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Strengthening primary health care financing: policy considerations for Kyrgyzstan

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Kyrgyzstan

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Abstract

Development of the primary health care (PHC) system has been the core part of transformative health system reforms in Kyrgyzstan. Following various strategies, the country has made progress towards establishing a PHC-centred health system. Reflecting international evidence on PHC financing, this policy paper aims to describe the status of PHC financing in Kyrgyzstan and to provide policy options for strengthening PHC financing, in order to improve health outcomes and increase the value for money of public spending.

Public spending on PHC services in Kyrgyzstan is comparable to that of other countries with a similar income level. Although PHC spending is prioritized in the health budget, per capita public spending on PHC is among the lowest in the WHO European Region. Kyrgyzstan has made efforts to grant universal access to basic PHC services. However, the complex multilevel PHC organizational structure and heavy reliance on narrow specialists do not allow maximum value to be extracted from the limited PHC budget. To strengthen PHC financing, Kyrgyzstan should consider reviewing its PHC benefits package to better align it with population health needs and the available level of public funding, redesigning the PHC provider payment system, and improving the provider monitoring mechanism.

Keywords

PRIMARY HEALTH CARE
HEALTHCARE FINANCING
HEALTH CARE SYSTEMS
COSTS AND COST ANALYSIS
KYRGYZSTAN

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Abbreviations

ADP	Additional Drug Package
CDU	consultation and diagnostic unit
CIF	Central Information System
DLI	development-linked indicator
FAU	feldsher ambulatory unit
FGP	family group practice
FMC	family medicine centre
GDP	gross domestic product
GPC	general practice centre
MHIF	Mandatory Health Insurance Fund
P4P	pay for performance
PforR	Payment for Result
PHC	primary health care
SGBP	State-Guaranteed Benefits Package

Key messages

1. Enhance the primary health care (PHC) organizational model for increased equity and efficiency

The current organizational model of PHC is multifaceted, with various levels and packages of services. Defining PHC organizational models that meet population health needs and are suited to the local context is crucial. However, this requires a clear understanding of the functions and scope of services at each level of PHC. In Kyrgyzstan explicitly defining the functions and boundaries of responsibilities would avoid duplication and inefficiencies, while providing greater clarity to the population on what they should expect from PHC at each level. The current weak gatekeeping function allows patients to directly access narrow specialists at PHC facilities. Therefore, explicit referral criteria based on national care guidelines could strengthen the role of PHC, reduce the extent to which family doctors are bypassed, and limit overreliance on narrow specialist and inpatient services. The recent integration of family medicine centres (FMCs) and district hospitals to create general practice centres (GPCs) risks diminishing the role of PHC. Therefore, it is crucial to closely monitor the reform's impact. Granting a certain level of managerial and financial autonomy to PHC providers within the integrated facilities would create a more supportive environment for the PHC team to grow and develop.

Specific recommended steps include:

- Define the team composition, functions and responsibilities of PHC providers at all levels of PHC.
- Reinforce the role of family doctors as gatekeepers by reviewing patient pathways and clarifying the distinct roles of family doctors and narrow specialists.
- Grant managerial autonomy to PHC providers embedded in the integrated GPCs.

2. Scrutinize the PHC benefits package to better meet population health needs

The basic benefits package is universally accessible to the entire population. However, the extended PHC package is available only to insured people. The current basic benefits package is not fully aligned with clinical guidelines, indicating a need to review it to better meet the population's health needs. It is essential to establish principles and a procedure for regular revision of the PHC benefits package to contribute to better-informed budgeting and resource allocation decisions. Kyrgyzstan could also consider reducing financial barriers to accessing PHC services in order to make PHC more attractive and to reduce the incentives to seek care form narrow specialists and hospitals. More effort is needed to ensure that medicines are both available and affordable, and consideration should be given to increasing entitlement to the entire population. The current complex organizational model, which provides a variety of care packages, may leave patients vulnerable to avoidable out-of-pocket payments. Improved communication is therefore necessary to inform the population about their entitlements at PHC level and to empower them to demand the benefits that have been promised. Additionally, essential medical equipment and laboratory diagnostics should be made universally available at PHC level to make it more attractive for patients.

Specific recommended steps include:

- Review and explicitly define the PHC benefits package by aligning it with population health needs, clinical guidelines and protocols.
- Reduce financial barriers to accessing PHC services.
- Ensure that the medicines listed in the Additional Drug Package (ADP) are available and affordable to the entire population.
- Extend the selection of medicines in the ADP and introduce price regulation for these medicines.
- Prioritize communication to inform the population about their entitlements at PHC level.
- Make essential medical equipment and laboratory diagnostics universally available at PHC level to ensure accessibility of the services listed in the benefits package.
- Introduce principles and a procedure for regular revision of the PHC benefits package.

3. Strengthen PHC budgeting and the budget monitoring system

As a priority, it is necessary to identify and then rectify the current mismatch between the defined package, population health needs and actual funding levels. The PHC programme in the programme-based budget has received high priority. However, the large share of the budget for PHC may be misleading, as it includes the budget allocation for narrow specialists. Further efforts could be made to prioritize spending on PHC services and medicine in the Mandatory Health Insurance Fund (MHIF) budget. The budget allocated for essential medicines needs to be increased to ensure access and financial protection. Although recent political priority has been given to increasing the salaries of PHC providers, funding is also needed for other PHC cost categories, such as diagnostics. To address bottlenecks in PHC budget execution, it is important to track and monitor PHC spending in integrated facilities to ensure that the funding allocated to PHC has actually been spent on it. Lastly, while PHC has received significant donor support in recent years, external funding can continue to ease the burden on the MHIF budget through strategic investments in PHC, such as scaling up basic equipment in facilities.

Specific recommended steps include:

- Align the PHC benefits package with the PHC budget and the readiness of PHC providers to deliver expected care.
- Make efforts to prioritize PHC and ADP spending in the MHIF budget and to ensure adequate funding for all PHC cost categories.
- Address bottlenecks and start tracking spending at district level, with GPCs as the first priority, in order to improve execution of the PHC budget.
- Direct donor funding towards investments that are needed to ensure that adequate infrastructure of sufficient quality is available to access PHC services.

4. Redesign and adequately resource PHC provider payments

Capitation payment should continue to be the core of the PHC payment system, but the current provider payment system needs refinement to better meet policy objectives. Widely used adjustments for capitation, such as age and gender, which could help to better align the payment with health needs, are not in place. Although capitation rates are amended annually, there is no full clarity on how they relate to changes in the benefits package or input costs, such as an increase in salary or utility costs. Currently, capitation rates do not reflect the real costs of delivering services but rely instead on historical expenditure data. Conducting a PHC costing study would provide a more up-to-date understanding of the costs associated with delivering PHC services included in the benefits package. The capitation payment aims to take account of geographical location, but the coefficients used are outdated, and it is unclear how they reflect the increased funding need in remote locations. To make rural facilities more attractive to patients and staff, investing in PHC physical and digital infrastructure is necessary. With family doctors ageing, it is crucial to attract young professionals to start working at PHC level.

Specific recommended steps include:

- Refine the capitation payment system to better meet policy objectives.
- Review and update the regulation to incorporate a transparent methodology for calculating and regularly revising the capitation payment rate.
- Conduct a PHC costing study to gain up-to-date understanding of the costs associated with delivering PHC services included in the benefits package.
- Adjust the PHC payment design to better reflect regional needs to ensure access to PHC in rural areas.
- Invest in PHC physical and digital infrastructure to scale up PHC premises, especially in rural areas, making them more attractive to patients and staff.
- Ensure that capitation payment can cover an adequate base salary for the PHC team and that mechanisms exist to incentivize good performance rather than years of experience.

5. Revamp the performance payment system for PHC teams

A performance-related payment scheme was in operation from 2018 to March 2021. Despite its significant positive impact, the system was abolished to redirect resources towards increasing PHC workers' salaries. Drawing on experiences and lessons learned from the previous performance payment system would allow an improved format to be introduced. One policy option for the future would be to extend the scope of performance payment to cover not only salary top-ups but also additional costs for services related to key priority clinical areas listed in the clinical protocols. The programme should be funded from the MHIF budget and included as part of the annual contract with providers.

Specific recommended steps include:

- Introduce a revised performance payment system for PHC teams to incentivize continuous improvement in managing priority PHC-sensitive conditions.
- Draw on experiences and lessons learned from the previous implementation of a PHC performance payment system. Ten concrete action points to consider:
  (1) Align indicators with concrete policy objectives.
  (2) Align indicators with available data to limit extra reporting and manual data analysis.
  (3) Prioritize process indicators.
  (4) Allow providers to define their own priority indicators that complement national-level indicators.
  (5) Implement a transparent and reliable methodology and rules on how indicators are calculated.
  (6) Ensure that performance payments are paid to all member of the care team.
  (7) Implement additional team-based incentives.
  (8) Reduce performance payment as a share of the health professional's salary and the provider's overall budget.
  (9) Improve data quality by putting in place provider feedback loops.
  (10) Make performance data public through user-friendly data visualization tools.
- Ensure sustainable funding for performance payments in the MHIF budget.

6. Improve contracting and monitoring mechanisms by increasing data quality and collaboration

The current annual contracting cycle prevents providers from making long-term development plans. Moving towards multiyear contracts would therefore shift the focus from short- to long-term development needs. The existing data collection and monitoring system focuses primarily on financial monitoring, neglecting scrutiny of PHC performance. Therefore, it is imperative to develop a robust provider monitoring system that ensures the provision of services in accordance with the State-Guaranteed Benefits Package (SGBP) while avoiding high out-of-pocket payments for patients. However, the lack of coordination between the MHIF and the E-Health Centre limits access to essential data, hindering development of the monitoring and evaluation system. To address this issue, mechanisms should be devised to integrate the MHIF and E-Health Centre information systems, thereby allowing better data reporting to the Central Information System (CIF).

Moreover, collaboration between the MHIF and the E-Health Centre could enhance data quality and availability, enabling monitoring of PHC performance against existing clinical standards and promoting continuous improvement of services. High-quality data are essential for the reintroduction of performance payment.

Specific recommended steps include:

- Consider shifting towards multiyear contracts to prioritize long-term development needs.
- Develop a robust provider monitoring system to ensure adherence to the SGBP and avoid high out-of-pocket payments.
- Improve data collection at PHC level to allow effective performance monitoring.
- Implement mechanisms for integrating the MHIF and the E-Health Centre information systems to enhance data quality and availability.

1. PHC organization and financing in Kyrgyzstan

1.1 PHC organization

The development of the PHC system has been a key element of the transformative health system reforms in Kyrgyzstan. Since the mid-1990s, the country has implemented various health reform programmes which introduced comprehensive structural changes to the health-care system aimed at strengthening PHC, developing family medicine, restructuring the hospital sector, and establishing the MHIF as the purchasing agency. The most recent – the State Program for the Protection of Public Health and the Development of the Health System "Healthy People – Prosperous Country" for 2019–2030 – aims to optimize the health system infrastructure and emphasizes the importance of PHC. Under the leadership of the Ministry of Health, significant progress has been made in recent years. The Ministry of Health established a taskforce dedicated to leading the development of PHC, with a focus on improving the quality of PHC services, revising the PHC benefits package, changing the organizational model of PHC facilities, developing information technologies, and introducing new quality standards for PHC facilities.

While PHC remains a priority in the political agenda, the decisions and actions that have been taken do not always align with strategic objectives or evidence-based practices. In 2021 several PHC providers were merged with district hospitals, creating the GPCs. This reform contradicted the previous policy to strengthen the autonomy of PHC providers. As a result, PHC providers lost their autonomy and were placed under the management of district hospitals. Currently, some regions are planning to separate PHC providers from district hospitals again, depending on population density. Inconsistent and frequent changes in policy direction have increased uncertainty over the future of PHC and undermined the impact of other policy initiatives aiming at strengthening PHC.

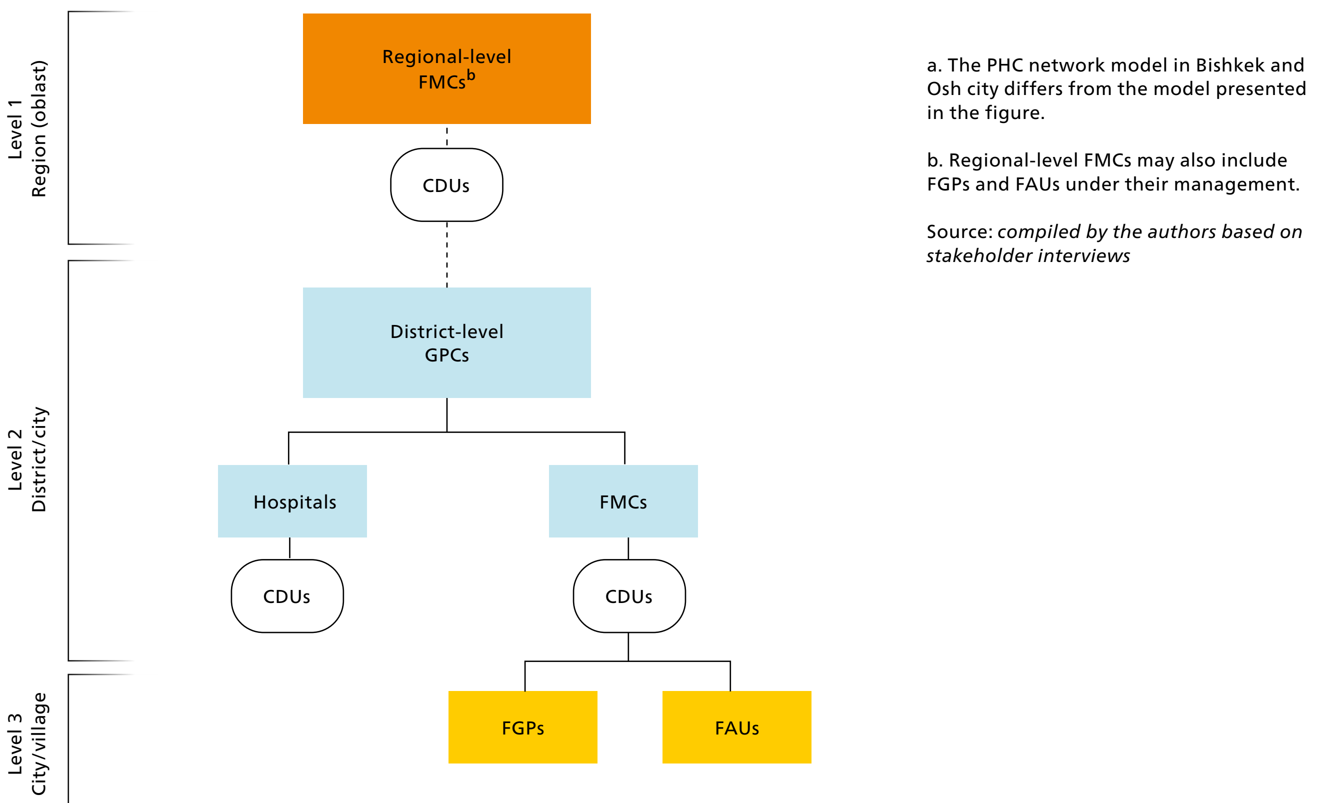
Significant progress has been made to move towards family medicine-centred PHC, although narrow specialists continue to play a significant role. Doctors working at PHC level are trained as family doctors. However, in many cases, narrow specialists working in FMCs continue to practise their specialty, such as neurology, oncology, gynaecology or paediatric care, even after being retrained in family medicine. The role of narrow specialist is more prominent in urban settings, resulting in inefficient care pathways, particularly for patients with noncommunicable diseases who are directed towards specialized services.

PHC providers are public legal entities with some managerial autonomy. PHC providers' line-item budgets are directly approved and amended by the MHIF. Although staffing norms exist for each provider, there are no consequences if staff positions remain vacant. The salary funds intended for these vacant positions can be used for salary top-ups for staff in the same category (see also section 1.5 below). The GPCs, which are integrated PHC and hospital facilities, are allowed to reallocate saved funds across primary and secondary care. Occasionally, local governments provide premises to PHC providers, and larger cities (such as Bishkek) may finance special programmes or provide additional financial support.

The PHC network in Kyrgyzstan consists of three levels and various organizational modalities, including FMCs, family group practices (FGPs), narrow specialist consultation and diagnostic units (CDUs), feldsher ambulatory units (FAUs) and GPCs. Fig. 1 shows the PHC provider hierarchy, while Box 1 describes the roles of the various provider modalities. Kyrgyzstan is divided into seven regions (oblasts), each composed of several districts (rayons). Regional-level FMCs are located in regional centres (bigger cities) and coordinate PHC provision for their own district while also being responsible for regional coordination. District-level FMCs provide services to their own district population and are also expected to provide PHC services under the SGBP for people from other districts of the region if they have a referral from their PHC provider.[1] District-level FMCs and FGPs cover services for the registered population and may have smaller subdivisions of FAUs. In 2022 the MHIF contracted 61 GPCs, including 679 FGPs, 1068 FAUs and 17 FMCs. The FAUs serve 26% of the population.

1. In these cases, the referring PHC provider is expected to reimburse the district-level FMC. However, there is no established mechanism for this purpose and patients pay the full cost out-of-pocket. Patients living outside the district need to have a referral from their own family doctor, and only patients from the same region are served.

Fig. 1. PHC provider network organization in Kyrgyzstan[a]



a. The PHC network model in Bishkek and Osh city differs from the model presented in the figure.

b. Regional-level FMCs may also include FGPs and FAUs under their management.

Source: *compiled by the authors based on stakeholder interviews*

Box 1. PHC provider organizational modalities

Source: *compiled by the authors based on stakeholder interviews*

Family medicine centres (FMCs) comprise outpatient services, including family medicine provided by family doctors, retrained narrow specialists and mid-level health personnel in urban settings. In addition, FMCs have a CDU which provides narrow specialists and diagnostic services. Both regional-level and district-level FMCs also manage smaller FGPs and FAUs in their territory.

FGPs include family doctors (as well as specialists retrained as family doctors) and mid-level health personnel. Each FGP serves a population of more than 2000 inhabitants. FGPs can be independent organizational units or affiliated to the district FMC; however, they are supervised by the regional FMC.

FAUs provide services in rural areas. They are staffed by at least one feldsher or nurse, and by a midwife in larger villages, and they serve 500–2000 people. FAUs operate under the management and supervision of FGPs or FMCs.

General practice centres (GPCs) are district hospitals merged with what were previously district FMCs, providing inpatient and ambulatory care at district level. The ambulatory care includes FMC-provided services.

CDUs are narrow specialist units mostly working under FMCs or GPCs.

The lack of clarity in the functions of different organizational modalities leads to duplication and inefficiencies in PHC and in outpatient specialist and diagnostic care. Specialist and diagnostic services provided at PHC level can vary from general medicine to narrow specialist care, including services such as radiography, ultrasound, minor surgery and rehabilitation. However, there is no clear standard determining the scope of specialist services provided at PHC level, nor a clear distinction in regulatory documents between family medicine and specialized services at FMCs.[2] Moreover, there are no regulations specifying the services that should be available at each type of PHC facility. Additionally, FMCs working under GPCs have their own CDUs, while the hospitals may have separate outpatient diagnostic units, with overlapping functions. Anecdotal evidence suggests that patients prefer seeking care at the regional-level FMCs because they offer better-trained and equipped professionals than district-level providers.

The merger of FMCs with district hospitals was intended to optimize the provider network and improve the situation of district hospitals; however, its impact on PHC development is doubtful. In 2021 the majority of FMCs lost their independent status and started working under hospital management. The number of GPCs increased from 29 in 2020 to 61 in 2022; the number of FMCs, meanwhile, declined from 49 to 17 *(1,2)*. Although Kyrgyzstan has taken successful steps to optimize

2. *Based on "Mission report: technical support for the PHC task force in Kyrgyzstan", an unpublished document produced in 2022 for internal use by the WHO Regional Office for Europe.*

the hospital network, it is still extensive and financially unviable. The main objective of the merger was to optimize use of the resources needed to manage health-care institutions and improve access to care. However, the functions of PHC and hospital care under the new merged organization were not defined. The majority of the merged institutions continue to be managed by hospital staff. The incentive to shift patients into hospital care is amplified when PHC and hospital are a single legal entity. The merger may also shift the focus of PHC from providing care to the population to attracting patients for inpatient care. In addition, financial reporting at facility level makes it difficult to track PHC spending, which increases the risk that PHC financing through the MHIF may be used to cross-subsidize hospital care. Only certain providers have the technical feasibility to conduct cost accounting, and they can track PHC spending within the GPCs, but it is not a requirement for all providers. There is anecdotal evidence that some hospitals that were previously not financially viable are no longer at risk following the merger with FMCs, although no major consolidation of staff has taken place *(3)*.

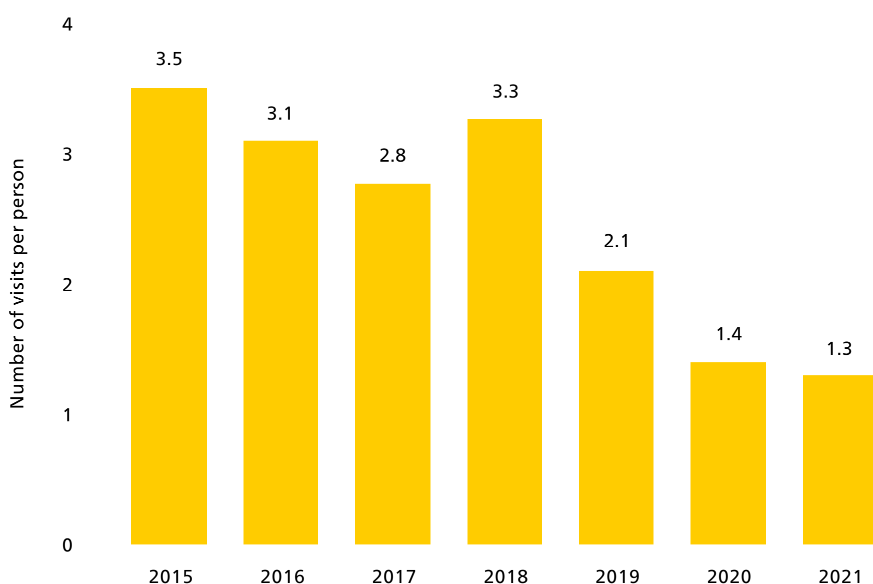
The population is registered with FGPs, and individuals are able to select a preferred family doctor. Citizens who live within an FGP service area may register with the FGP of their choice in their municipal area of residence.2 People may change their provider once a year in October or November, unless they have changed their primary place of residence. The registered population database includes information on each individual's registration with a specific FGP, which serves as the care team for the patient.

The shortage of family doctors, due to ageing and other factors, is a serious concern. Although recent policy initiatives have increased the number of family doctors in urban areas, access to care remains an issue in rural areas. According to regulations, there should be one family doctor for every 1700 inhabitants, one nurse for every 1000 people, and one feldsher for every 700 people *(4)*. As of 1 January 2021, 2194 doctors and 5914 family nurses were working in PHC *(5)*, which equates to 0.7 and 1.9 per 2000 inhabitants, respectively. Furthermore, the PHC workforce is rapidly ageing, with almost 30% of physicians at PHC level having reached retirement age in 2020. In 2019 the Ministry of Health initiated a reform in the capital city, Bishkek, to change the narrow specialist-centred model that differed from what existed in the rest of the country. This reform introduced a simplified three-month training course in family medicine, which differed from the previous requirement to complete a residency in family medicine or six-month course.[2] Additionally, since 2018, performance payments for family doctors have been in place, creating an incentive for narrow specialists to take a greater interest in the retraining programme to become family doctors and hence to be eligible for bonus payments. Consequently, in 2019 more than 300 paediatricians and therapists in Bishkek moved to the position of family doctor. On average, the number of family doctors increased by nearly 30%, and the number of family nurses by 5%. The impact was mostly seen in urban areas where there was a higher number of narrow specialists, while no significant change was observed in rural settings. Nonetheless, in 2020, 17 family doctors were serving 10 000 or more inhabitants, indicating a severe lack of physicians *(5)*. Neither quality nor access can be maintained when such large numbers of the population are served by a single doctor.

According to E-Health Centre data, the average number of visits to FGPs per person per year was already declining prior to the COVID-19 pandemic. According to the regulations, family doctors have four hours per day for appointments and 2.5 hours for home visits. Between 2015 and 2021 the average number of visits to FGPs per registered person decreased each year from 3.5 to 1.3 (Fig. 2). In April 2020 a transfer to the online mode of the CIF took place, which required online data submission and may have caused some reduction in the amount of data submitted. Moreover, there are no incentives for doctors to digitally record all visits. In addition, limited access to the Internet in some regions and lack of modern information technology have created barriers to compliance with compulsory reporting requirements.

3. Data are provided according to the service provider location.

Fig. 2. Average number of visits to FGPs per registered person per year, 2015–2021[a]



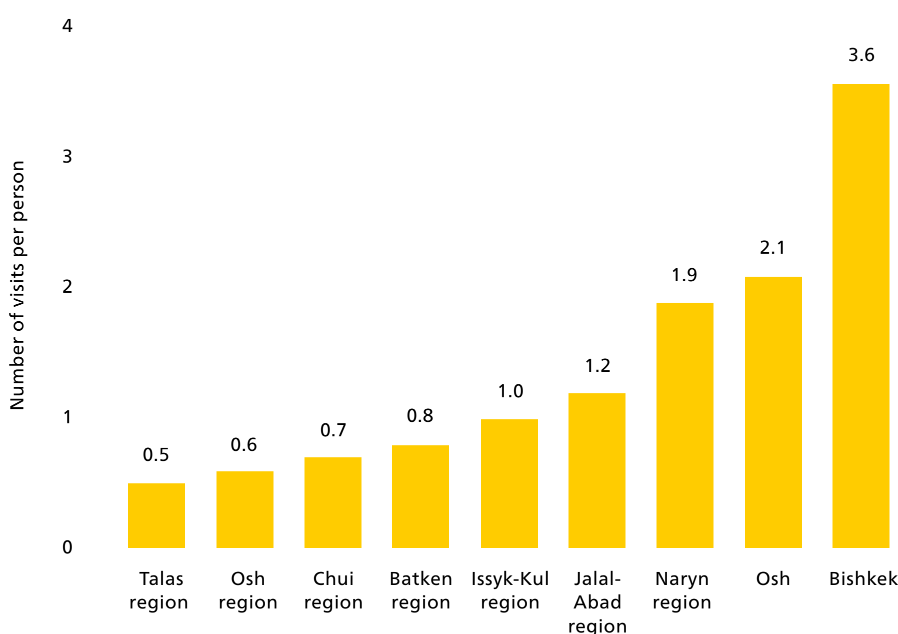
a. Data also include home visits.

Source: *Data provided to the authors in personal communication with the E-Health Centre*

The average number of visits to PHC doctors per person per year varies greatly by region. In 2021 the average number of PHC visits per person ranged from 0.5 in Talas region to 3.6 in Bishkek (Fig. 3). The low use of PHC services in some regions may be due to people seeking care in big cities with better amenities.[3] Another reason for low service use outside big cities is the shortage of PHC doctors. PHC doctors have weak financial incentives to work in remote areas, where they lack professional development opportunities and – most importantly – face a lack of basic infrastructure and services such as housing and schools *(6,7)*. In rural areas, many PHC facilities lack necessary equipment. Access to diagnostic services is limited and dependent on resources such as fuel, vehicles and communication equipment. This is especially a challenge in highly mountainous regions, which also lack reliable Internet access *(6)*. Better equipment is available in Bishkek and large regional centres, where there

is an operational laboratory network or an organized transport system to bring in samples from other locations.

Fig. 3. Average number of visits to FGPs per person by region (oblast), 2021[a]



a. Data also include home visits.

Source: *Data provided to the authors in personal communication with the E-Health Centre*

Despite the aspiration to reduce overreliance on specialist services, the system remains largely centred on specialists, especially in urban areas. The gatekeeping function is not firmly established, and the ambiguous role, uneven skills and variable quality of family doctors lead patients to bypass PHC. Even following completion of the family medicine 4–6-month retraining programme, some retrained narrow specialists, working as family doctors, lack the skills to provide comprehensive care. This may be due to the limited training period, as well as the fact that family medicine, as an academic discipline, is not well developed, and family doctors may be trained in any specialty. Retrained narrow specialists may continue to focus on their previous specialization – gynaecologists, for instance, may focus only on pregnant women, or paediatricians only on children *(5)*. The large number of narrow specialists working at PHC level makes it easy for patients to directly access specialist care. Despite the development of clinical guidelines and pathways, the roles of specialists working at PHC level and in hospitals are not clearly defined, nor is there a clear expectation of how specialists should coordinate care with family doctors *(6,8)*. Since 2002 around 380 clinical guidelines and 200 care pathways have been developed *(9)*, but they are not fully aligned with the PHC benefits package (covered in the next section). The mixed model of service delivery, which allows PHC providers to employ and provide narrow specialist services and involves integration with hospitals, further weakens the role of family medicine.

1.2 PHC benefits package

The population is eligible to receive free PHC in their region of residence. However, approximately one third of the population only have access to the basic PHC package defined in the SGBP and cannot benefit from the extended list of PHC services and outpatient medicines covered by the ADP, which is only available to the insured population *(10)*.

Service coverage within the SGBP is defined by lists of inclusions and exclusions, as well as by rules on types of provider and service delivery levels. In the SGBP, PHC services are divided into two packages: (i) the basic PHC package, which is available free of charge to all citizens registered to an FGP; and (ii) the extended PHC package, which is available free of charge to vulnerable population groups insured by the state and to other insured people subject to a 50% copayment (Box 2; Table 1).

Box 2. The PHC benefits package

Source: *Decree of the Government of the Kyrgyz Republic of 30 December 2020, No. 636 (11)*

The **basic PHC package** includes:

- health promotion
- disease prevention (immunization, infection control and patient education)
- diagnosis (consultation and basic laboratory and diagnostic tests)
- treatment (emergency medical care, immobile patient transportation, prescriptions, rehabilitation, physiotherapy and injections).

Basic laboratory tests include:

- complete blood count
- urinalysis and microscopic sediment examination
- urethral smear microscopic examination
- vaginal swab microscopic examination
- sputum microscopic examination
- blood glucose
- urinary glucose
- electrocardiogram
- blood cholesterol
- glycated haemoglobin for patients with diabetes mellitus
- bacteriuria for pregnant women.

The **extended PHC package** includes additional laboratory and diagnostic tests, on top of the tests in the basic package, with a doctor's referral, as well as rehabilitative and physiotherapeutic care, and outpatient medicine benefits.

Table 1. Service packages provided for different population groups

Source: *compiled by the authors based on stakeholder interviews*

Population group	Basic PHC package	Extended PHC services and narrow specialist services
State-insured (socially vulnerable population groups)	Free	Free
Other insured groups		50% copayment
Uninsured		Out-of-pocket payment

Approximately 70% of the population were covered by mandatory health insurance in 2021 *(3)*. State-insured groups, including socially vulnerable populations such as veterans, disabled people and pensioners over 70 years old, are exempt from any copayments for the extended PHC services and narrow specialist services, including expensive tests and interventions which are not covered for other population groups. Tariffs for services in the PHC extended package (among others) that are subject to copayment or paid out-of-pocket are regulated and approved by the body responsible for ensuring anti-monopolistic practices. The tariffs were revised in 2022, but there is no defined methodology for regular adjustments (for instance, to take account of increases in salaries or inflation).

The description of the PHC benefits package does not offer full clarity on the services available at PHC level. The list of PHC services, including laboratory diagnostic tests in the basic and extended packages, is neither sufficiently detailed nor fully aligned with the approved clinical guidelines and protocols. For example, in the basic package, a complete blood test is included without specifying the number of parameters (three or six). As a result, patients often undergo a full blood test for which they pay out-of-pocket *(3)*.[2] Regulatory documents that define the list of PHC services give different interpretations. Furthermore, the package of PHC services focuses primarily on diagnostic and treatment-related services and does not put sufficient emphasis on prevention, rehabilitation and psychosocial support.[2] Different organizational modalities at PHC level (described in the previous section) result in a situation where access to PHC services and availability of certain diagnostic tests are heavily dependent on the PHC facility and organizational modality. The FGPs provide basic services for the registered population, while the FMCs provide narrow specialist and extended diagnostic services for the insured population groups, leaving those who are uninsured to pay out-of-pocket for the services they receive. At the same time, since the benefits package does not define which services should be provided by FGPs and which by FMCs, there may be confusion, leading people to seek basic PHC services in FMCs for a fee. This may also happen because services listed in the basic package are not available in all FGPs *(3)*.[2] There is no monitoring and control system in place to guarantee that services are equally accessible and provided for free in accordance with the SGBP.

2. *Based on "Mission report: technical support for the PHC task force in Kyrgyzstan", an unpublished document produced in 2022 for internal use by the WHO Regional Office for Europe."*

Outpatient medicines coverage is limited. The ADP included, in 2022, more than 70 drugs listed under their international nonproprietary name (up from 34 in 2001) and about 200 listed under a trade name. It primarily focuses on PHC-sensitive conditions such as asthma, hypertension, other cardiovascular conditions and pneumonia. Insured individuals can purchase selected medicines at reduced prices from contracted pharmacies, with a reimbursement rate set at 50% of the median wholesale price by the MHIF. The reimbursement does not cover pharmacy markups. However, exemption from copayment applies to medicines for priority conditions, such as epilepsy, asthma, schizophrenia, affective disorder, paranoia, bronchial asthma and palliative treatment at the terminal stage of cancer. For these conditions, the list of medicines is defined under the SGBP, and the medicines are subject to a copayment of 10% of the median wholesale price for people registered with a PHC provider, including uninsured individuals.

High out-of-pocket spending on medicines causes financial hardship and is a key barrier to accessing medicines. In 2014 the majority of catastrophic spending was related to outpatient medicines and medical products, especially among poorer households. A survey of type 2 diabetes patients indicated that the main reason for irregular intake of hypoglycaemic drugs was the high price of medicines (42% of respondents reported irregular use of medicines) *(5)*. If medicines are not affordable to the population, the impact of improved PHC remains limited.

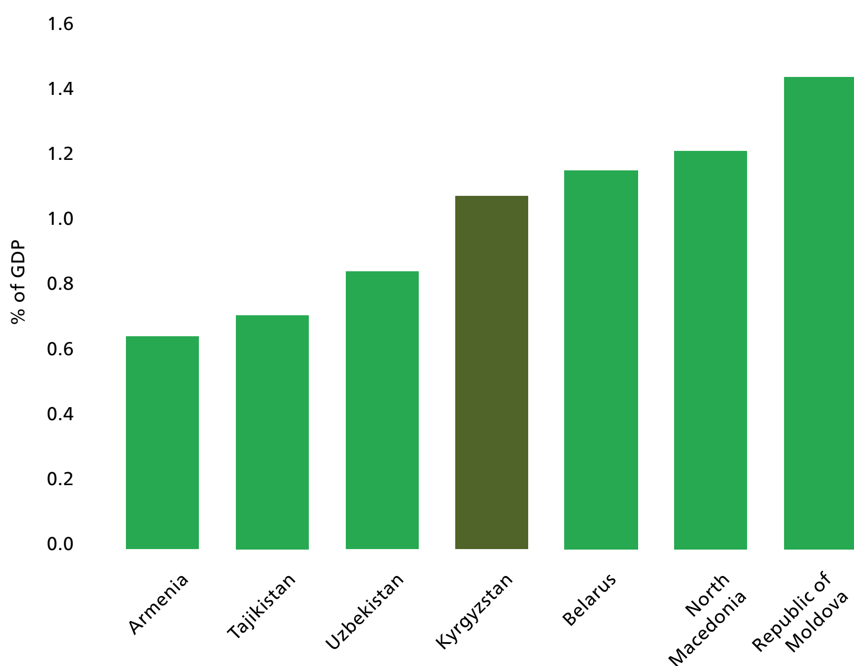
There are limited incentives for chronic care management at PHC level. PHC teams may not be motivated to manage patients with chronic conditions because it is easy to access narrow specialists. As a result, patients with PHC-sensitive conditions often bypass family doctors. The benefits package does not always allow monitoring of patients in accordance with care guidelines. For example, while the national clinical protocol for diabetic patients anticipates four glycated haemoglobin tests per year, the SGBP includes just one per year *(3)*.

Although there is no formalized procedure, the Ministry of Health and the MHIF have initiated the process of revising the SGBP. In the past, the benefits package was revised and approved annually by the government as part of the Annual Budget Law. The law, however, did not set out a process for the SGBP revision, and there were no guidelines on how the revision should be done. In practice, the process of revising the SGBP was made participatory and formalized. This involved many steps and multiple stakeholders, which typically resulted in a delay in the approval of the package. Given the challenges in revising the SGBP annually, it was decided in 2018 that the benefits package would only be revised when needed, and the process of annual review was abolished. The most recent development is that the MHIF has set a target to revise the PHC benefits package during 2023. A draft methodology for the revision of the SGBP has been developed and is expected to be adopted by the MHIF.

1.3 PHC budget

Kyrgyzstan spends about 1% of gross domestic product (GDP) on PHC from public sources. In 2019, public spending (including external funding) on PHC was 1.07% of GDP (Fig. 4), which is comparable with other countries with a similar income level. However, per person, public spending on PHC is still among the lowest in the WHO European Region.

Fig. 4. Public spending on PHC as a share of GDP in selected European countries, 2019[a]



a. WHO has developed a methodology to account for PHC spending based on the Classification of Health Care Functions (HC) coding. It incorporates first-contact personal and population-based services to estimate and compare PHC expenditure internationally, including: general outpatient curative care (such as visits to a general practitioner or nurse) (HC.1.3.1); dental outpatient curative care (such as visits for regular control and other oral treatment) (HC.1.3.2); curative outpatient care not elsewhere classified (excluding specialized outpatient care) (HC.1.3.n.e.c.); home-based curative care (such as home visits by a general practitioner or nurse) (HC.1.4); outpatient (HC.3.3) and home-based (HC.3.4) long-term health care; preventive care (such as immunization, health checkups, health education, disease detection, monitoring and emergency response programmes) (HC.6); part of medical goods provided outside health-care services (80% of HC.5); part of health system administration and governance expenditure (80% of HC.7) *(12)*.

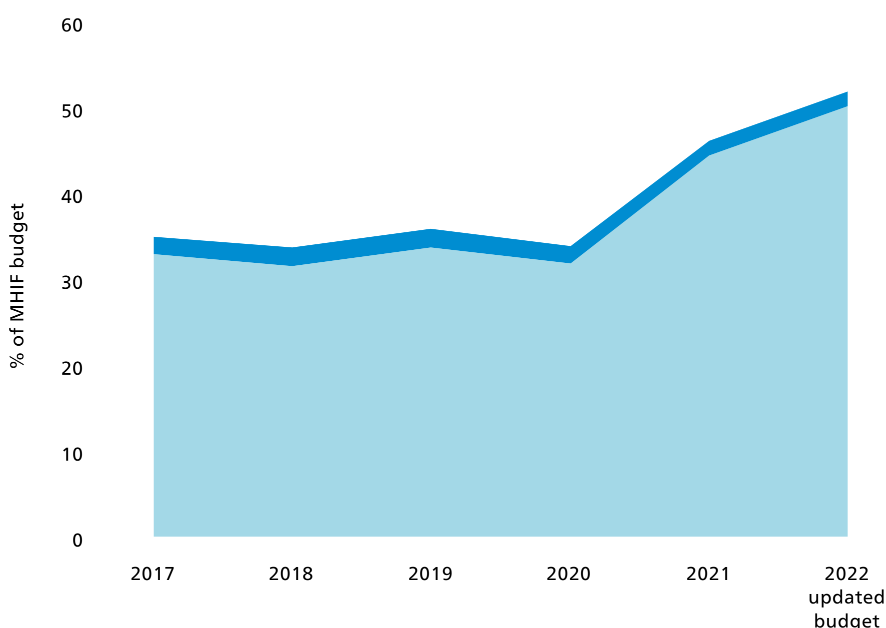
Source: *Global Health Expenditure Database (13)*

PHC in Kyrgyzstan has been prioritized by development partners and benefited from external funding. The World Bank's Primary Health Care Quality Improvement Program was approved in 2019 and is due to be implemented between 2020 and 2025 by the Ministry of Health and the MHIF *(14)*. The programme applies a financial tool called Payment for Result (PforR), in which funds are disbursed after specific results are achieved. PforR funds are allocated through the republican budget and distributed between the Ministry of Health and the MHIF. Several development-linked indicators (DLI) have been defined to monitor progress. In 2019, prior to implementation of PforR, 80% of overall health sector external funding was allocated to PHC, indicating the high priority placed on PHC by the donor community. In the same year, external funding accounted for 8% of total public spending on PHC *(12)*. However, donor funding should not be regarded as a reliable means of financing PHC core functions in the longer term.

Programme-based budgeting has recently been introduced, and as a result, the PHC budget is formulated and monitored in three different formats: by budget programmes, functions and economic classification (input-based line-items). The MHIF programme-based budget comprises four programmes, one of which is PHC. The programme-based budget for the MHIF for 2022 and the forecast for 2023–2024 were developed on the basis of the strategic goals of the State Program for the Protection of Public Health and the Development of the Health System "Healthy People – Prosperous Country" for 2019–2030 *(15)*. The programme-based budget aims to ensure a closer connection between the budget and strategic goals by linking the funding with policy targets and indicators. One of the indicators stated for the PHC budget programme is PHC expenditure as a share of total expenditure on all programmes to ensure PHC priority in budget allocations. For 2023, the performance target was set at 42%, up from 30% in 2021.

According to the budget by function, payments for outpatient services for FMCs and FGPs comprise half of the MHIF budget. However, the caveat is that this part of the budget includes funding for narrow specialists, which obscures the actual funds allocated to PHC services (Fig. 5). The function-based budget structure indicates the distribution of funding according to different services, but it does not fully align with the programme-based budget for PHC. This may be due to the fact that there is no clear definition of PHC and the function-based budget includes services for narrow specialists. Therefore, the large share of the budget for FMCs and FGPs may be misleading and not provide a clear picture of the funds allocated to PHC. From 2017 to 2022, the overall MHIF budget increased by 48%, while the PHC budget increased by 66%, with a marked increase of 44% from 2021 to 2022, which is mostly related to a significant increase in the salary of family doctors. The budget for outpatient medicines has increased at the same pace as the budget for PHC but remains only 2% of the MHIF budget.

Fig. 5. Budget for FMCs and FGPs and outpatient medicines as a share of the MHIF budget, 2017–2022



Source: *Data provided to the authors in personal communication with the MHIF*

The draft budget forecast is formulated by the MHIF based on defined budget ceilings, which are determined using historic expenditure and input norms instead of actual financial needs. The initial budget plan is prepared with input from the Ministry of Finance, the Ministry of Health and stakeholders.[4] However, cost estimation during budget preparation still relies on historic expenditure and input norms rather than actual financial needs. Although Kyrgyzstan has a sectoral strategy to steer policy decisions, in practice, political pressure often leads to priority being given to expenditure on specific inputs, such as salary increases for health workers. This approach is facilitated by the use of historic expenditure data based on economic classifications, rather than assessment of actual financial needs. Health-care providers prepare a line-item budget, which serves as a basis for contract amount. The MHIF disburses funds allocated to providers on a per capita basis based on submitted invoices for specific line-item expenditure (salaries, utilities, etc.), rather than on the actual population registered. This results in a discrepancy between budget allocations and the funding required to cover expenditure on delivering the SGBP to the population, which is often met through informal out-of-pocket payments. Health-care providers and the MHIF continue to use input-based norms as the basis for budgeting.

Budget execution monitoring is primarily focused on line-item expenditure, although there are defined budget programmes and functions. At provider and MHIF level, budget execution monitoring remains focused mainly on line-items (see also section 1.5). As a recent development, data on PHC budget programme execution are now available from 2021 onwards. However, the merger of district hospitals

4. Budget planning for the following year starts regularly in April, when the MHIF submits an application based on expenditure estimates. By June the Ministry of Finance provides feedback on budget applications made by the Ministry of Health based on defined budget ceilings. In July, depending on the results of negotiations, the final budget is agreed. In August a public consultation is conducted, and by mid-September the budget is submitted to Government. Finally, Parliament approves one pooled amount of funding for the MHIF.

and FMCs has made it difficult to track programme budget execution at provider level and to ensure that funding allocated to PHC has been spent as intended. The planned PHC programme budget is divided into several subprogrammes, as indicated in Table 2, which shows the planned budget and execution for 2021. Overspending on PHC providers and underspending on medicines are evident. Funds allocated for quality improvement of PHC providers have not been utilized, and planned funds have not been spent as intended.

5. 1 Kyrgyzstani som = €0.00934999 (rate as of 3 March 2022, determined by XE.com Inc. (2022)).

6. The labour participation coefficient depends on service utilization, such as seeing a minimum number of patients per defined period.

Table 2. PHC programme budget plan and execution, by subprogramme, 2021

Subprogramme	Budget plan (million som[a])	Share of total budget (%)	Budget execution (million som)	Budget execution (%)
Ensuring access to emergency health care (including ambulance service) for the population	447.80	8	423.45	95
Ensuring availability of essential health services at PHC level	4022.29	74	4290.79	101
Ensuring availability of dental care	283.42	5	252.97	89
Ensuring availability of tuberculosis treatment at PHC level	33.10	1	21.26	64
Ensuring access to selected priority medicines (e.g. schizophrenia treatment) for the entire population	55.00	1	53.31	97
Providing access to the ADP for the insured population	353.75	7	293.48	74
Delivery of paid health services within the SGBP framework	42.48	1	158.13	372
Delivery of nonmedical and other services by health-care organizations, operating in the single-payer system	122.42	2	227.91	186
Improving the quality of health-care delivery to the population by incentivizing family doctors to implement performance indicators	66.83	1	0.00	0
Total	**5427.07**	**100**	**5721.31**	**101**

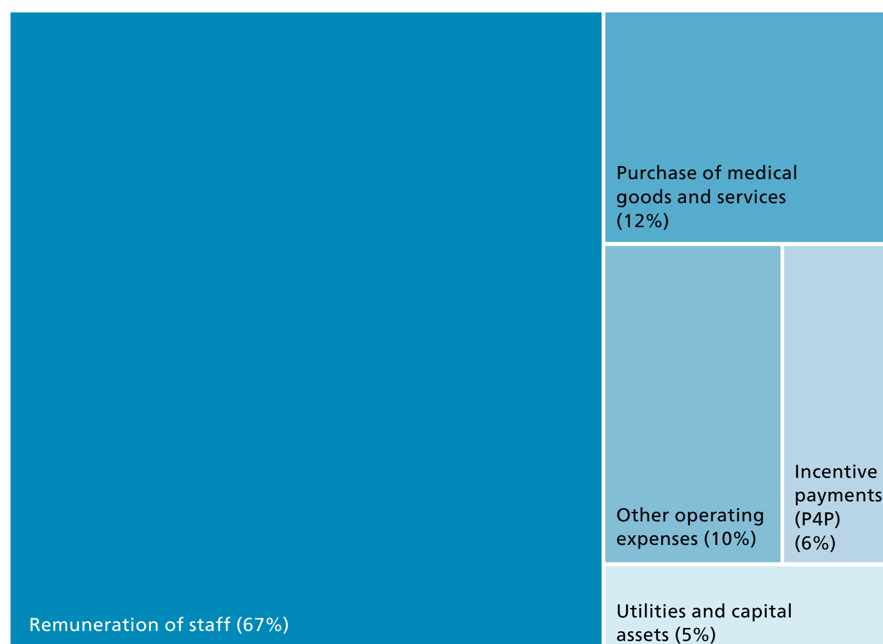
a. 1 Kyrgyzstani som = €0.00934999 (rate as of 3 March 2022, determined by XE.com Inc. (2022)).

Source: *Data provided to the authors in personal communication with the MHIF*

Almost three quarters of PHC spending is allocated to staff remuneration. The MHIF collects expenditure data from providers based on economic classification (Fig. 6). In 2020, 67% of the PHC budget was spent on salaries, which, when combined with pay for performance (P4P), accounted for 73% of the overall budget (for more information on performance payment, see section 1.4.2 below). The basic salary level for health workers is defined at national level. Since April 2022 the base monthly salary for family doctors is 15 000 som (approximately €140[5]), while specialist care doctors receive a base salary of 12 300 som. Salary adjustments are based on years of experience and can result in an increase of up to 30% in the base salary. PHC workers may also increase their salaries by 10–15% through the labour participation coefficient.[6] Funding for salary increases comes from unfilled positions (see also section 1.5).

Fig. 6. PHC budget execution by economic classification, 2020

Source: *Data provided to the authors in personal communication with the MHIF*



In 2020 approximately 12% of the budget was spent on medical goods and services, including funding for basic diagnostics (Fig. 6). As a result of the COVID-19 pandemic, spending on medicines and medical devices more than doubled in 2020, as there was increased need to purchase disinfectants and personal protective equipment for personnel. While available data allow expenditure to be tracked at provider level, there is currently no overall, country-level monitoring to determine if PHC providers have sufficient funding for necessary investigations to align their clinical practice with the SGBP and clinical guidelines. Several basic diagnostic tests included in the SGBP are currently unavailable at PHC level and require referral to a laboratory. For example, urine dipsticks are not available, and blood for haemoglobin testing needs to be drawn in a laboratory *(16)*. Furthermore, the current payment system creates incentives to underprovide diagnostic services to minimize related costs. Without assessing PHC funding required for diagnostic tests, it is difficult to ensure that PHC budget and capitation payments are aligned with the PHC benefits package and that PHC has the necessary means to deliver services according to clinical guidelines and protocols.

Public spending on outpatient medicines remains low. The ADP budget caps set at PHC centres do not allow efficient use of resources as patient needs vary from centre to centre. This limited budget may result in treatment interruptions and worsening health. PHC centres distribute special prescription forms for ADP medicines to PHC physicians on a monthly basis. If actual need exceeds the number of forms, PHC physicians have discretion to decide which patients receive medicines

under the ADP and which must pay in full. This heavily restricts access to medicines at provider level without established criteria or monitoring. Given the low execution of the part of the budget plan providing access to the ADP for the insured population (Table 2), there is an urgent need to review these principles. Although the World Bank DLIs aim to increase financing of ADP by 15% annually *(14)*,[7] this is not reflected in the medicines budget, and there have been no changes in the copayment design, plans to expand coverage to those who are uninsured or attempts to extend the list of ADP medicines.

Data on budget execution provided by PHC providers are highly granulated, but they are not properly validated. PHC providers report budget execution data to both the MHIF and the Ministry of Health. However, there is anecdotal evidence suggesting that the data officially published by the Ministry of Health and the MHIF may differ from the financial reports available at health-care provider level.

The poor condition of PHC facilities, especially in remote areas, is partly due to uneven and limited access to capital investment funding. Medical equipment in health facilities has not been properly maintained or renewed since the country's independence. Although considerable capital investment has been made in new or refurbished facilities and equipment as part of various donor-funded projects, it is still insufficient, and many health facilities require repair and new equipment. Equipment purchased through donor funds may also remain unused because of insufficient funding for maintenance. The lack of investment in infrastructure and equipment is particularly concerning in remote PHC facilities *(6)*. There are plans to establish a coordinating body in 2023 to approve the distribution of funds for infrastructure investment and modernization of equipment on an annual basis.

1.4 PHC payment system

1.4.1 Capitation payment

The PHC capitation system incorporates various adjustments based on the characteristics of the PHC provider (such as type and remoteness) and insurance status. The Ministry of Health has defined a methodology to determine the financing principles for services listed in the SGBP *(17)*. According to this methodology, PHC providers' contracts are based on capitation adjusted according to registered population. Capitation rates vary by PHC provider type and insurance status. Although capitation rates and registered population are used to estimate the provider-level contract amount, this is transferred to the provider-level budget as line-items, and these are used as the basis for monthly instalments. Therefore, in practice, the payment system is still the line-item budget, using the capitation formula merely to set the annual budget ceiling. Moreover, changes in the number of the registered population are not considered during the annual contracting period.

People are entitled by law to receive PHC services from all three level of PHC. In 2022 FGPs, the lowest level of PHC, received an annual capitation

7. World Bank DLI 7 states that the ADP for the insured population should be revised and its budget increased to improve effective coverage for priority conditions at PHC level.

payment of 163.65 som to cover expenditure on basic PHC services (Table 3). The district- and regional-level FMCs received a payment of 156.36 som per person to cover expenditure on narrow specialist services, diagnostics and operational costs. FGPs and FMCs at district and regional level receive funding based on the number of people registered with the PHC provider. Providers are required to submit a twice-yearly report to the MHIF on registered people by gender and age. Regional-level FMCs do not receive any additional funding but can use some of the existing budget envelope to cover the costs related to additional tasks for which they are responsible. Regional-level FMCs should also receive funding from lower-lever providers who refer their patients for narrow specialist consultations or diagnostic tests. In practice, the money does not follow the patient, who may consequently need to pay out-of-pocket. There is no clarity on whether services under the SGBP are to be provided by regional FMCs to the population outside their own area, and if so, to what extent.

Table 3. Annual capitation rates (in som) for FMCs and FGPs, 2017–2022

Source: *Data provided to the authors in personal communication with the MHIF*

Capitation rate	2017	2018	2019	2020	2021	2022
Per capita rate – FMCs	165.23	173.03	166.36	161.31	161.9	156.36
Per capita rate – FGPs	197.96	178.71	173.14	173.51	172.94	163.65
Additional payment to per capita rate for insured population – FGPs only	200	214	200	200	200	271

Although FGPs receive additional capitation payment for every registered insured person to deliver extended services, they may not always have the necessary capacity. FGPs receive an additional 271 som if a registered individual is insured. This additional payment is intended to cover the cost of extended PHC services. Such a significant difference in received capitation payment incentivizes providers to preferentially select insured patients. Notably, the increased rates for insured population groups do not apply to FMCs that have the capacity to deliver services included in the extended PHC package. Instead, the additional payment for insured individuals is received by the FGPs, and they are expected to deliver the PHC package, which is universal for all registered people irrespective of their insurance status.

The capitation rates and adjustment coefficients are revised regularly, but there is no explicit methodology for how these coefficients are calculated and how they reflect differences in PHC service packages, health needs or related costs. The adjustment coefficients are regulated and vary by facility type and geographical location of the facility (Tables 3 and 4). Furthermore, the regulation in the methodology describing the capitation rate calculations indicates that the rate should also be adjusted according to gender and age, although this is not currently applied *(17)*.

Table 4. PHC adjustment coefficients, 2017–2022

Source: *Data provided to the authors in personal communication with the MHIF*

Category	2017	2018	2019	2020	2021	2022
Adjustment coefficient, mean (depending on location of FMC)	1.1005	1.1016	1.1010	1.1012	1.1010	1.1006
Adjustment coefficient, mean (depending on location of FGP)	1.0439	1.1622	1.1431	1.1428	1.1418	1.1368

The capitation payment is intended to cover narrow specialist and diagnostic services as part of the PHC benefits package. Only 58% of insured and 34% of uninsured individuals' overall capitation payment is allocated to FGPs to cover basic PHC services (Table 5). Furthermore, there is no difference in the capitation payment for the state-insured population groups that are entitled to the package and exempt from copayments. As a result, providers have limited incentive to serve these patients because they are required to deliver extended services within the same capitation amount as for the rest of the insured population, who also pay copayments.

Table 5. PHC capitation rates for different patient groups and providers, 2022

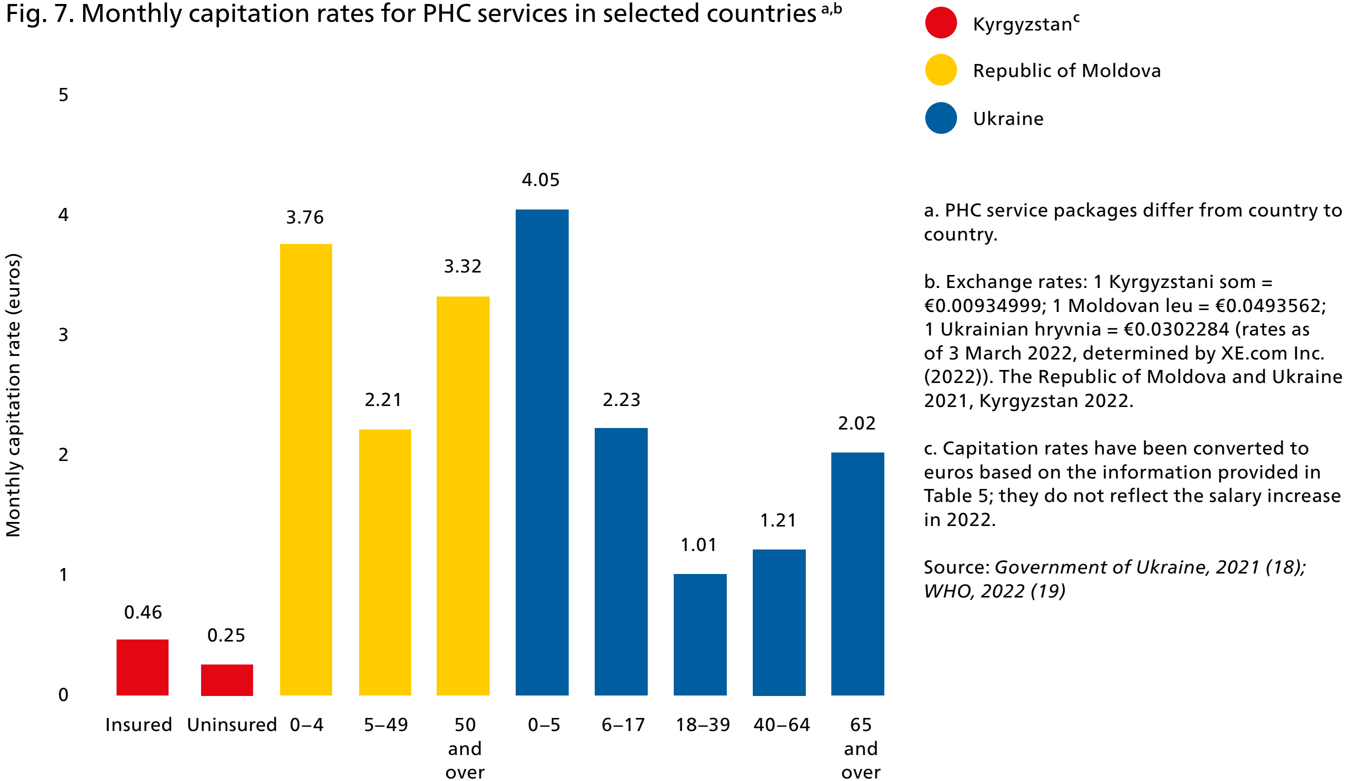
Note. The capitation rates are not adjusted to reflect the coefficients provided in Table 4.

Source: *Data provided to the authors in personal communication with the MHIF*

Population group	Basic PHC package (FGP)	Extended PHC package (FGP)	Narrow specialists (district-level FMC)	Total capitation per patient
Insured	163.65	271.00	156.36	591.01
Uninsured	163.65	0.00	156.36	320.01

The capitation payments in Kyrgyzstan are low in comparison with other countries (Fig. 7). The Republic of Moldova and Ukraine, which are also lower-middle-income countries, fund PHC primarily through capitation payments. However, their capitation rates are higher than the per capita payment rate used in Kyrgyzstan, and they are expected to cover PHC services only (excluding narrow specialist services). Furthermore, to take account of higher service utilization by children and older people, the Republic of Moldova and Ukraine use age-related adjustments.

Fig. 7. Monthly capitation rates for PHC services in selected countries [a,b]



a. PHC service packages differ from country to country.

b. Exchange rates: 1 Kyrgyzstani som = €0.00934999; 1 Moldovan leu = €0.0493562; 1 Ukrainian hryvnia = €0.0302284 (rates as of 3 March 2022, determined by XE.com Inc. (2022)). The Republic of Moldova and Ukraine 2021, Kyrgyzstan 2022.

c. Capitation rates have been converted to euros based on the information provided in Table 5; they do not reflect the salary increase in 2022.

Source: *Government of Ukraine, 2021 (18); WHO, 2022 (19)*

There are protected budget line-items that receive subsidies when capitation payments are insufficient to cover costs. The MHIF pays for providers more than the contracted capitation amount when they are not able to cover expenditure such as salaries and utilities. This may occur when the registered population in certain geographical areas is insufficient to receive the capitated budget that covers PHC facility expenditure.

The incentives for PHC and hospital care are not aligned, which undermines the role of PHC. Providers do not receive financial incentives for managing patients at PHC level, and patients often prefer to seek specialist care, either with a referral from their family doctor or directly. PHC providers receive funds based on a predefined budget determined by the registered population, which does not incentivize them to serve more patients. Hospitals also have a predefined budget, but it depends on the number of treated cases. If the budget is exhausted, patients are expected to pay out-of-pocket. Therefore, the focus of hospitals is to attract patients who can pay out-of-pocket, as funding from the MHIF is limited. This has led to increased admissions and unnecessary referrals from PHC facilities to hospital *(20)*. The incentive to shift patients into more “profitable” hospital care is amplified in the case of integrated PHC and hospital organizations.

1.4.2 Performance payment

The performance payment system was established with the support of donor organizations as a separate programme. In 2018 performance payment in PHC – known as P4P – was introduced to attract more doctors to the PHC level by increasing salaries for well-performing providers (Box 3). The programme continued up to March 2021. Since the programme relied on donor support, payments were not calculated or considered within the regular annual budget for PHC, nor were these payments set in provider contracts with the MHIF. The MHIF made monthly performance payments to providers based on fulfilling a number of quality indicators. Although the MHIF budget still includes a separate budget line for PHC performance-related payments, programme budget execution data did not indicate any expenditure in 2021 (Table 2).

Box 3. The PHC performance payment system in Kyrgyzstan

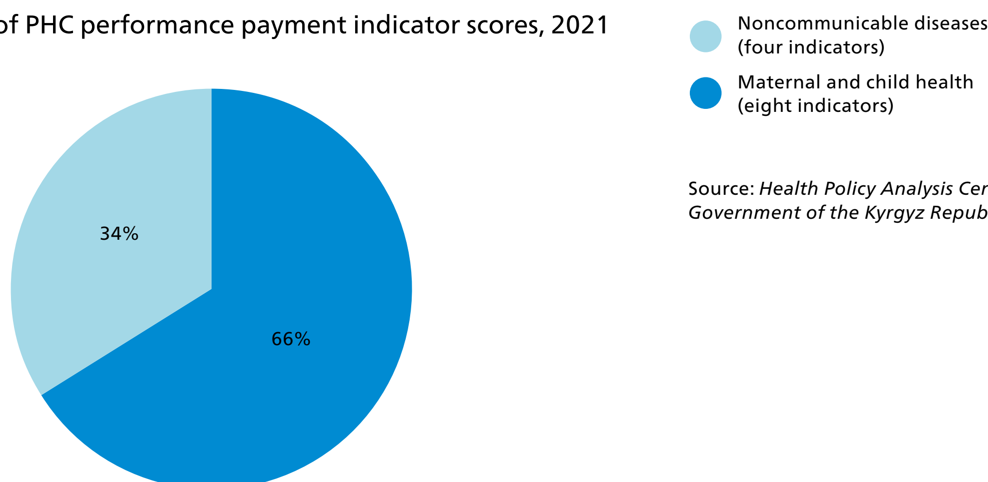
In operation between October 2018 and March 2021, the performance payment system – pay for performance, or P4P – comprised (from 2019) 12 quality indicators covering priority areas of health policy, such as maternal and child health, prevention and treatment of cardiovascular diseases, and diabetes mellitus. Two thirds of the 100 points available in the scoring scheme were awarded for achieving targets in maternal and child health; the other third for targets in noncommunicable diseases (Fig. 8). The indicators changed several times during the system's short period of operation.

Providers were entitled to performance payments if they achieved target thresholds for all 12 indicators. For each indicator, at least 50% of the target population had to be covered for a certain intervention or a predefined goal had to be achieved. For indicators based on absolute number targets, points were awarded when a certain number of patients had been served.

The MHIF defined a maximum possible score for all 12 indicators that would be rewarded by a certain sum of money (19 809 som, or approximately 233 euros, for a 100-point score). The payment system strongly incentivized achieving the 50% threshold for each indicator. If the defined target was achieved, there was no incentive to proactively reach out to any further patients. Thus, a family doctor could easily skip hard-to-reach patients.

The payment amounts depended on the contribution of each family doctor, as the performance of each doctor was evaluated at the provider level. However, challenges remained in assessing progress because there was no possibility of linking the registered population with each care team. In addition, the whole team's contribution was not assessed, as the role of nurses was disregarded.

Fig. 8. Distribution of PHC performance payment indicator scores, 2021



Source: *Health Policy Analysis Center, 2022 (5); Government of the Kyrgyz Republic, 2018 (21)*

The list of indicators related to P4P was revised frequently, making it challenging to periodically monitor progress and assess the impact on service delivery. The list of quality indicators and the changes made to them from 2018 to 2021 are shown in Annex 1. During the implementation of P4P from October 2018 to March 2021, the list of indicators was revised four times. The indicators were changed to reflect amendments in clinical guidelines and new health policy priorities, as well as to correct glitches in the adopted indicators.

Although the performance indicators were deliberately selected by considering available data, access to accurate data remained a challenge. The introduction of P4P coincided with the equipping of FGPs with computers in 2019 and the online transfer of the CIF database, which was launched in April 2020. This required doctors to make changes, as they now had to enter information into databases instead of using paper-based CIF forms. Timely data entry was difficult for FGP doctors, who generally had an insufficient level of computer literacy.

Technical glitches in data collection further complicated performance monitoring. For example, the technical solution allowed already diagnosed patients to be reported as newly detected, which inflated the number of patients and artificially improved providers' performance. In addition, the fact that the data submitted to CIF for some indicators were self-reported made it easy to manipulate the figures. For example, providers submitted data on services that were not actually delivered, and there was no auditing system in place to discover such practices. The rules developed for data quality verification allowed such cases to be identified only when patients were contacted to reconfirm. Therefore, although the calculation of indicators was supposed to be fully automated, verification in fact resulted in an additional burden for medical staff, facility managers, the E-Health Centre and the MHIF.

The lack of feedback loops for providers made it difficult to improve data quality. Facility managers and clinical managers were responsible for reports on the outcomes for each family doctor, and the summary results were shared with the accounting department to execute payments for family doctors. Provider-level results were summarized by the E-Health Centre, which forwarded the information to the MHIF. Providers also submitted monthly reports directly to the MHIF. The MHIF verified the results according to two criteria: compliance of the CIF data with medical records, and compliance of the examination and treatment with approved clinical protocols. If the MHIF detected any data misalignments, corrections in the reported data were occasionally made. However, since there were no feedback loops on the quality of the submitted data, providers were not informed about such changes.

Two performance indicators measured health outcomes, but family doctors felt that they had limited leverage to influence their patients' behaviour. These two indicators aimed to incentivize providers to motivate patients to take necessary medication to maintain their blood pressure and blood glucose levels. Nevertheless, family doctors felt that they had very little capacity to stimulate their patients to achieve these indicators. In a qualitative survey,[8] patients admitted that they did not follow their doctors' recommended treatment regime for various reasons.

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8. In 2022 a comprehensive study was completed that included quantitative and qualitative research to assess the effectiveness of the implemented performance payment system. Data were collected to describe changes in quality indicators, and in addition focus group discussions, surveys and interviews among providers and patients were conducted to assess satisfaction with the programme. Quantitative data analysis was based on E-Health Centre, MHIF and provider-level data. E-Health Centre and MHIF data allowed nationwide data to be used. Provider-level data included six selected providers from three different regions. Interviews, questionnaires and focus group discussions were conducted with 164 specialists and 296 patients.

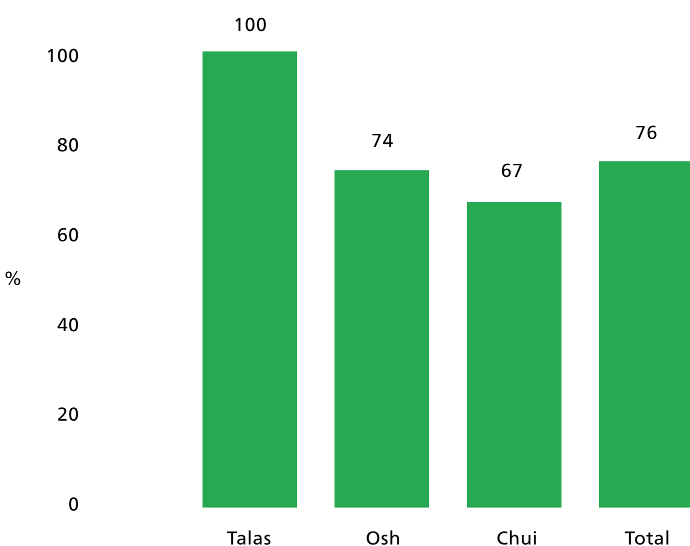
For example, patients needing hypoglycaemic drugs reported that they did not take their medication because they forgot (5%), the medicines were very expensive (42%), they believed their medication had a harmful effect on other organs (18%), they were afraid they would become addicted (30%), or for some other reason (5%) *(5)*.

P4P incentivized narrow specialists to retrain as family doctors, resulting in an increase in the number of family doctors in urban areas. Only family doctors were eligible for a higher salary though the performance payment. A recent study shows that the performance-related part formed more than half (54% on average) of a family doctor's salary, which was a big incentive for narrow specialists to undergo retraining to become a family doctor *(5)*. Nevertheless, the overall share of performance incentive-related spending did not form a large part of the overall PHC budget execution (Fig. 6). The share of performance-related pay as part of the total payroll varied greatly by district, depending on differences in achieving the quality indicators, ranging from 5% in Manas to 10% Kara-Buura and Karasuu districts.

P4P significantly increased family doctors' work motivation. A survey conducted in three regions indicated that 76% of family doctors felt that their work motivation had increased as a result of P4P (Fig. 9) *(5)*. The survey also showed that family doctors experienced increased workload – they visited patients at home more often and made efforts to improve data submission. Moreover, 69% of family doctors noted that P4P had a strong impact on improving the quality of their work. Improvements were seen in several clinical areas, such as monitoring and timely registration of pregnant women, home visits to newborns, and identification and registration of patients with type 2 diabetes and hypertension.

Fig. 9. Proportion of family doctors who felt that their motivation had improved in the previous 18 months as a result of the introduction of P4P

Source: *Health Policy Analysis Center, 2022 (5)*



On 1 April 2021 P4P was abolished and turned into a base salary increase for family doctors. This may have resulted from several shortcomings in the implementation of the P4P system, including: frequent changes in quality indicators; limited communication and training on the quality indicators and the performance payment formula; lack of support in improving computer literacy for providers to ensure timely and accurate data submission; absence of piloting of data collection and monitoring systems, resulting in technical flaws; a heavy burden of data verification for all stakeholders; lack of capacity to track progress at individual doctor level; payment delays creating disincentives for professionals; lack of a team approach; and the failure to consider the role of nurses, which led to misunderstandings. The desire to have a less complex solution and the need to increase the base salaries of family doctors also played an important role in bringing about the abolition of P4P. The performance payment budget was used to increase the base salary of family doctors by the Ministry of Health, and following the reform, salaries are now only differentiated to reflect years of experience. As a result, the attractiveness of family medicine among younger doctors is in decline.

1.5 PHC contract

The MHIF contracts all public PHC providers regardless of their particular organizational modality (GPC, FGP, FMC, etc.). The contract includes the provider-level line-item budget and is signed by the directors of the territorial departments of the MHIF and health-care providers' managers for one year.

The monthly budget allocations do not consider the actual financial needs of providers, creating challenges at the beginning of the year to cover expenditure, and difficulties at the end of the year to exhaust the budget. The contract does not give a breakdown by type of planned line-item expenditure of the health-care organization. Nevertheless, actual monthly allocations are made within the planned monthly cash plan approved by the MHIF. These cash plans include estimates of expenditure by type of cost item (element) of economic classification. Providers make cash payments from their personal accounts within the allocated volume of the cash plan. Because of the need to ration and prioritize cash, the maximum monthly limits in the cash plan for making cash expenditures in certain months of the year may be significantly lower than the average monthly amount of the envisaged budget allocation.[9] A common pattern is for the MHIF to approve the cash plan per month in the range of 70–80% of one 12th of the annual amount of the approved budget. The remaining 20–30% is released later in the year, with the largest releases typically occurring at the end of the year[10]. This creates challenges for providers to cover their expenditure in the first three quarters of the year and causes difficulties to spend the budget at the end of the year. The money cannot easily be transferred to the following year because use of the balance requires prior approval. For example, in 2022 the 10-month PHC budget programme execution was 72% (10/12 would be 83%), leaving 28% of the planned programme budget to be exhausted in the final two months. Significantly lower than envisaged monthly allocations in the first part of the year allow salary and utility-related costs (so called

9. This issue is not specific to the health system – the Ministry of Finance applies this principle across different sectors.

10. *WHO, 2023: Technical report on budget execution in health: Kyrgyzstan case study, as yet unpublished.*

protected cost items) to be covered but may make it difficult to cover the cost of other items, such as diagnostic investigations.

Steps have been taken to increase provider autonomy, but reallocation of funds within the budget and use of surplus funds require prior approval. During the financial year, providers have no right to reallocate funds between budget lines without the approval of the MHIF or the Ministry of Health and the Ministry of Finance. The budget code requires unused balances to be transferred to the next budget year, but they can be used after approval as part of the formulation of the next year's budget. However, the process of approving the transfer of providers' unused balances by the Ministry of Finance and the MHIF is usually delayed until May or June of the new budget year. This leaves providers in financial difficulties during the period of low cash disbursement at the beginning of the year [10]. In summary, there is little incentive for providers to generate savings.

Financial and nonfinancial contract monitoring is done in silos, with little or no impact on provider revenues and performance. Contract monitoring, which monitors providers' outputs and performance indicators, is delinked from financial reporting based on input line-items. It is used only for statistical purposes and does not affect resource allocation or budget formulation. Financial reporting based on input line-items does not empower facility managers to use resources efficiently and improve performance. PHC providers compile a quarterly report on budget execution, including information on wages and staff positions, for the MHIF. Additionally, the MHIF contract includes a performance scorecard consisting of eight domains and over 150 indicators. Every provider is expected to conduct self-assessment four times a year, and the MHIF conducts assessment validation twice a year. Aggregated results are published on the MHIF webpage. At present, the results of the assessment do not have any implications for provider revenues or for contracting, so they provide no incentive for providers to improve performance. The impact of the performance scorecard on performance improvement is unclear and would benefit from a robust assessment.

Facility managers use the flexibility provided by the labour code to increase staff salaries. According to the labour code, salary funding from unfilled vacancies can be paid to other staff who are doing the work of the vacant post. The savings are used as an additional motivation for PHC workers to increase their labour participation coefficient, allowing their salary to rise by 10–15%. However, this has incentivized "gaming" with vacancies, as facility managers keep positions vacant to receive salary funds for positions that are not filled (so called "ghost" positions) *(22)*. There are regulatory limits on how much extra staff can earn and how long a post can remain vacant, but these limits are not well enforced. Lack of good personnel and payroll records also makes it impossible to track actual personnel as distinct from posts. Moreover, the GPCs have full autonomy to use saved funds from vacant PHC positions for salary top-ups for hospital staff, while the facility manager is not accountable for failing to fill vacant PHC positions. This may further worsen the situation with PHC staffing.

10. *WHO, 2023: Technical report on budget execution in health: Kyrgyzstan case study, as yet unpublished.*

The MHIF does not monitor or evaluate the actual scope and types of services provided to the registered population at PHC level. Although data about the scope of health services delivery are collected by the E-Health Centre, they are not actively used by the MHIF for contract monitoring, and there are no feedback loops for providers. Moreover, PHC providers are overburdened by the requirement to submit paper-based reporting and data to the CIF. Although the PHC classifier was introduced in 2021 to improve PHC data quality,[11] its full implementation takes time. Additionally, access to the Internet and availability of computers are a concern in several locations.

11. *Ministry of Health Order No. 1300 issued on 20 September 2021 gives the lists of classifiers for coding services at the ambulatory level.*

2. Policy considerations

2.1 Enhance the PHC organizational model for increased equity and efficiency

Define the team composition, functions and responsibilities of PHC providers at all levels of PHC. Despite broad recognition of the importance of PHC, there is no global consensus on exactly how it is constituted *(23)*. PHC needs to be set up in accordance with national legislation, contexts and priorities *(24)*. Defining PHC organizational models to meet population health needs and to fit local context is important, but it requires clarity in the functions and scope of services at each PHC level. In Kyrgyzstan explicitly defined functions and clear boundaries of responsibilities would help to avoid unnecessary duplication and inefficiencies. It would also bring more clarity to the population on what they should expect from PHC at each level. The first step could be to review PHC-related regulations with the aim of defining: the roles of family doctors and nurses; the services available at each PHC level; PHC access criteria; PHC workload, including maximum waiting times and opening hours; and care coordination and communication principles with narrow specialists and hospitals. In addition, the roles and responsibilities of district-level FMCs, GPCs and FMCs working independently and providing PHC and diagnostic services should be defined, including care coordination across different PHC organizations.

Reinforce the role of family doctors as gatekeepers by reviewing patient pathways and clarifying the distinct roles of family doctors and narrow specialists. Defining the roles of family doctors and narrow specialists would allow patient pathways to be established in alignment with the benefits package and national care guidelines. Reinforcing the gatekeeping function of family doctors or establishing explicit referral criteria based on national care guidelines would help to strengthen the role of PHC, limit the extent to which family doctors are bypassed, and reduce overreliance on narrow specialist and inpatient services. The immediate focus could be on defining referral and counter-referral criteria for priority conditions.

Grant managerial autonomy to PHC providers embedded in the integrated GPCs. The integration of FMCs and district hospitals to create GPCs risks diminishing the role of PHC; close monitoring of the reform's impact is therefore crucial. A certain level of managerial and financial autonomy within the integrated facilities would create a more supportive environment for the PHC team to grow and develop. For example, PHC teams can currently provide recommendations only on hiring, but they should have full autonomy over hiring and firing staff, deciding on top-up salaries, and managing and retaining their own funds to limit the incentives that push patients towards hospital and specialist care.

2.2 Scrutinize the PHC benefits package to better meet population health needs

Review and explicitly define the PHC benefits package by aligning it with population health needs, clinical guidelines and protocols. There is no full clarity on services available at PHC level as part of the SGBP. A more detailed and consistent description of PHC services for priority PHC-sensitive conditions is needed, especially by aligning the SGBP with existing clinical guidelines and protocols. With limited budgets, the best results come from prioritizing investment in the highest-impact health services customized to local health-care needs, burden of disease, citizen values and preferences; and they come from ensuring that those services are delivered equitably to the whole population *(25,26)*. Explicitly defined benefits help to identify whether funds are being spent wisely on services that create the maximum benefit for society and to facilitate resource allocation decisions *(25)*. Defining minimum quality standards, which are periodically monitored, helps to ensure equal access to services in the SGBP.

Reduce financial barriers to accessing PHC services. Currently, only the basic PHC package is accessible to the entire population if they are registered with a PHC provider in their area of residence. Seeking care in other regions or in case of needing additional investigations outside the basic PHC package requires one third of the population to pay out-of-pocket. Reducing financial barriers to accessing PHC services is an important precondition to making PHC more attractive and reducing the incentives to seek care form narrow specialists and hospitals.

Ensure that the medicines listed in the ADP are available and affordable to the entire population; extend the selection of medicines in the ADP and introduce price regulation for these medicines. If priority medicines and diagnostics are not accessible and affordable to the population, the impact of PHC remains limited, and it also has a negative effect on patients' financial protection. Expanding coverage to the entire population, adopting copayment exemptions or small fixed copayments on regulated prices for ADP medicines, and extending the list of medicines included in the ADP would help to reduce financial hardship *(27)*. Additional public funding is needed to adopt changes in the copayment design and expand the coverage.

Prioritize communication to inform the population about their entitlements at PHC level. Explicitly defined benefits for each level of PHC, including FMCs, FGPs, GPCs and FAUs, allow patients to understand their entitlements and empower them to demand promised benefits *(25)*. Every PHC facility could provide patients with easily accessible information telling them which services the practice covers through the SGBP and what the user charges are. Furthermore, an explicit and well-communicated PHC benefits package, accompanied by increased PHC financing, offers considerable potential to decrease informal payments. For example, in Ukraine the introduction of an explicit PHC benefits package with increased PHC funding and a large-scale communication campaign helped

to reduce the share of people exposed to informal payments in PHC from 62% in 2018 to 21% in 2021 *(28)*.

Make essential medical equipment and laboratory diagnostics universally available at PHC level to ensure accessibility of the services listed in the benefits package. Onsite sample collection and agreements with shared diagnostic centres would allow timely feedback on results. Improved availability of basic diagnostics would decrease the need for patients to travel long distances and reduce their preference for better-equipped urban facilities. It would also make PHC more attractive and reduce the incentive to seek care from narrow specialists.

Introduce principles and a procedure for regular revision of the PHC benefits package. The first step has been taken to initiate SGBP revision. A regular PHC benefits package review would ensure that the SGBP is explicit, aligned with clinical guidelines and protocols, and meets the population's health needs. An inclusive and engaging benefits package revision process would bring key stakeholders together to discuss the main bottlenecks and development needs in relation to SGBP implementation. Furthermore, regular revision of the PHC benefits package would contribute to more transparent and better-informed budgeting and resource allocation decisions.

2.3 Strengthen PHC budgeting and the budget monitoring system

Align the PHC benefits package with the PHC budget and the readiness of PHC providers to deliver expected care. This requires identifying and then rectifying the current mismatch between the defined package, population health needs and actual funding levels, to ensure that the PHC benefits package is in alignment with the PHC budget. To do this, there needs to be a clear definition of the benefits package (as described in section 2.2 above), estimates for the population in need of PHC services, and data on how much it would cost to deliver these services to the population. Providing this information to decision-makers would support informed prioritization of the health budget. Transparent and evidence-supported budget requests would better equip the MHIF and the Ministry of Health for joint decision-making on budget priorities.

Make efforts to prioritize PHC and ADP spending in the MHIF budget and to ensure adequate funding for all PHC cost categories. As a first step, the PHC budget share target in the MHIF budget, which has already been introduced, should be enforced, and funds should be spent on PHC services. The high share of the budget directed at FMCs and FGPs may be misleading and not give a full understanding of funds allocated to PHC. The budget for essential medicines should be better distributed to align with patient needs and increased to ensure access and financial protection. Relaxing provider-level budget ceilings for prescription medicines and increasing funding for medicines for priority conditions and population groups could be a first step. Recently, additional budget allocations were made to increase the salary levels of medical staff.

However, this may put at risk other expenditure categories, such as availability of medical equipment and supplies, and maintenance of facilities. Furthermore, it could widen the gap between the defined benefits package and actual budget allocations. Although it is important to motivate medical staff by increasing their salary levels, other unavoidable costs should also be considered to ensure access to high-quality PHC services.

Address bottlenecks and start tracking spending at district level, with GPCs as the first priority, in order to improve execution of the PHC budget. Currently, budget execution monitoring is not conducted at provider level for budget programmes, making it challenging to analyse implementation of PHC budget allocations at GPC level. It is crucial to monitor provider-level budget execution, particularly for integrated PHC providers and hospitals, to ensure that funding allocated to PHC is actually being spent on it. Furthermore, partially covering provider expenditure in the first half of the year and compensating for this at the end of the year can create difficulties for providers in effectively managing their resources. Distributing the planned budget more equally throughout the year would enable providers to better plan and exhaust their budget. Moreover, they should also have increased autonomy to use unspent funds for investments, thereby creating incentives for increased efficiency.

Direct donor funding towards investments that are needed to ensure that adequate infrastructure of sufficient quality is available to access PHC services. As there is a high degree of variability in donor funding, PHC should be covered through the domestic budget. External funding can ease the burden on the MHIF budget through strategic investments in PHC. Scaling up basic equipment, providing access to the Internet and even improving basic sanitation in remote areas are some examples of potential priority investment areas. The coordinating body that is to be established for distribution of funds for infrastructure investment could include, in addition to the Ministry of Health and the MHIF, the MHIF's regional branches and local government representatives, who could play a strategic role in directing investment to meet local need. Strategic planning of investment is needed to accelerate the uptake of innovative service delivery models such as mobile units for PHC services and telemedicine, which help to reach out to remote areas with low population density *(25)*.

2.4 Redesign and adequately resource PHC provider payments

Refine the capitation payment system to better meet policy objectives. Capitation payment should continue to be the core of the PHC payment system (Box 4). The strength of the capitation payment is that it connects the patient with a PHC provider who is responsible for delivering the agreed package of care. However, the capitation system in Kyrgyzstan incorporates adjustments that were developed some time ago and may not be aligned with current policy objectives. For example, it is not completely clear how the higher capitation payment to FGPs for the

insured population allows the extended scope of PHC services, which are mostly unavailable at FGP level, to be covered. Instead, other widely used adjustments, such as age and gender, should be considered, as these characteristics are related to service need and increase the incentive to serve certain patient groups with greater health needs (examples of capitation adjustments in various European countries are shown in Fig. 10).

Box 4. Evolution of PHC payment methods

Source: WHO, 2022 (19); Hanson et al., 2022 (23); WHO, 2021 (29)

Capitation payments are increasingly being used as part of a comprehensive approach to shift the focus of health systems towards PHC, including prevention, health promotion and disease management. Capitation is the only payment method based on the principle of equity, with an equal fixed payment per person as the starting point, which can be adjusted to reflect individual health needs. It also incentivizes PHC providers to prioritize good health through health promotion and disease prevention. Capitation offers a predictable and stable revenue stream to PHC providers, enabling them to flexibly deliver services in responsive ways that optimize care for individuals and population groups. Many European countries use some variation of capitation payment for PHC. However, various measures may be necessary to counterbalance potential negative consequences of capitation, such as underprovision of services or inappropriate referrals.

Countries often start with a simple capitation model that is transparent, has simple payment calculations, and is easy to administer, particularly where data automation is limited. The majority of countries eventually adjust capitated payments on the basis of factors such as age, gender and geographical differences, and blend capitation with additional payments.

Most countries that use capitated payment for PHC implement additional measures such as monitoring, performance-based incentives, and supplementary fee-for-service or other type of payment to boost the use of priority services. A context-specific blended payment model with capitation at its centre is most closely aligned with the principles and objectives of PHC. Blended payment models can combine capitation with elements of other payment methods to maximize beneficial incentives, offsetting the perverse incentives of each payment method and ensuring that other service delivery objectives, such as access, are met. Blended payment models bring the benefits of capitation as the starting point and then use elements of other payment mechanisms to deliberately offset capitation's disadvantages and help to achieve other specific health system objectives. A model of this kind typically includes:

- a budget payment to cover unavoidable fixed costs, particularly in low-population or hard-to-serve areas;
- some fee-for-service "carve-outs" for health conditions or services that are high-priority or at a higher risk of being underprovided in capitation; and
- performance payment to incentivize providers to reach coverage targets for priority services and improve the quality of care.

Fig. 10. Examples of capitation adjustments adopted in selected European countries

Source: *Government of Ukraine; 2021 (18); WHO, 2022 (19); Kasekamp, Habicht & Kalda, 2022 (30); Anderson et al. (31)*

Country	Adjustments
Estonia	• age (0–2, 3–6, 7–49, 50–69, 70+)
Republic of Moldova	• age (0–2, 3–6, 7–49, 50–69, 70+)
Ukraine	• age (0–5, 6–17, 18–39, 40–64, 65+) • mountainous area adjustment
United Kingdom	• gender and age (0–3, 4–14, 15–44, 45–64, 65–74, 75–84, 85+) • sex • number of new patients • morbidity profile of the population • rurality

Review and update the regulation to incorporate a transparent methodology for calculating and regularly revising the capitation payment rate. The existing regulation on estimating capitation payment rate is outdated and not used in practice. Although capitation rates are amended annually, there is no full clarity on how they relate to changes in the benefits package or input costs, such as salary and utility costs.

Conduct a PHC costing study to gain up-to-date understanding of the costs associated with delivering PHC services included in the benefits package. The current PHC capitation payment rates are not explicitly related to the cost of delivering the expected scope and volume of care. Ideally, the capitation payment rates should reflect all necessary costs of delivering services included in the benefits package to the registered population and necessary investments to continuously improve PHC competencies and working conditions. Costing can be a useful tool to enhance understanding of the underlying costs of delivering the expected scope of services. It could also be beneficial in estimating the budget impact of increasing the cost of different inputs, such as basic salary of health professionals, or expanding the scope of the PHC benefits package. Costing requires knowledge and experience in selecting and implementing appropriate methodologies suitable for the country context. Therefore, building local competencies and supporting the MHIF and participating providers throughout the costing process is crucial. Adjust the PHC payment design to better reflect regional needs to ensure access to PHC in rural areas. Although capitation payment adjustment coefficients for different regions and mountainous areas exist, they have not been revised since 2010 *(32)*. It is unclear how these adjustments meet increased funding needs in remote locations due to longer distances and smaller registered populations. In some cases, the MHIF needs to pay providers on top of the existing contract to cover salary and utility-

related payments. Assessing the PHC needs of the rural population and exploring options for introducing alternative service delivery modalities (such as mobile units) would help to inform necessary changes in the payment system. For example, a monthly lump-sum payment could help compensate for lower revenues from the capitation payment in remote areas and cover basic fixed costs such as salary and utilities. The lump-sum payment could also cover higher costs related to transport needs and salary top-ups to attract health workers to work in rural areas.
Invest in PHC physical and digital infrastructure to scale up PHC premises, especially in rural areas, making them more attractive to patients and staff. In the short term, donor funding could be used to support these investments, but in the longer term, adequately resourced capitation payments, incentives for providers to reinvest efficiency gains in improved working conditions, and additional domestic budget allocations should fill this role.

Ensure that capitation payment can cover an adequate base salary for the PHC team and that mechanisms exist to incentivize good performance rather than years of experience. With the overall ageing of family doctors, it is of utmost importance to introduce financial incentives to attract young professionals to work at PHC level. Incorporating the recent salary increase into the capitation payment rate would be the first step. Furthermore, limiting the use of experience-related salary thresholds and creating a provider-level performance-related mechanism for top-up salaries would improve work motivation and help to attract young professionals.

2.5 Revamp the performance payment system for PHC teams

Introduce a revised performance payment system for PHC teams to incentivize continuous improvement in managing priority PHC-sensitive conditions. Performance-related payment helps to mitigate the potential negative incentives of the capitation-only model, as part of the payment is related to performance and patients’ use of PHC services. It is also in line with international practice, as more and more countries have combined different payment methods to create a blended payment system, or mixed model, that maximizes the beneficial incentives and minimizes the unintended consequences of each payment method when used alone (Box 4). One possibility would be to extend the scope of performance payment from salary top-up only to payment that covers additional costs for visits and diagnostic services listed in the clinical protocols related to key priority clinical areas where there is higher need for services (for an example of this kind from Georgia, see Box 5). These services should be available to the entire population, and access should not depend on patients’ insurance status.

Box 5. Add-on payment in Georgia

Source: *WHO, 2021 (29)*

Georgia is considering a two-component payment model for PHC that comprises both capitation and a motivational component tied to a performance-related add-on payment for key priority areas:

- hypertension and cardiovascular disease
- type 2 diabetes
- chronic obstructive pulmonary disease and asthma
- early childhood development
- mental health.

The add-on payment is intended not only for salary top-ups but also to cover additional costs for visits and diagnostic services listed in the clinical protocols related to key priority clinical areas where there is higher need for services. A significant portion of the add-on payment will depend on the quality of services rendered, such as adherence to the clinical protocol and – eventually – meeting health outcome targets. It is critical to link this payment to demonstrable and verifiable quality outcomes to ensure successful implementation of the new PHC service model.

Draw on experiences and lessons learned from the previous implementation of a PHC performance payment system. The following considerations could be useful when reintroducing the performance payment system:

- **Align indicators with concrete policy objectives.** A simpler system with fewer indicators may make it easier to administer and provide clarity. Systems with many dimensions may give a more balanced set of incentives but will add complexity in administering the programme and may dilute the value of incentives to providers.
- **Align indicators with available data to limit extra reporting and manual data analysis.** Indicators should be chosen in alignment with routinely collected data. Thus far, Kyrgyzstan has relied on outpatient CIF database and provider reports. Routine data collected by the E-Health Centre in the CIF system could be used by the MHIF for performance monitoring. Wider use of collected data would help to improve data quality. Additional reporting requirements and manual data verification should be limited to minimize the administrative burden. The new PHC classifier introduced in 2021 could be used as a basis for data collection.

- **Prioritize process indicators.** Although outcome indicators offer the most direct link to desired objectives, they may have limited applicability in practice. Process-related indicators are likely to have more impact on quality improvement *(33)*. Kyrgyzstan should continue to monitor developed outcome indicators without directly linking them to financial incentives.

- **Allow providers to define their own priority indicators that complement national-level indicators.** For example, the performance payment could be split into parts, at national level and at facility level (for an example of this kind from Kazakhstan, see Box 6). The national component would have national-level priority indicators in line with the health strategy and central monitoring would be applied. The facility-level component could focus on local and facility-level priorities and be managed at facility level. Such an arrangement would offer more possibilities to address local priorities and to incentivize better coordination of care.

- **Implement a transparent and reliable methodology and rules on how indicators are calculated.** It is necessary to avoid overpayment due to inflated reporting or other forms of gaming, such as cherry-picking of patients *(34)*. Comprehensively testing the information flow and electronic data collection mechanisms prior to implementation would help to assure PHC providers that they had a fair opportunity to achieve results and limit the options for false reporting.

- **Ensure that performance payments are paid to all member of the care team.** According to qualitative research on the previous performance payment system *(5)*, nurses did not always receive salary top-ups, although their workload increased significantly when performance-based payment was implemented. It is important to stress that family nurses play a crucial role in delivering care at PHC level, and their contribution should be reflected in the payment. The payments system should be clearly defined so that each care team member would receive additional payment.

- **Implement additional team-based incentives.** For example, part of the performance payment could be earmarked for team building and training. This has been implemented in Kazakhstan, where it is stipulated that not less than 5–20% of the funding is allocated to provider training (Box 6).

- **Reduce performance payment as a share of the health professional's salary and the provider's overall budget.** An incentive that is too low will not encourage behavioural change, while one that is too high may have unintended consequences, such as providers concentrating their focus excessively on performance areas and services that are rewarded. In Kyrgyzstan some family doctors doubled their salaries through performance payments. A top-up payment equivalent to one or two months' salary per year for good performance would be better aligned with international practice.

- **Improve data quality by putting in place provider feedback loops.** It is crucial that there are effective training and good communication

channels for providers, so that they understand the performance system and how results are reached. When monitoring performance results in PHC facilities, the MHIF should actively communicate with PHC care teams and provide them with feedback on intermediate results and guidance on how to improve data quality and achieve better results.

- **Make performance data public through user-friendly data visualization tools.** Publishing performance indicator results at PHC care team level on a dedicated website allows teams to compare their results and creates positive peer pressure to improve. It also informs people about the performance of their PHC provider.

Box 6. Performance payment in Kazakhstan

Source: *WHO, 2022 (19)*

In 2010 Kazakhstan implemented a performance payment system to encourage quality improvements in PHC. The system distributes performance payments among PHC facilities in each region based on their performance, as determined by predefined indicators. Thresholds for each region and facility are defined separately to reflect local context. The list of performance indicators reflects health policy priorities at PHC level, such as reducing maternal and child mortality from preventable causes, timely detection of tuberculosis, early detection of visually localized cancers, reducing hospitalizations for complications of circulatory system diseases, and monitoring patient complaints.

The PHC team comprises a family doctor, family nurses, a social worker and a psychologist, all of whom contribute to meeting the criteria set by the indicators. At least 80% of the bonuses received are paid as a monthly salary supplement to increase the motivation of the PHC team. At least 5% and no more than 20% of the bonus should be spent on additional training for the care teams to stimulate further quality improvement in PHC. An information system has been introduced for automated monitoring of indicators and calculation of bonuses. This ensures transparency and facilitates monitoring of the extent to which policy priorities have been achieved.

Ensure sustainable funding for performance payments in the MHIF budget. It is crucial that capacity is built within the MHIF so that adequate resources can be allocated to implement and manage the performance payment system. The system should be included in the annual provider contract, where the focus should be on quality improvement. Adopting appropriate regulation to secure sustainable funding for performance payments would help to ensure that necessary resources were made available in the budget.

2.6 Improve contracting and monitoring mechanisms by increasing data quality and collaboration

Consider shifting towards multiyear contracts to prioritize long-term development needs. The current annual contracting cycle does not allow providers to make long-term plans for development. Additionally, some elements of the current annual contracting procedure add unnecessary bureaucracy, given that the MHIF has no option to select PHC providers. Instead, a longer (say) 3–5-year framework contract could be introduced. This would allow regular discussion of PHC development and financing-related needs, as well as creating space to engage facility owners and local authorities in regular review of PHC development plans. However, it is important to note that the financial part of the contracting process should still remain annual, as changes in payment rates, budget availability and number of people registered may occur.

Develop a robust provider monitoring system to ensure adherence to the SGBP and avoid high out-of-pocket payments. Such a system requires regular monitoring of service utilization and access to services in accordance with defined accessibility criteria. Monitoring the level of out-of-pocket payments provides valuable information on the financial protection of households. Data reported to the CIF on service utilization from different geographical areas would provide valuable information on possible access barriers, which could inform policy changes. This would help to improve data exchange between the MHIF and the E-Health Centre.

Improve data collection at PHC level to allow effective performance monitoring. Currently, the data collection system focuses primarily on financial data, whereas more emphasis should be placed on monitoring PHC performance. The CIF database has good potential to provide the necessary data for the MHIF for conduct monitoring of provider performance. Active use of data is crucial to support better-informed decision-making while contracting. For instance, the newly developed and implemented PHC classifier should be used actively as a precondition for signing a contract with any PHC provider. This will ensure that all providers submit data in a comparable and structured way, supporting the E-Health Centre in accelerating data reporting and improving the quality of the submitted data. High-quality data are essential to monitor PHC performance against existing clinical standards and to incentivize continuous improvement. Better data availability and quality are also necessary preconditions for reintroducing performance payment. Implement mechanisms for integrating the MHIF and E-Health Centre information systems to enhance data quality and availability. The lack of coordination between these two systems has hindered their development. Furthermore, it is critically important to integrate the databases and to use national personal identification numbers for all patient contacts with

the health-care system. These steps are a necessary precondition before patients' pathways can be properly monitored and an effective referral system between hospitals and PHC established.

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Annex 1

Table. A1.1. Quality indicators used in the performance payment system (pay for performance, or P4P) and changes in the number of points awarded for each indicator, 2018–2021

Source: *Assessment of the effectiveness of the payment system at the PHC level in the Kyrgyz Republic. Bishkek: Health Policy Analysis Center; 2022*

Indicator	Maximum points			
	2018	2019	2020	2021
1. Number of newborns attended by a family doctor in the first three days after discharge from maternity hospital, absolute number	12.5	12.5	12.5	12.0
2. Proportion of children under 1 year of age who visited a family doctor, %	12.5	12.0	12.0	12.0
3. Proportion of children under 5 years of age with diarrhoea who received oral rehydration therapy at family group practice (FGP) level, %	10.0	4.0	4.0	4.0
4. Proportion of children under 5 years of age with pneumonia who received the first dose of antibiotics at FGP level, %	10.0	4.0	4.0	4.0
5. Proportion of women who were registered for prenatal care up to 12 weeks of pregnancy, %	12.0	12.0	12.0	10.0
6. Proportion of pregnant women who received folic acid according to a clinical protocol, %	12.0	8.0	8.0	4.0
7. Proportion of women at less than 12 weeks of pregnancy who were tested for haemoglobin and bacteriuria (bacterial seeding culture or Gram stain), %	–	8.0	8.0	8.0
8. Number of women giving birth attended by a family doctor in the first three days after discharge from maternity hospital, absolute number	–	12.5	12.5	– (excluded)
9. Proportion of children aged 5–7 months who received the third 5-in-1 vaccine in a timely manner (DTP–HBV–HIB), %	–	–	–	12.0
10. Number of patients with newly diagnosed hypertension, absolute number	11.0	8.0	8.0	8.0
11. Proportion of hypertensive patients taking antihypertensive medications with blood pressure no higher than 140/90, %	10.0	8.0	8.0	9.0
12. Proportion of patients with type 2 diabetes whose fasting blood glucose levels were controlled and did not exceed 8 mmol/l (taking into account individual goals), %	–	4.0	4.0	9.0
13. Number of patients with newly diagnosed diabetes mellitus, absolute number	–	7.0	7.0	8.0
14. Patients with suspected tuberculosis tested in accordance with an approved diagnostic algorithm	10.0	– (excluded)	–	–

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