as experts, which strengthens the quality and trust in the system. The methodology for developing MCQs aligns with international standards (validity, reliability and psychometrics), thereby improving the quality and objectivity of the assessment. At the same time, certain educational institutions, in particular KSMIRPD, still do not recognize the role of PMA, largely due to competition in the field of continuous professional development.

58 Various key informants reported that the Ministry initiated a draft order (in December 2025) to suspend the requirement for competence-based selection of health care managers temporarily.

.1 None could explain the rationale for this initiative or the new norms to be introduced.

.2 The high-level officials at the MoH ensured the draft did not conflict with the approved concept of competency-based selection of health managers, and are required to grant the Minister discretion to make temporary direct appointments.

.3 The draft must be reviewed and endorsed by the cabinet of ministers before being approved by the Minister of Health.

59 The development partners acknowledged the importance of the Swiss-funded bilateral health projects:

.1 The Primary Healthcare Quality Improvement Program (financed by the World Bank, SDC and KfW) implementation benefited from the work done by the Swiss-funded projects:

- The MER project contributed to the progress the country made regarding the Disbursement Linked Indicator (DLI) 2. “A national in-service training e-platform is established and functioning.”
- The NCD project contributed to the progress the country made in several areas:
  - DLI 1 “A national e-platform for collecting and reporting quality-of-care indicators from PHC facilities is established and functioning.”
  - DLI 4 “Number of diabetic patients (type I and II) who received HbA1C test at least once a year in a PHC facility” (like conducting massive training of FMC staff)
  - DLI 9 “A unit fully designated to quality improvement (QI unit) is established within the MoH and is functioning (contribution to the quality improvement strategy design)

.2 Representatives of UN agencies fully agreed that Swiss-funded bilateral projects contributed to the improved health system performance (human workforce, health facility operation/service quality, governance), and population health (reduction of NCD burden)

- All respondents confirmed that the impact on population health would have been better if hospitals had better managed the acute complications of cardiovascular disease.
- As to the widely spread self-treatment of NCDs, and CVDs in particular, the opinion varied from strong to partial agreement.
- There was no doubt about the detrimental effect of the lack of health facility autonomy and the absence of financial and non-financial incentives for better performance.

.3 They also stressed that Swiss support (including co-financing of SWAp and PforR projects alongside donors and partners) was remarkable because it had a long-term vision, upheld principles, demonstrated integrity, maintained continuity, and focused on results.

.4 Improvement in healthcare provider performance at the PHC level, thanks to investments in the capacity of medical and managerial staff, as well as in the physical infrastructure, was considered an undisputable contribution of the Swiss-funded health projects.

60 As clarified by the representative of the Health Policy Analysis Center,

.1 The NCD project effectively implemented the planned activities to prevent and control cardiovascular diseases (CVDs) and diabetes. At the same time, diseases that were not within the project's focus remain relevant and are not a priority for the healthcare system. In particular, mental health receives virtually no attention, as well as infection control at the level of primary health care during the COVID period.

.2 At the same time, the weakness of the healthcare system in infection control was not related to the project's implementation but was systemic and independent of it. On the contrary, activities in the field of CVDs and diabetes helped to avoid major complications and consequences for these chronic diseases. The COVID-19 pandemic only revealed existing gaps and demonstrated the system's insufficient readiness to respond to large-scale outbreaks of infectious diseases.

61 Key respondents familiar with the Swiss-funded bilateral health projects also noted some weaknesses or unintended consequences of the project implementation:

.1 While huge work has been done on elaborating the vision of the health system reforms, followed by updating the legislation (related to medical education, health facility management or effective management of NCDs), the projects lacked persistency in pushing innovations / system changes to "points of no return", especially in a constantly changing political landscape.

.2 One of the key informants mentioned that the strong promotion of the NCD management redirected focus and resources at the PHC level and created a sort of "distortion", for instance, in the coverage of health topics in the electronic ambulatory cards (like an over-representation of the NCDs and poor coverage of other thematic/disease areas). However, the respondent stressed that it was an omission on the MOH's part, not the NCD project's fault.

62 As reported by the representatives of the five "pilot medical colleges" (Bishkek, Naryn, Osh, Uzgen and Tokmak), up to 282 nurses have graduated from the "experimental program" (from the first cohort, which enrolled in 2022).

.1 They believe that in 2 years the country can enroll up to 2000 nurses in the new program, once the outstanding issues about the role of medical colleagues and division of roles with the Kyrgyz State Medical Academy (KSMA) in nursing education (especially, after KSMA received the status of a system-forming *"state higher education institution"* – see observation According to the Decree, only the Kyrgyz State Medical Academy I.K. Akhunbaev (KSMA) is granted the exclusive right to: above)

.2 The representatives confirmed that the shortage of qualified teachers and gaps in meeting qualification requirements are the main obstacles to rolling out the new program.

63 Health officials and the representative of the Association of Nursing Professionals were concerned that the current legislation still requires nurses who graduated from a new "family nursing" program to undertake a 6-month advanced training course at the Kyrgyz State Medical Institute of Retraining and Professional Development (KSMIRPD).

.1 As explained by the MER project team and confirmed by other respondents, there is one provision in the existing ministerial order that must be updated.

.2 The leadership of KSMIRPD confirmed that some graduates of the pilot nursing programs have applied for the retraining program and have not hidden their dissatisfaction with having to take additional retraining. However, they expected to get a job at the FMCs as a "family nurse" straight after graduation from the medical college.

.3 Representatives of medical colleagues selected to pilot the new "family nursing" program were optimistic about updating the legislation to overcome this barrier (along with other measures required to roll out the program to other colleagues).

64 Opinions of the key informants on the approaches to and the progress in high nursing education varied:

.1 The MER project team uses the term "applied bachelor" for its own interventions in higher nursing education, and refers to similar efforts supported by the Korean project as the promotion of the "*academic* bachelor" concept. Moreover, the MER project team considers these approaches (and programs) complementary, whereas other key stakeholders (except the Kyrgyzstan Nursing Association) seem to treat them as equivalent.

.2 No one argued whether only one bachelor's program should exist ("academic" or "applied"); most of the respondents could not specify how to use or what is the best use of nursing professionals with higher education (considering health workforce challenges at the PHC service delivery).

.3 Representatives of the medical community believe that it is more important for them (and the country) to determine whether higher medical education will be concentrated in one institution (KSMA in particular) or decentralized across accredited medical colleges (the approach favored by the MER project). They were skeptical about the second option, given the recent president's decision granting KSMA the power to set rules for higher medical education (see observation The President issued Decree #250 (on 28 August 2025"On the Establishment of a State Monopoly on the Training of Medical Professionals". (29) above).

4.4.10 Observations collected during site visits (round-table meetings)

65 Not all VHC perform effectively, and it often depends on the performance of health promotion units (HPUs) of the Family Medicine Centers (FMC); if the dedicated health facility staff is not motivated or interested in the results, the collaboration with VHC is poor, as reported by one of the FMC staff and confirmed by the director of the AVHC.

66 Family Medicine Center staff in Chuy and Osh oblasts, and those in charge of health promotion who directly work with the VHC, believed that VHCs are immune to external funding/compensation for their work, and that the end of Swiss projects poses no risk to their operations.

67 Health professionals in both FMCs visited were grateful to the projects for providing valuable support in several areas:

.1 Quality improvement by revitalizing existing Quality Committees – we heard stories about detecting "defects" (in more than 80% of cases) at the beginning, followed by improvements driven by the unit's efforts. By "defects," respondents referred to incomplete data entry on the electronic ambulatory cards identified by designated quality unit specialists and corrected by the operators.

.2 Capacity building and supportive supervision for the smooth application of the PEN protocols

.3 Integration of non-communicable diseases in a new digital platform and deployment of electronic ambulatory cards.

.4Redistribution of the workload among family doctors' team members:

- Family nurses took on more responsibility for following up patients with chronic diseases, collecting patient data on disease history, and entering information in electronic ambulatory cards.
- Active engagement of the HVC volunteers in outreach services and community mobilization

.5Establishment of the peer-to-peer professional education mechanisms, so-called "collegial discussion groups".

.6Transparent budget management practices

"Having started working as a GP during the COVID-19 pandemic, I suffered from burnout and left my job.
When I returned, I couldn't believe I no longer had to collect data and fill in various forms. The nurse handled these tasks independently.

68Representatives of the community-level self-governments (Ayil Okmotu) stressed that they highly value the efforts of the VHCs and have a strong history of collaboration, including the purchase of a modern tonometer or other appliances, the provision of resources for various events, and investments in infrastructure to promote physical activities (like a gym for women in one of the villages in the south).

4.5 Tables and charts

Figure 5-1: Theory of change (ToC) for the contribution analysis

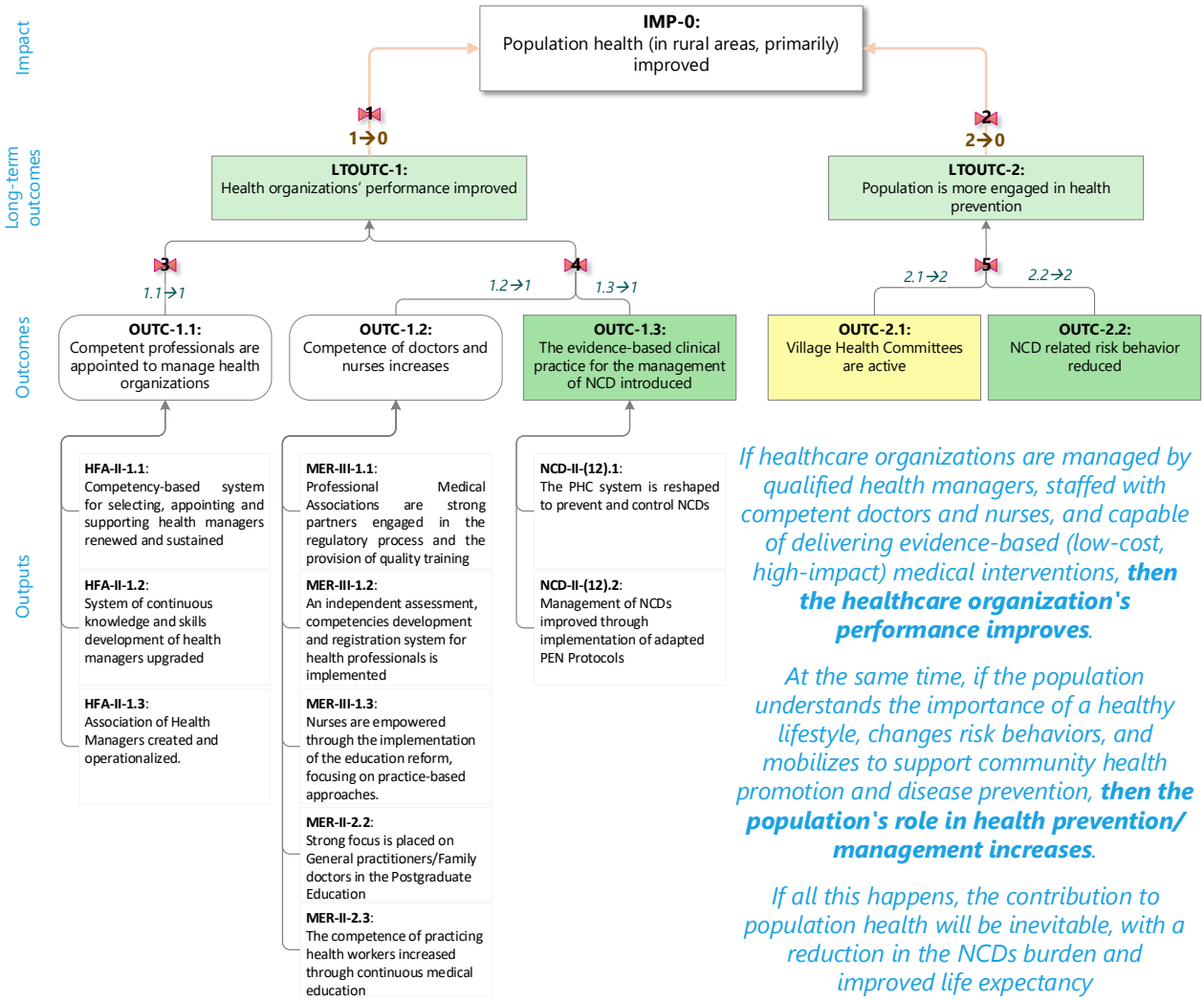
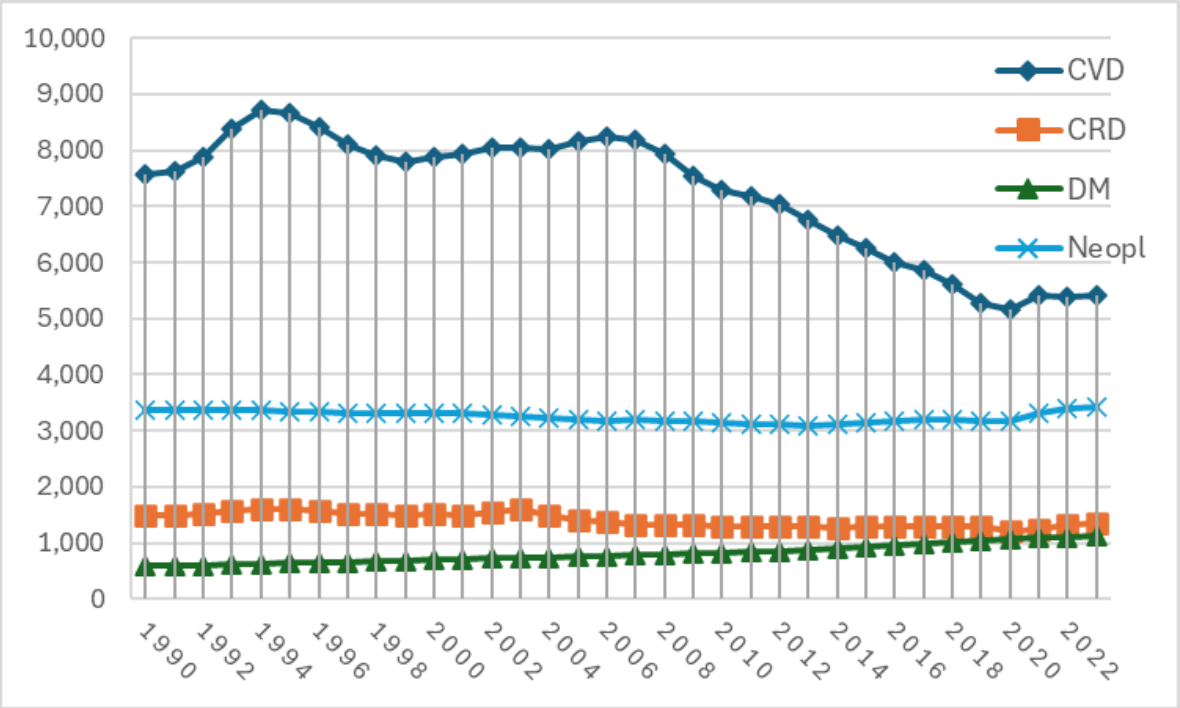


Figure 5-2: Life expectancy at age 15, 45, and 65 by gender

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
15 years old										
Female	61.4	61.6	61.8	62	62.1	62.3	62.5	62.6	62.9	62.8
Male	53.5	53.7	53.8	54	54.2	54.2	54.4	54.4	54.7	54.9
45 years old										
Female	32.8	33	33	33.2	33.2	33.5	33.7	33.6	33.8	33.8
Male	26.5	26.2	26.2	26.2	26.4	26.3	26.7	26.3	26.5	26.6
65 years old										
Female	15.8	15.8	15.8	15.9	15.8	16	16.6	15.9	16	16
Male	11.7	10.9	11	10.7	10.8	10.7	11.5	10.1	9.8	10

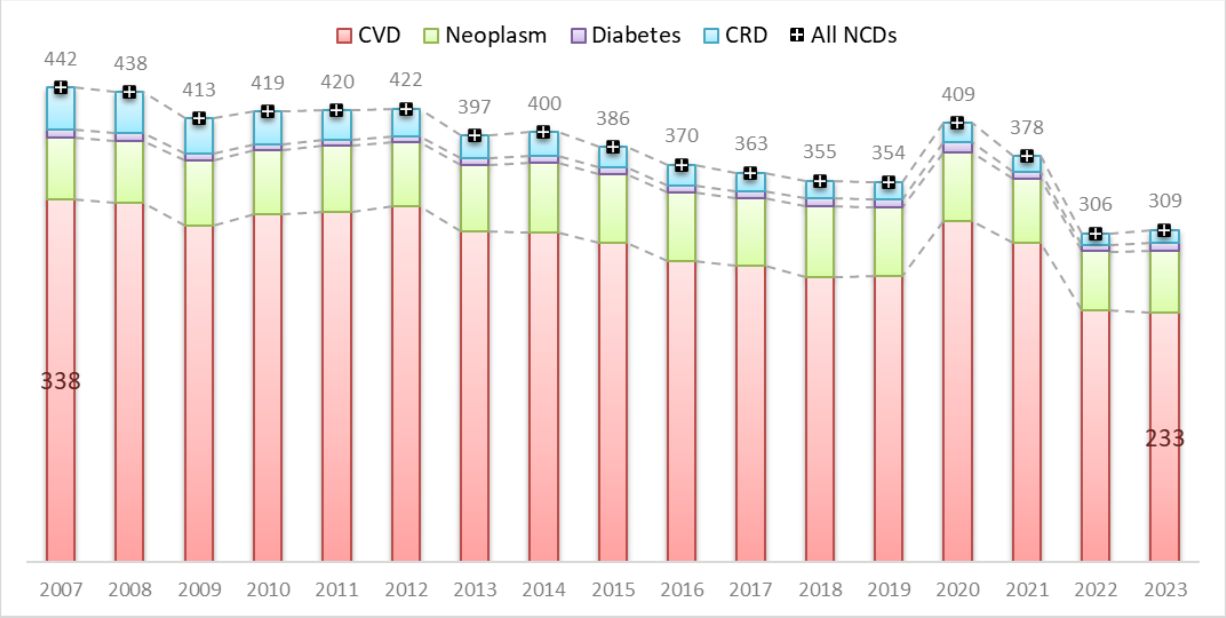
Source: (50)

Figure 5-3 Burden of NCDs in DALYs (per 100 000 population) by selected NCDs and Years



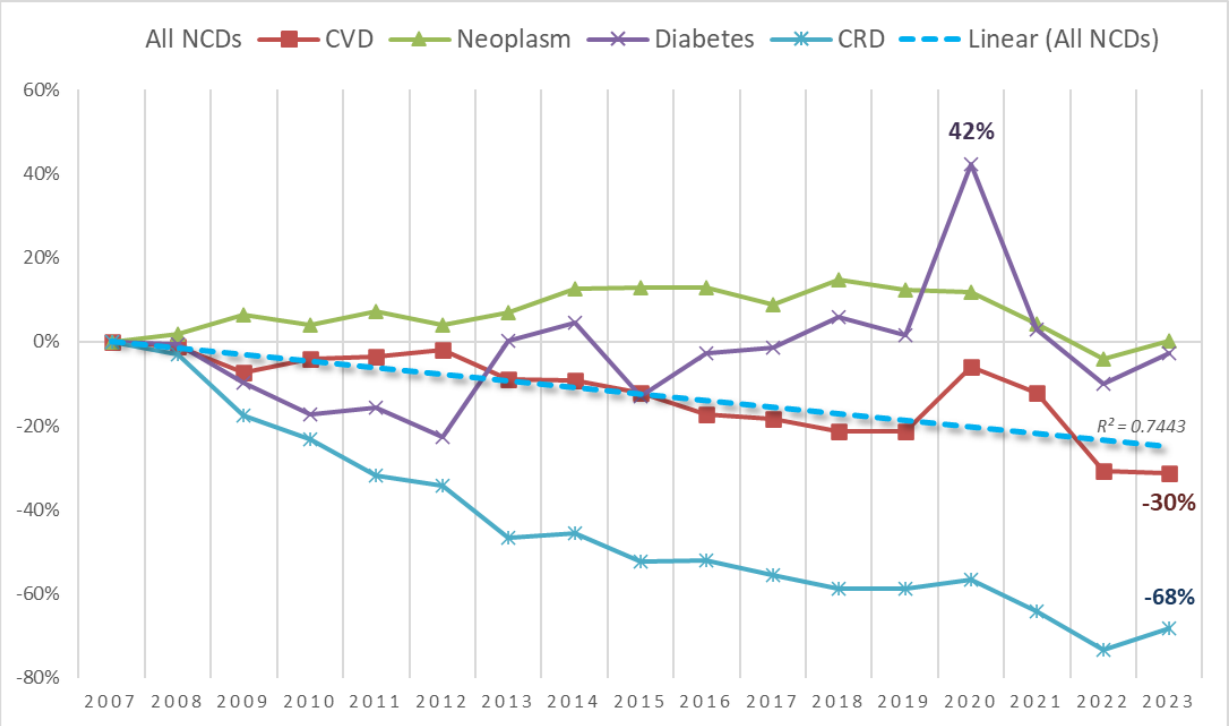
Source: (51)

Figure 5-4: Mortality rates attributed to non-communicable disease (all and by major categories) by years



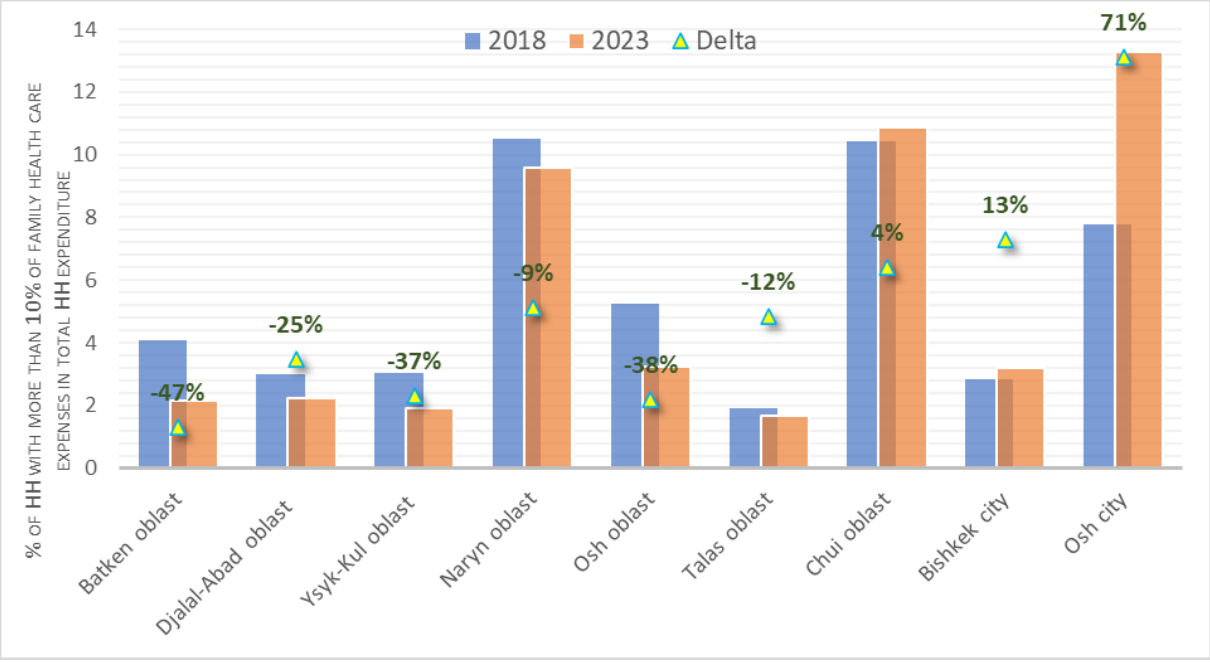
Source: (7)

Figure 5-5: Changes in the mortality rates caused by NCD in % compared to the baseline values in 2007 (by NCD categories)



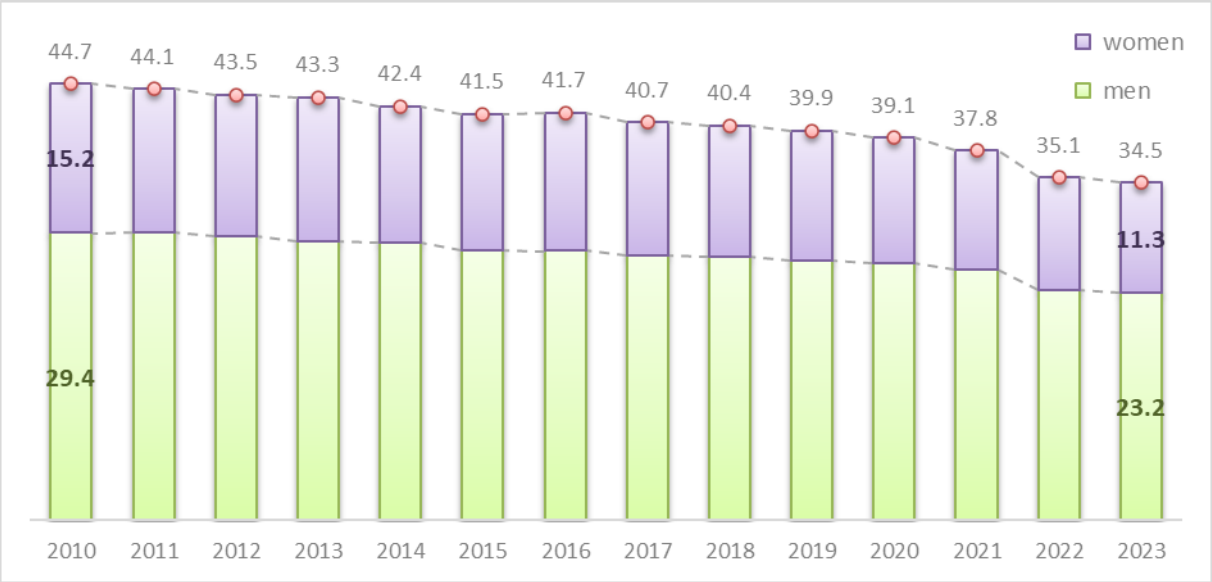
Source: (7)

Figure 5-6: Financial protection of households against health-related expenditures by regions and years



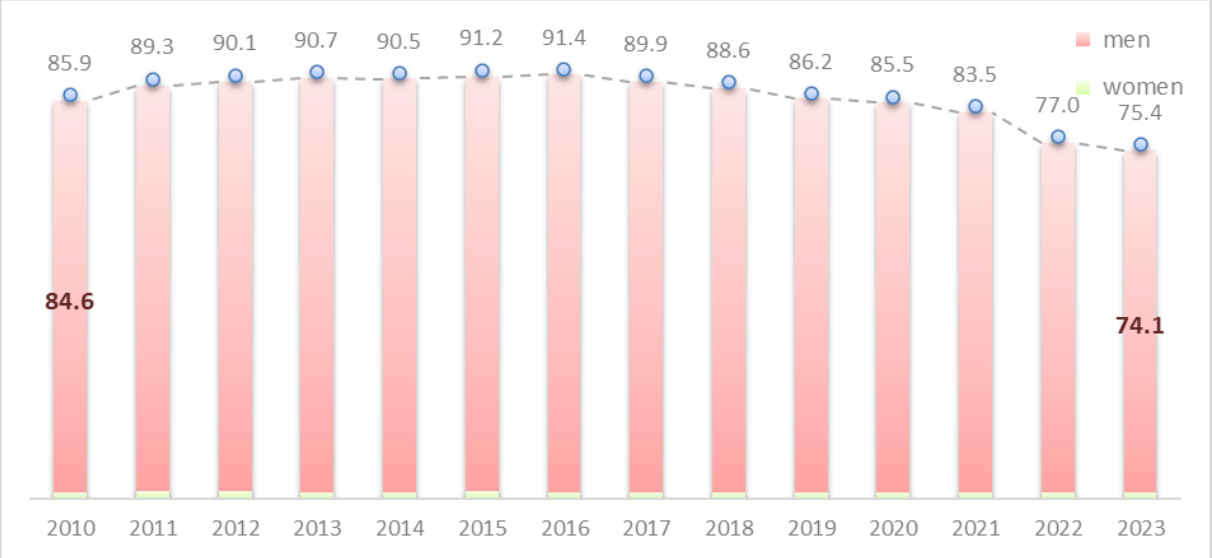
Source: (52)

Figure 5-7 Health worker density by 10 000 people by year and gender – medical doctors



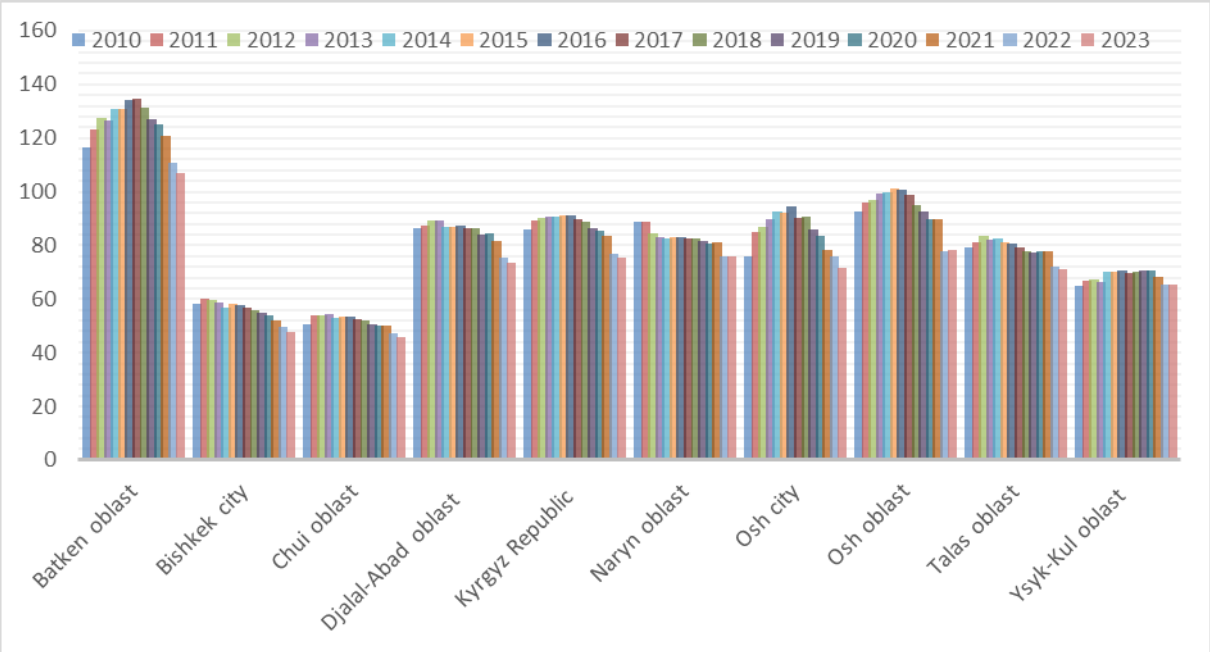
Source: (53)

Figure 5-8: Health worker density by 10 000 people by year and gender – nurses



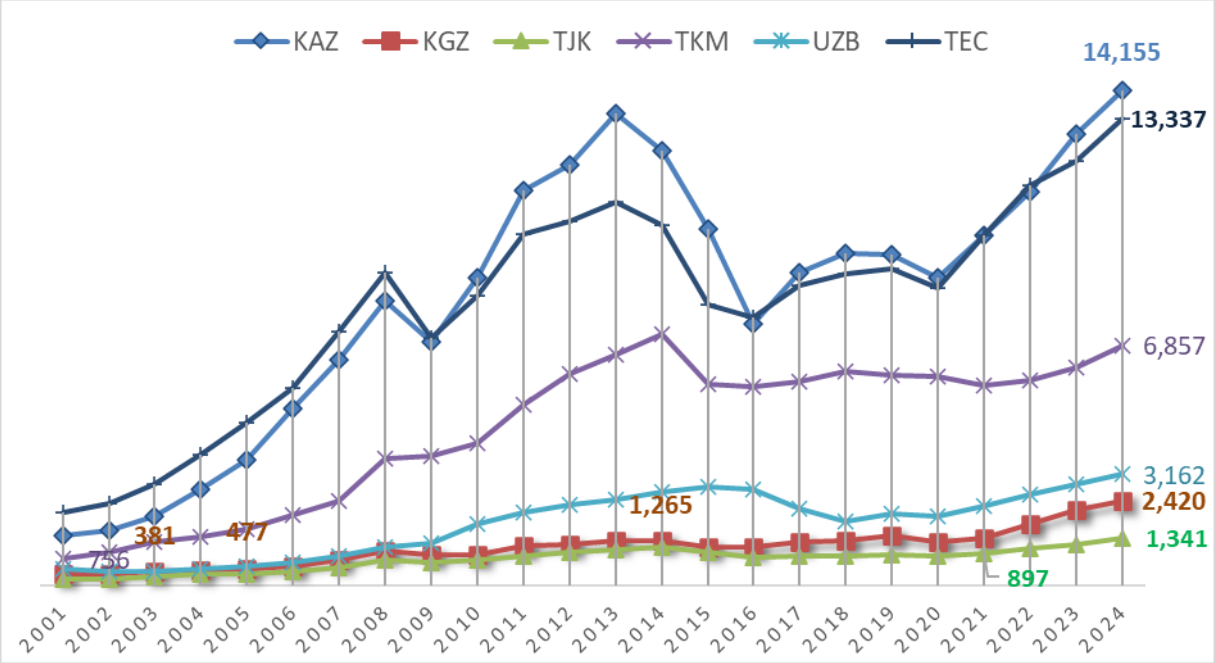
Source: (53)

Figure 5-9: Health worker density by 10 000 people by year and administrative territories – nurses



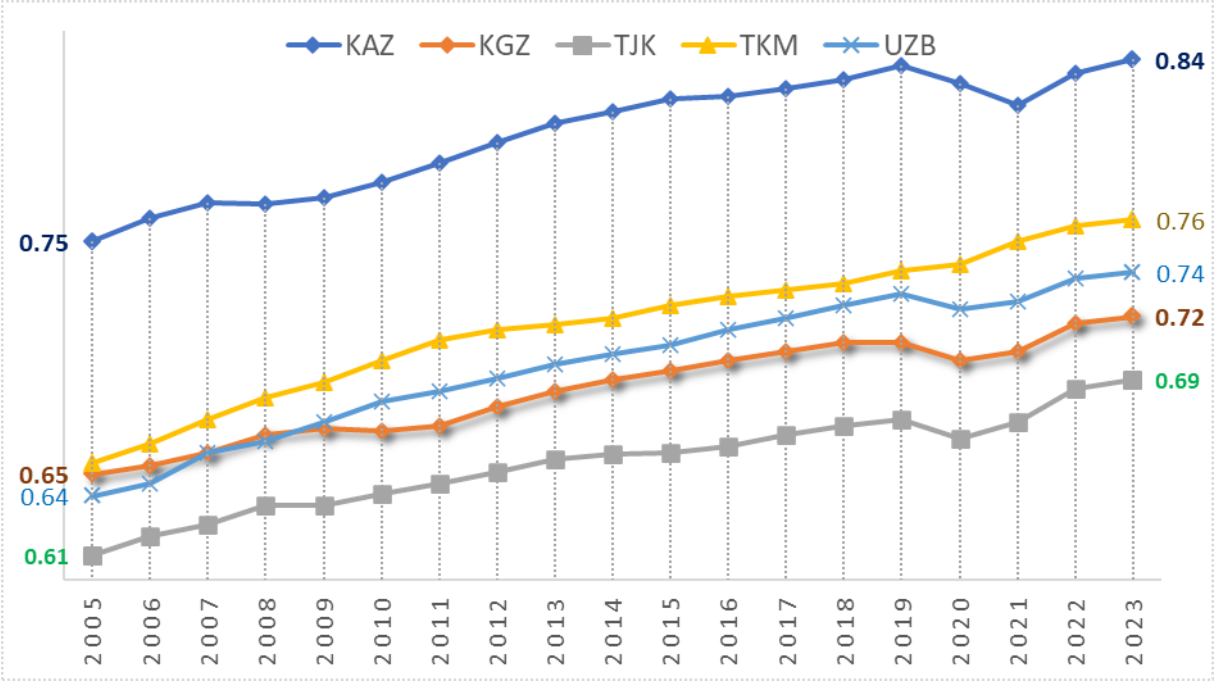
Source: (53)

Figure 5-10: Gross domestic product (GDP) per capita (current USD) by years for selected countries and IDA & IBRD eligible countries in Europe & Central Asia (TEC)



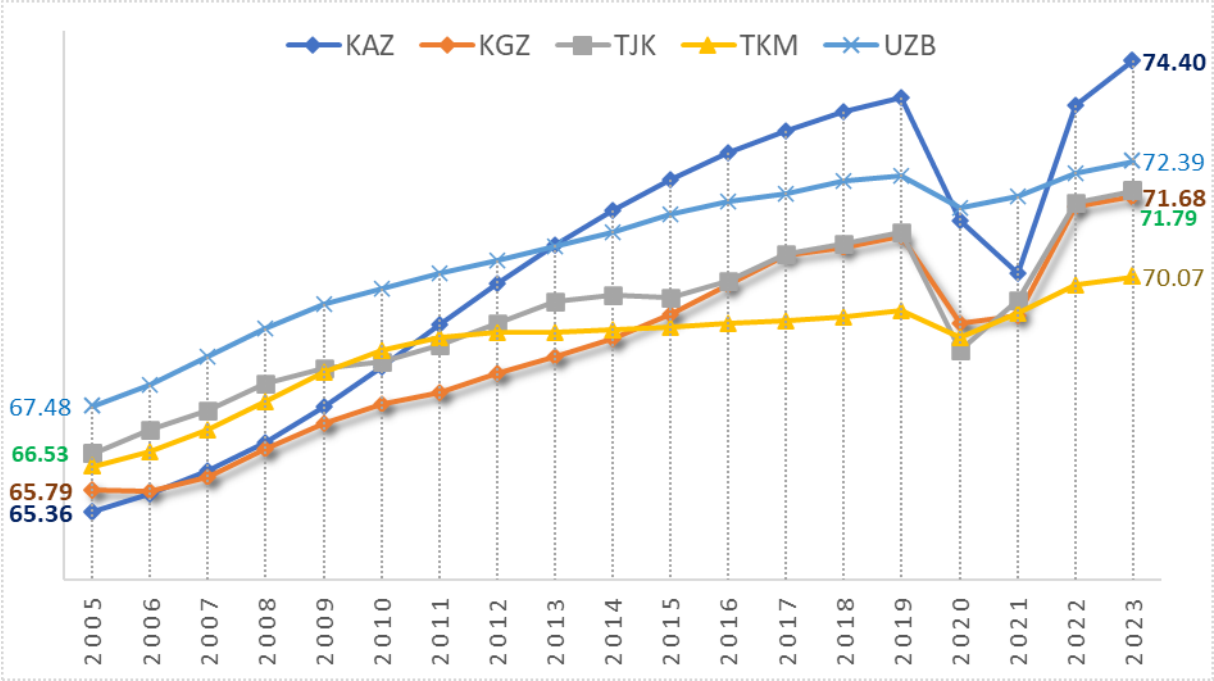
Source: (8)

Figure 5-11: Human development index (HDI) by countries and years



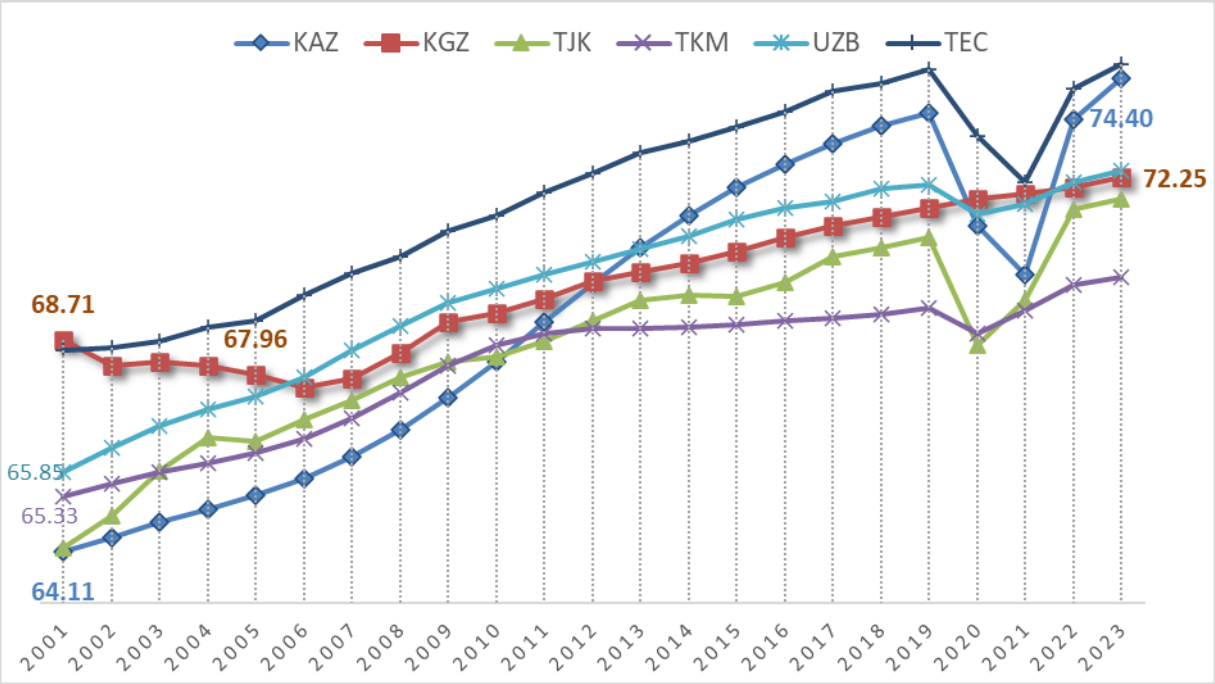
Source: (20)

Figure 5-12: Life expectancy at birth (both sexes) by countries and years (UNDP)



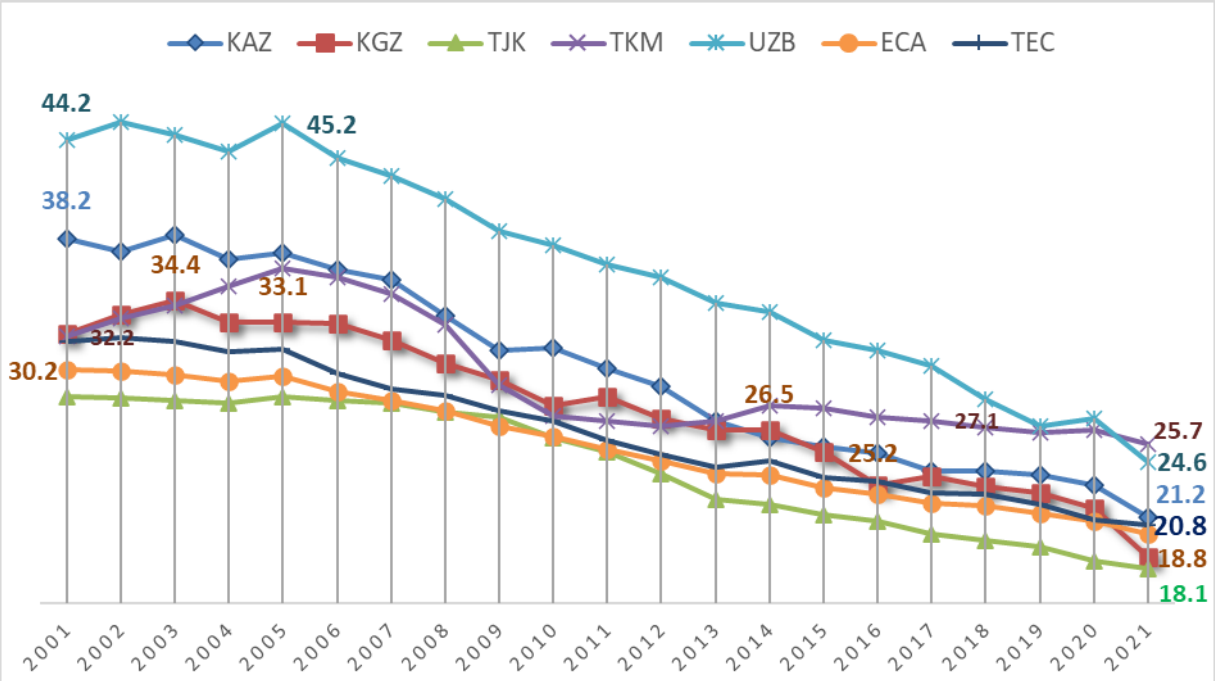
Source: (20)

Figure 5-13: Life expectancy at birth, total (years) (WB)



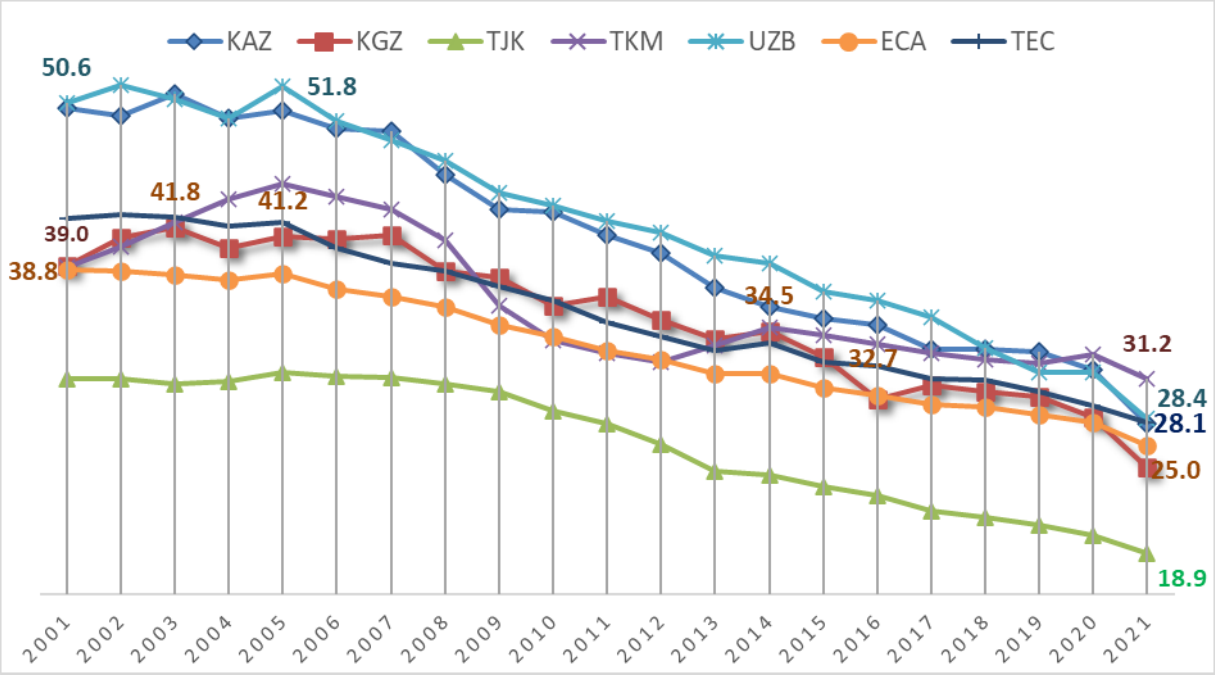
Source: (8)

Figure 5-14: Mortality from CVD, cancer, diabetes or CRD between exact ages 30 and 70 (%)[33] by countries, sub-regions and years[34]



Source: (8)

*Figure 5-15: Mortality from CVD, cancer, diabetes or CRD between exact ages 30 and 70, **male** (%) by countries and years*

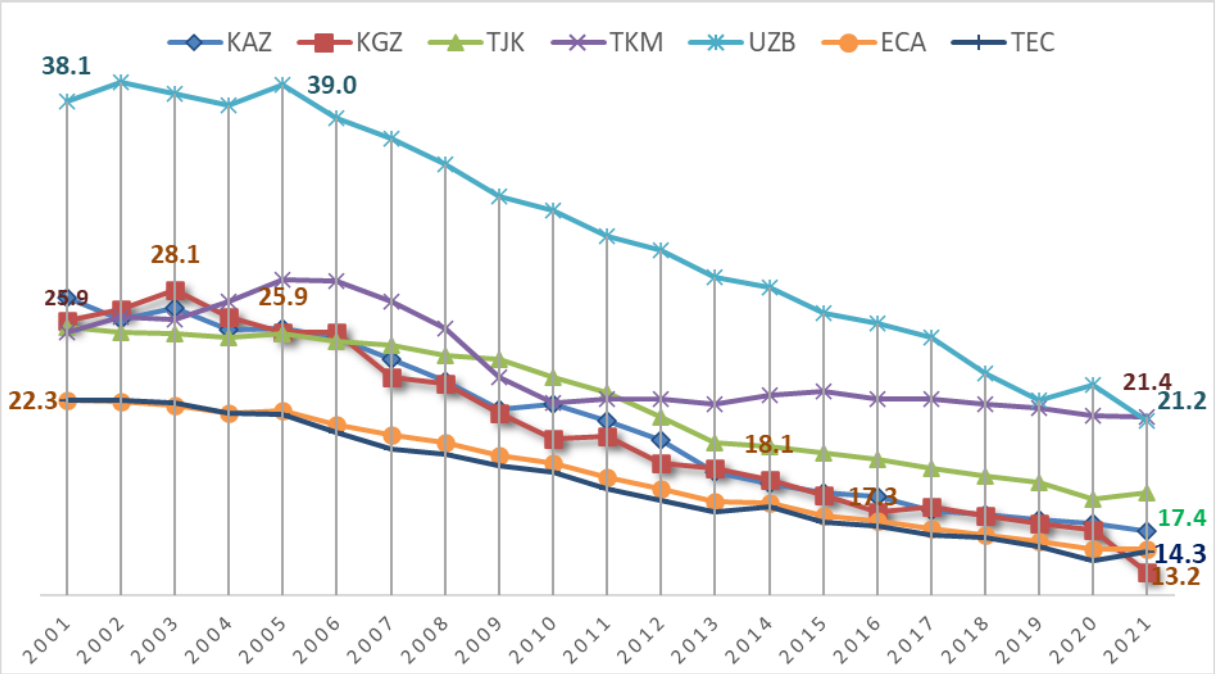


33 "Mortality from CVD, cancer, diabetes or CRD is the percent of 30-year-old-people who would die before their 70th birthday from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age, and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS)." (6)

34 TEC – Europe and Central Asia (IDA & IBRD countries), ECA – Europe and Central Asia (excluding high income countries)

Source: (8)

*Figure 5-16: Mortality from CVD, cancer, diabetes or CRD between exact ages 30 and 70, **female** (%) by countries and years*



Source: (8)

Figure 5-17 List of legals acts constituting the legal framework for the creation and operation of a new model of competency-based selection and appointment of healthcare facility managers.

1	MOH Order №508 on the COC of HFMs, 25 April 2022
2	COM KR Decree №39 on the Reserve of Managerial Cadre and Appointment of HFMs, 25 January 2023
3	MOH Order №140 on the implementation of the COM KR Decree №39, 16 February 2023
4	MOH Order №898 on regulations on the appeals commission, 24 July 2023
5	MOH Order №273 on appointments to vacant positions and competitive selection, 15 March 2024
6	MOH Order №274 on MOH composition of the commission for appointment of HFMs,15 March 2024
7	MOH Order № 818 on the list of state HCOs in the register of the reserve of HFMs, July 2024
8	MOH Order № 886 on the subject and psychological testing of HFMs, 16 August 2024
9	MOH Order № 887 on model employment contract with HFMs, 16 August 2024
10	MOH Order № 889 on procedure for forming the ranking of HFMs_19 August 2024
11	MOH KR Decree №188 RA on attestation and registration of the HFMs, 27 February 2023
12	MOH Order № 233 on state-standard documents for professional education, March 2023
13	MOH Order № 255 on approval of the certificate form on attestation of the HFMs, 9 March 2023
14	MOH Order №627 on measures to improve the competencies of HFMs_26 May 2022
15	Amendment to the Law on Health Protection, January 2024 №14 (article 16 on health management)

Source: HFA project documents (unpublished)

Figure 5-18: Changes in population knowledge, acknowledge and practice, northern regions (baseline 2018, results – 2025)



Figure 5-19: The number of volunteers in the VHC by regions and years

		2018	2019	2020	2021	2022	2023	2024	2025
Chui	Чуй	2,232	2,064	1,816	1,816	1,824	1,800	1,800	1,672
Naryn	Нарын	992	952	944	944	944	952	952	944
Talas	Талас	760	752	712	712	712	712	712	712
Osh	Ош	2,976	2,624	2,632	2,632	2,648	2,648	2,648	2,632
Batken	Баткен	1,600	1,552	1,560	1,560	1,624	1,624	1,624	1,592
Issyk-Kul	Иссык-Куль	1,392	1,344	1,336	1,336	1,336	1,336	1,336	1,336
Jalal-Abat	Джалал-Абад	3,456	3,424	3,408	3,408	3,416	3,416	3,416	3,368
		13,408	**12,712**	**12,408**	**12,408**	**12,504**	**12,488**	**12,488**	**12,256**

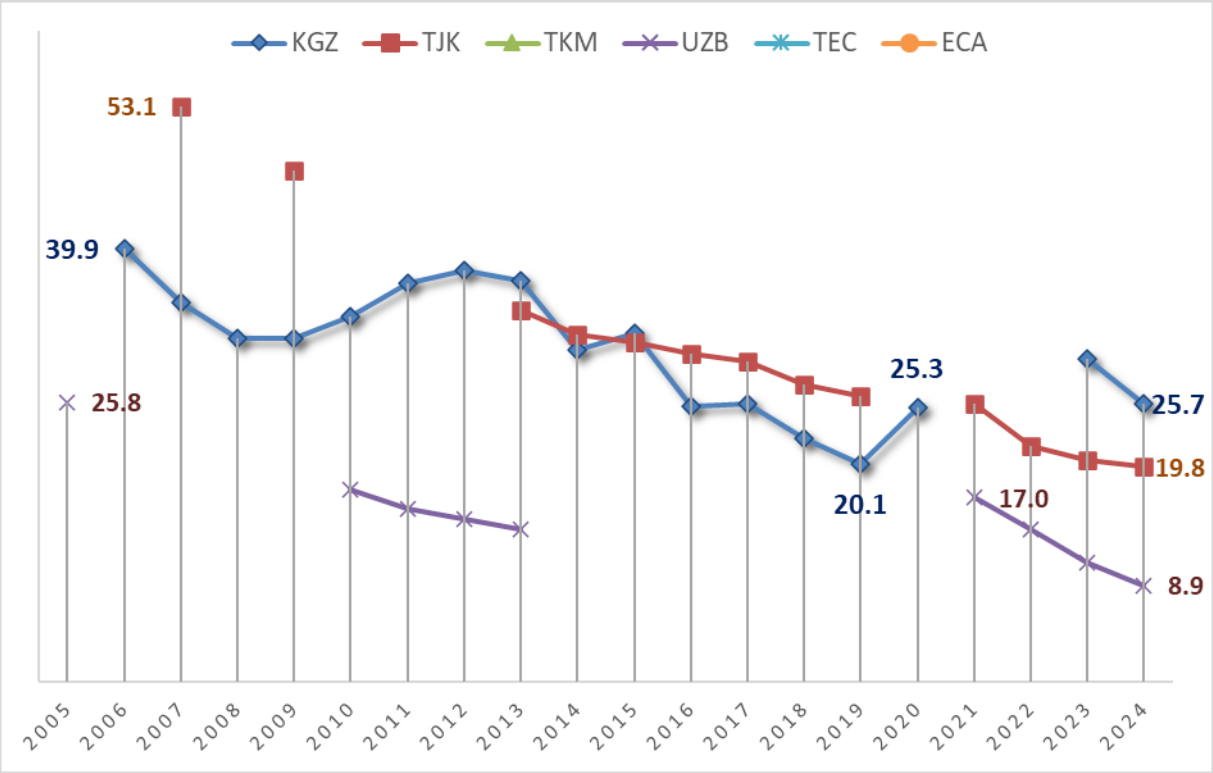
Source: Unpublished data provided by the AVHC

Figure 5-20: Changes in population knowledge, acknowledge and practice, southern regions (baseline 2022, results – 2025)



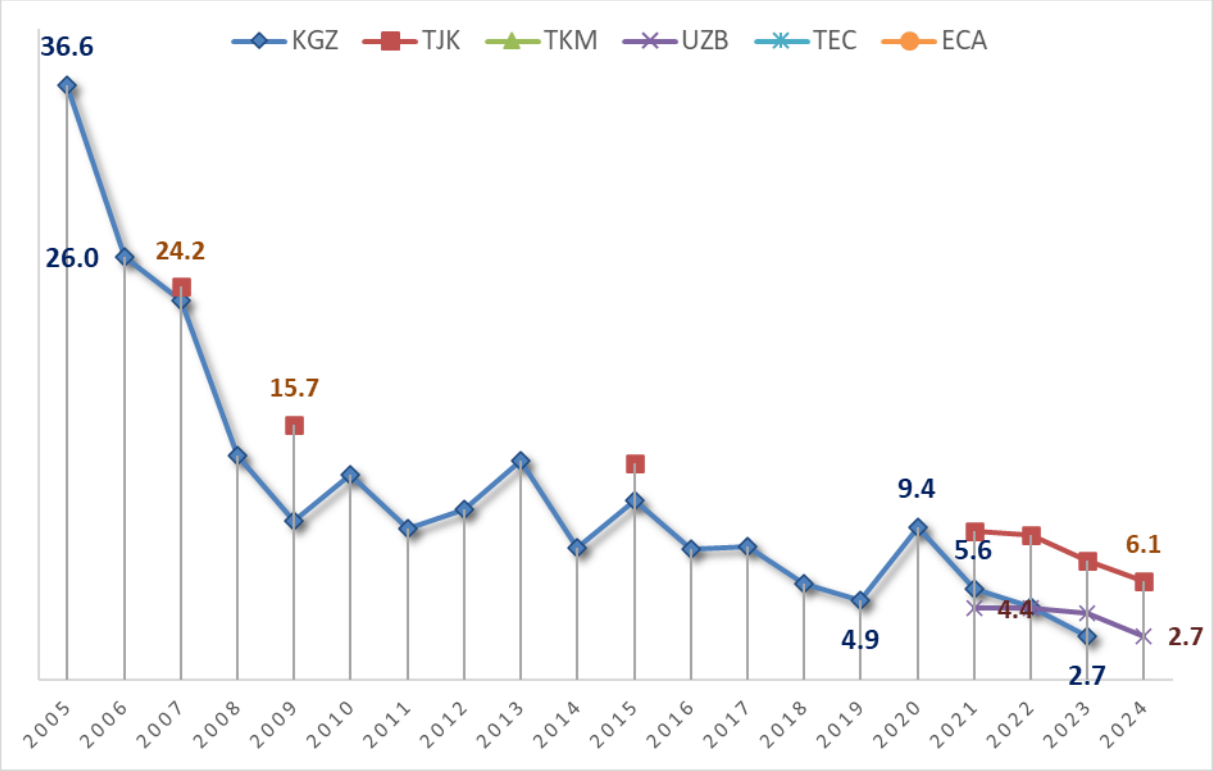
Source: NCD Project reports /documents (unpublished)

Figure 5-21: Poverty trends - Poverty headcount ratio at national poverty lines (% of population)



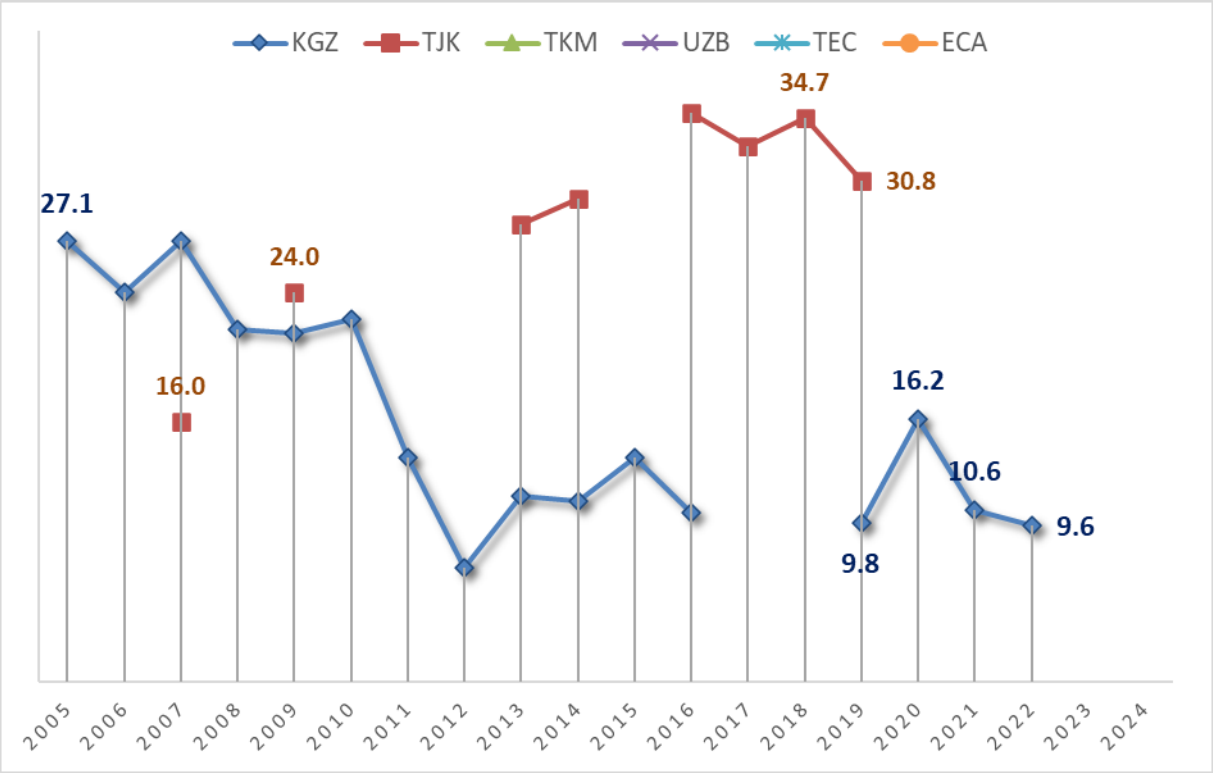
Source: (8)

Figure 5-22: Poverty trends - Poverty headcount ratio at $3.00 a day (2021 PPP) (% of population)



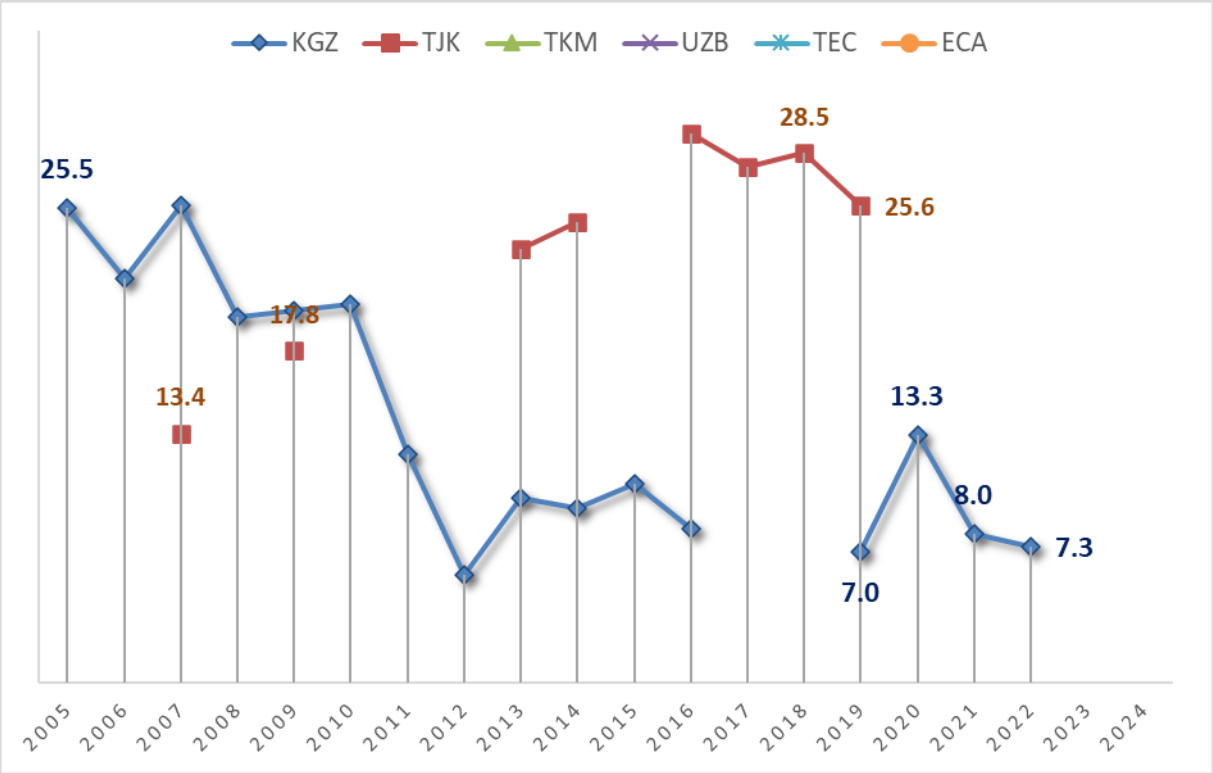
Source: (8)

Figure 5-23: Proportion of population facing financial hardship due to out-of-pocket health expenditure (%)



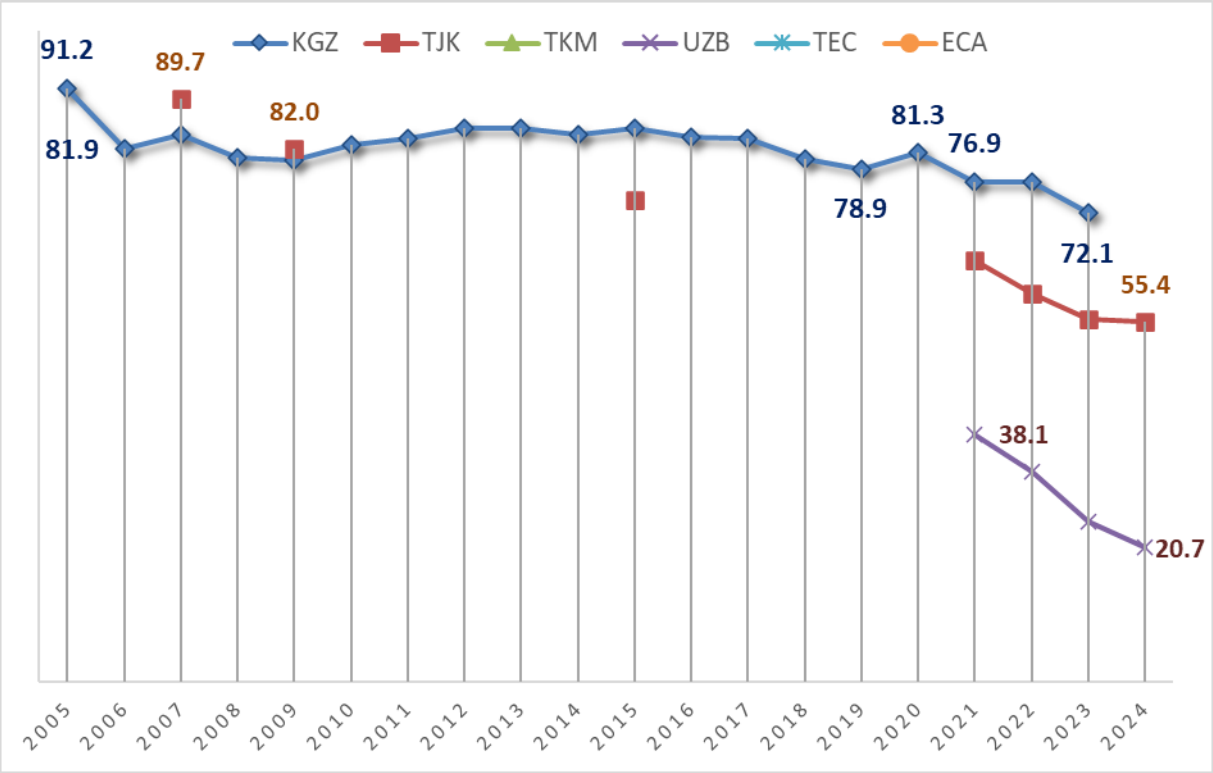
Source: (8)

Figure 5-24: Proportion of population facing impoverishing out-of-pocket health expenditure, based on the societal poverty line (%)



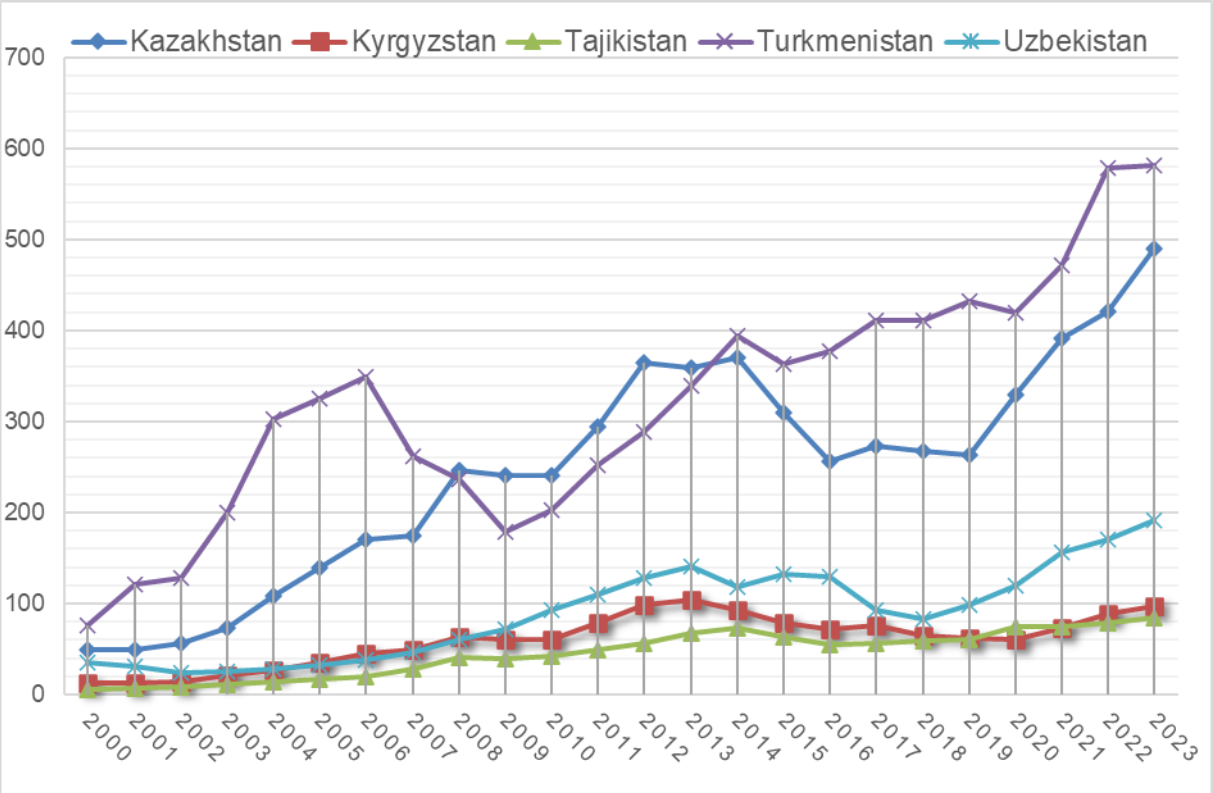
Source: (8)

Figure 5-25: Poverty trends - Poverty headcount ratio at $8.30 a day (2021 PPP) (% of population)



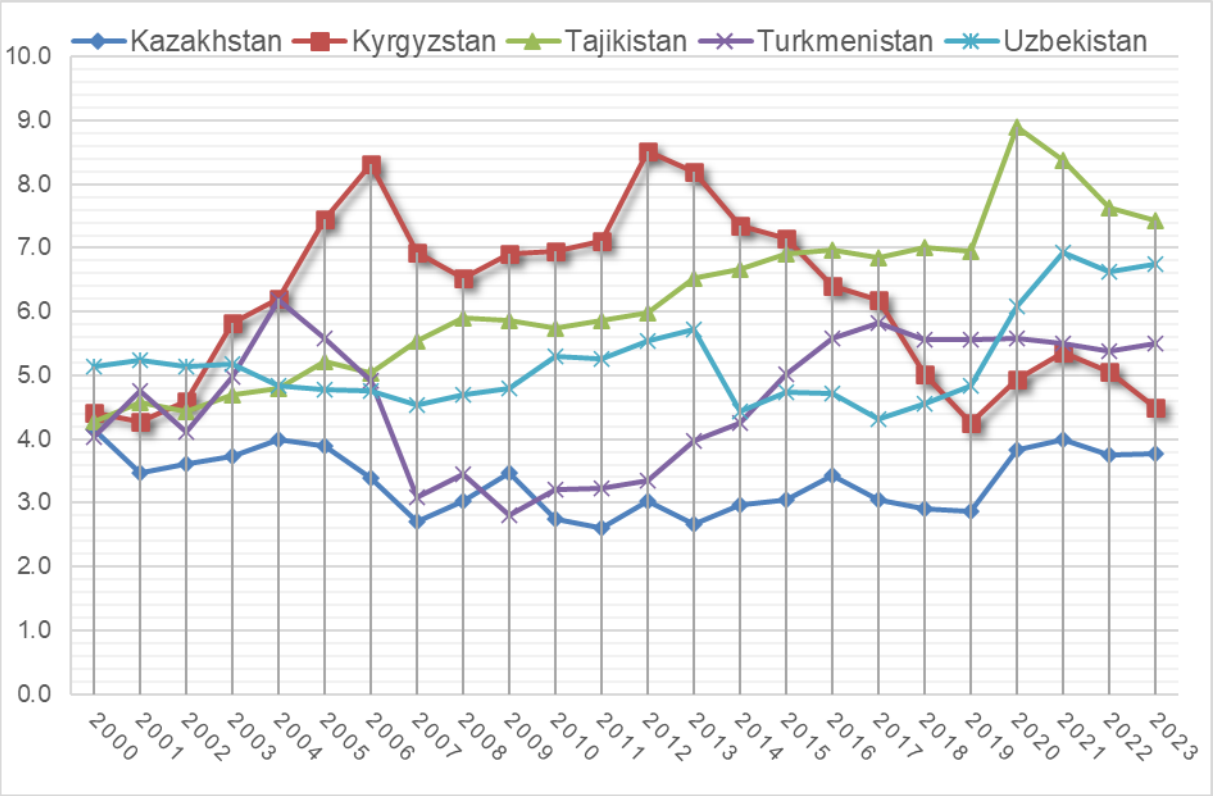
Source: (8)

Figure 5-26: Current Health Expenditure (CHE) per Capita in US$ - sub-regional trends



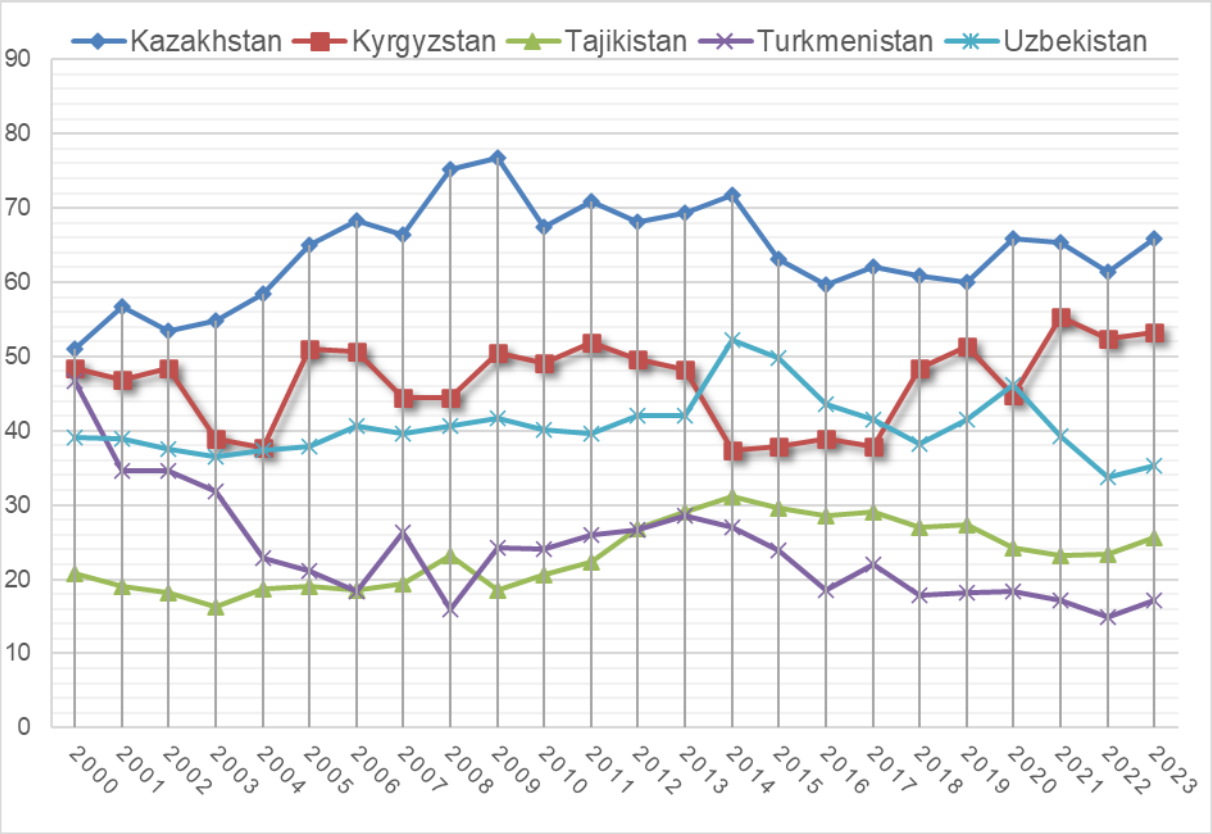
Source: (43)

Figure 5-27: Current Health Expenditure (CHE) as % Gross Domestic Product (GDP) - sub-regional trends



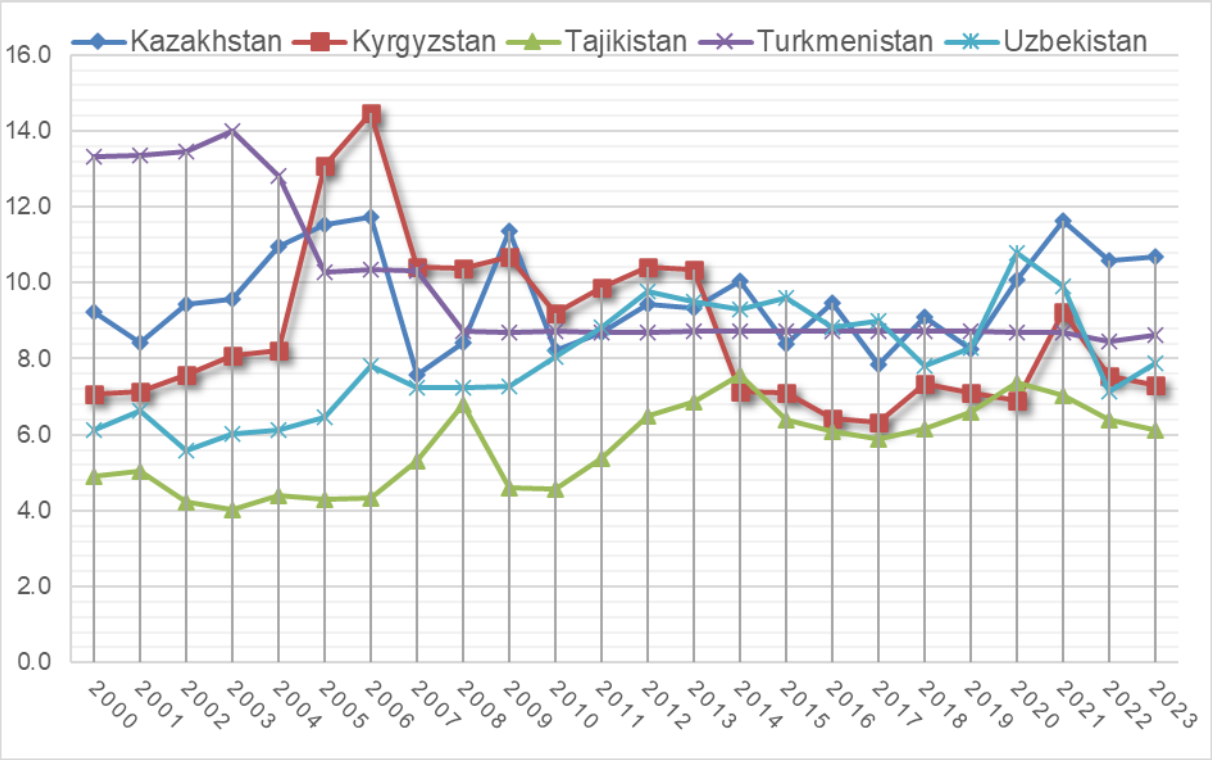
Source: (43)

Figure 5-28: Domestic General Government Health Expenditure (GGHE-D) as % Current Health Expenditure (CHE) – sub-regional trends



Source: (43)

Figure 5-29: Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE) – sub-regional trends

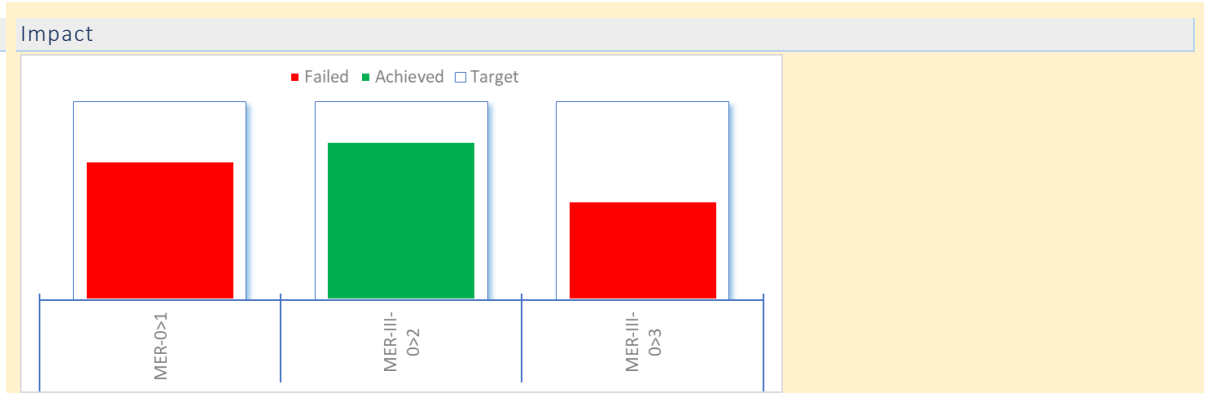


Source: (43)

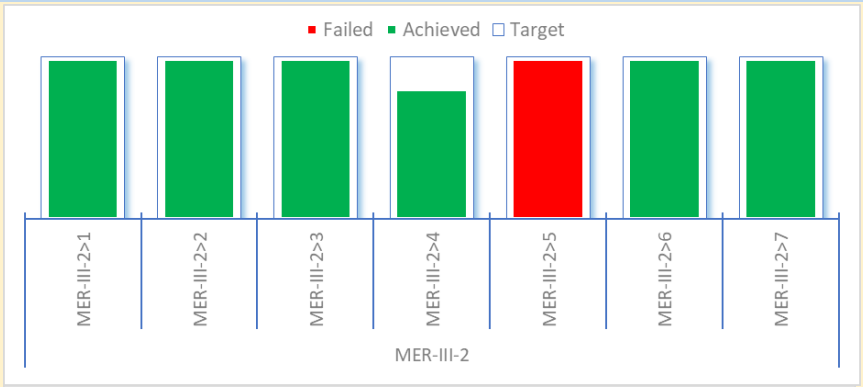
Figure 5-30: Notations used for labeling project components and indicators

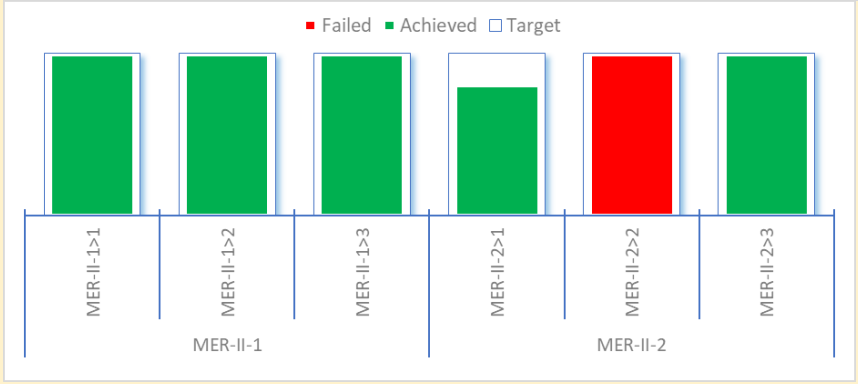
Project abbreviation	Connector	Phase (if omitted refers to the last)	Connector	0 - impact 1 to 9 – Outcome Decimals – outputs	Connector	Indicator number
AAA	-	**III**	-	**#.#**	>	**#**

Figure 5-31: MER project profile - achievements by the level of results for all phases

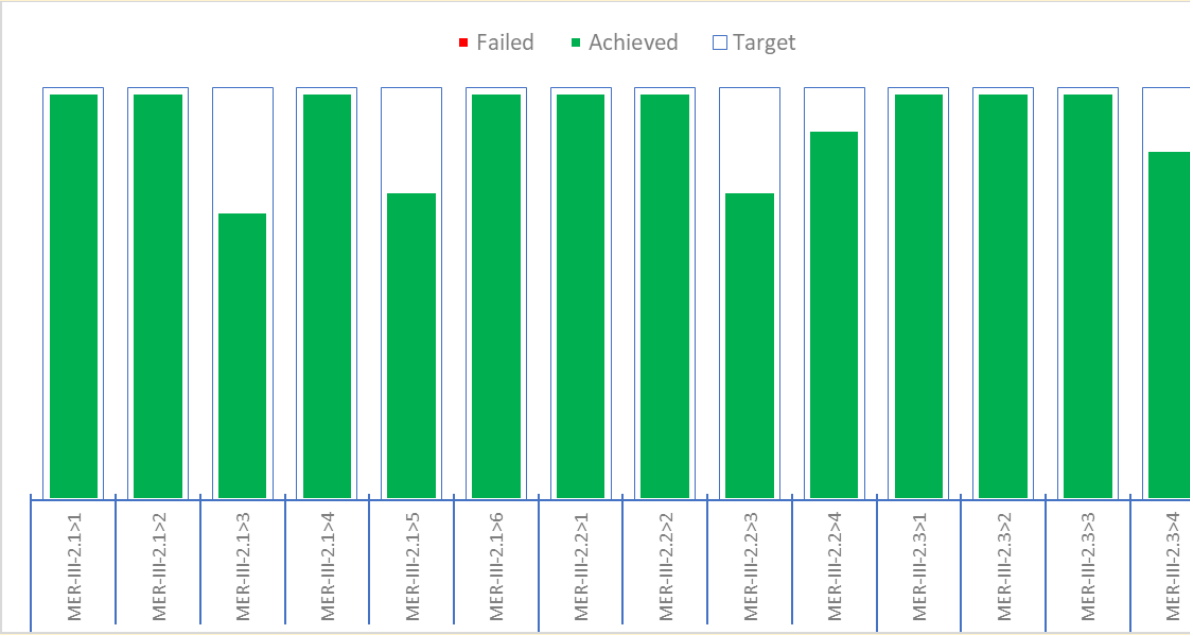


Outcomes





Outputs



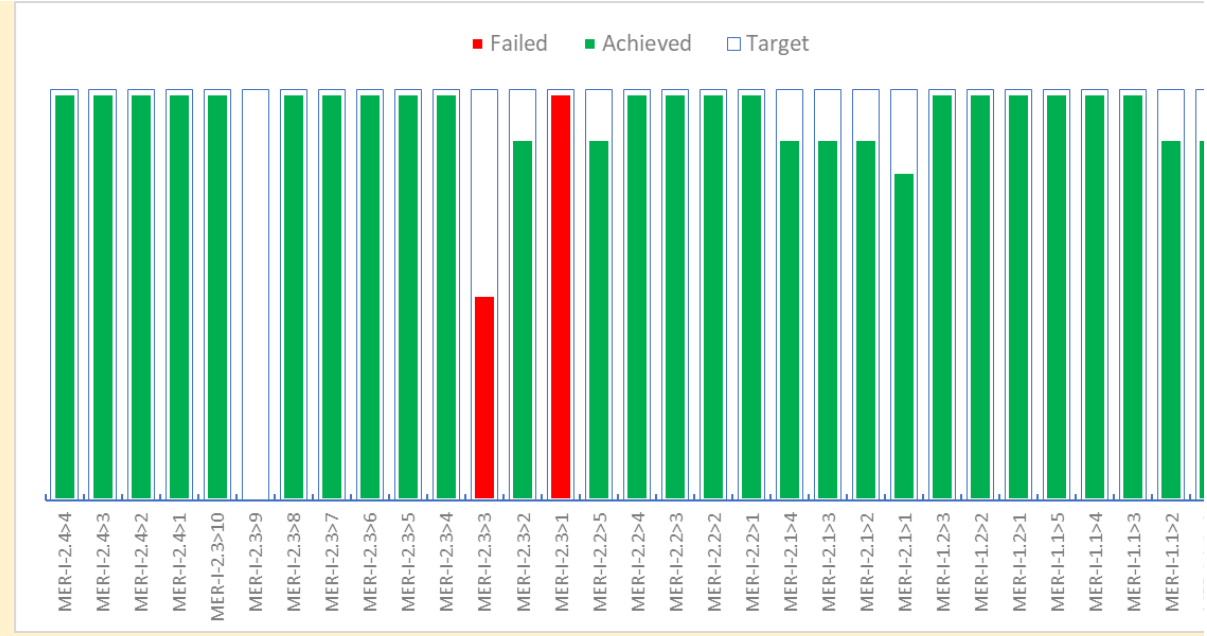


Figure 5-32: List of indicators used to track results in the MER project in different phases

№	Code	Indicator Definition
1	MER-0>1	SDG indicator 3.c.1: Health worker density and distribution improve in rural areas
2	MER-III-0>2	Number and proportion of doctors and nurses registered and admitted to professional practice through the independent competency assessment system (based on MoH Order)
3	MER-III-0>3	% of total nurse graduates of the running year employed by the health system
4	MER-III-2>1	Number of KMA members as separate legal entities
5	MER-III-2>2	Number of KNA members as individuals (percentage of KNA members out of the total nurses and midwives)
6	MER-III-2>3	Satisfaction level of PMA members with the performance of the umbrella associations (KMA and KNA)
7	MER-III-2>4	Number of doctors and nurses who undertake a certification procedure through an independent competencies assessment system and score passing points
8	MER-III-2>5	Number of nursing students entering the new education program in the selected MCs.
9	MER-III-2>6	Satisfaction level of students entering and being trained in the new education program
10	MER-III-2>7	Satisfaction level of the faculty staff and clinical supervisors with the new education program in the selected MC's
11	MER-II-1>1	# of key policy decisions (regulation of PGME, CME and nursing strategy implemented to improve quality of medical education.
12	MER-II-1>2	% of new medical graduates working in rural areas as family doctors
13	MER-II-1>3	Incentive mechanisms to work in rural areas as a GP
14	MER-II-2>1	% students selected GPs' specialty at PGME1
15	MER-II-2>2	Medical students' satisfaction level with the new curriculum and methods of teaching
16	MER-II-2>3	# of health professionals accredited by the newly introduced system1 (Baseline: 0, Target: 30%);
17	MER-III-2.1>1	PMAs are formally mandated to deliver independent assessment services
18	MER-III-2.1>2	Number of PMAs/PMA members who benefited from capacity building activities organized in a package of services
19	MER-III-2.1>3	Number of PMAs that have developed a business plan
20	MER-III-2.1>4	Number of PMAs, which are members of international associations

21	MER-III-2.1>5	Number of professional standards developed by PMAs
22	MER-III-2.1>6	Number of registered CME (Continuing Medical Education) training programs provided by PMAs
23	MER-III-2.2>1	The legal framework and concept of independent assessment, competencies development and registration have been approved
24	MER-III-2.2>2	ICCA is established and fully functional
25	MER-III-2.2>3	Number of health professionals by specialties who use the AiTest platform
26	MER-III-2.2>4	Number of developed test assignments (Multiple Choice Questionnaire (MCQ)) based on new principles and approaches
27	MER-III-2.3>1	Number of educational modules developed in accordance with the new basic professional educational program (BPEP)
28	MER-III-2.3>2	Number of teachers and clinical supervisors trained on the new education program implementation
29	MER-III-2.3>3	Number of clinical guidelines for nurses developed for the management of patients in PHC
30	MER-III-2.3>4	Number of activities (high-level RTs) undertaken as part of the communication strategy
31	MER-II-1.1>1	Number of policy dialogues organized
32	MER-II-1.1>2	At least 3 meetings of UMO per year
33	MER-II-1.1>3	Number of meetings on accreditation of the Kyrgyz Medical Association
34	MER-II-1.1>4	Number of members of the Kyrgyz Medical Association
35	MER-II-1.1>5	Number of members of the Association of Family Doctors and Nurses
36	MER-II-1.2>1	Number of policy dialogue sessions organized around a Human Resource strategy development
37	MER-II-1.2>2	A working group to design the HR strategy was established
38	MER-II-1.2>3	Number of normative documents elaborated and implemented within the HR strategy
39	MER-II-2.1>1	Number of teachers trained in the new curriculum through ToT (KSMA trains OshSU)
40	MER-II-2.1>2	Ratio of basic disciplines (theory) to clinical disciplines
41	MER-II-2.1>3	Number of workshops with UDREM and other experts
42	MER-II-2.1>4	Number of meetings of the MoH and MoES with students
43	MER-II-2.2>1	PGME Strategy finalized
44	MER-II-2.2>2	GP/FM catalog of competencies completed
45	MER-II-2.2>3	Legal reforms approved and legislative framework implemented
46	MER-II-2.2>4	The number of facilities in regions becoming clinical sites for HEIs in PGME increases
47	MER-II-2.2>5	The number of residents following PGME in regions increases
48	MER-II-2.3>1	Number of GP/FM accredited using the new CME system
49	MER-II-2.3>2	Number of CME courses conducted through the e-learning system
50	MER-II-2.3>3	Number of doctors registered using the new CME credit system
51	MER-II-2.3>4	Number of CME programs developed
52	MER-II-2.3>5	Number of modules developed with gender perspectives
53	MER-II-2.3>6	Number of GP/FM and nurses attending CME courses
54	MER-II-2.3>7	Number of ToTs organized
55	MER-II-2.3>8	Number of e-learning courses organized
56	MER-II-2.3>9	Number of Peer Review Groups created (CME)
57	MER-II-2.3>10	Number of CME courses conducted in regions
58	MER-II-2.4>1	Number of sessions with key stakeholders devoted to Strategy elaboration
59	MER-II-2.4>2	Number of sessions with key stakeholders on nursing education standard revision
60	MER-II-2.4>3	Number of nurses participating in CME activities
61	MER-II-2.4>4	Number of legal documents prepared for task sharing in the Primary Care System

Figure 5-33: HFA project profile - achievements by the level of results for all phases



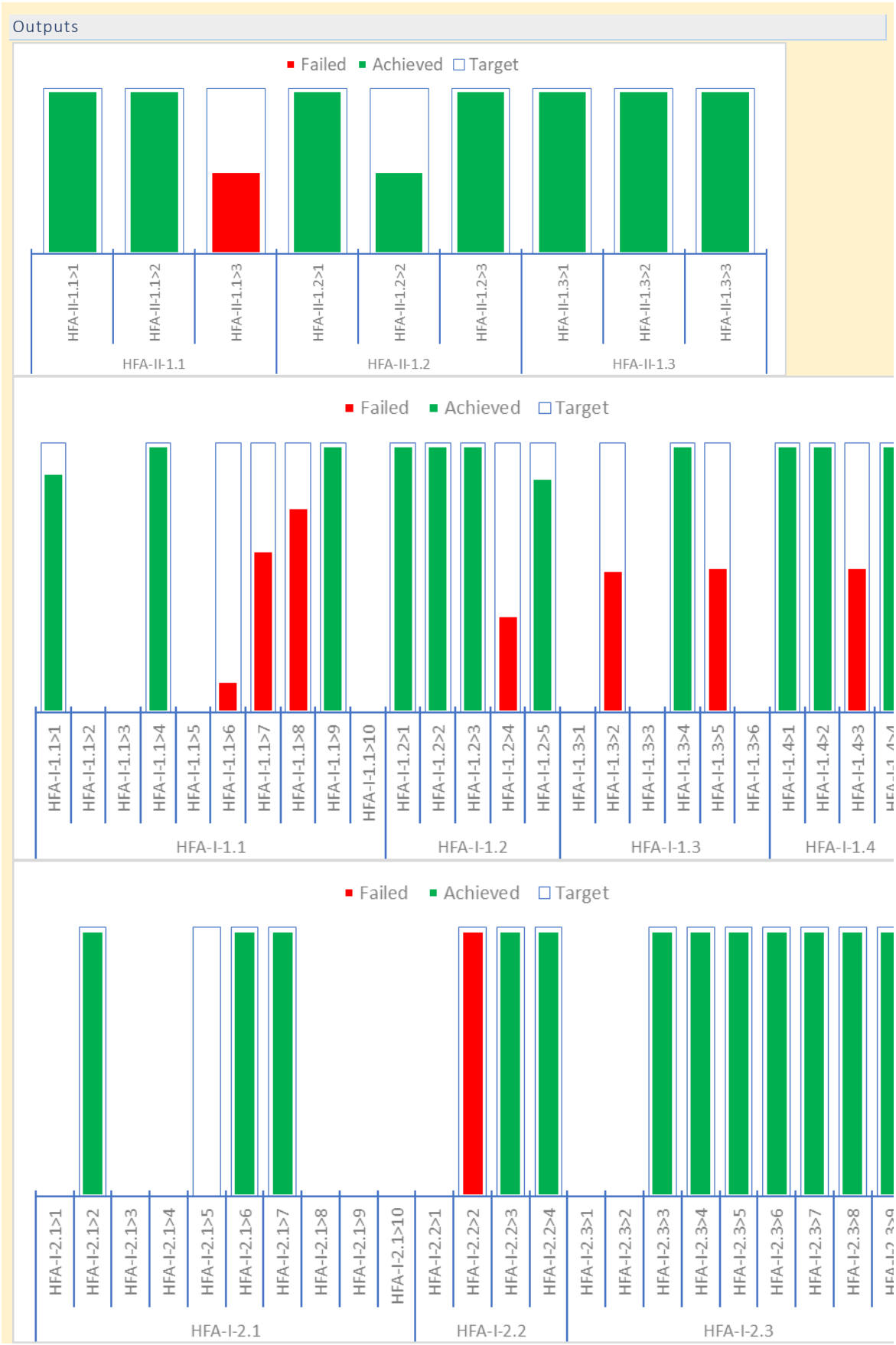

Outputs
Failed
Achieved
Target
HFA-II-1.1>1
HFA-II-1.1>2
HFA-II-1.1>3
HFA-II-1.2>1
HFA-II-1.2>2
HFA-II-1.2>3
HFA-II-1.3>1
HFA-II-1.3>2
HFA-II-1.3>3
HFA-II-1.1
HFA-II-1.2
HFA-II-1.3
Failed
Achieved
Target
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HFA-I-1.1>3
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HFA-I-1.4>3
HFA-I-1.1
HFA-I-1.2
HFA-I-1.3
HFA-I-1.4
Failed
Achieved
Target
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HFA-I-2.1>2
HFA-I-2.1>3
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HFA-I-2.3>7
HFA-I-2.3>8
HFA-I-2.1
HFA-I-2.2
HFA-I-2.3

Figure 5-34: List of indicators used to track results in the HFA project in different phases

№	Code	Indicators
1	HFA-II-0>1	Reduction of maternal mortality
2	HFA-II-0>2	Reduction of infant mortality
3	HFA-II-0>3	Reduction of CVD mortality
4	HFA-II-1>1	Proportion of trained HF managers who have successfully undergone annual performance assessment in organizational, HR and financial management
5	HFA-I-2>1	Average number of hospital discharges per hospital – based physician ("practicing physicians")
6	HFA-I-2>2	% day cases in total of hospital discharges
7	HFA-I-2>3	Average number of patient visits per physician at HFs of the PHC level
8	HFA-I-2>4	Number of adverse events in pilot HFs, including cases of nosocomial infections
9	HFA-I-2>5	PF Ind 11: Number of emergency hospitalizations of patients with hypertension to pilot hospitals
10	HFA-I-2>6	PF Ind 12: Hospital bed occupancy rate
11	HFA-I-2>7	PF Ind 6: Average quality score achieved by FGPs
12	HFA-I-2>8	PF Ind 7: Average quality score achieved by Family Medicine/General Practitioner Center, measured by quality assessment of management and support to PHC (within RBF)
13	HFA-I-2>9	PF Ind 8: Average quality score achieved by THs/GPC, measured by quality assessment of THs/GPC (within hospital RBF)
14	HFA-I-2>1	The number of barriers removed to allow for achieving better performance of pilot HFs
15	HFA-I-2>2	% of employees of pilot HFs covered by updated and upgraded accountability mechanisms
16	HFA-I-2>3	% of performance-based earnings by employees of pilot HFs
17	HFA-I-2>4	Expenditure on PHC in total health expenditures at the rayon level
18	HFA-I-2>5	PF Ind 9: Share of RBF PHC funding received based on achieved results (RBF PHC)
19	HFA-I-2>6	PF Ind 14: Number of the newly developed and/or revised Normative Acts and Regulations as a result of WG Activities supported by the Project
20	HFA-I-2>7	PF Ind 29: Number of decisions made by Rayon Health Councils
21	HFA-I-2>8	Pf Ind 30: Number of Normative Acts and Regulations approved by GOK, MOH and MHIF
22	HFA-II-1.1>1	Number of developed bylaws and regulations endorsed during the project
23	HFA-II-1.1>2	Integration of gender equity in all applicable health management regulation acts
24	HFA-II-1.1>3	Number/percentage of newly employed health managers appointed to positions through a new, transparent, and competitive process
25	HFA-II-1.2>1	Number of training modules produced in accordance with pre-defined requirements
26	HFA-II-1.2>2	Number/percentage of trained health managers who successfully pass post-training testing/exams
27	HFA-II-1.2>3	Number of internationally accredited training modules
28	HFA-II-1.3>1	Legal registration of the AHM
29	HFA-II-1.3>2	Number of members of the AHM
30	HFA-II-1.3>3	Number of proposals of the AHM adopted in the revised regulations
31	HFA-I-1.1>1	PF Ind 12: Hospital bed occupancy rate in pilot facilities
32	HFA-I-1.1>2	PF Ind 13 Number and share of inappropriate hospital admissions/stay
33	HFA-I-1.1>3	% decrease waiting time of starting therapy and/or surgery for planned/elective hospital admissions
34	HFA-I-1.1>4	% of nurses at PHC settings (FMC and their branches) with expanded job descriptions (JDs)
35	HFA-I-1.1>5	% medical personnel of pilot HFs participating in peer chart reviews, incident reporting and quality audits to monitor implementation of clinical guidelines
36	HFA-I-1.1>6	PF Ind 13: Percentage and number of inappropriate hospital admissions/stay

37	HFA-I-1.1>7	PF Ind 15: Average quality score (QS) received by FGPs for the introduction of separated patient flow
38	HFA-I-1.1>8	PF Ind 16: Average score of FGPs assessed based on the quality of data entered into e-DB (patient Encounter)
39	HFA-I-1.1>9	PF Ind 17: Number and % of day cases in TH/GPC
40	HFA-I-1.1>10	PF Ind 18: Number of laboratory tests conducted in the newly centralized laboratories
41	HFA-I-1.2>1	1. % in-patients supplied with linens
42	HFA-I-1.2>2	2. Number of daily menu courses for patients with different diagnoses
43	HFA-I-1.2>3	PF Ind 19: Number of specialists of pilot HFs trained in new infection control requirements
44	HFA-I-1.2>4	PF Ind 20: Average Quality Score received by FGPs for the execution of A Medical Equipment Preventive Maintenance Plan
45	HFA-I-1.2>5	PF Ind 21: Average Quality Score received by TH/GPC for the execution of A Medical Equipment Preventive Maintenance Plan
46	HFA-I-1.3>1	1. % of employees of pilot HFs received any professional development benefit during the annual cycle of work (% of women)
47	HFA-I-1.3>2	2. % of accounting/financial management and inventory management staff trained to use Upgraded financial management and commodity management (# of trained women)
48	HFA-I-1.3>3	3. Number of HMIS modules at the HF level automated based on modern IT
49	HFA-I-1.3>4	PF Ind 22: Number of (trainings of) specialists of pilot HFs trained by using distant methods
50	HFA-I-1.3>5	PF Ind 23: Average QS received by FGPs for adhering to the schedule of physicians' visits to the FAPs
51	HFA-I-1.3>6	PF Ind 24: Number of physicians - young professionals employed in pilot HFs in the current year:
52	HFA-I-1.4>1	PF Ind 25: Share of FGP/FAP equipped in accordance with National Standards / requirements
53	HFA-I-1.4>2	PF Ind 26: Share of hospitals (DoEMC) equipped in accordance with national standards (requirements)
54	HFA-I-1.4>3	PF Ind 27: Average QS for introducing new methods/forms of recording medical equipment utilization at the FGP/GPC level
55	HFA-I-1.4>4	PF Ind 28: Average Quality Score for introducing new methods/forms of recording of medical equipment utilization at the TH/GPC level
56	HFA-I-2.1>1	Number of functioning Health Boards at the Rayon level/RHB (or number of RHB members with regular attendance)
57	HFA-I-2.1>2	Number of rayons where the M&E program for rayon health care is in use
58	HFA-I-2.1>3	% of HF managers and LSG representatives covered by leadership and management training (overall HF managers and LSG representatives)
59	HFA-I-2.1>4	% of oblast coordination committee meetings on pilot rayon's performance
60	HFA-I-2.1>5	PF Ind 32: Number of representatives of Rayon Health Councils (RHCs) in pilot rayons trained on leadership and management
61	HFA-I-2.1>6	PF ind 33: Number of RHC meetings held at the rayon levels
62	HFA-I-2.1>7	PF ind 33: Number of RHC meetings held at oblast levels
63	HFA-I-2.1>8	PF ind 34: Number of inquiries, proposals and recommendations on health issues submitted to RHCs by pilot HFs
64	HFA-I-2.1>9	PF Ind 35: Number of inquiries, proposals and recommendations on health issues submitted by RHCs to Oblast and Republican agencies and institutions
65	HFA-I-2.1>10	PF Ind 36: Number of thematic meetings and formal consultations with representatives of MoH, MHIF and Development Partners
66	HFA-I-2.2>1	Number of patient visits at the PHC level per capita
67	HFA-I-2.2>2	% of patients at the territorial (rayon) hospital with referrals from the PHC level
68	HFA-I-2.2>3	PF Ind 37: Revision of Normative Acts and Regulations on continuity of care and patient referral system in accordance with the introduced structural changes in pilot rayons

69	HFA-I-2.2>4	PF ind 38: Number of visits/consultations at TH/GPC with involvement / presence of Oblast level specialists, including consultations by telemedicine means
70	HFA-I-2.3>1	% of contractual funding from MHIF related to performance of pilot HFs.
71	HFA-I-2.3>2	% employees of pilot HFs whose performance is measured/assessed regularly
72	HFA-I-2.3>3	% of employees of HFs of PHC level covered by ERBF rewards/receive RBF earnings.
73	HFA-I-2.3>4	PF Ind 39: Actual RBF rewards of FGPs.
74	HFA-I-2.3>5	PF Ind 40: Число детей в возрасте до 5 лет, обслуженных ГСВ в соответствии с требованиями ФОР по результатам верификации
75	HFA-I-2.3>6	PF Ind 41: Число беременных, обслуженных ГСВ в соответствии с требованиями ФОР по результатам верификации
76	HFA-I-2.3>7	PF Ind 42: Verified number of new patients with hypertension registered by FGP
77	HFA-I-2.3>8	PF Ind 43: Verified number of bacteriologically confirmed TB cases
78	HFA-I-2.3>9	PF Ind 44: Verified number of TB patients who completed treatment at the PHC level

Figure 5-35: NCD project profile - achievements by the level of results in the North regions (Phase I) and the South regions (Phase II, except impact, results for 2024)



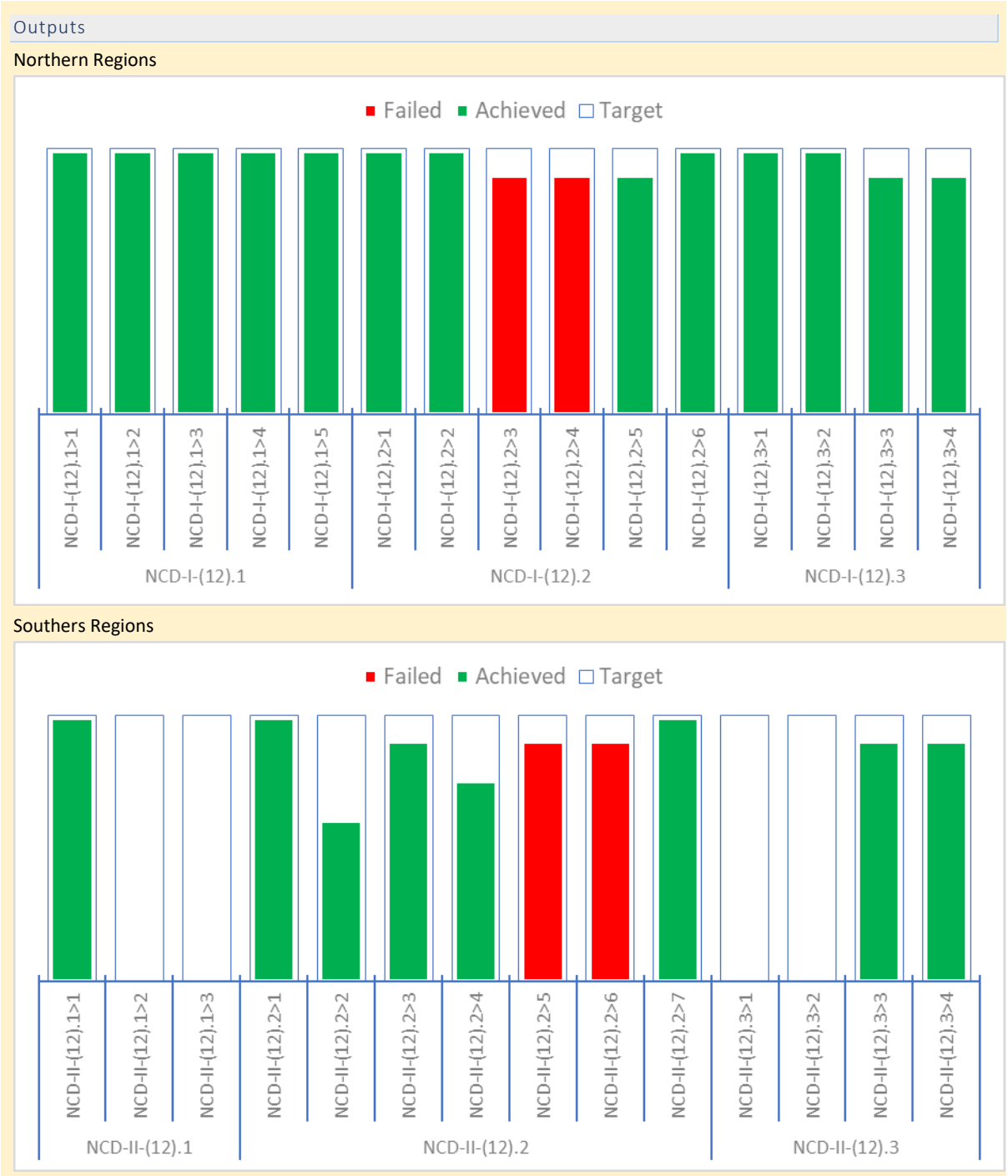


Figure 5-36: The full list of indicator codes and indicators used to track results in the NCD project in different phases

№	Code	Indicators
1	NCD-II-0>1	DALYs1 due to target NCDs (ischemic heart disease and cerebrovascular disease) in target areas have decreased
2	NCD-II-0>2/F	Premature death between ages 30 and 70 years from cardiovascular diseases, cancer (breast and cervical), or diabetes has decreased in target areas
3	NCD-II-0>3/M	Premature death between ages 30 and 70 years from cardiovascular diseases, cancer (breast and cervical), or diabetes has decreased in target areas
4	NCD-II-0>4/F	Increased life expectancy (LE) in males and females (indirect indicator)

5	NCD-II-0>5/M	Increased life expectancy (LE) in males and females (indirect indicator)
6	NCD-I-0>1	DALYs1 due to target NCDs (ischemic heart disease and cerebrovascular disease) in target areas have decreased
7	NCD-I-0>2/F	Premature death between ages 30 and 70 years from cardiovascular diseases, cancer (breast and cervical), or diabetes has decreased in target areas
8	NCD-I-0>3/M	Premature death between ages 30 and 70 years from cardiovascular diseases, cancer (breast and cervical), or diabetes has decreased in target areas
9	NCD-I-0>4/F	Increased life expectancy (LE) in males and females (indirect indicator)
10	NCD-I-0>5/M	Increased life expectancy (LE) in males and females (indirect indicator)
11	NCD-II-1>1	% of PHC facilities in target areas practice PEN protocols
12	NCD-II-1>2	% of patients (M/F) diagnosed with diabetes and hypertension trained in patient education classes managed by nurses has increased annually by 10 percentage points
13	NCD-II-1>3	% of patients (M/F and age groups) satisfied with the quality of PHC services has increased, % of FMCs/CGPs
14	NCD-II-1>4	% of FMCs/CGPs implementing the Budget Transparency Process (BTP) in the target regions
15	NCD-II-2>1	% of population (M/F) who reduce at least one NCD risk factor (tobacco, alcohol, nutrition, physical activity) has increased
16	NCD-II-2>2	% of men in target regions visiting a family doctor at least once per year increased
17	NCD-I-1>1	% of PHC facilities in target areas practice PEN protocols
18	NCD-I-1>2	% of patients (M/F) diagnosed with diabetes and hypertension trained in patient education classes managed by nurses is increased
19	NCD-I-1>3	% of patients (M/F and age groups) satisfied with the quality of PHC services has increased, % of FMCs/CGPs
20	NCD-I-1>4	# of PEN indicators introduced in the per capita payment mechanism of MHIF
21	NCD-I-1>5	% and # of PHC facilities using revised quality indicators (MHIF's external audit indicator of quality)
22	NCD-I-2>1	% of population (M/F) who reduce at least one NCD risk factor (tobacco, alcohol, nutrition, physical activity) has increased
23	NCD-I-2>2	% of men in target regions visiting a family doctor at least once per year increased
24	NCD-II-(12).1>1	# and % of facilities applying selection criteria e-grid (purchased equipment compliant with prioritized lists issued by Quality Committees)
25	NCD-II-(12).1>2	# and % of Quality Committees using electronic evaluation form (software)
26	NCD-II-(12).1>3	# and % of health facilities at all levels of the health system using electronic referral forms (software).
27	NCD-II-(12).2>1	# and % of PHC facilities that are filling out the CVD risk factor level in the e-CIF
28	NCD-II-(12).2>2	# of peer review group (doctors and nurses) meetings discussing NCD management
29	NCD-II-(12).2>3	# and % of PHC staff (family doctors/family nurses) in the target regions trained on NCD PEN protocols and NCD risk factors
30	NCD-II-(12).2>4	Newly detected cases of hypertension per 100,000 populations have increas
31	NCD-II-(12).2>5	Newly detected cases of breast cancer per 100,000 female population aged 18 and above have increased
32	NCD-II-(12).2>6	Newly detected cases of cervical cancer per 100,000 female population aged 18 and above have increased
33	NCD-II-(12).2>7	Newly detected cases of type 2 diabetes per 100,000 population aged 18 and above have increased
34	NCD-II-(12).3>1	% of the adult (aged 18 and above) population (M/F and by age groups) in target regions reached through health education activities related to the prevention of non-communicable diseases

35	NCD-II-(12).3>2	% of population (M/F and by age groups) in target regions who are aware of at least one NCD risk factor (tobacco and alcohol use, unhealthy diet, physical inactivity) has increased
36	NCD-II-(12).3>3	% of state schools using "Joint in Circle" (JiC) for NCDs-related health education has increased in the target regions
37	NCD-II-(12).3>4	# and % of school children from 6-11 classes (M/F) reached through health education sessions (JiC on NCD)
38	NCD-I-(12).1>1	# and % of facilities applying selection criteria e-grid (purchased equipment compliant with prioritized lists issued by Quality Committees)
39	NCD-I-(12).1>2	% and # of unjustified hospitalizations due to CVD and Diabetes
40	NCD-I-(12).1>3	# and % of health facilities at all levels of the health system using electronic referral forms (software).
41	NCD-I-(12).1>4	% of nurses/midwives trained to manage NCDs using PEN protocol
42	NCD-I-(12).1>5	# of peer review group (doctors and nurses) meetings discussing NCD management
43	NCD-I-(12).2>1	# of personnel at PHCs trained on NCDs PEN 1,2,4 protocols and risk factors
44	NCD-I-(12).2>2	The number of newly detected cases of hypertension per 100 thousand adult population
45	NCD-I-(12).2>3	The number of newly detected cases of breast cancer per 100 thousand female population over 18
46	NCD-I-(12).2>4	The number of newly detected cases of cervical cancer per 100 thousand female population over 18
47	NCD-I-(12).2>5	The number of newly detected cases of type 2 diabetes per 100 thousand adult population
48	NCD-I-(12).2>6	% of treatment compliance (M/F) for hypertension
49	NCD-I-(12).3>1	% of the adult (aged 18 and above) population (M/F and by age groups) in target regions reached through health education activities related to the prevention of non-communicable diseases
50	NCD-I-(12).3>2	% of population (M/F and by age groups) in target regions who are aware of at least one NCD risk factor (tobacco and alcohol use, unhealthy diet, physical inactivity) has increased
51	NCD-I-(12).3>3	% of state schools using "Joint in Circle" (JiC) for NCDs-related health education has increased in the target regions
52	NCD-I-(12).3>4	# and % of school children from 6-11 classes (M/F) reached through health education sessions (JiC on NCD)

Figure 5-37: Legal framework to institutionalize independent certification of health workers (as of January 2026)

Legislation	Articles / norms
LAW OF THE KYRGYZ REPUBLIC "On the Protection of Citizens' Health in the Kyrgyz Republic" Bishkek, January 12, 2024, No. 14	Article 25. Associations (unions) of healthcare organizations, professional medical and pharmaceutical public organizations Paragraph 2. Certain powers of the authorized state body in the field of healthcare may be delegated to professional medical and pharmaceutical public organizations, associations (unions) by decision of said body. Article 150. Admission of Medical and Pharmaceutical Workers to Practice Paragraph 1. Medical and pharmaceutical workers shall engage in practical activities in healthcare organizations, regardless of their form of ownership, after passing certification and registration in accordance with the procedure established by the Cabinet of Ministers. Article 151. Certification and Registration of Medical and Pharmaceutical Workers Paragraph 1. For the purposes of maintaining professional qualifications, improving the level of training, ensuring suitability for the position held, assessing professional competence, and promoting career advancement, medical and pharmaceutical workers, including faculty members of clinical departments, shall undergo periodic certification at least once every five years, which shall be conducted by the relevant authorized body or by

	professional associations and organizations if such functions have been delegated to them by an authorized state body in the field of healthcare. Paragraph 2. The procedure and conditions for the certification of medical and pharmaceutical workers, including faculty members of clinical departments, except for heads of state- and municipally owned healthcare organizations, shall be determined by the authorized state body in the field of healthcare.
Decree No. 600 of the Cabinet of Ministers of the Kyrgyz Republic dated December 20, 2018, approved the Government of the Kyrgyz Republic's program on public health protection and the development of the healthcare system for 2019–2030, "A Healthy Person – A Prosperous Country." **Amendments to Resolution of the Government of the Kyrgyz Republic No. 600 of December 20, 2018, PKB No. 802 of December 26, 2024.**	8.6. Improve mechanisms for regulating the professional activities of healthcare workers through the involvement of professional medical associations and continuing professional development 8.6.1. Establish a regulatory framework to define the powers and responsibilities of professional medical associations in regulating the professional activities of medical and pharmaceutical workers *Program Accelerator: A system for the independent assessment of the competencies of healthcare and pharmaceutical professionals based on updated professional standards*
Decree No. 505 of the Government of the Kyrgyz Republic dated September 30, 2019, approved the "Concept of the National Qualifications System in the Kyrgyz Republic"	"In the Kyrgyz Republic, it is necessary to establish and develop institutions that perform the functions of expert and methodological centers and qualification assessment centers. It is necessary to establish rules and procedures for assessing qualifications obtained through formal, non-formal, or informal education, based on the requirements of professional and educational standards."
Order of the Ministry of Health and Social Development No. 1013 dated August 22, 2023, "Concept for the Development of a System for the Independent Assessment of Competencies of Medical and Pharmaceutical Workers in the Kyrgyz Republic"	Objective: To develop and implement an independent assessment of the professional qualifications of specialists, medical, and pharmaceutical workers to ensure that the Kyrgyz Republic's healthcare system is staffed with qualified personnel.
Order of the Ministry of Health of the Kyrgyz Republic No. 755 dated June 8, 2021, "On the Approval of Regulations on the Certification and Registration of Medical and Pharmaceutical Workers, and the Authorization of Persons with Medical, Pharmaceutical, or Higher Biological Education to Engage in Medical and Pharmaceutical Activities"	3. Organization of the certification process 3.1. Professional medical public organizations, associations (unions) , within the scope of the powers delegated by the State Health Authority, conduct the certification of medical and pharmaceutical workers. 3.2. Professional medical public organizations, associations (unions) based on the individual membership of medical and pharmaceutical workers in the relevant specialty and uniting at least 25 percent of their total number, operating within the territory of the Kyrgyz Republic, are authorized to conduct certification of medical and pharmaceutical workers.
Order of the Ministry of Health of the Kyrgyz Republic No. 54 dated August 3, 2021, "On the Certification of Medical and Pharmaceutical Workers"	Delegate the authority to organize the certification of medical and pharmaceutical workers to professional medical public organizations, associations (unions) included in the Ministry of Health of the Kyrgyz Republic's registry, for the purpose of conducting KMA and ASSD testing.

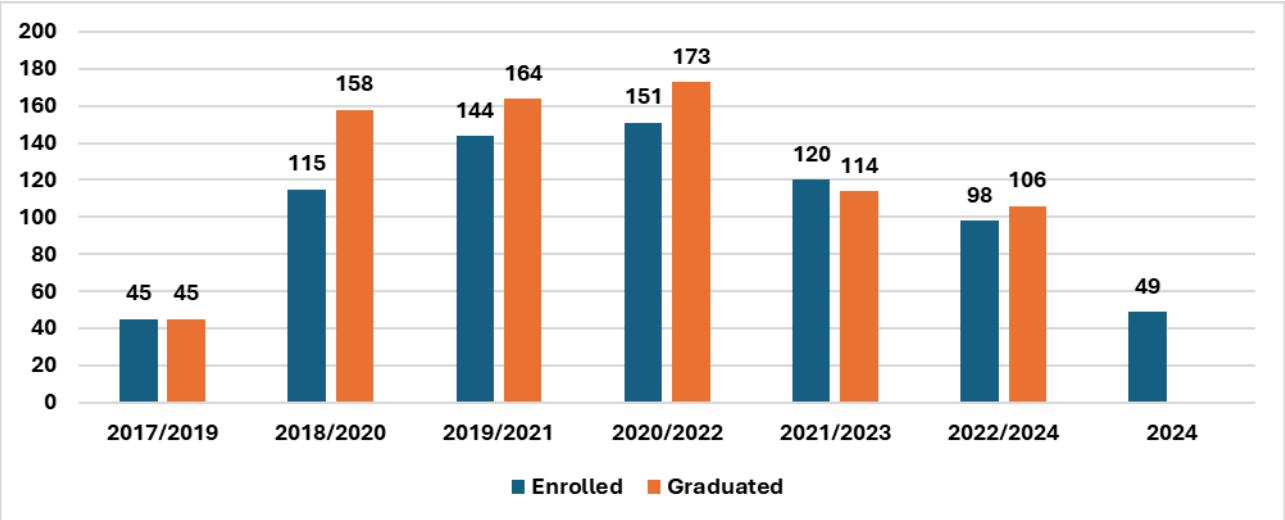
Source: Compiled and provided by the MER project team

Figure 5-38: Case fatality ratio for acute myocardial infarction (AMI) by hospital categories, administrative entities and years

	2018	2019	2020	2021	2022	2023	2024	2025	Average
1 Tertiary	**9.4%**	**12.3%**	**11.4%**	**9.2%**	**9.6%**	**7.5%**	**8.0%**	**7.2%**	**8.9%**
Bishkek city	11.5%	13.0%	9.8%	11.6%	12.1%	10.1%	10.4%	9.7%	11.0%
Jalalabad oblast	9.8%	9.3%	5.4%	5.6%	7.7%	9.1%	6.9%	9.8%	7.4%
Republican	8.5%	11.6%	12.4%	9.1%	8.3%	6.5%	6.8%	5.8%	8.1%
2 General (regional)	**4.9%**	**5.8%**	**6.1%**	**7.1%**	**4.2%**	**6.8%**	**6.8%**	**7.0%**	**6.0%**
Batken oblast	11.6%	8.3%	10.0%	8.3%	11.1%	5.4%	11.9%	11.1%	9.8%
Chui oblast	10.8%	14.2%	13.2%	15.4%	18.1%	17.0%	11.8%	11.9%	14.0%
Naryn oblast	2.0%	1.3%	1.5%	1.0%	0.9%	1.3%	2.7%	1.8%	1.6%
Osh oblast	10.6%	10.6%	6.9%	10.7%	7.1%	13.5%	8.8%	9.5%	9.9%
Talas oblast	17.6%	20.8%	28.0%	21.0%	1.8%	26.0%	8.8%	21.1%	12.5%
Issyk-Kul oblast	20.4%	18.2%	17.1%	27.5%	20.8%	10.7%	13.0%	6.3%	14.2%
3 General basic	**17.2%**	**17.5%**	**16.1%**	**20.6%**	**24.3%**	**16.3%**	**16.5%**	**16.7%**	**18.0%**
Batken oblast	9.9%	17.1%	11.1%	10.8%	12.7%	4.4%	11.9%	17.8%	10.6%
Chui oblast	14.1%	16.4%	16.0%	20.8%	35.9%	20.6%	14.3%	13.4%	18.8%
Jalalabad oblast	20.4%	17.5%	17.0%	24.9%	23.5%	25.2%	25.3%	19.0%	21.2%
Naryn oblast	18.2%	16.7%	20.5%	17.0%	15.2%	12.8%	15.4%	23.1%	17.5%
Osh oblast	17.8%	16.9%	15.5%	18.1%	16.2%	18.6%	11.7%	12.2%	16.0%
Talas oblast	34.9%	33.3%	20.0%	20.0%	20.0%	37.9%	19.1%	37.5%	28.6%
Issyk-Kul oblast	28.0%	15.8%	23.3%	38.1%	16.7%	14.3%	20.8%	20.7%	21.2%
Average	**9.9%**	**12.3%**	**12.0%**	**10.9%**	**11.5%**	**9.0%**	**9.3%**	**8.9%**	**10.3%**

Source: Data obtained by the NCD project team from the Center of Health System Development (national statistics)

Figure 5-39: Enrollment and graduation dynamics in Family Medicine residency



Source: Unpublished draft report "Analysis of the health labor market in Kyrgyzstan" (by the WHO team)

Figure 5-40: Population per occupied family doctor and family nurse position (1.0 FTE) by administrative entities, 2024

		Family doctor	Family nurse (FDG)	Family nurse (FAP)
Population per health worker position (official norm)	Bishkek	2,000	1,000,	
	The rest of the country	1,700	850	700
Kyrgyzstan		2,846	1,100	970
Batken oblast		2,770	1,053	1,675
Jalal-Abad oblast		3,124	973	975
Issyk-Kul oblast		2,799	930	789
Naryn oblast		2,278	910	739
Osh oblast		2,978	895	807
Talas oblast		3,271	1,132	1,727
Chuy oblast		3,138	1,268	1,441
Bishkek city		2,714	1,607	1,424
Osh city		2,252	1,177	1,098

Source: According to the draft report "Analysis of the health labor market in Kyrgyzstan" (by the WHO team), data is from "unpublished data from the Medstat database, eHealth Center under the MoH."

Figure 5-41: Distribution of certified managers by employment date and types of healthcare organizations

	FMC	GPC	Dentis	Emergency	Ambulance	Hospital	SSES	AIDS Center	Blood banks	Total
2025 March		4					1			5
2025 April										0
2025 May										0
2025 June										0
2025 July		1				3	1			5
2025 August	1									1
2025 September	1	1	3							5
2025 October	2	1				2	1			6
2025 November		1	1					1	3	6
Employment of managers by health facilities >>	4	8	4	0	0	5	3	1	3	28
Left the position										0
Net employed as of December 2025	4	8	4	0	0	5	3	1	3	28

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Figure 5-42: SDG Indicator 3.5.2.1 "Incidence of alcohol dependence per 100 000 people" in Kyrgyzstan, by regions and years (both sexes)

	2010	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Kyrgyz Republic	**53.8**	**31.2**	**27.4**	**23.5**	**28.4**	**23.0**	**18.6**	**18.4**	**15.1**	**16.6**	**11.9**	**12.4**	**9.5**
Batken oblast	27.4	27.4	22.1	14.0	15.9	12.2	6.9	7.7	6.6	4.7	4.6	5.7	5.9
Jalal-Abad oblast	17.2	14.2	14.3	10.7	10.0	9.5	6.8	4.6	3.4	4.9	3.5	5.1	4.0
Issyk-Kul oblast [35]	19.0	21.5	14.3	17.6	16.5	13.3	3.7	6.1	3.8	6.2	3.9	5.0	0.4
Naryn oblast	31.1	37.4	43.6	20.3	36.5	23.0	16.1	23.2	21.3	19.4	23.1	22.9	16.0
Osh oblast	35.0	27.2	24.7	29.3	25.1	26.2	23.2	21.0	17.2	17.2	7.7	14.4	12.2
Talas oblast	43.0	40.2	41.6	18.9	24.5	40.1	26.0	27.9	26.7	13.6	34.2	38.9	15.1
Chui oblast	60.6	51.1	36.0	30.0	50.5	32.8	26.4	32.3	22.6	28.3	20.5	15.1	15.3
Bishkek city	164.9	44.7	40.7	36.4	48.6	35.1	29.7	29.1	24.0	29.6	19.3	13.4	11.2
Osh city	29.9	18.3	22.0	19.8	16.9	11.6	25.2	9.5	16.4	17.7	7.9	11.8	7.3

Source: (16)

Figure 5-43: Trends in the number of village health committees and the share of local self-governing administrative entities with at least one VHC

		Number of VHC								Number of LSGs	Coverage
		2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**		
Chui	Чуй	279	258	227	227	228	225	225	209	311	67%
Naryn	Нарын	124	119	118	118	118	119	119	118	142	83%
Talas	Талас	95	94	89	89	89	89	89	89	93	96%
Osh	Ош	372	328	329	329	331	331	331	329	494	67%
Batken	Баткен	200	194	195	195	203	203	203	199	204	98%
Issyk-Kul	Иссык-Куль	174	168	167	167	167	167	167	167	185	90%
Jalal-Abat	Джалал-Абад	432	428	426	426	427	427	427	421	409	103%
		1,676	**1,589**	**1,551**	**1,551**	**1,563**	**1,561**	**1,561**	**1,532**	**1,838**	**83%**

Source: Unpublished data provided by the AVHC

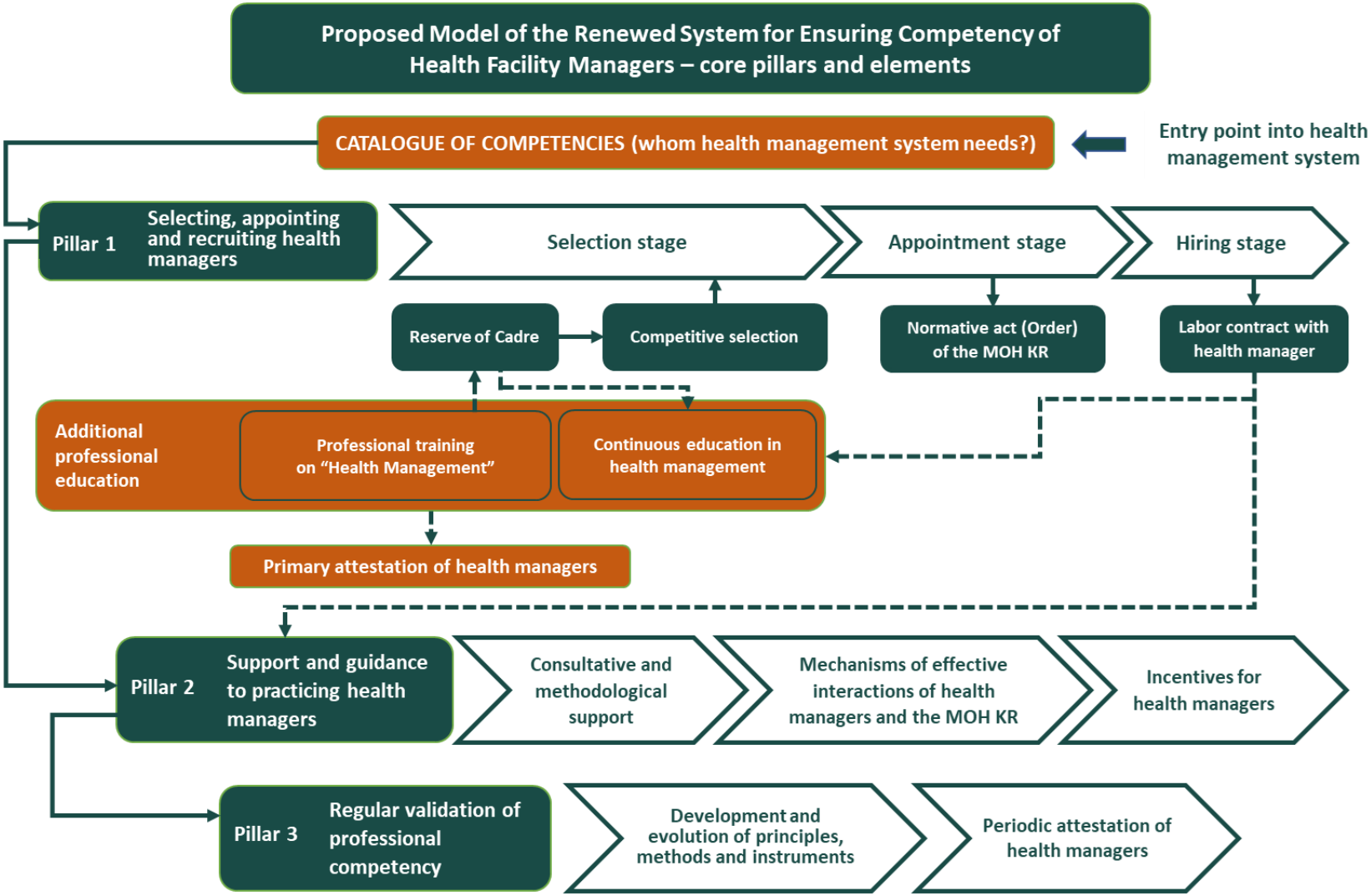
35 Regions in the north are highlighted in light blue

Figure 5-44: Overview of the health system changes by the MER project

UNDERGRADUATE MEDICAL EDUCATION REFORMS	POSTGRADUATE MEDICAL EDUCATION (PGME) REFORMS	CONTINUING MEDICAL EDUCATION REFORMS	OTHER CHANGES IN THE EDUCATION SYSTEM
Orienting the pre-grad training reform towards more emphasis and recognition of FM, more decentralization of training to regions & more practice-based training to gain clinical skills. Improve the quality of training to meet international standards. Using efficiently all available clinical sites as training sites for students and residents. Developed and approved the Strategy for the development of pre-graduate medical education. Developed a catalog of competencies (2015) and reviewed it (2019). Developed a new academic program and curriculum together with KSMA and the Faculty of Medicine of OshSU. Family medicine (FM) becomes part of pre-grad training. FM field becomes recognized as such with specific courses being developed . Development of Family medicine department and curriculum.	PGME and CME Development Strategy 2014-2020 and the new PGME. MoH becomes in charge of PGME. PGME involves universities, clinical sites, medical associations. Reform of the concepts, structure and content of PGME. PGME standardization: catalogues of competencies, training exam. Decentralization of training to include regional clinical sites.	Build a professional culture to upgrade regularly everyone's knowledge and skills during one's professional life. On site CME activities & everyday practice, contribute to develop an effective CME culture where continuing training is part of normal practice of professionals and not a distant educational activity. New CME credit delivery system was developed, involving the KMA and professional specialty associations. Development of the Regulations on the accumulation of credit hours for CME. and creates a broader participation of providers. Telemedicine for CME training and online case discussion is increasingly accepted by professionals. **Peer Review Groups** (PRG) organized locally. Decentralization of CME training.	An independent assessment, competences development and regisration system for health professionals (with respective regulatory framework) introduced KMA, KNA and IME founded Independent Center for Competencies Assessment (ICCA), registered by the Ministry of Justice as a legal entity in July 2023 Bank of test tasks created Testing process organized (including fully functional electronic platform AiTest) established Professional medical associations (PMA) were recognied and influence the health po.icy Nursing education Reform: Implementation of the experimental curriculum in 5 pilot medical colleges (MC), increasing the clinical practice up to 50 % in the educational process. Legislative framewor ws developed including professional standards. catalogues of competenses and new state education standards for traing a new type of nurse

Source: Medical Education Reforms in the Kyrgyz Republic. Phase I, Phase II, Phase III (Brochure, unpublished, provided by MER Project team)

Figure 5-45: Schematic overview of the innovation introduced by the HFA



Source: The diagram shared by the HFA project team in Bishkek

Figure 5-46: Simplified workflow of qualified persons through the competency-based mechanisms of certification and competitive selection

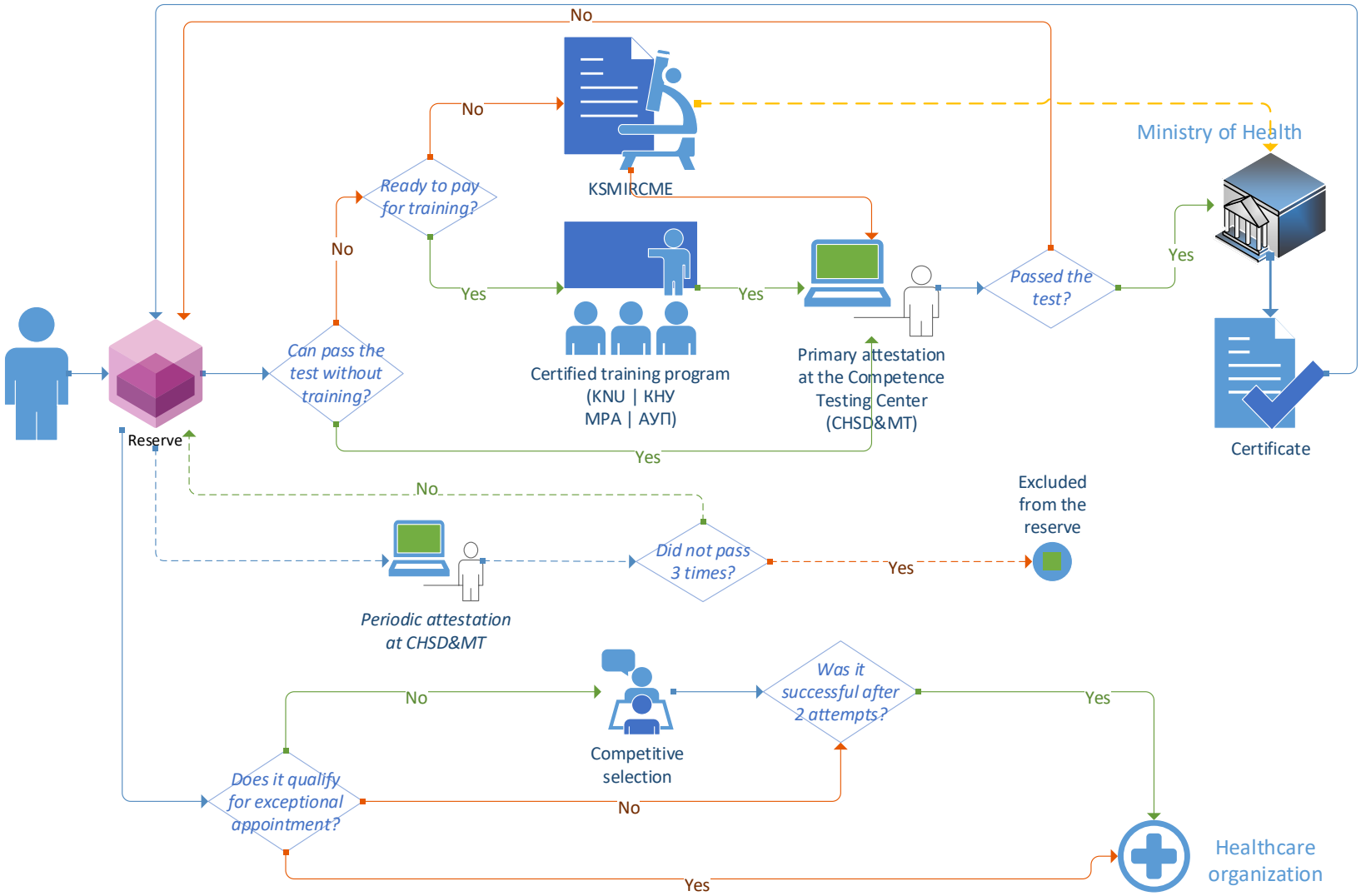


Figure 5-47: Burden of Disease in Disability Adjusted Life Years per 100 000 population in Kyrgyzstan by selected NCDs and years

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cardiovascular diseases	7,555	7,618	7,864	8,368	8,712	8,663	8,396	8,094	7,910	7,805	7,882	7,931	8,036	8,048	8,011	8,148	8,239	8,190	7,920	7,552	7,297	7,166	7,035	6,750	6,483	6,243	6,005	5,849	5,605	5,264	5,152	5,423	5,397	5,408
Chronic respiratory diseases	1,487	1,499	1,514	1,562	1,609	1,602	1,568	1,533	1,507	1,489	1,511	1,479	1,546	1,593	1,496	1,419	1,381	1,330	1,327	1,311	1,301	1,297	1,293	1,285	1,280	1,284	1,290	1,293	1,296	1,293	1,219	1,230	1,315	1,355
Diabetes mellitus	586	595	604	616	626	638	649	662	677	692	703	712	725	737	745	755	766	779	795	810	826	841	857	877	900	925	950	978	1,006	1,037	1,063	1,095	1,103	1,118
Neoplasms	3,359	3,369	3,363	3,370	3,358	3,351	3,337	3,316	3,311	3,317	3,310	3,298	3,283	3,260	3,221	3,202	3,184	3,189	3,183	3,161	3,146	3,123	3,113	3,099	3,107	3,143	3,184	3,210	3,196	3,172	3,183	3,322	3,401	3,422
Grand Total	**7,555**	**7,618**	**7,864**	**8,368**	**8,712**	**8,663**	**8,396**	**8,094**	**7,910**	**7,805**	**7,882**	**7,931**	**8,036**	**8,048**	**8,011**	**8,148**	**8,239**	**8,190**	**7,920**	**7,552**	**7,297**	**7,166**	**7,035**	**6,750**	**6,483**	**6,243**	**6,005**	**5,849**	**5,605**	**5,264**	**5,152**	**5,423**	**5,397**	**5,408**

Source: (54)

Figure 5-48: Figure 6 18: Burden of Disease in Disability Adjusted Life Years for selected NCDs as % of the total burden of diseases in Kyrgyzstan (by NCDs and years)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Cardiovascular diseases	17.6%	18.2%	18.8%	19.9%	20.5%	20.8%	20.8%	20.8%	20.9%	21.1%	21.5%	22.1%	22.5%	22.6%	22.6%	22.9%	23.1%	23.3%	22.9%	22.6%	22.1%	22.4%	22.5%	22.4%	22.2%	22.1%	22.0%	22.1%	22.0%	21.7%	16.7%	17.6%	19.5%	21.3%
Chronic respiratory diseases	3.5%	3.6%	3.6%	3.7%	3.8%	3.8%	3.9%	3.9%	4.0%	4.0%	4.1%	4.1%	4.3%	4.5%	4.2%	4.0%	3.9%	3.7%	3.5%	3.4%	3.4%	3.5%	3.5%	3.6%	3.6%	3.6%	3.7%	3.7%	3.8%	3.8%	3.4%	3.3%	3.7%	3.9%
Diabetes mellitus	1.1%	1.2%	1.2%	1.2%	1.3%	1.3%	1.4%	1.4%	1.5%	1.5%	1.6%	1.6%	1.7%	1.7%	1.8%	1.8%	1.9%	2.0%	2.0%	2.1%	2.2%	2.3%	2.3%	2.4%	2.5%	2.6%	2.7%	2.8%	2.9%	3.1%	3.0%	2.9%	3.1%	3.2%
Neoplasms	6.8%	7.0%	7.0%	6.9%	6.8%	7.0%	7.0%	7.1%	7.2%	7.3%	7.4%	7.5%	7.6%	7.7%	7.7%	7.8%	7.9%	8.1%	8.1%	8.3%	8.3%	8.4%	8.5%	8.6%	8.7%	8.8%	9.0%	9.2%	9.3%	9.4%	9.0%	8.9%	9.7%	9.9%
Grand Total	**17.6%**	**18.2%**	**18.8%**	**19.9%**	**20.5%**	**20.8%**	**20.8%**	**20.8%**	**20.9%**	**21.1%**	**21.5%**	**22.1%**	**22.5%**	**22.6%**	**22.6%**	**22.9%**	**23.1%**	**23.3%**	**22.9%**	**22.6%**	**22.1%**	**22.4%**	**22.5%**	**22.4%**	**22.2%**	**22.1%**	**22.0%**	**22.1%**	**22.0%**	**21.7%**	**16.7%**	**17.6%**	**19.5%**	**21.3%**

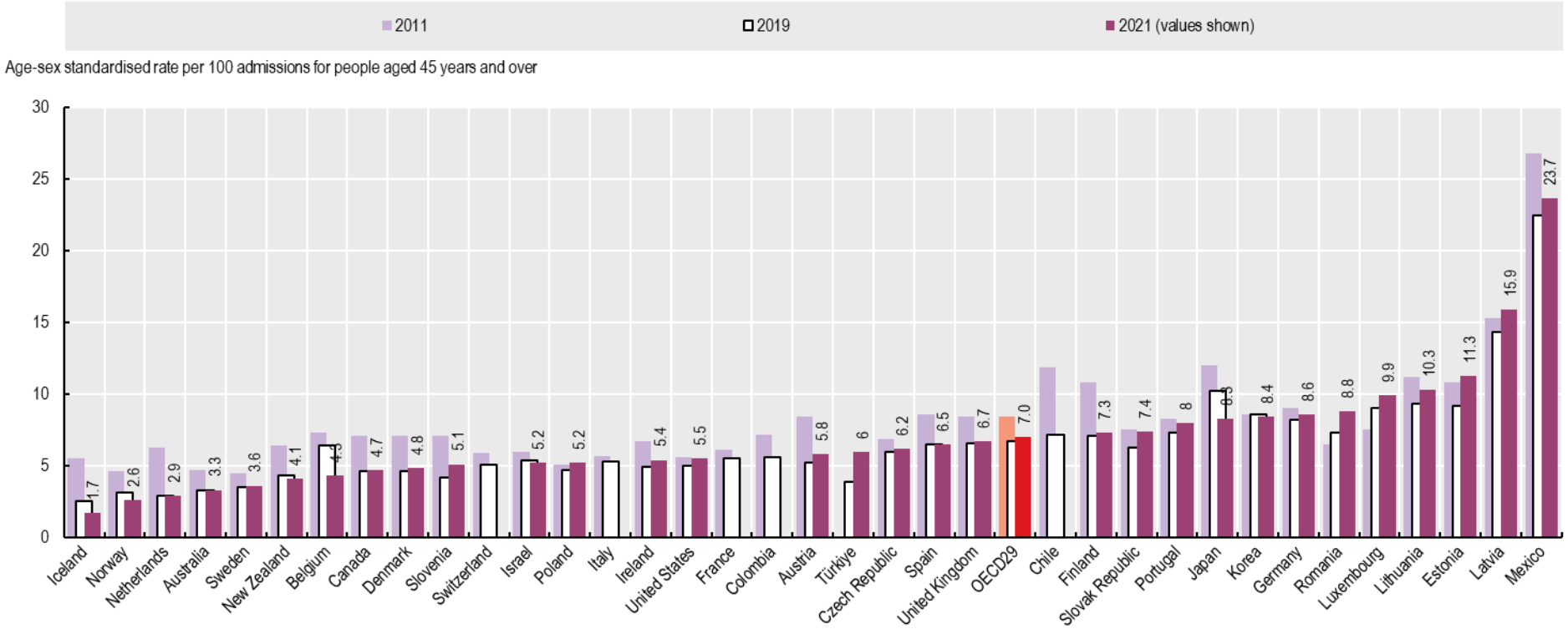
Source: (54)

Figure 5-49: Inpatient care details for all forms of myocardial infarctions and stroke by hospital levels (1 = tertiary level, 2 = oblast level, 3 = district level), admin entities and years

	2018			2019			2020			2021			2022			2023			2024			2025		
	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR	Number of Death	All Admissions	FR
1	**797**	**7,159**	**11.1%**	**405**	**3,703**	**10.9%**	**631**	**4,680**	**13.5%**	**592**	**5,446**	**10.9%**	**777**	**6,228**	**12.5%**	**474**	**6,241**	**7.6%**	**592**	**6,417**	**9.2%**	**607**	**7,990**	**7.6%**
Bishkek city	301	2,313	13.0%	191	2,188	8.7%	165	1,489	11.1%	120	967	12.4%	362	2,590	14.0%	168	1,645	10.2%	329	2,812	11.7%	342	3,485	9.8%
Djalal-Abad oblast	11	112	9.8%	14	151	9.3%	10	186	5.4%	17	306	5.6%	14	181	7.7%	13	143	9.1%	16	232	6.9%	10	102	9.8%
Repbulican	485	4,734	10.2%	200	1,364	14.7%	456	3,005	15.2%	455	4,173	10.9%	401	3,457	11.6%	293	4,453	6.6%	247	3,373	7.3%	255	4,403	5.8%
2	**417**	**4,631**	**9.0%**	**471**	**5,078**	**9.3%**	**529**	**4,125**	**12.8%**	**524**	**5,653**	**9.3%**	**501**	**6,093**	**8.2%**	**620**	**6,466**	**9.6%**	**532**	**6,444**	**8.3%**	**594**	**6,172**	**9.6%**
Batken oblast	59	511	11.5%	71	557	12.7%	67	377	17.8%	57	473	12.1%	43	633	6.8%	71	440	16.1%	61	572	10.7%	59	568	10.4%
Chui oblast	108	521	20.7%	128	699	18.3%	130	692	18.8%	107	601	17.8%	102	608	16.8%	104	706	14.7%	99	734	13.5%	55	421	13.1%
Djalal-Abad oblast							88	678	13.0%	81	1,242	6.5%	61	1,008	6.1%	70	1,146	6.1%	45	1,337	3.4%	106	1,580	6.7%
Naryn oblast	44	1,657	2.7%	44	1,784	2.5%	32	916	3.5%	29	1,563	1.9%	45	1,431	3.1%	67	1,665	4.0%	37	1,228	3.0%	36	1,153	3.1%
Osh oblast	128	1,133	11.3%	98	1,004	9.8%	103	911	11.3%	116	945	12.3%	132	1,167	11.3%	164	1,229	13.3%	124	1,244	10.0%	138	1,268	10.9%
Talas oblast	36	521	6.9%	68	729	9.3%	58	411	14.1%	63	591	10.7%	77	984	7.8%	79	935	8.4%	82	911	9.0%	93	651	14.3%
Ysyk-Kul oblast	42	288	14.6%	62	305	20.3%	51	140	36.4%	71	238	29.8%	41	262	15.6%	65	345	18.8%	84	418	20.1%	107	531	20.2%
3	**1,449**	**18,858**	**7.7%**	**1,438**	**22,040**	**6.5%**	**1,653**	**17,737**	**9.3%**	**1,694**	**19,142**	**8.8%**	**1,790**	**21,220**	**8.4%**	**1,842**	**23,378**	**7.9%**	**1,808**	**22,464**	**8.0%**	**1,924**	**23,304**	**8.3%**
Batken oblast	117	2,705	4.3%	120	2,869	4.2%	143	2,200	6.5%	158	2,601	6.1%	144	3,378	4.3%	132	3,045	4.3%	180	3,987	4.5%	174	3,343	5.2%
Chui oblast	485	4,430	10.9%	462	4,135	11.2%	616	3,466	17.8%	616	3,140	19.6%	740	3,744	19.8%	711	4,577	15.5%	579	4,075	14.2%	600	4,825	12.4%
Djalal-Abad oblast	331	4,046	8.2%	368	5,057	7.3%	365	3,654	10.0%	402	4,470	9.0%	400	4,471	8.9%	456	5,780	7.9%	467	4,748	9.8%	480	5,456	8.8%
Naryn oblast	24	293	8.2%	31	405	7.7%	32	316	10.1%	42	362	11.6%	47	451	10.4%	31	485	6.4%	53	478	11.1%	52	483	10.8%
Osh oblast	301	6,209	4.8%	253	8,307	3.0%	272	6,963	3.9%	304	7,488	4.1%	330	8,045	4.1%	308	8,111	3.8%	310	7,701	4.0%	376	7,787	4.8%
Talas oblast	55	413	13.3%	73	601	12.1%	60	536	11.2%	40	479	8.4%	32	553	5.8%	58	670	8.7%	41	650	6.3%	45	714	6.3%
Ysyk-Kul oblast	136	762	17.8%	131	666	19.7%	165	602	27.4%	132	602	21.9%	97	578	16.8%	146	710	20.6%	178	825	21.6%	197	696	28.3%
Grant total	**2,663**	**30,648**	**8.7%**	**2,314**	**30,821**	**7.5%**	**2,813**	**26,542**	**10.6%**	**2,810**	**30,241**	**9.3%**	**3,068**	**33,541**	**9.1%**	**2,936**	**36,085**	**8.1%**	**2,932**	**35,325**	**8.3%**	**3,125**	**37,466**	**8.3%**

Source: Data obtained by the NCD Project team from the CHSD/MOH (medical statistics, Form 12), processed and calculated by the evaluation team

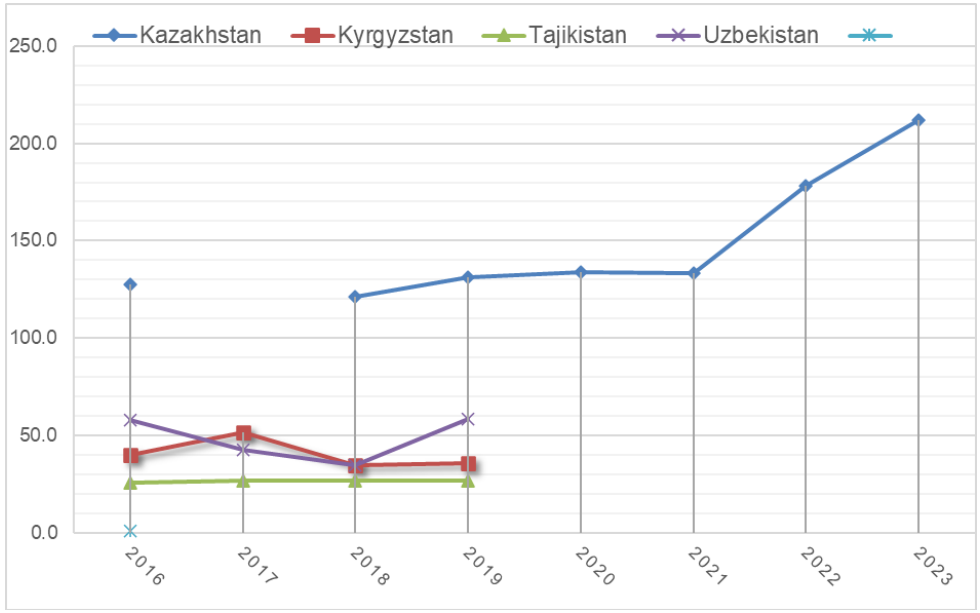
Figure 5-50: Thirty-day mortality after admission to hospital for acute myocardial infarction, 2011, 2019 and 2021 (or nearest year)



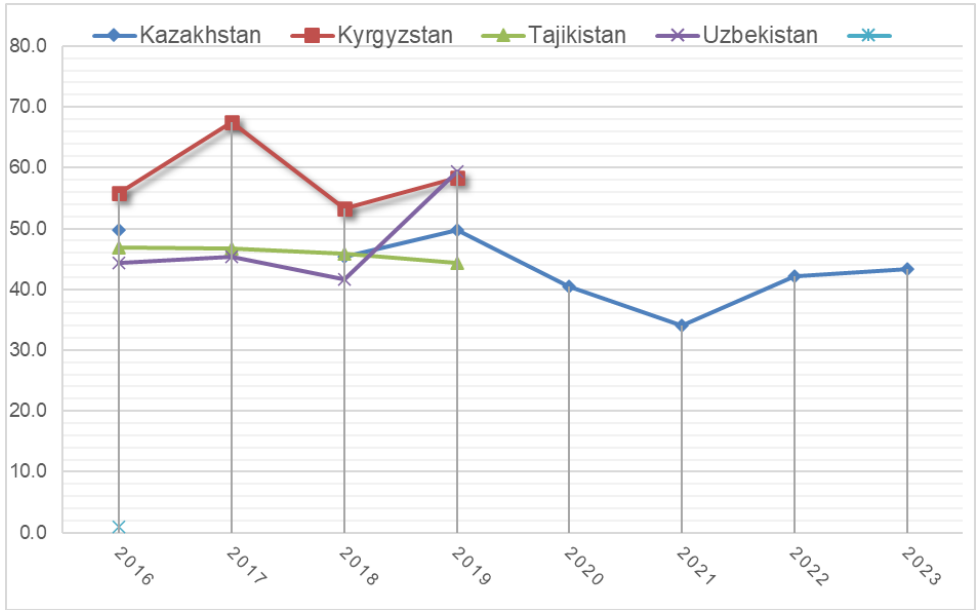
Source: (31)

Figure 5-51: Recent trends in primary healthcare financing in the subregion

Primary Health Care (PHC) Expenditure per Capita in US$



Primary Health Care (PHC) Expenditure as % Current Health Expenditure (CHE)



Source: (43)

Figure 5-52: Medicines prescribed at the PHC level for the management of NCDs are reimbursed by the MHIF

NCD category	Group	INN	Trade Names (RU)	Doses	Indications
CVDs	ACE inhibitor	Enalapril	Берлиприл; Карлон	5, 10, 20 мг; 5, 10 мг	Hypertension; Ischemic heart Diseases/Heart failure
CVDs	ACE inhibitor	Lisinopril	Диротон; Лизинокор	5, 10, 20 мг; 5, 10 мг	Hypertension; Ischemic heart Diseases/Heart failure
CVDs	ACE inhibitor	Ramipril	Амприлан	2,5; 5; 10 мг	Hypertension; Ischemic heart Diseases/Heart failure
CVDs	Angiotensin II receptor blocker (ARB)	Losartan	Атосар-50; Ламберг; Лориста	50 мг; 50/100 мг; 25/50/100 мг	Hypertension; Ischemic heart Diseases/Heart failure

CVDs	ARB	Valsartan	Валз; Вальсакор; Ванатекс	80/160 мг	Hypertension; Ischemic heart Diseases/Heart failure
CVDs	Calcium channel blocker (DHP)	Amlodipine	Авторекс; Адипин; Амлодипин (генерики); Амлорус; Короним; Норваск; Нормодипин	5/10 мг	Hypertension; Angina
CVDs	Beta-blocker	Bisoprolol	Беландж; Бипролол; Бисомор; Бисопол; Бисопрол; Бисопролол Лек; Бисопролол АКОС; Конкор; Кардоритм; Нипертен; Ризопрол	2,5/5/10 мг (по брендам)	Hypertension; Angina/Post-myocardial infarction; Heart failure
CVDs	Beta-blocker	Carvedilol	Карвидил	6,25/12,5/25 мг	Hypertension; Ischemic heart Diseases; Heart failure
CVDs	Diuretic (thiazide)	Hydrochlorothiazide	Гидрохлортиазид (разные производители)	25 мг	Hypertension
CVDs	Diuretic (thiazide-like)	Indapamide	Арифон ретард; Индап; Индапамид SR; СР-Индамед	1,5 мг; 0,625/1,25/2,5 мг; 1,5 мг	Hypertension
CVDs	Diuretic (loop)	Torasemide	Мидотор; Тадрета; Торсид	5/10 мг; 5 мг; 5/10 мг	Hypertension/heart failure; oedema
CVDs	Antianginal (nitrate)	Isosorbide dinitrate	Изо-Мик (спрей)	1,25 мг (спрей)	Ischemic heart Diseases (angina pectoris)
CVDs	Antianginal (nitrate)	Nitroglycerin (glyceryl trinitrate)	Нитроспрей	0,4 мг/доза (200 доз)	Ischemic Heart Diseases (relief of an attack)
CVDs	Antiplatelet	Acetylsalicylic acid (Aspirin)	Асмада; Ацемагнил; Кардиомагнил	75/150 мг	Ischemic heart Diseases/prevention; hypertension with risk
CVDs	Statin	Atorvastatin	Амвастан; Арвастатин; Аторвакор; Аторвастатин Санто; Аторис; Вазатор; Рестатор; Липостатин; Липримар ST; Торвитин	20/40 мг (по брендам)	Ischemic heart Diseases/dyslipidaemia
Type 2 diabetes	Antidiabetic (biguanide)	Metformin	Глюкофаж 500/850/1000; Диаформин 500/850/1000; Инсуфор 500/850/1000; Метфогамма 500/850/1000; Метформин (генерики) 500/850/1000; Сиофор 500/850/1000	500/850/1000 мг	Type 2 diabetes
CRD	Bronchodilator (SABA)	Salbutamol (albuterol)	Вентолин; Брекур; Вентакорт; Небутамол; Новатрон; СалбуКорт; Сальбутамол аэрозоль (неск. производителей)	0,1 мг/доза аэрозоли; 1–5 мг/2,5 мл для небулайзера (по брендам)	Asthma/COPD — relief of bronchospasm
CRD	Anticholinergic bronchodilator	Ipratropium bromide	Атровент; Атровент Н	0,25 мг/мл р-р д/инг; 0,02 мг/доза аэрозоль	COPD/asthma — bronchospasm

CRD	Inhaled corticosteroid (ICS)	Beclometasone	Беклазон Эко; Беклометазон (аэрозоль)	0,05/0,1/0,25 мг, 200 доз	Asthma maintenance therapy
CRD	LABA + ICS combination	Salmeterol + Fluticasone	Серетид; Ролениум; Респиро	разные дозировки (120/60 доз)	Asthma/COPD maintenance therapy
CRD	ICS + LABA combination	Budesonide + Formoterol	Пульмотон	0,2/0,006 мг; 0,4/0,012 мг (60 доз)	Asthma maintenance therapy
Neoplasms	Opioid analgesic	Morphine hydrochloride	Морфин (табл/р-р д/ин; разные производители)	5–10 мг (табл./ампулы; по позициям)	Oncology — pain management
Neoplasms	Opioid analgesic	Tramadol	Трамадол; Трамадол-ЗН; Трамадол-М; Трамадол Калцекс	50 мг капс.; 50–100 мг/2 мл д/ин	Oncology — pain management (moderate/severe)
Neoplasms	Opioid analgesic	Trimeperidine	Промедол; Промедол-ЗН	20 мг/мл д/ин (амп.)	Oncology — pain management

Source: (41)

Figure 5-53: Measurement of the impact and the results that contributed to it, or factors that impeded its achievement

Label	Level	ToC Component	Metrics: indicator code	Metrics: Indicator definition	Baseline → Result | <> Target
IMP-0	Impact	Population health (in rural areas, primarily) improved	NCD-II-0>1	DALYs1 due to target NCDs (ischemic heart disease and cerebrovascular disease) in target areas have decreased (per 100,000 population)	4,384 → 3,653 |<4,121
			NCD-II-0>2	Premature death between ages 30 and 70 years from cardiovascular diseases, cancer (breast and cervical), or diabetes has decreased in target areas.	
►1◄	Barrier	Poor medical outcomes of the management of NCD complications at the hospital level	1>1	1>1: Fatality rate (for CVD)	Confirmed, high, especially at the district level. (See observation #However, it was twice as high at the district level compared to the tertiary hospitals, as shown in Figure 2-8 below, irrespective of the availability of contemporary (invasive) diagnostic and treatment interventions)

Label	Level	ToC Component	Metrics: indicator code	Metrics: Indicator definition	Baseline → Result | <> Target
►2◄		Access to hypertension or diabetes medicines remains unregulated and does not restrict self-treatment.	2>1	Expert opinion	Confirmed (see observation #Representatives of UN agencies fully agreed that Swiss-funded bilateral projects contributed to the improved health system performance (human workforce, health facility operation/service quality, governance), and population health (reduction of NCD burden)
			2>2	Health Accounts	Pharmaceuticals constitute more than 60% of private health expenditures. Households cover more than 94% of the cost of medical goods for outpatient care. (See observation #Pharmaceuticals were the main cost drivers of households' out-of-pocket payments in Kyrgyzstan, accounting for0-70% across income quantiles in 2014 (42). According to the latest health accounts studies,)
LTOUTC-1	Long-term Outcomes	Health organizations' performance improved	HO performance indicators:	A1.3 Percentage of newborns visited by a primary health care worker in the first seven days after discharge from the maternity hospital (inpatient facility) C5 Percentage of doctors who have undergone advanced training C6 Percentage of nursing personnel who have undergone advanced training A1.13 Percentage of daily mortality in hospitals	Not available
			NCD-II-(12).2>4	Newly detected cases of hypertension per 100,000 populations have increased	330% → 396% | > 363%
			NCD-II-(12).2>5	Newly detected cases of breast cancer per 100,000 female population aged 18 and above have increased.	31.59% → 33.7% | > 33.16%

Label	Level	ToC Component	Metrics: indicator code	Metrics: Indicator definition	Baseline → Result | <> Target
			NCD-II-(12).2>6	Newly detected cases of cervical cancer per 100,000 female population aged 18 and above have increased.	17.58% → 19.36% | > 18.63%
			NCD-II-(12).2>7	Newly detected cases of type 2 diabetes per 100,000 population aged 18 and above have increased.	159% → 337% | > 155 (55)%
			NCD-II-1>3	% of patients (M/F and age groups) satisfied with the quality of PHC services has increased, % of FMCs/CGPs	Southern Reg 73.5 → 88.1| >80.9 Bishkek City 47.5 → 96.7| >52.3 Osh City 78.3 → 92.1| >86.2
			NCD-II-1>4	% of FMCs/CGPs implementing the Budget Transparency Process (BTP) in the target regions	4% → 100% | 100%
			NCD-I-1>4	# of PEN indicators introduced in the per capita payment mechanism of MHIF	0 → 3 | < 4 (abolished in 2021)
			NCD-I-(12).1>4	% of nurses/midwives trained to manage NCDs using PEN protocol	156 → 2,398 (100%) | =100%
			NCD-I-(12).2>6	% of treatment compliance (M/F) for hypertension	All: 47.32% → 80% | >56.78%
LTOUTC-2		The population is more engaged in health prevention	NCD-II-2>2	% of men in target regions visiting a family doctor at least once per year increased	Southern 23.5 → 52 | >30.3 Bishkek City 31.9 → 39 | >38.2 Osh City 33.1 → 56 | >39.7
►3◄	Barrier	Low level of health autonomy	Desk review (DR) + Expert Opinion	Desk review (DR) + Expert Opinion	Confirmed. (see observation)
►4◄		Lack of performance / results-based reimbursement	Official data	Official data	Confirmed
		Low remuneration of family doctors	DR + Expert Opinion	DR + Expert Opinion	Confirmed
►5◄		Public health emergencies are distorting healthcare-seeking behavior	DR + Expert Opinion	DR + Expert Opinion	Confirmed
OUTC-1.1	Project results	Competent professionals are appointed to manage health organizations	HFA-II-1>1	Proportion of trained HF managers who have successfully undergone annual performance assessment in organizational, HR and financial management	Not implemented yet. See observation #**Error! R eference source not found. Error! Reference source not found.**.
OUTC-1.2		The competence of doctors and nurses increases	MER-III-0>2	Number and proportion of doctors and nurses registered and admitted to professional practice through the independent competency assessment system (based on MoH Order)	Doctors: 247 /2.2% → 5,604 /50.3% | >30% Nurses: 1,116 /3.3% → 9,326 /9.7% | <22%

Label	Level	ToC Component	Metrics: indicator code	Metrics: Indicator definition	Baseline → Result | <> Target
			MER-III-0>3	% of total nurse graduates of the current year employed by the health system	
			MER-III-2>4	Number of doctors and nurses who undertake a certification procedure through an independent competencies assessment system and score passing points	Doctors:470 /4.2% → 1,799/16.0% | >30% Nurses: 1,165 /4.9% → 3,991 /12.7% | <22%
			NCD-II-(12).2>3	# and % of PHC staff (family doctors/family nurses) in the target regions trained on NCD PEN protocols and NCD risk factors	0% → 927/91%% + Included in KSMIRPD curriculum
OUTC-1.3		Modern (evidence-based) clinical practice for the management of NCD was introduced.	NCD-II-1>1	% of PHC facilities in target areas practice PEN protocols	0% → 100% | =100%
			NCD-II-1>2	% of patients (M/F) diagnosed with diabetes and hypertension trained in patient education classes managed by nurses has increased annually by 10 percentage points	HPT: 0/0% → 67275/61.0% | <75% DM: 0 /0% → 36582/61.0% | <75%
OUTC-2.1		Village Health Committees are active.	Ind 1	1 # of the village health committee members	>12,000
			Ind 2	2 Coverage of the population by village health committees (services, campaigns, etc.)	3 83%
				As per the "Ophelia" model:	
			Ind 3	1 # of LSGs engaged in managing health determinants in 2022-25	247 (in 2023), 215 (in 2024), 221 in (2025)
			Ind 4	2 Funding allocated by the LSGs to the management of health determinants in 2022-2025	1.5 mln + 1 mln +1.12 mln =3.62 mlnKGZ
			Ind 5	3 Funding was mobilized to co-finance the LSGs' initiatives initiated by the village health committees.	North: 3 985 381 KGS (26% of grants mobilized) 4 South: 13 565 719 (30%)
OUTC-2.2		NCD-related risk behavior reduces	NCD-II-2>1	% of population (M/F) who reduce at least one NCD risk factor (tobacco, alcohol, nutrition, physical activity) has increased	See observation #The project achieved remarkable results in reducing behavioral risk factors in northern (see Figure 5-18 below) and southern regions (see Figure 5-20 below): (above)
HFA-II-1.1	Outputs		HFA-II-1.1>1	Number of the bylaws developed, and regulations endorsed during the project.	

Label	Level	ToC Component	Metrics: indicator code	Metrics: Indicator definition	Baseline → Result | <> Target
		Competency-based system for selecting, appointing and supporting health managers renewed and sustained	HFA-II-1.1>2	Integration of gender equity in all applicable health management regulation acts	
			NCD-II-2>2	% of men in target regions visiting a family doctor at least once per year increased	
HFA-II-1.2		The system of continuous knowledge and skills development of health managers has been upgraded.	HFA-II-1.2>1	Number of training modules produced in accordance with pre-defined requirements	
			HFA-II-1.2>2	Number/percentage of trained health managers who successfully pass post-training testing/exams	
			HFA-II-1.2>3	Number of internationally accredited training modules	
HFA-II-1.3		The Association of Health Managers was created and operationalized.	HFA-II-1.3>1	Legal registration of the AHM	
			HFA-II-1.2>2	Number/percentage of trained health managers who successfully pass post-training testing/exams	
			HFA-II-1.3>3	Number of proposals of the AHM adopted in the revised regulations	
MER-III-2.1		Professional Medical Associations are strong partners engaged in the regulatory process and the provision of quality training.	MER-III-2.1>1	PMAs are formally mandated to deliver independent assessment services	
			MER-III-2.1>2	Number of PMAs/PMA members who benefited from capacity building activities organized in a package of services	
			MER-III-2.1>3	Number of PMAs that have developed a business plan	
			MER-III-2.1>4	Number of PMAs, which are members of international associations	
			MER-III-2.1>5	Number of professional standards developed by PMAs	
			MER-III-2.1>6	Number of registered CME (Continuing Medical Education) training programs provided by PMAs	
MER-III-2.2		An independent assessment, competencies development and registration system for health professionals is implemented.	MER-III-2.2>1	The legal framework and the concepts of independent assessment, competency development, and registration have been approved.	
			MER-III-2.2>2	ICCA is established and fully functional	
			MER-III-2.2>3	Number of health professionals by specialties who use the AiTest platform	
			MER-III-2.2>4	Number of developed test assignments (Multiple Choice Questionnaire (MCQ)) based on new principles and approaches	

Label	Level	ToC Component	Metrics: indicator code	Metrics: Indicator definition	Baseline → Result | <> Target
MER-III-2.3		Nurses are empowered through the implementation of the education reform, focusing on practice-based approaches.	MER-III-2.3>1	Number of educational modules developed in accordance with the new basic professional educational program (BPEP)	
			MER-III-2.3>2	Number of teachers and clinical supervisors trained on the new education program implementation	
			MER-III-2.3>3	Number of clinical guidelines for nurses developed for the management of patients in PHC	
MER-II-2.2		Strong focus is placed on General practitioners/Family doctors in postgraduate education.	MER-II-2.2>2	GP/FM catalog of competencies completed	
			MER-II-2.2>3	Legal reforms approved and legislative framework implemented	
			MER-II-2.2>4	The number of facilities in regions becoming clinical sites for HEIs in PGME increases	
MER-II-2.3		The competence of practicing health workers increased through continuous medical education.	MER-II-2.3>1	Number of GP/FM accredited using the new CME system	
			MER-II-2.3>3	Number of doctors registered using the new CME credit system	
			MER-II-2.3>6	Number of GP/FM and nurses attending CME courses	
NCD-II-(12).1		The PHC system is reshaped to prevent and control NCDs	NCD-II-(12).1>3	# and % of health facilities at all levels of the health system using electronic referral forms (software).	
NCD-II-(12).2		Management of NCDs improved through the implementation of adapted PEN Protocols.	NCD-II-(12).2>1	# and % of PHC facilities that are filling out the CVD risk factor level in the e-CIF	
			NCD-II-(12).2>2	# of peer review group (doctors and nurses) meetings discussing NCD management	
			NCD-II-(12).2>3	# and % of PHC staff (family doctors/family nurses) in the target regions trained on NCD PEN protocols and NCD risk factors	

Figure 5-54: Results of the assessment of the institutionalization maturity

		Assessment dimensions						
		Integration into national policies (strategies, health programs)	Integrated into legislation (making it mandatory to respect / follow)	Adequate financing secured	Strong recognition and support from key stakeholders	Capacity / resource requirements are met	Captured by HMIS and is tracked with KPI (through HSPA)	Average Score (maturity level)
Innovations (results that contributed ot the impact)	LTOUTC-1: Health organizations' performance improved	2		1		2	**2**	**Emerging (1.75)**
	LTOUTC-2: The population is more engaged in health prevention	1		3	2		0	**Emerging (1.50)**
	OUTC-1.1: Competent professionals are appointed to manage health organizations		2	1	0			**Emerging (1.00)**
	OUTC-1.2: The competence of doctors and nurses increases		2	2	1	2		**Emerging (1.75)**
	OUTC-1.3: Modern clinical practice for the management of NCD was introduced.		3	1	2		3	**Established (2.25)**
	OUTC-2.1: Village Health Committees are active.	2		2	3			**Established (2.33)**
	OUTC-2.2: NCD-related risk behavior reduces	1			1	2	0	**Emerging (1.00)**

Legend

0	*Not present*
1	*Emerging*
2	*Established*
3	*Fully embedded*

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