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Kyrgyzstan

Health system review

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Kyrgyzstan

Health System Review 2022

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KYRGYZSTAN

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PREFACE

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template prepared by the European Observatory, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe and other countries. They are building blocks that can be used to:

- learn in detail about different approaches to the organization, financing and delivery of health services, and the role of the main actors in health systems;
- describe the institutional framework, process, content and implementation of health care reform programmes;
- highlight challenges and areas that require more in-depth analysis;
- provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries; and
- assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews poses a number of methodological problems. In many countries there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including data from national statistical offices, the Organisation

for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages because it raises similar issues and questions. HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situations. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to contact@obs.who.int.

HiTs and HiT summaries are available on the Observatory's website (<https://eurohealthobservatory.who.int>).

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The HiT uses data available in March 2022, unless otherwise indicated. The HiT reflects the organization of the health system, unless otherwise indicated, as it was in March 2022.

The European Observatory on Health Systems and Policies is a partnership, hosted by the WHO Regional Office for Europe, that includes the Governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the Veneto Region of Italy; the French National Union of Health Insurance Funds (UNCAM); the Health Foundation; the European Commission; the World Bank; the London School of Economics and Political Science (LSE); and the London School of Hygiene & Tropical Medicine (LSHTM). The Observatory is composed of a Steering Committee, core management team, research policy group and staff. Its Secretariat is based in Brussels and it has offices in London at LSE and LSHTM and in Germany at the Berlin University of Technology. The Observatory team working on HiTs is led by Josep Figueras, Director; Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors); Ewout van Ginneken and Suszy Lessof. The Country Monitoring Programme of the Observatory and

the HiT series are coordinated by Anna Maresso. The production and copy-editing process was coordinated by Jonathan North, with the support of Lucie Jackson, Sarah Cook (copy-editing) and Tetragon (design and layout).

LIST OF ABBREVIATIONS

ADP	Additional Drugs Package
ART	antiretroviral treatment
EAEU	Eurasian Economic Union
F4P	Funding for Performance
FAP	Feldsher-Obstetric Point
FGP	Family Group Practice
FMC	Family Medicine Centre
MHIF	Mandatory Health Insurance Fund
RBF	Results-Based Financing
SGBP	State-Guaranteed Benefits Programme
SWAp	sector-wide approach

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ABSTRACT

This analysis of the Kyrgyz health system reviews developments in its organization and governance, financing, provision of services, health reforms and health system performance. A mandatory health insurance is in place, with the Mandatory Health Insurance Fund (MHIF) under the Ministry of Health acting as single public payer for almost all hospitals and providers of primary care. The benefits package of publicly covered services is defined in the State-Guaranteed Benefits Programme (SGBP). However, many services require co-payments and in 2019 only 69% of the population was covered by mandatory health insurance. Health expenditure per capita is one of the lowest in the WHO European Region, due to the country's small GDP per capita. Private spending, almost entirely in the form of out-of-pocket expenditure and including informal payments, accounted for 46.3% of health expenditure in 2019. Financial protection is undermined by low levels of public spending for health, resulting in financial hardship for people using health services. While there is a well-developed network of health facilities, the geographical distribution of health workers is uneven and there is an overall shortage of family doctors. Access to health services remains a challenge, which has been exacerbated by the COVID-19 pandemic. While improvements have been made in recent years, communicable and noncommunicable diseases still pose a major problem and life expectancy prior to the COVID-19 pandemic was one of the lowest in the WHO European Region.

EXECUTIVE SUMMARY

■ Kyrgyzstan faces a high burden of communicable and noncommunicable diseases

Kyrgyzstan is a landlocked, mountainous country in Central Asia with a population of 6.6 million in 2020. It is a lower middle-income country with a small economy dominated by the extraction of minerals, agriculture, and reliance on remittances from citizens working abroad, making it vulnerable to external shocks. As a result of the COVID-19 pandemic, GDP declined by 8.6% in 2020.

Politically, Kyrgyzstan is a presidential republic in which the president, who is directly elected to a maximum of two five-year terms, serves as the head of state and government. The country has three administrative levels: state (national), *oblasts* (regions) and *rayons* (districts).

The country faces a high burden of both communicable and non-communicable diseases, as well as high rates of injuries and external causes of death. Prior to the COVID-19 pandemic, there has been a steady decline in infant and child mortality rates. The maternal mortality rate has also been decreasing, but, at an estimated 60 per 100 000 live births in 2019, it remained among the highest in the WHO European Region.

Cardiovascular diseases account for half of overall mortality, with an increasing proportion of cancer. Dietary risks, alcohol and tobacco consumption, as well as air pollution, are major risk factors that contribute to mortality. High mortality attributable to high blood pressure and high LDL cholesterol indicates that there is scope for improved health system performance, such as through better control of chronic conditions at the primary care level. Life expectancy at birth in 2019 was estimated at 71.6 years (67.6 years for males and 75.8 years for females).

■ The Ministry of Health is the main governing body in a largely public system

The health system is mainly governed by the Ministry of Health, which develops health policies, drafts health legislation and oversees the regulation of the health system. The Mandatory Health Insurance Fund (MHIF) under the Ministry of Health is an executive agency that pools public funds at the national level for the procurement of a standardized package of services from health care organizations. While the MHIF is meant to be a strategic purchaser of health services, this ambition has not been fully realized.

At the regional level, the activities of public providers are coordinated by the oblast coordinators appointed by the Minister of Health. Oblast state administrations or the relevant oblast governments also play a role in the coordination of activities at the regional level through coordinating commissions on public health issues in oblasts, cities and districts.

Most health care organizations are public and most health workers are salaried employees. External development partners have played an important role in supporting Kyrgyzstan's reform agenda and have also supported its response to the COVID-19 pandemic. The government aims to expedite the digitalization of the health system, although a digitalization roadmap or strategy for the health sector is still lacking. To institutionalize the digital transformation of the health sector, the E-health Centre (the Republican Centre on Electronic Health) was established, replacing the Republican Medical Information Centre. Patient rights and the participation of the public in the governance of the health system are still sporadic and at an early stage of development.

■ Financing still relies to a large extent on out-of-pocket payments

Health expenditure per capita is one of the lowest in the WHO European Region, due to the country's small GDP per capita. In 2019 health expenditure per capita amounted to US\$ 260 PPP (\approx US\$ 62), exceeding only Tajikistan. In terms of its share of GDP, health expenditure amounted to 4.5% of GDP in 2019, and public expenditure on health was only 2.3% of GDP. Private spending, almost entirely in the form of out-of-pocket expenditure and including informal payments, accounted for 46.3% of

health expenditure in 2019, a decrease from levels seen in 2014–2017, but an increase from the levels seen in the 2000s. In a related development, public sector current expenditure on health as a share of total government expenditure increased from 7.1% in 2000 to 12.8% in 2005, although it declined again to 7.1% in 2019. Voluntary health insurance is virtually non-existent.

A mandatory health insurance system was established in 1996, with the Mandatory Health Insurance Fund (MHIF) under the Ministry of Health acting as single public payer for almost all hospitals and providers of primary care. The benefits package of publicly covered services is defined in the SGBP. However, in 2019 only 69% of the population was covered by mandatory health insurance, a decline from 76% in 2016. One of the reasons for this decline is the introduction of digital technologies for registration and accounting, making it possible to delete duplicate records and increase the reliability of data. Another reason is the migration of working-age people to other countries.

Payment mechanisms for health services have changed with the establishment of the MHIF. At primary care level capitation financing was introduced, while payment of hospitals was based on treated cases, following a DRG system. In recent years payment for results and quality of care has been piloted, under a system called Results-Based Funding (RBF) for hospitals and Funding for Performance (F4P) for primary health. Salaries of health workers vary across the country but remain low and do not reach the country's average salary.

■ There are geographical imbalances in health workers and family doctors are lacking

Between 1997 and 2021 the number of hospitals was reduced from 450 to 126, with the aim of reducing costs and strengthening primary care and prevention. The number of hospital beds per 100 000 population has declined dramatically since the early 1990s (from 1206 hospital beds per 100 000 population in 1991 to 407 in 2019). While this is below regional averages, it most likely still represents over-capacity in terms of hospital infrastructure. Health facilities are geographically well distributed but there are still remote areas with limited access to health services.

At the time of writing, there is no proper planning of the health workforce in the country, nor is there a human resource strategy. As in many other countries, the ratio of doctors to population is much higher in urban areas and the country's capital, Bishkek, with a much lower ratio in rural areas. The COVID-19 pandemic seems to have exacerbated these geographical imbalances. In contrast, the coverage by nurses is considered adequate in all regions. While Kyrgyzstan was the first country in Central Asia to introduce the Family Medicine system in the late 1990s by transforming polyclinics into Family Group Practices (FGPs) and retraining narrow-profile specialists into family doctors, the state medical education system had not been revised to train family doctors, resulting in a shortage of family doctors.

■ There is a continued focus on specialized care

Public health services are state-run and coordinated nationally, mostly by the Ministry of Health. Prior to the COVID-19 pandemic, the country achieved high coverage rates for routine childhood vaccinations, but the COVID-19 pandemic has resulted in disruptions to vaccination programmes. Less emphasis is placed on addressing noncommunicable diseases, such as through measures addressing tobacco smoking, alcohol consumption, obesity and nutrition. Despite the fact that Kyrgyzstan is a signatory of the WHO Framework Convention on Tobacco Control, the country so far has not implemented many of the required measures. Tax and non-tax measures are inadequate and tobacco tax in Kyrgyzstan is among the lowest in the WHO European Region.

Primary care facilities are the most easily accessible health care providers, with FGPs most commonly responsible for the initial visit, check-up and, if necessary, examination and treatment. If a consultation with narrow-profile specialists is needed, the family doctor refers patients either to Family Medicine Centres (FMCs) or to a hospital. To improve accessibility in rural areas so-called Feldsher-Obstetric Points (FAPs) have been established, run by a feldsher, as well as a family doctor who visits the FAP regularly. Despite attempts to strengthen primary care, a number of persistent challenges remain, including low public confidence and a preference for services offered by hospitals and narrow-profile specialists.

Specialized outpatient care is provided by FMCs, specialists in hospital outpatient departments, as well as private medical centres. Hospital or inpatient care is provided by hospitals at district and regional level. Tertiary care is mainly provided by health care organizations located in the capital, Bishkek. The average length of stay in acute care hospitals has decreased in Kyrgyzstan in recent years and is now below levels in the Russian Federation, Kazakhstan and Tajikistan.

Government programmes aim to ensure the provision of essential medicines to vulnerable groups of the population but out-of-pocket payments remain a major concern. A new price control mechanism is being tested nationwide in 2022, covering all medicines included in the Additional Drugs Package (ADP), the SGBP and a selected list of medicines for COVID-19 management.

■ Far-reaching reform programmes have been embraced

Since independence, Kyrgyzstan has undertaken several far-reaching health reform programmes, with major changes to health financing and the provision of health services. The “Den Sooluk” programme (2012–2018) focused on improving health outcomes in four priority areas: control of cardiovascular disease, promotion of maternal and child health, and control and prevention of tuberculosis (TB) and HIV/AIDS. The current “Healthy Person – Prosperous Country” programme (2019–2030) emphasizes the importance of health for achieving economic development. It can be seen as a continuation and acceleration of the ambitious health reform agenda Kyrgyzstan embarked upon in 1996. The country has been recognized for its efforts to undertake sweeping reforms of its health system with the broad aims of strengthening primary care, restructuring the hospital sector and introducing a mandatory single payer system with the goals of safeguarding the population from financial risk and guaranteeing the provision of essential services.

■ Access to health services remains a challenge

Despite major efforts to ensure equitable access to health services, there are still marked disparities in provision between rural and urban areas, and

barriers linked to out-of-pocket payments and gaps in mandatory health insurance coverage. Enrolment in the mandatory health insurance scheme requires at least a temporary residence permit and basic identification documents, a potential barrier to access for internal migrants who might lack them. These migrants make up an estimated 18% of the population and do not always have the necessary paperwork to enrol. ADP coverage is linked to enrolment in mandatory health insurance, so those not covered by mandatory health insurance are disadvantaged by both higher co-payments for consultations and not receiving reimbursements for medicines. During the 2020–2021 COVID-19 pandemic Kyrgyzstan has tried to maintain essential services, including through mobile health applications, but there has been some disruption, including to mother and child health services.

■ Financial protection is incomplete

Financial protection is undermined by low levels of public spending on health, resulting in financial hardship for people using health services. Concerns about financial protection have remained throughout the reform period, in spite of evidence of improvement in the early phases of reform. As access to health services has improved, households have been exposed to a growing burden of out-of-pocket payments, while financial barriers to purchasing prescribed medicines have increased. Medication remains the biggest driver of out-of-pocket payments in inpatient, outpatient and self-treatment settings and is the largest component of out-of-pocket spending.

■ Quality of care is improving

The Government has made a commitment to improve access to and quality of social services (especially health and education), while addressing regional disparities and inequities among different income and cultural segments of society. Over the last years some positive developments have taken place in terms of improving the quality of care and providing more and better health services at primary care level. However, many initiatives are fragmented in vertical programmes and pilot locations, and overall governance and monitoring of quality of care are weak.

■ Prior to the COVID-19 pandemic, population health had improved

Kyrgyzstan has made progress in population health in recent years and the health system has contributed to this, but it is difficult to quantify this contribution. The country continues to struggle with a double burden of disease, comprising persisting or more recent infectious diseases, and a growing burden of noncommunicable diseases. A study using the Global Burden of Disease dataset estimated that 63% of amenable deaths in Kyrgyzstan in 2016 could be attributed to poor quality of care, amounting to 75 deaths due to poor quality care per 100 000 population. The remaining 37% of amenable deaths were attributed to non-utilization of health services. This was in line with the Central Asian average.

■ Efficiency gains could be achieved

The efficiency of the health system is undermined by the high share of out-of-pocket spending and health resources are not always spent in a way that maximizes health improvement. The relatively small share of funding that goes to outpatient and primary care is a challenge for strengthening primary care and improving allocative efficiency. Furthermore, public funds are insufficient for covering essential medicines, limiting access to highly cost-effective treatments for conditions such as hypertension. What is lacking so far is the systematic use of evidence to review priorities for allocating budget resources across programme categories (e.g. on primary care versus specialized care).

Introduction

■ Chapter summary

- Kyrgyzstan is a landlocked, mountainous country in Central Asia with a population of 6.6 million in 2020.
- It is a lower middle-income country with a small economy dominated by the extraction of minerals, agriculture and reliance on remittances from citizens working abroad, making it vulnerable to external shocks. As a result of the COVID-19 pandemic, GDP declined by 8.6% in 2020.
- Kyrgyzstan is a presidential republic in which the president, who is directly elected to a maximum of two five-year terms, serves as the head of state and government. The country has three administrative levels: state (national), *oblasts* (regions) and *rayons* (districts).
- The country faces a high burden of both communicable and non-communicable diseases, as well as high rates of injuries and external causes of death.
- Cardiovascular diseases account for half of overall mortality, with an increasing proportion of cancer.
- Life expectancy at birth in 2019 was estimated at 71.6 years (67.6 years for males and 75.8 years for females).

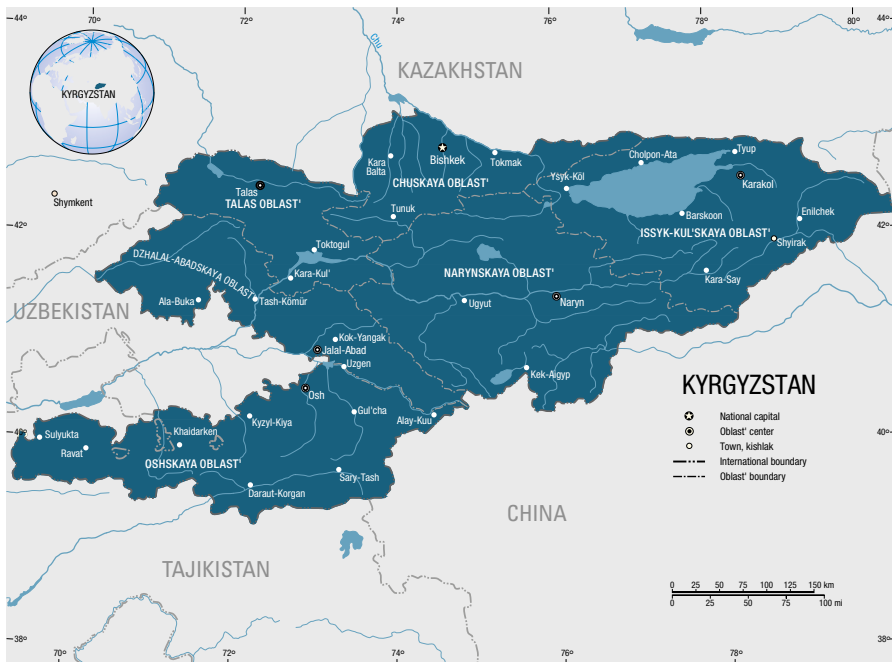
1.1 Geography and sociodemography

Kyrgyzstan is a landlocked country, with a very mountainous terrain. It is bordered by Kazakhstan to the north, Uzbekistan to the west and southwest, Tajikistan to the southwest and China to the east (Figure 1.1). The country's territory comprises 199 951 square km. With a population of 6.6 million in 2020, this equates to a population density of 34 people per square km.

The country's capital is Bishkek, the largest city, with a population of 1.0 million in 2020. In the same year 63.1% of the population lived in rural areas. The population is relatively young, with 32.6% aged 14 years or less in 2020 (Table 1.1). At the beginning of 2019 the average age of the population was 27.7 years.

Kyrgyzstan is a multi-ethnic and multi-religious country. Islam is the main religion (followed by 88.6% of the population), but the constitution guarantees freedom of religion. In ethnic terms Kyrgyz make up 73.3% of the population, Uzbeks 14.7%, Russians 5.6% and other ethnic groups account for the remaining 6.4%. The two official languages are Kyrgyz and Russian.

FIGURE 1.1 Map of Kyrgyzstan



Source: United Nations, 2011

TABLE 1.1 Trends in population/demographic indicators, 1995–2020, selected years

	1995	2000	2005	2010	2015	2020
Total population (millions)	4.6	4.9	5.2	5.5	6.0	6.6
Population aged 0–14 (% of total)	37.6	34.9	31.0	29.9	31.1	32.6
Population aged 65 and above (% of total)	5.5	5.5	5.6	4.5	4.3	4.7
Population density (people per sq. km)^a	23.8	25.5	26.9	28.4	31.1	34.4
Population growth (annual growth rate)	1.0	1.2	1.1	1.2	2.1	2.1
Fertility rate, total (births per woman)^a	3.1	2.4	2.5	3.1	3.2	3.3
Urban population (% of total)	36.3	35.3	35.3	35.3	35.8	36.9

Source: World Bank, 2021

Note: ^a: latest data for 2019

■ 1.2 Economic context

Kyrgyzstan is a lower middle-income country with a small economy dominated by the extraction of minerals, agriculture and reliance on remittances from citizens working abroad. Since the collapse of the Union of Soviet Socialist Republics (USSR) in 1991, Kyrgyzstan has undergone fundamental political, economic and social changes. Its rapid transition to a market economy initially compounded the economic shock caused by the dissolution of the USSR, on which Kyrgyzstan had relied heavily both as trade partner and provider of fiscal subsidies. Further shocks in the 1990s and 2000s (internal and external, political and economic) disrupted Kyrgyzstan's path to economic recovery. However, since 2010 the country has enjoyed a prolonged period of political and economic stability, attaining middle-income status in 2014 (Price, 2018).

Despite an improving macroeconomic context (Table 1.2), the country's openness to trade and its reliance on its neighbours (in particular the Russian Federation) leave it vulnerable to events outside its borders (OECD, 2018). The Kyrgyz economy is also vulnerable to external shocks owing to

its reliance on one gold mine, Kumtor, which accounts for about 10% of GDP, and on worker remittances that support household incomes and boost domestic demand.

In May 2015 Kyrgyzstan became a member of the Eurasian Customs Union, comprising the Russian Federation, Kazakhstan, Belarus and Armenia; it also joined the Common Economic Space, which introduced free movement of goods, services, capital and labour between members in 2012. The two agreements form the basis of the Eurasian Economic Union (EAEU), an area of free flow of labour and goods between the five member countries.

Like many other countries worldwide, the COVID-19 pandemic in 2020–2021 affected the Kyrgyz economy negatively, and the country's GDP declined in 2020 by 8.6% (Table 1.2).

TABLE 1.2 Macroeconomic indicators, 1995–2020, selected years

	1995	2000	2005	2010	2015	2020
GDP per capita (current US\$)	364	280	477	880	1 121	1 174
GDP per capita, PPP (current international US\$)	1 403	1 864	2 384	3 086	4 215	4 965
GDP growth (annual %)	–5.4	5.4	–0.2	–0.5	3.9	–8.6
General government final consumption expenditure (% of GDP)	19.5	20.0	17.5	18.1	17.8	17.6
Current account balance (% of GDP)	–14.1	–5.6	–1.5	–9.9	–15.8	–12.0 ^a
Public and publicly guaranteed debt service (% of GNI)^a	3.5	3.1	1.2	1.4	1.8	2.2 ^a
Unemployment, total (% of labour force) (modelled ILO estimate)	5.6	7.5	8.1	8.6	7.6	7.9
Poverty headcount ratio at national poverty lines (% of population)	–	–	–	33.7	32.1	20.1 ^a
Income inequality (Gini index) (World Bank estimate)	–	31.0	32.6	30.1	29.0	29.7 ^a

Source: World Bank, 2021

Notes: ^a: 2019 data. PPP: Purchasing power parity; GDP: gross domestic product; GNI: gross national income; ILO: International Labour Organization

■ 1.3 Political context

Since the collapse of the Union of Soviet Socialist Republics (USSR) in 1991, Kyrgyzstan has undergone fundamental political, economic and social changes. Corruption and nepotism were major factors underlying political and social upheavals in 2005 (the “Tulip Revolution”) and 2010. To prevent the concentration of power, a parliamentary constitution with elaborate checks and balances was adopted after the 2010 Revolution, making Kyrgyzstan the only Central Asian country in which the president was limited to a single term. It transferred many powers previously held by the president to an expanded parliament and established limits to prevent a single party from dominating the political system. The 2010 Constitution established a better balance between the executive and legislative branches of government, although this was somewhat compromised by amendments approved in 2016. Presidential elections in 2011 and parliamentary elections in 2015 consolidated the democratic basis of the new order. President Almazbek Atambaev, first elected under the 2010 constitution, served a full six-year term. The October 2017 presidential elections, won by Sooronbay Jeenbekov, led to a peaceful and democratic transfer of power and were seen by relevant international bodies as an important milestone in the country’s political transition. However, the parliamentary elections held on 4 October 2020 were accompanied by irregularities, leading to mass protests and, eventually, the resignation of President Jeenbekov on 15 October 2020. In January 2021 early presidential elections were held and won by Sadyr Japarov.

The new constitution promulgated in 2021 returned the government to a presidential system. The president, who serves as the head of state and government, is directly elected to a maximum of two five-year terms. The president is assisted by a Cabinet of Ministers whose chair must be approved by the legislature. The unicameral parliament Jogurku Kenesh (Supreme Council) has 90 seats.

The country has three administrative levels: state (national), *oblasts* (regions) and *rayons* (districts). There are seven oblasts: Batken, Chui, Issyk-Kul, Jalal-Abad, Naryn, Osh and Talas. The capital, Bishkek, and the city of Osh have a special status and do not belong to any oblast. The oblasts are divided into 40 rayons. Rural communities (*aiyl okmotus*) consisting of up to 20 small settlements have their own elected mayors and councils.

Kyrgyzstan is a member of the United Nations, the World Trade

Organization and the Eurasian Economic Union (with Russia, Belarus, Kazakhstan and Armenia). Kyrgyzstan has, among others, ratified the following international treaties and documents: the Convention on the Rights of the Child, the WHO Framework Convention on Tobacco Control, the Convention on the Rights of Persons with Disabilities, and the International Health Regulations 2005.

■ 1.4 Health status

Life expectancy at birth in 2019 was estimated at 71.6 years (67.6 years for males and 75.8 years for females) (Table 1.3).

Kyrgyzstan faces a high burden of both communicable and noncommunicable diseases, as well as high rates of injuries and external causes of death. Cardiovascular diseases account for half of overall mortality, with an increasing proportion of cancer (12.6% of all deaths in 2018). Further causes of death are injuries, poisoning and other consequences of external causes (13.2% of deaths in 2018). Ischaemic heart disease and stroke were the two leading causes of death in 2016, accounting for 390 per 100 000 population, much higher than the averages for central Asia (248) and the WHO European Region (136).

While noncommunicable diseases are the leading cause of death and disability, costing an estimated 3.9% of GDP, communicable diseases remain a challenge. The country achieved success in addressing malaria, receiving WHO certification for malaria elimination in 2016, but multidrug resistant tuberculosis (MDR TB) continues to be a major challenge. It is estimated to account for 25% of new TB cases, placing Kyrgyzstan among the 27 countries in the world with a high burden of MDR TB. Regardless of efforts made and progress achieved, HIV, TB and hepatitis are still at high levels.

Over the past 15 years there has been a steady decline in the infant and child mortality rates (Table 1.3). According to the 2018 MICS survey, the mortality rate among children under 5 years was 20 per 1000 live births, whereas the infant mortality rate was 17, and the neonatal mortality rate 13 per 1000 live births (National Statistical Committee of the Kyrgyz Republic & UNICEF, 2019). The percentage of children aged 24–35 months who were vaccinated against basic vaccine-preventable childhood diseases was 82% according to official data, with a lower coverage found in the 2018 MICS survey.

TABLE 1.3 Mortality and health indicators, 1995–2019, selected years

	1995	2000	2005	2010	2015	2016	2019
Life expectancy							
Life expectancy at birth, total^a	65.8	68.6	68.0	69.3	70.7	71.0	71.6
Life expectancy at birth, male^a	61.4	64.9	64.2	65.3	66.7	67.0	67.6
Life expectancy at birth, female^a	70.4	72.4	71.9	73.5	74.8	75.1	75.8
Life expectancy at 65 years, male	11.7	12.6	12.3	12.8	13.4		
Life expectancy at 65 years, female	14.8	15.3	15.2	15.7	16.5		
Mortality, deaths per 100 000 population (standardized rates)							
Mortality, SDR per 100 000 population							
Circulatory diseases	673.3	672.0	713.7	701.9	635.1		
Malignant neoplasms	120.0	117.3	113.9	113.9	120.6		
Communicable diseases	37.3	40.5	28.1	20.1	18.3		
External causes of death	129.4	90.2	91.3	86.8	62.6		
All causes	1 465.1	1 282.8	1 292.0	1 195.3	1 044.3		
Estimated infant mortality rate per 1 000 live births (World Health Report)	50.6	42.1	34.2	26.1	19.9	18.8	
Infant mortality rate per 1 000 live births^a	52.1	42.4	34.1	26.1	19.9		16.4
Maternal mortality ratio (modelled estimate, per 100 000 live births)^{a, b}	–	79	82	79	66		60
Maternal deaths, cause of death data per 100 000 live births	44.3	45.5	60.0	50.1	38.5		

Sources: WHO, 2022a; ^aWorld Bank, 2021Notes: ^b: latest maternal mortality ratio for 2017. SDR: standardized death rate

Prior to the COVID-19 pandemic the maternal mortality rate had been decreasing, although, at an estimated 60 per 100 000 live births in 2019 (Table 1.3), it remained among the highest in the WHO European Region. Postpartum haemorrhage was the leading cause of maternal mortality in the period from 2008 to 2017, although its percentage decreased, while the role of extragenital causes increased. The adolescent birth rate was another concern, with a rate that is two times higher in rural than in urban areas (64 versus 32 children per 1000 girls aged 15–19 years) (National Statistical Committee of the Kyrgyz Republic & UNICEF, 2019). According to the 2018 MICS survey, 18% of married women aged 15–49 had unmet needs for family planning (National Statistical Committee of the Kyrgyz Republic & UNICEF, 2019). The COVID-19 pandemic has led to new challenges. In 2020, 39.7% of maternal deaths were connected with COVID-19 infections or community-acquired pneumonia, amounting to 26.6 cases per 100 000 live births (UNFPA, 2021).

TABLE 1.4 Risk factors affecting health status

	2010	2012	2014	2016	2018
Age-standardized prevalence of current tobacco smoking among people aged 15 years and over (%)	27.9	27.6	27.4	27.2	27.1
Age-standardized prevalence of current tobacco smoking among people aged 15 years and over, males (%)	53.2	52.7	52.4	52.1	52
Age-standardized prevalence of current tobacco smoking among people aged 15 years and over, females (%)	4.1	3.9	3.7	3.5	3.4
Age-standardized prevalence of overweight in people aged 18 years and over (defined as BMI = 25kg/m²) (%)	44.2	45.5	46.9	48.3	
Age-standardized prevalence of overweight (defined as BMI = 25kg/m²) in males aged 18 years and over (%)	43.3	44.6	46	47.4	
Age-standardized prevalence of overweight (defined as BMI = 25kg/m²) in females aged 18 years and over (%)	44.7	46.1	47.4	48.8	
Prevalence of insufficient physical activity among adults (%)				13.9	
Pure alcohol consumption litres per capita, age 15+, all	6.1	5.8	5.6	4.6	3.9

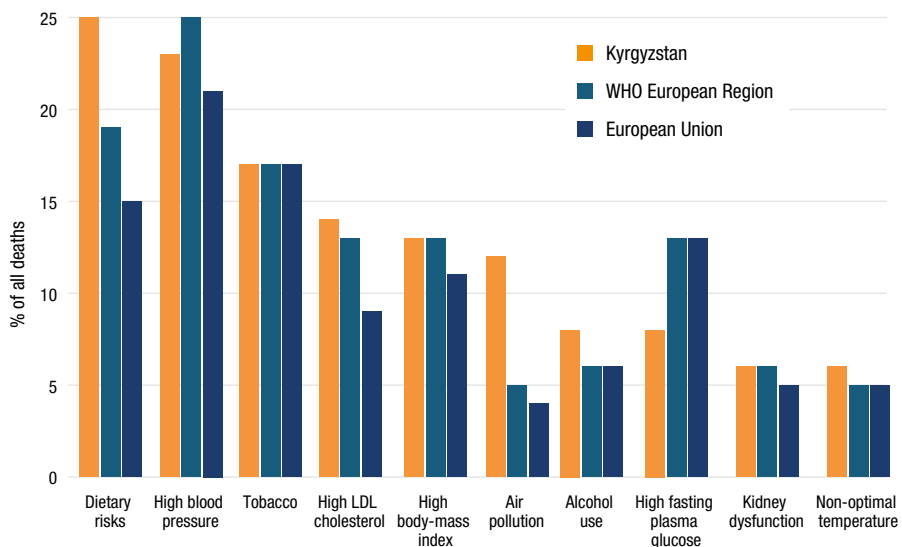
Source: WHO, 2022a

Alcohol consumption and smoking are major risk factors, in particular for males, with male smoking prevalence exceeding 50% throughout the period 2000–2018 (compared with 32.4% in central Asia in 2018) (Table 1.4). Unhealthy diets (including over- and undernutrition) and lack of physical activity are other challenges, with overweight showing an increasing trend (from 38.3% of the population in 2000 to 48.3% in 2016, mirroring an increase in central Asia overall from 40.0% to 49.5%). High mortality attributable to high blood pressure and high LDL cholesterol (Figure 1.2) indicates substantial scope for action in terms of both behavioural and health system performance dimensions, such as the control of chronic conditions at the primary care level. Men, people living in rural areas and people with lower levels of education are less likely to be measured for biological risk factors (WHO, 2020).

Air pollution is one of the main risk factors contributing to mortality. In 2019, 12% of all deaths in Kyrgyzstan were attributed to air pollution, a much higher percentage than in the European Union (EU) and the WHO European Region (Figure 1.2).

Access to water and sanitation is another challenge. Only 68.2% of the population had access to safely managed drinking-water services in 2017 (53.9% in rural areas versus 93.5% in urban areas), an increase from 46.3% in 2000.

FIGURE 1.2 Burden of disease: main risk factors contributing to mortality, 2019



Source: IHME, 2022

2

Organization and governance

■ Chapter summary

- The health system is mainly governed by the Ministry of Health, which develops health policies, drafts health legislation and oversees the regulation of the health system.
- The Mandatory Health Insurance Fund (MHIF) under the Ministry of Health pools funds at the national level for the procurement of a standardized package of services from health care organizations.
- At the regional level the activities of public providers are coordinated by the oblast coordinators appointed by the Ministry of Health. Oblast state administrations or the relevant oblast governments also play a role in the coordination of activities at oblast level through coordinating commissions on public health issues.
- Most health care organizations are public and most health workers are salaried employees.
- Patient rights and the participation of the public in the governance of the health system are still sporadic and at an early stage of development.

■ 2.1 Historical background

The Kyrgyz health system experienced a sharp financial decline in the first years following independence in 1991, with the revenues of the public sector having halved by the mid-1990s (Ibraimova et al., 2011). This weakened the ability of the state to meet its financial commitments in the health system. The inherited system was characterized by excess capacity, especially at the hospital level, a problem that remains to this day. To address the structural problems of the health system, a series of reforms was initiated (see Chapter 6), ranging from changes in clinical practice to changes in the organization and financing of the system. Key reform programmes included “Manas” (1996–2005), “Manas Taalimi” (2006–2011) and “Den Sooluk” (2012–2018). The current health strategy, “Healthy Person – Prosperous Country”, covers the period from 2019 to 2030.

■ 2.2 Organization

The organizational structure of the Kyrgyz health system has evolved in the years of independence in the context of far-reaching health and administrative reforms. In 2021 the Ministry of Health and Social Development was established by merging the Ministry of Health, the Ministry of Social Development, the Mandatory Health Insurance Fund (MHIF) and the Social Fund, as well as their subordinate units. However, after less than a year, in the beginning of 2022, the Ministry of Health was again separated from the Ministry of Social Development and the Social Fund, although the MHIF remained under the Ministry of Health.

The health system is currently based on the following main laws:

- “On Health Protection” (adopted in 2005, most recently amended in September 2021);
- “On Health Care Organizations in the Kyrgyz Republic” (adopted in 2004, amended in September 2021);
- “On the Single Payer System in Health Care Financing” (adopted in 2003, most recent amendment in August 2020);
- “On Public Health” (adopted in 2009, most recently amended in May 2019);

- “On Health Organizations” (adopted in 2004, most recently amended in August 2020); and
- the Constitutional Law “On the Cabinet of Ministers” (adopted in October 2021).

An overview of Kyrgyzstan’s health system is shown in Figure 2.1.

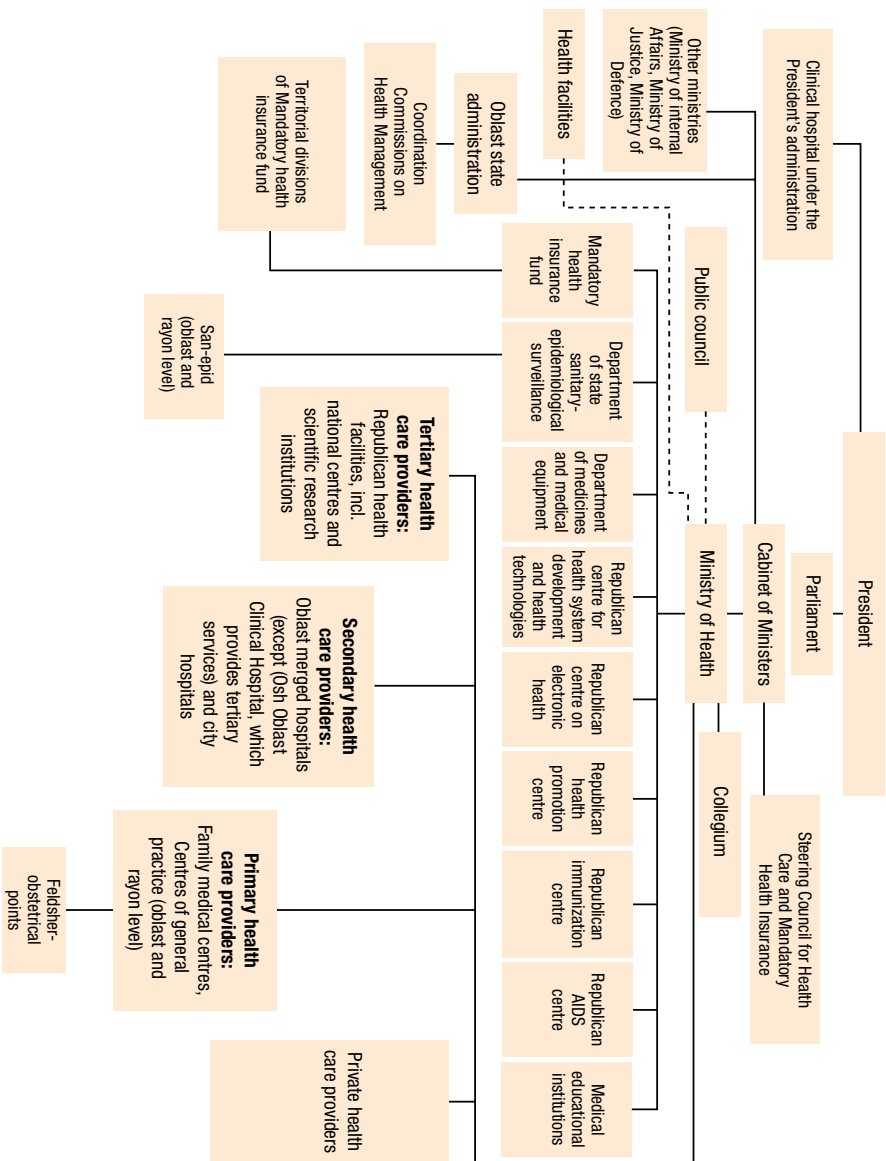
■ 2.2.1 *Ministry of Health*

The Ministry of Health is the central executive body responsible for national health policies, health protection and health insurance. It is also the National Coordinator for the WHO International Health Regulations. According to the Law “On Health Protection”, the roles and responsibilities of the Ministry of Health include the following:

- implementation of a unified state policy for protecting the health of the population;
- development and implementation of the SGBP, targeted health care programmes and other regulatory or legal acts for protecting the health of the population;
- establishment of a system of registration and licensing of health workers;
- taking measures to develop health care, medical and pharmaceutical sciences;
- implementation of intersectoral coordination;
- working with public sector organizations for the implementation of national, state and targeted programmes for the protection of the health of the population;
- management of the activities of medical, educational, research, sanitary-epidemiological and other organizations in the health system;
- regulating and overseeing the quality of medical, sanitary and preventive care;
- regulating and overseeing the quality of pre- and postgraduate medical education, regardless of ownership of educational institutions;
- ensuring quality control, safety and efficacy of medicines and medical devices;

- providing conditions for the operation of high-tech medical equipment and the introduction of the latest technologies in tertiary health care organizations;
- coordination and control of health care organizations at the regional and local level, regardless of ownership, through regional and local state administrations and self-government bodies; and
- analysis of the health status of the population.

FIGURE 2.1 Overview of the Kyrgyz health system



Source: Authors' compilation

The Minister of Health is appointed by the president. The minister has four deputy ministers, covering health service provision, human resources and finance, the sanitary-epidemiological system, and the digitalization of the health system. The president abolished the institution of state secretaries in October 2021 by adopting the Law “On state civil and municipal services”. Figure 2.2 shows the new structure of the Ministry of Health in place in February 2022, when the ministry had a staff of 75 people.

The **Collegium** of the Ministry is a consultative body formed by nine people, including the Minister (who is also chairperson of the Collegium), the four Deputy Ministers, and a representative of the Administration of the President, as well as other senior officials of the health system. The Collegium’s main function is the collaborative discussion of programmatic documents on health protection, health care reform, medical education and science, and of performance reports by managers of the health system. The nominal structure of the Collegium is approved by the Minister in agreement with the supervising structural unit of the Administration of the President. The regulations for the Collegium, as well as the rules and procedures for its work, are also approved by the Minister.

Subordinate institutions of the Ministry of Health (two departments and 37 republican institutions) are independent legal bodies directly accountable to the relevant Deputy Ministers and units of the Ministry of Health. Directors of some of them are appointed by the Chief of the Cabinet of Ministers on the nomination of the Ministry of Health, while others are appointed by the Minister. The staff of the Ministry (75 employees as of February 2022) are “state civil servants”, which means that they are recruited and serve according to the Law “On state and municipal servants”. Out of the subordinate institutions, only the Director and Deputy Director of the Department of Disease Prevention and State Sanitary and Epidemiological Surveillance under the Ministry of Health have the status of “state civil servant”; all other staff of subordinate institutions are recruited and serve according to the general labour law. Some of the main differences between these two employment statuses is that the status of “state civil servants” is more systematized, there is an established process of selection and promotion, and salaries are incorporated in budget allocations to the ministries.

The **Department of Disease Prevention and State Sanitary and Epidemiological Surveillance** under the Ministry of Health is responsible for implementation of the state policy on public health, infectious disease surveillance, and sanitary inspection and control. It is headed by a director general who is appointed by the Chief of the Cabinet of Ministers on the nomination of the Minister of Health. The Department is accountable to the Public Health Unit of the Ministry of Health. The Public Health Unit was established in 2006 within the Ministry of Health to avoid having one and the same body (the Department) developing the state policy on public health and implementing it (see Figure 2.2). Since the establishment of the Public Health Unit, it develops national policies on public health (by submission of draft policy documents for approval by the Cabinet of Ministers), and the Department of Disease Prevention and State Sanitary and Epidemiological Surveillance implements them.

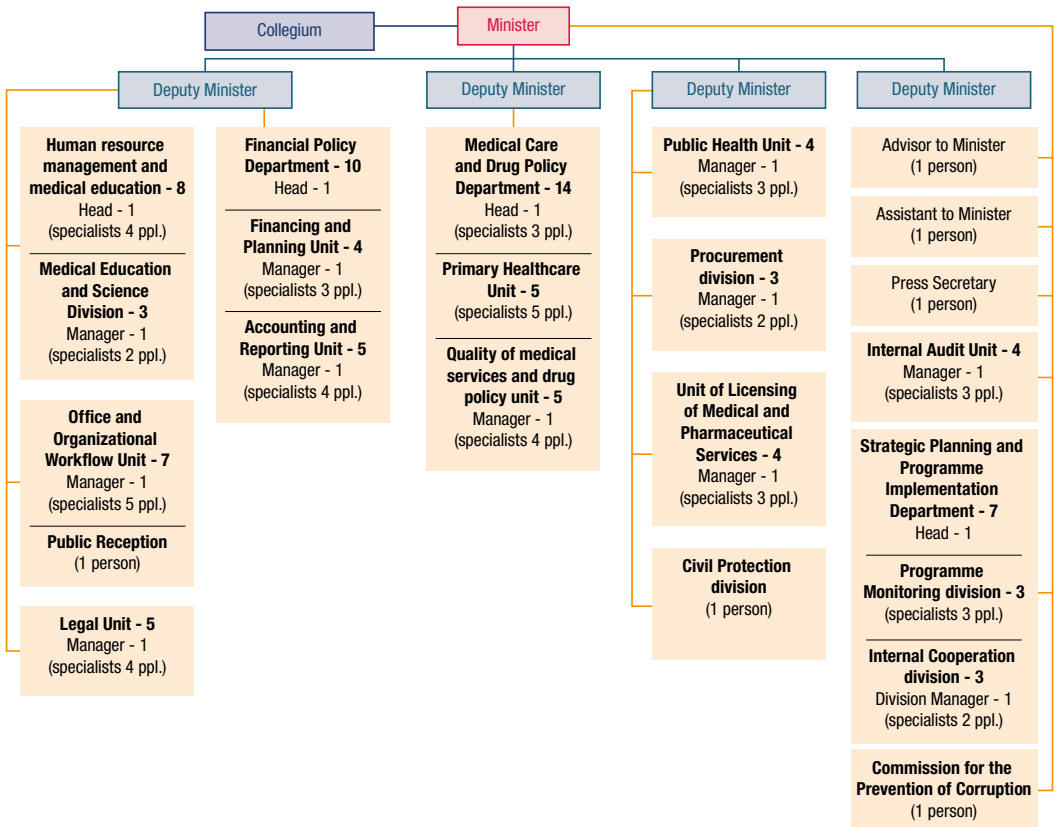
The **Department of Medicines and Medical Devices** under the Ministry of Health is the national regulatory body for medicines (including vaccines) and medical devices. It is responsible for marketing authorization, quality control and post-marketing surveillance of medicines and medical devices. The Department is headed by a director general who is appointed by the Chief of the Cabinet of Ministers on the nomination of the Minister of Health. The Department is accountable to the Medicines Policy Unit of the Ministry of Health. As with the Public Health Unit, the Medicines Policy Unit was established within the structure of the Ministry of Health to avoid having a single body developing pharmaceutical policy and implementing it. But unlike the Public Health Unit, the Medicines Policy Unit was established much later, in 2015, when the consultations and public deliberations of the State Drug Policy made separation of development and implementation one of the priorities. Since the establishment of the Medicines Policy Unit, it develops the policy (by submission of draft policy documents for approval by the Cabinet of Ministers), and the Department of Medicines and Medical Devices implements it. However, due to the limited capacity of the Ministry of Health, some functions have recently been given back to the Department of Medicines and Medical Devices, such as the issuance of market authorizations for medicines or the licensing of pharmacies.

The **Republican Centre on Electronic Health** under the Ministry of Health (<http://cez.med.kg>) carries out coordination, implementation and monitoring of the state policy on e-health and medical statistics. The Centre is the keeper and administrator of the main health information data and statistics. It is headed by a director who is appointed by the Minister of Health. The main source of funding is the republican budget.

The **Republican Centre on Health Promotion and Communication** under the Ministry of Health (<https://saksalamat.kg/glavnaya/o-nas/>) is responsible for developing the state health promotion policy aimed at improving the health status of the population and improving quality of life. In 2019 the functions of the Centre were extended to cover communication with the population. The Centre has six departments, a Call Centre for the Prevention of Smoking and a southern branch in Osh. The director of the Centre is appointed by the Minister of Health. The main source of funding is the republican budget.

The **Republican Immunization Centre** under the Ministry of Health (<https://privivka.kg>) aims to reduce the incidence of preventable infectious diseases through vaccination, by ensuring sustainable immunization coverage and increasing access to quality-assured vaccines. It carries out its functions through the primary health care providers. The Centre has three departments and its director is appointed by the Minister of Health. The main source of funding is the republican budget.

The **Republican Centre for the Development of Health Care and Health Technology** under the Ministry of Health (<http://chsd.med.kg/>) was established in 2019 with the mission to provide high-quality analytical, methodological and informational support for the development of the health system, contributing to the development of evidence-based, detailed and balanced decisions. The Centre has five departments and 45 staff. The director of the Centre is appointed by the Minister of Health and its main source of funding is the republican budget.

FIGURE 2.2 Structure of the Ministry of Health

Source: Ministry of Health Order, 2021

■ 2.2.2 Mandatory Health Insurance Fund

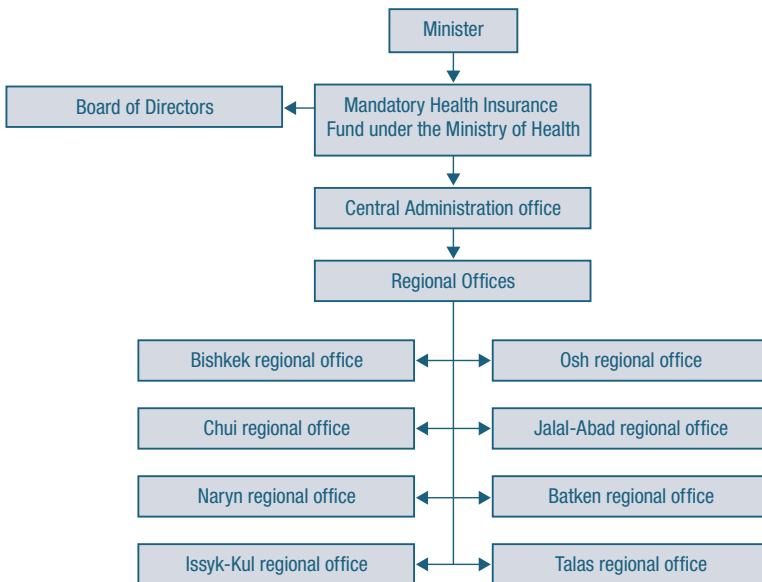
The Mandatory Health Insurance Fund (MHIF) under the Ministry of Health is the executive body that implements the state policy on basic and mandatory health insurance. The MHIF is headed by a chair who is appointed and dismissed by the Chair of the Cabinet of Ministers on the proposal of the Minister of Health. Similarly, the chair's deputies are appointed and dismissed by the Chair of the Cabinet of Ministers on the proposal of the Minister of Health. The MHIF has six territorial branches at oblast level through which the MHIF operates in the country's oblasts.

The MHIF pools funds at the national level for the procurement of a standardized package of services from health care organizations. It functioned

as an independent governing body accountable directly to the Government until 2021, when it was placed under the Ministry of Health. While the MHIF is meant to be a strategic purchaser of health services, this ambition has not been fully realized.

The MHIF administers two programmes of the Ministry of Health: the SGBP and the ADP. Among other functions related to basic and mandatory health insurance, the MHIF is also responsible for the quality control of medical, pharmaceutical and other services provided by health care organizations working under contracts with the MHIF.

FIGURE 2.3 Structure of the MHIF



Source: Authors' compilation

■ 2.2.3 Public Health Coordinating Council

The Public Health Coordinating Council coordinates activities of the Ministry of Health and its subordinate institutions. The Council includes representatives of all interested ministries, state committees and administrative departments, as well as contributors to mandatory health insurance, suppliers and public organizations. Membership is approved by the

Government, and the Vice Prime Minister in charge of social affairs is the Chair of the Steering Council. In 2020, in order to increase the responsibility of local authorities in implementing the 2030 Health Care Reform Programme, extended meetings of the Public Health Coordinating Council were held in regions, districts and cities. As of March 2022, however, there has not been a functioning Public Council since 2020, when the term of the previous Councils ended.

■ 2.2.4 *Public providers*

According to the main document regulating the functioning of health care organizations (the Law “On organizations of the health care system”), health care providers are classified according to their form of ownership and, in the case of public sector providers, by their administrative affiliation. Public sector providers can be set up by and affiliated to the Ministry of Health; other ministries, government authorities and departments; and local administrations (in the case of municipal health care organizations). There are also health care organizations based on mixed forms of ownership.

Depending on the type of services provided, health care organizations are further distinguished into those for treatment-and-prophylaxis, public health services, research and science, education, medico-social services, rehabilitation, pharmaceutical services and other organizations. There are primary, secondary and tertiary care organizations, according to their level of specialization.

Hospital health care organizations include organizations that provide secondary and tertiary care. Tertiary care providers are mostly represented by the national (“republican”) centres and institutions and are supposed to provide highly specialized care. In reality, due to several systemic problems, they provide services that are not clearly defined in terms of degree of specialization, volume, resources and geographic accessibility. Tertiary care organizations are concentrated in Bishkek city, which leads to problems with geographic access to care, and the lack of a clear referral system results in a mismatch between patient needs and available resources. Secondary care organizations providing specialized inpatient care include district level hospitals, hospitals of general practice centres, maternity hospitals, children’s hospitals, TB hospitals, rehabilitation hospitals and regional hospitals.

Directors of national centres and institutions are appointed by the Chief of the Cabinet of Ministers on the nomination of the Minister of Health, and directors of secondary care organizations are appointed by the Minister of Health.

In 2021 the Ministry of Health conducted major changes to the structure of health care provision, reorganizing health care organizations by merging territorial family medicine centres with territorial hospitals, and territorial centres of state sanitary and epidemiological surveillance into interdistrict centres of disease prevention and state sanitary and epidemiology control.

As of March 2022, there were 17 family medicine centres (seven oblast-level facilities and ten in Bishkek), 61 general practice centres (primary care facilities with beds – the product of merging territorial family medicine centres with territorial hospitals) and 1059 feldsher-obstetrical points located in remote rural areas and staffed by nurses.

■ 2.2.5 *Public health services*

Public health services include the sanitary-epidemiological service, inherited from the Soviet period, which consists of the Department for Disease Prevention and State Sanitary and Epidemiological Surveillance and territorial centres at the city and district levels. In addition, there is the Republican Centre for Immunoprophylaxis, the Republican Centre for Health Promotion, the Republican Centre for Quarantine and High Threat Infections, the Republican AIDS Centre with its regional branches, and the Bishkek city AIDS Centre under the jurisdiction of the Ministry of Health. Furthermore, there are more than 1800 Rural Health Committees, established under the Community-based Action on Health (CAH) Programme, which provide individual and community-based health support and address public health problems and local community concerns. The Rural Health Committees work closely with the regional entities of the Republican Centre for Health Promotion and Communication, so-called Cabinets on health strengthening at oblast and rayon level. At the national level public health issues are coordinated by the Public Health Coordinating Council (currently suspended; see Section 2.2.3) under the Government, which is chaired by the Vice Prime Minister in charge of Social Affairs, as well as by the Republican Emergency Anti-epidemic and Anti-epizootic Commission under the Government.

■ 2.2.6 *Private providers*

As of 31 December 2021 there were 1758 private health care organizations. Private hospital care was provided by 123 hospitals and 159 day hospitals. There were six private maternity hospitals, 40 haemodialysis clinics, six cardiac surgery clinics, two neurosurgical clinics and six fertilization clinics, as well as 11 clinics providing cosmetic plastic surgery services. Most private health care organizations (984, equivalent to 56%) are in Bishkek and Osh city, while the remaining ones (774, equivalent to 44%) are in the regions.

At the same time there were 118 private laboratories and 19 private health care organizations providing emergency medical care, of which 13 were located in Bishkek, three in Chui region, one in Talas region, one in Jalal-Abad region and one in Batken region.

The provision of the population with pharmaceuticals is carried out entirely by private pharmaceutical organizations and companies. As of 31 December 2021 there were 3791 pharmaceutical organizations, including 864 pharmacies, 314 pharmacy warehouses, 2182 pharmacy points, 225 pharmacy kiosks and 47 production workshops. A total of 185 pharmacies had a contract with the MHIF.

Since 2015 an outsourcing mechanism has been introduced to provide haemodialysis services through 15 private organizations, in which the MHIF covers most of the costs, with some co-payments from patients.

The country adopted the “Law “On Public-Private Partnership” in 2012. The country’s first public-private partnership project was implemented in the health system in 2017, with support by the International Finance Corporation and the German Development Bank (KfW). The project concerned the delivery of haemodialysis services by a private provider based on international competition. Following an agreement between the private company and the Ministry of Health, four haemodialysis centres were opened in the cities of Bishkek, Osh and Jalal-Abad. Development of other public-private partnership projects in the health system (e.g equipping health facilities with computer tomography machines) is under way, although within the financial confines of the SGBP.

■ 2.2.7 *Medical universities and colleges*

Higher and secondary medical education is regulated by the Law “On Education in Kyrgyzstan” and falls under the competences of the Ministry of Education and Science. As of February 2022 there were 22 universities for higher medical education, including five public universities and 17 private universities. Nursing education is provided by 25 medical colleges, of which 10 are accountable to the Ministry of Health and four to the Ministry of Education, while the remaining 11 are private institutions licensed by the Ministry of Education.

■ 2.2.8 *International development partners*

Cooperation with international development partners is carried out within the framework of a sector-wide approach (SWAp). This mechanism has been in place in Kyrgyzstan since 2006, when international development partners committed themselves to support the “Manas Taalimi” Health Sector Reform Programme for 2006–2011 using a first sector-wide approach (SWAp-1).

Between 2012 and 2019, coinciding with the “Den Sooluk” National Health Care Reform Programme for 2012–2018, the Second Health and Social Protection Project (SWAp-2) was operational. SWAp-2 recognized the leadership of the Ministry of Health, the partnership with donors, the need to use donor funds in accordance with programme priorities, and the use of formal mechanisms for monitoring and coordinating the sector, operating under the Joint Annual Reviews. Individual development partners independently determine their involvement in the process, based on their institutional rules and policies. The joint financiers, who pooled their funds into the common pool for the “Den Sooluk” programme, included the World Bank, the German Development Bank (KfW) and the Swiss embassy. Other organizations, which were also members of the SWAp but did not contribute to the common pool, were considered “parallel financiers”.

For the health programme “Healthy Person – Prosperous Country” (2019–2030), the modality of external financial support was changed to a Programme for Results (PfR) approach, in which disbursement of funds

depends on achieving a set of pre-agreed indicators. The PfR Primary Health Care Quality Improvement programme is jointly financed by KfW, the Swiss Development Cooperation and the World Bank.

Other international development partners working in the health sector include the Asian Development Bank, the Islamic Development Bank, USAID, the Japan International Cooperation Agency and the German Agency for International Cooperation. The Development Partner Coordination Council (DPCC) operates across sectors and has a health-specific subgroup chaired by WHO and the World Bank.

In the context of the COVID-19 pandemic, emergency technical and financial assistance was provided by a number of international development partners, including the World Bank, UNICEF, the Asian Development Bank, the Islamic Development Bank, USAID and WHO. The support from international development partners was organized by two main coordination platforms, the Disaster Response Coordination Council (DRCU) led by the Ministry of Health and WHO, and the Development Partner Coordination Council led by WHO and the World Bank.

■ 2.2.9 *Public Councils*

Public Councils of state institutions and ministries are advisory and supervisory bodies created on a voluntary basis from among representatives of civil society. They are formed by the Commission for the Selection of Members of Public Councils on a competitive basis from representatives of the public, including non-profit organizations, academia, business associations, professional and industry unions, and the expert community. Public councils usually consist of at least seven but not more than 15 members, elected for a term of two years.

Public Councils work jointly with ministries, state committees and administrative departments. They also carry out public monitoring of the activities of these state bodies in accordance with the procedures established by the Law “On Public Councils of State Bodies” (24 May 2014).

Public Councils have the following rights:

- to participate in the development and public discussion of draft regulations and management decisions;

- to consider public initiatives related to the development of ministries, state committees or administrative departments;
- to develop proposals and recommendations for improving the decisions planned or made by ministries, state committees and administrative departments; and
- to assist ministries, state committees and administrative departments in their interaction with the public.

As of March 2022, however, there had not been a functioning Public Council since 2020, when the term of the previous Councils ended. This was mainly due to the disruptions resulting from the COVID-19 pandemic, but also due to political developments and structural changes at the level of government.

■ 2.3 Decentralization and centralization

The main directions of health policy are determined at the national level. The Ministry of Health is the main national body in charge of governing the health sector.

At the regional level the activities of public providers are coordinated by oblast coordinators appointed by the Minister of Health. The coordinators combine their main job with the role of coordinators (e.g. in six oblasts the coordinators are directors of the oblast family medicine centres, while in Osh the coordinator is the director of Osh city hospital). They conduct the oblast Collegium, so-called medical councils, collect all relevant data on a regular basis and submit them to the Ministry of Health.

Oblast state administrations or the relevant oblast governments also participate in the coordination of activities through coordinating commissions on public health issues, chaired by the head of the oblast state administration, the head of the relevant local government or their deputy. The decisions of coordinating commissions are binding for all oblast health facilities. The commissions are accountable to the corresponding oblast administration and the Ministry of Health. They include representatives of the territorial administration of the MHIF; health care organizations; social protection bodies; financial management bodies; educational authorities; and other territorial structural subdivisions of state bodies whose activities affect the protection of public health. Moreover, the Commissions include employees

of the Office of the Plenipotentiary Representative of the Government in the region, senior officials of the mayor's office and representatives of the local council, as well as senior officials of the local state administration. The Chairman of the Commission is the authorized representative of the Government in the region, the head of the local state administration, and the mayor or their deputies for social issues.

Health care organizations have some autonomy in making managerial decisions. As part of pilot projects, human resource and financial management systems have been introduced in some organizations and the outcomes are currently being evaluated. For managers to make autonomous decisions regarding personnel and financial issues, workload norms and roles of personnel would need to be revised by the Ministry of Health. The legislation provides for the creation of supervisory boards of trustees at public sector health care institutions, but this stipulation is not fully implemented.

■ 2.4 Planning

■ 2.4.1 *Planning responsibilities and processes*

The Government develops and implements general state programmes for economic, social, scientific, technical and cultural development. It is accountable to the Parliament. The Cabinet of Ministers is accountable to the President for the implementation of the domestic and foreign policy of the state, as determined by the President. The Cabinet of Ministers annually, no later than 1 May, submits to the Jogorku Kenesh (Parliament) a report on the execution of the republican budget. The Ministry of Health is responsible for pursuing and implementing health policies, in line with national programmes, strategies and action plans.

In 2013 the National Strategy for Sustainable Development until 2017 was adopted, followed in November 2018 by the National Development Strategy for 2018–2040. The Strategy for 2018–2040 envisages a shift of the health system from the control of diseases and their consequences towards maintaining a healthy lifestyle, based on prevention of diseases, engagement of people in the management of their own health, and building responsible attitudes towards their own health and those of others.

In December 2018 the Government approved the new State Programme on Health Protection and Health System Development for 2019–2030 “Healthy Person – Prosperous Country”, with an Action Plan for 2019–2023, intermediate indicators until 2023 and final outcomes until 2030. The Ministry of Health annually approves the plan for the implementation of the programme.

In December 2021 the National Development Programme until 2026 was approved by Presidential Decree, followed in the same month by the Action Plan of the Cabinet of Ministers for its implementation. On 9 February 2021 the Presidential Decree “On urgent measures to develop the healthcare sector and improve the quality of life and health of the population in the Kyrgyz Republic” was approved. The decree focused on actions towards increasing the vaccination rate against COVID-19 and other issues related to COVID-19 response and preparedness, but also on health systems strengthening, financing and information systems.

In support of the 2019–2030 health reform programme “Healthy Person – Prosperous Country”, the Primary Health Care Quality Improvement Programme was developed. It will focus on primary health care, moving from broad support for the entire health system to a small number of carefully selected areas to ensure a focused approach and provide the best chances of success. The programme is implemented with the support of the German Development Bank (KfW) and the Swiss Agency for Development and Cooperation (SDC).

Ongoing reforms in public finance management aim to improve the efficiency and effectiveness of public spending through the introduction of programme-based budgeting, in line with the strategic priorities outlined in national programmes. The performance indicators of budgeted programmes and measures reflect the key indicators of the State Programme on Health Protection and Health System Development for 2019–2030.

Each year the Ministry of Health develops implementation plans of higher-level strategic documents for the forthcoming year. The MHIF develops annual plans covering the funds that should be allocated under the SGBP and the ADP.

Health care providers plan their activities according to the financial and administrative autonomy they have. The MHIF contracts annually with the health facilities that are financed within the single payer system.

BOX 2.1 Is there sufficient capacity for policy development and implementation?

Kyrgyzstan has capacity to develop national health policies with the involvement of government bodies, international development partners, public institutions, non-governmental organizations and the expert community. However, there is a lack of in-depth knowledge in some technical areas, which impacts the quality of health policies. Furthermore, there is an insufficient level of interaction between governmental and non-governmental entities in such areas as environmental protection, food safety and occupational health and safety strategies.

With the adoption of the State Programme on Health Protection and Health System Development for 2019–2030, the functions and tasks of the Public Health Coordinating Council under the Government and of the coordinating commissions on public health issues in the regions and districts are being revised to strengthen the role of local authorities and local self-government regarding coordination and control of intersectoral cooperation in the implementation of health programmes. However, this potential is not fully realized and oblast coordinators appointed by the Minister of Health play a central role in coordinating the activities of public providers at the regional level.

■ 2.4.2 *Monitoring and evaluation*

Monitoring and evaluation of programme implementation are coordinated by the Ministry of Health. As part of the monitoring and evaluation of the state programmes, data collection and analysis are performed according to a matrix of indicators at the national and local levels.

A first group of performance indicators relates to key population health trends. They are:

- indicators of maternal, infant and child mortality; indicators of premature mortality from noncommunicable diseases (cardiovascular disease, cancer, diabetes, chronic obstructive pulmonary disease);
- morbidity and disability indicators, with a focus on socially significant diseases;
- indicators of disability from preventable diseases; and
- mortality and disability rates as a result of traffic injuries.

A second group of performance indicators is linked to specific measures of health protection, based on the Action Plan and the matrix of indicators for programme implementation. They are:

- equity and accessibility of health services;
- level of protection of the population from financial burden;
- efficiency and performance of the health service delivery system;
- responsiveness and transparency of the health system; and
- provision of all population groups with information on health parameters and measures for health protection, promotion and strengthening.

Indirect indicators in this group include:

- staffing rate of health care facilities with medical personnel and their level of qualification;
- introduction of information technologies in line with planned schedules;
- activities to reduce drug use; and
- activities for the prevention of noncommunicable diseases.

The Ministry of Health, supported by development partners, conducts annual reviews of overall progress towards the targets set out in “Healthy Person – Prosperous Country” 2019–2030. The Joint Annual Review is an important institutional coordination mechanism that enables the Ministry of Health to work in close collaboration with development partners and other stakeholders to jointly assess annual progress, ensure that all financial support and project activities are aligned with national health priorities and realign financial and project support as required. The Ministry of Health submits to the office of the Cabinet of Ministers the biannual and annual reports and holds an annual meeting of the Collegium at the end of each year to present main achievements and discuss challenges. The reporting is based on the indicators outlined above, but can also be focused, on special request, on different emerging issues. Methodological guidelines for monitoring and evaluation of the programme were approved by the Ministry of Health.

Since the Joint Annual Review in 2020 was not held due to the COVID-19 pandemic, the Joint Annual Review 2021 covered two years of implementation, namely 2019 and 2020. The 2021 Joint Annual Review reviewed

progress in programme implementation, but also monitoring and evaluation of the indicators of the Programme-for-Results (PfR), and discussed issues related to the response to COVID-19.

A third group of indicators relates to the effectiveness of the use of programme budgets by the Ministry of Health. In its activities the Cabinet of Ministers is accountable to the President for the implementation of the domestic and foreign policy of the state, as determined by the President. The Cabinet of Ministers submits annually (no later than 1 May) to the Jogorku Kenesh a report on the execution of the republican budget. The Jogorku Kenesh has the right to recognize the report of the Cabinet of Ministers on the execution of the republican budget as unsatisfactory, based on the results of its hearing, and further actions can be taken by the President.

■ 2.5 Intersectorality

A number of intersectoral coordination mechanisms have been set up in the country. The Public Health Coordinating Council was established under the Government in 2014 (amended in 2017 and 2019). It is a platform chaired by the Vice Prime Minister to coordinate the measures aimed at protecting and strengthening the health of the population, in compliance with the International Health Regulations (2005) by state and non-state bodies. The Public Health Coordinating Council includes the heads of ministries, state committees, administrative departments, local governments, public and non-profit organizations, and persons living or suffering from especially dangerous diseases or persons representing them, as well as representatives of the Public Council of the Ministry of Health. The composition of the Coordinating Council is approved by the Prime Minister. If necessary, deputies of the Jogorku Kenesh, heads of executive bodies that are not members of the Coordinating Council, and representatives of international, donor and other organizations may be invited to meetings of the Coordinating Council by decision of its chair. As of March 2022, however, there had not been a functioning Public Council since 2020, when the term of the previous Councils ended.

During the COVID-19 pandemic the Republican “Shtab” (headquarters) became the single intersectoral coordination mechanism in March 2020. The Shtab is chaired by the Prime Minister and is composed of all

the Ministers and heads of other relevant state institutions, as well as city mayors and oblast governors. An intersectoral interagency contingency plan for COVID-19 was endorsed by the Vice Prime Minister on 20 March 2020. The overall objective of this preparedness and response plan was to support the Government and the Ministry of Health to lead and ensure an effective, timely and coordinated response to mitigate the impact of the COVID-19 outbreak in Kyrgyzstan. In addition, an operational Task Force was set up at the Crisis Management Centre at the Ministry of Emergency Situations.

■ 2.6 Information systems

Medical information systems in Kyrgyzstan exist at the clinical, institutional, local, regional and republican level. The aspiration is to establish a single health information system that integrates information from all these levels.

The Government aims to expedite the digitalization of the health system, although a digitalization roadmap or strategy for the health sector is still lacking. To institutionalize the digital transformation of the health sector, the E-Health Centre (the Republican Centre on Electronic Health) was established, replacing the Republican Medical Information Centre. Its objectives are:

- assisting the Ministry of Health in taking measures for the efficient implementation of e-health and information and communication technologies in health care organizations;
- coordinating activities of medical statistics units in health care organizations and providing medical statistical support to health authorities;
- contributing to statistical reporting; and analysing information on population health and health care utilization, and presenting results to users.

The transition to modern information technologies takes place in pilot modes, and electronic systems are not yet implemented in all health care institutions. Among the reasons for the slow transition to electronic systems are low salaries for IT specialists, insufficient provision of computer equipment, insufficient availability and reliability of broadband access to

telecommunication networks, and insufficient allocations for the procurement of software products.

Data collection at the regional level is carried out by the regional and city Medical Information Centres, and at the district level by Medical Information Departments located at FMCs. Information is also collected by the sanitary-epidemiological system, the MHIF and republican (national level) centres (AIDS Centre, National Centre for Maternal and Child Health, Republican Centre of Narcology, etc.). All submit information to the E-Health Centre, which publishes the annual statistical bulletin “Population Health in Kyrgyzstan”.

Data on mortality, morbidity and fertility are collected by the National Statistical Committee through its regional structures. These data may differ slightly from those of the E-Health Centre, since the demographic indicators on the size of the population are developed separately by the two organizations.

The Ministry of Health has started to establish a National Database on Medicines and Medical Devices, which aims to ensure the electronic tracking of the flows of medicines and medical devices from importers and local producers all the way to the consumer. This database is an integral part of the anticipated single health information system.

■ 2.7 Regulation

■ 2.7.1 *Regulation and governance of third-party payers*

The key third-party payer in the Kyrgyz health system is the MHIF, which is the single payer for publicly covered health services. It was founded in 1996 and since 2018 its annual budget, which previously was part of the republican budget and the budget of the Social Fund, has been set out in a separate law.

The MHIF was an independent body accountable directly to the Government since its inception until 2021. The Steering Council for Health Care and Mandatory Health Insurance was its governing body, which coordinated activities of the Ministry of Health and the MHIF. In 2021 the MHIF was placed under the Ministry of Health, to which it is now accountable. Its budget, nevertheless, remains separate from that of the Ministry of Health.

■ 2.7.2 *Regulation and governance of provision*

The Ministry of Health administers directly the republican health facilities. It also appoints the heads of all health facilities, except the heads of national and research institutions, which are appointed by the Chair of the Cabinet of Ministers on the proposal of the Minister of Health. The Ministry of Health is responsible for the development of regulations and guidelines, which are compulsory for all health care providers (irrespective of ownership), as well as for the licensing of health workers and the development and implementation of quality assurance procedures.

Health care organizations in the public sector independently procure equipment, services, pharmaceuticals and repair services from their own budget. When there is a need for major repairs, construction or the procurement of expensive equipment and drugs, they submit an application to the Ministry of Health, which conducts centralized procurements from the republican budget.

■ 2.7.3 *Regulation of services and goods*

BENEFITS PACKAGE

According to the 1999 Law “On health insurance of citizens of the Kyrgyz Republic”, most recently amended in August 2020, health insurance is provided in the following forms:

- basic state health insurance;
- mandatory health insurance; and
- voluntary health insurance.

Basic state health insurance is a form of social protection that aims to ensure the rights of the population in the health sector and is paid by republican and local budgets, based on minimum social standards defined by legislation.

Mandatory health insurance consists of “basic” and “additional” mandatory health insurance programmes. The “basic” mandatory health insurance programme covers medical and preventive services and pharmaceuticals that are formally free of charge to users and paid through the single payer,

the MHIF. The “additional” mandatory health insurance programme covers services that require co-payments by users. The mandatory health insurance programme is developed by the MHIF and approved by the Steering Council for Health Care and Mandatory Health Insurance.

In practice, the entitlement of the population to publicly covered health services is set out in the SGBP. The SGBP includes services that are free to all patients (regardless of insurance status), as well as services that require co-payments (further details are provided in Section 3.3.1). It draws on funds from the state budget (raised via taxation) and from mandatory health insurance (see Section 3.2).

Voluntary health insurance so far hardly exists in Kyrgyzstan (see Section 3.5).

HEALTH TECHNOLOGY ASSESSMENT

So far no health technology assessment policy has been adopted and health technology assessment is not systematically used in decision-making on what to include in the benefits package. The Centre for the Development of Health Care and Health Technology has been established under the Ministry of Health in 2019. It has a unit for Health Technology Assessment and Evidence-Based Medicine. The unit is involved in the development and revision of treatment guidelines and protocols and other policy documents, but it is still at a very early stage of development and requires capacity building.

■ 2.7.4 *Regulation and governance of pharmaceuticals*

The Ministry of Health is responsible for drawing up and implementing policies in the area of pharmaceuticals, while the Department of Medicines and Medical Devices under the Ministry of Health is the national regulatory authority responsible for assuring the quality, safety and efficacy of pharmaceuticals. The Department of Medicines and Medical Devices is also responsible for overseeing narcotic drugs, psychotropic substances and precursors, in line with the Presidential Decree No. 161 “On Measures for Reforming the Law Enforcement System of Kyrgyzstan” of 18 July 2016 and the corresponding Decision of the Defence Council.

In order to improve the provision to the population of essential medicines, the ADP of the SGBP for socially significant diseases was implemented in 2001. Patients are provided with pharmaceuticals at the hospital level through the Essential Medicines List (EML), and at the outpatient level through the medicines included in the benefits package and the ADP. However, the number of medicines covered by these programmes is limited and out-of-pocket payments are high (Jakab, Akkazieva & Habicht, 2018). The health insurance programmes enable the insured population to purchase pharmaceuticals through preferential prescriptions, in which part of the costs of pharmaceuticals is covered by the MHIF.

To address the issue of high out-of-pocket payments for medicines, the Ministry of Health has been piloting a new government decree on the introduction of price controls for a selected list of medicines, the ADP, plus a list of medicines used for the management of COVID-19.

The Department of Medicines and Medical Devices has been working on capacity strengthening and the revision of the legal framework in order to align the country with the unified approach to the regulation of medicines in the EAEU. The harmonization process of EAEU member countries including Kyrgyzstan relates inter alia to the following areas:

- general requirements for safety and effectiveness of medicines and medical devices;
- rules for registration of medical devices and rules for the examination of their safety, quality and efficacy;
- rules for registration and examination of medicines;
- rules for classifying medical devices;
- requirements for labelling medicines and rules for keeping medicine lists (nomenclatures); and
- rules of good practice in producing and distributing medicines (there are about 40 documents on medicines and medical devices).

The harmonization process also requires a transitional period for all regulatory procedures for medical products already present on the Kyrgyz market. The medicines registration process can be divided into three main stages (Figure 2.4):

1. the past (before 1 July 2021) in which national registration procedures were used;
2. the present (between 1 July 2021 and 31 December 2025), which is a transition period from using national to using EAEU registration procedures; and
3. the future (from 1 January 2026 onwards) in which only EAEU registration procedures will be used.

In 2017 the Department of Medicines and Medical Devices expressed their interest to participate in WHO's global benchmarking process of national regulatory authorities for medical products, using the Global Benchmarking Tool. Since then the Department has undertaken a self-benchmarking using this tool and implemented an institutional development plan.

FIGURE 2.4 Registration procedures for medicines and medical products



Source: Authors' compilation

■ 2.7.5 Regulation of medical devices and aids

In 2017 a new Law “On Medical Devices” was adopted. This development allowed capacity strengthening of the national regulatory authority, the Department of Medicines and Medical Devices. Medical devices procured through international development agencies are regulated in accordance with the Law “On International Emergency Assistance and the Regulation on the Procedures for Receiving and Distributing Humanitarian Aid”. To improve procurement of medical equipment, spare parts and devices, as well as the management of repairs, a national database of medical equipment

and supplies has been created which is administered by the Department of Medicines and Medical Devices. National regulations on medical devices have been revoked in 2021 and since 1 January 2022 only EAEU regulations are valid, but at the time of writing (March 2022) there were discussions in the EAEU Commission to prolong the transition period.

■ 2.8 Person-centred care

■ 2.8.1 *Patient information*

The 2006 Law “On Access to Information Administered by State Bodies and Local Self-Governments” entitles individuals and legal entities to gain access to information on them held by state bodies and local self-government bodies. The response to a written request for information has to be provided within two weeks, or, in certain circumstances, within four weeks.

Information about patient rights in the health sector is accessible on the websites of the Ministry of Health and the MHIF. Moreover, the MHIF has carried out public awareness campaigns, including the dissemination of information leaflets, the publication of articles in newspapers and broadcasts on national television and radio.

■ 2.8.2 *Patient choice*

Patients have a choice of physician at both outpatient and inpatient health facilities. However, in order to be eligible for publicly paid primary care services, patients have to be registered in the respective catchment area of their primary care provider.

■ 2.8.3 *Patient rights*

The rights of patients are regulated by the 2005 Law “On protection of the health of citizens”, Article 61 of which entitles citizens to:

- environmental protection and favourable conditions for work, life, rest, education and training, production and sale of safe foods and drugs;
- equal opportunities in accessing health services, regardless of gender, race, nationality, language, social origin, official position, place of residence, religious beliefs and membership of public associations;
- access to health care throughout the country;
- free choice of family doctor and general practitioner;
- health care under the SGBP; and
- information on preventive medicine, hygiene and healthy lifestyles.

Foreign citizens, non-residents, persons permanently residing in Kyrgyzstan and refugees are guaranteed the same rights to health care as Kyrgyz citizens if they are insured or hold official refugee status. Otherwise, they are only entitled to free emergency care and have to pay for other services according to established price lists.

The 2005 Law “On protection of the health of citizens” further regulates the formal rights of certain population groups:

- every woman during pregnancy, as well as during and after child-birth, is entitled to necessary health care covered under the SGBP;
- older people who have reached the official pension age are entitled to health care in state and municipal health care organizations and institutions under the social protection system, and to pharmaceuticals, including preferential ones under the SGBP;
- people with disabilities, including children with disabilities and people with disabilities from childhood, have the right to health care, rehabilitation, provision of drugs, prostheses, prosthetic and orthopaedic products, and vehicles on preferential terms; and
- people with disabilities who are not able to work are entitled to free health care in state health care organizations within the framework of the SGBP, to home care, and, in severe cases, to care in institutions under the social protection system.

The entitlement of patients to appeal to state bodies and local governments is set out in the 2007 Law “On Procedures for the Management of Citizen Appeals”. Patients can appeal to state authorities, local self-government

bodies and their officials in written, electronic or verbal form, and these are obliged to provide a reasonable answer within the statutory timeline of 14 working days. In special circumstances this time limit may be extended to up to 30 calendar days.

Public consultation offices and telephone hotlines were established at the Ministry of Health and the MHIF. The Press Service of the Ministry of Health monitors the websites of information agencies and social media on a daily basis in order to ensure a timely response and presentation of information.

■ **2.8.4** *Patients and cross-border health care*

Emergency care for citizens of other countries is provided free of charge. No information is available on the number of Kyrgyz citizens who access health services abroad.

Financing

■ Chapter summary

- Health expenditure amounted to 4.5% of GDP in 2019, and public expenditure on health was only 2.3% of GDP.
- Private spending, almost entirely in the form of out-of-pocket expenditure and including informal payments, accounted for 46.3% of health expenditure in 2019, an increase from the levels seen in the 2000s.
- A mandatory health insurance system was established in 1996, with the Mandatory Health Insurance Fund (MHIF) under the Ministry of Health acting as single public payer for almost all hospitals and providers of primary care.
- The benefits package of publicly covered services is defined in the SGBP.
- Salaries of health workers vary across the country but remain low and do not reach the country's average salary.
- Voluntary health insurance is virtually non-existent.

3.1 Health expenditure

In the early years of independence Kyrgyzstan faced a decline in health expenditure, deteriorating access to health services and an uneven allocation of health resources, with a large share going to the hospital sector. The economy has recovered since then and a number of reforms have been initiated.

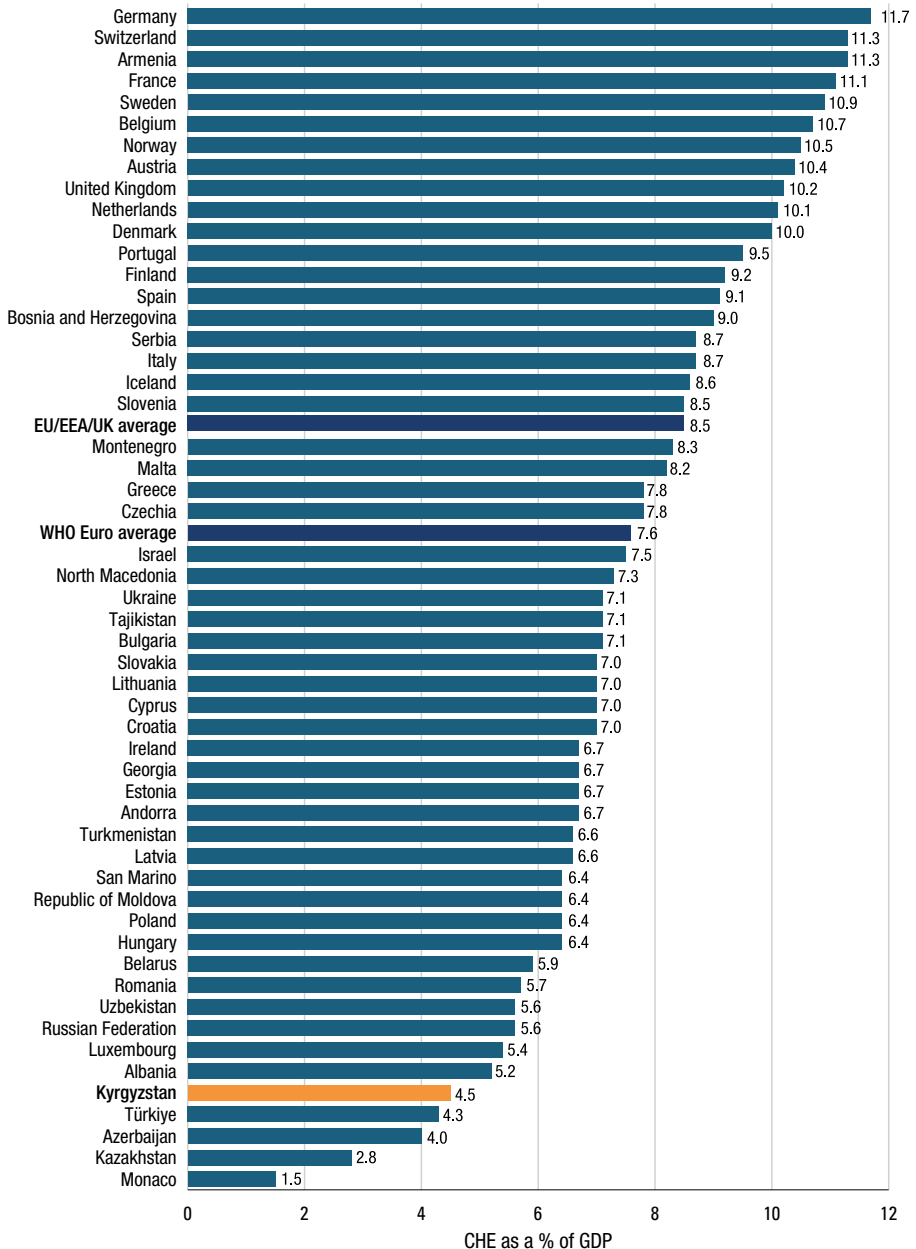
Current health expenditure stood at 4.5% of GDP in 2019, a slight increase from 4.4% in 2000, but far below the share in 2005–2015, when there was a major injection of public funds into the health system (Table 3.1). The share in 2019 was higher than in Kazakhstan but lower than in Tajikistan, Uzbekistan and the Russian Federation (Figure 3.1, Figure 3.2).

TABLE 3.1 Trends in health expenditure in Kyrgyzstan, 2000–2019 (selected years)

	2000	2005	2010	2015	2019
Current health expenditure per capita in US\$ PPP	72.5	160.0	190.9	246.8	260.3
Current health expenditure as % of GDP	4.4	7.5	7.0	7.1	4.5
Domestic general government health expenditure as % of current health expenditure	48.4	51.0	49.1	37.9	51.4
Domestic general government health expenditure per capita in PPP Int\$	39.6	92.1	105.9	114.2	133.9
Domestic private health expenditure as % of current health expenditure	51.6	42.6	43.1	54.6	46.3
Domestic general government health expenditure as % of general government expenditure	7.1	13.1	9.2	7.1	7.1
Domestic general government health expenditure as % of GDP	2.1	3.8	3.4	2.7	2.3
Out-of-pocket spending as % of current health expenditure	51.6	42.6	43.1	54.5	46.2
Out-of-pocket spending as % of private expenditure on health	100	100	100	100	99.8
Voluntary health insurance as % of current health expenditure	0.0	0.0	0.0	0.0	0.1

Source: WHO, 2022b

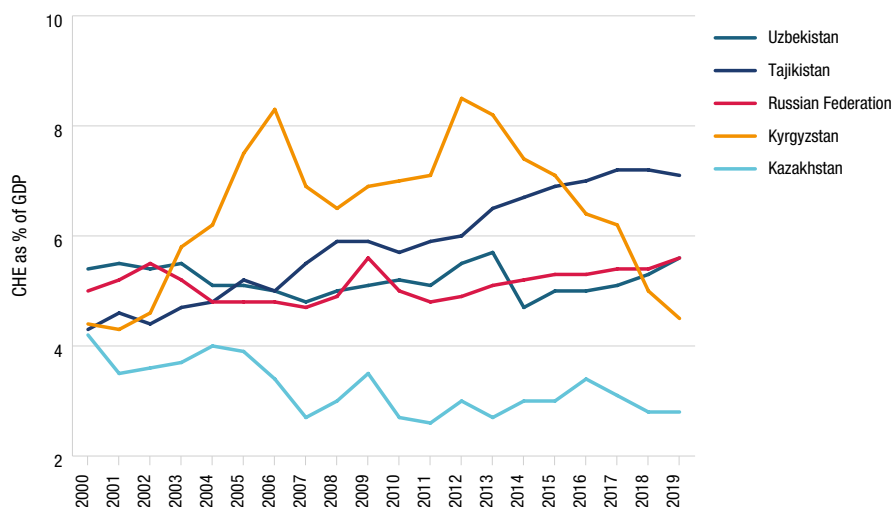
FIGURE 3.1 Current health expenditure as a share (%) of GDP in the WHO European Region, 2019



Source: WHO, 2022b

Note: data for Albania are from 2018

FIGURE 3.2 Trends in current health expenditure as a share (%) of GDP in Kyrgyzstan and selected countries, 2000–2019

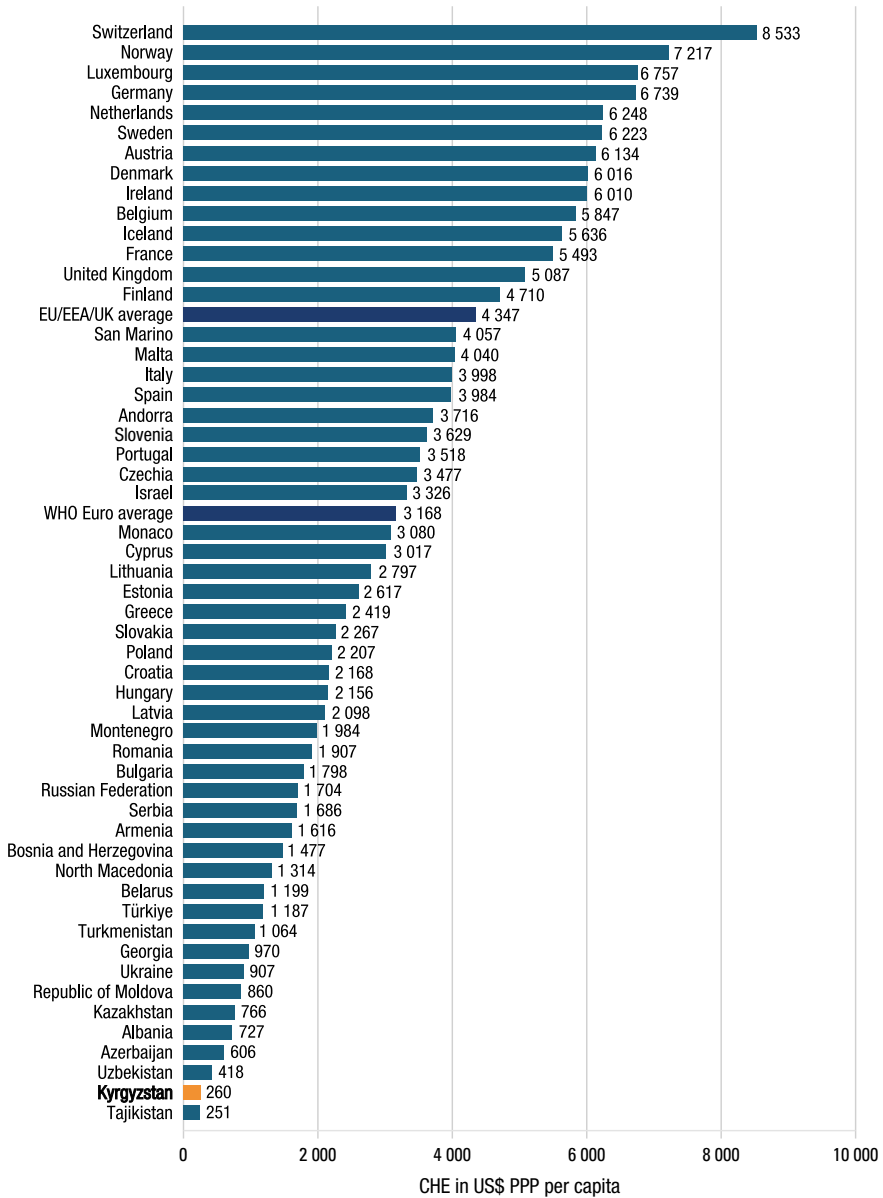


Source: WHO, 2022b

In contrast, health expenditure per capita in Kyrgyzstan, despite increasing almost four-fold since 2000 (Table 3.1), is one of the lowest in the WHO European Region, due to the country's small GDP per capita. In 2019 health expenditure per capita amounted to US\$ 260 PPP (\approx US\$ 62), exceeding only Tajikistan (Figure 3.3).

Public sources of health financing include the funds from the state budget and mandatory health insurance. Their share in overall health expenditure has fluctuated but is still comparatively small. Some of the increases in recent years were due to the introduction of the SWAp mechanism for implementing the health reform programmes “Manas Taalimi” and “Den Sooluk”. One of the prerequisites for this mechanism was the gradual increase in the share of state financing for health relative to general government expenditure. Several evaluations of the “Manas” and “Manas Taalimi” programmes noted successes in the area of health financing, which are seen in a slightly higher share of public financing for health in 2005 (Table 3.1). After decreases in the share of public spending in the intervening years, it increased again to 51.4% in 2019. Compared to other Central Asian countries, the share of public sector health expenditure was higher in Kyrgyzstan than in Tajikistan, Turkmenistan and Uzbekistan but lower than in Kazakhstan (Figure 3.4).

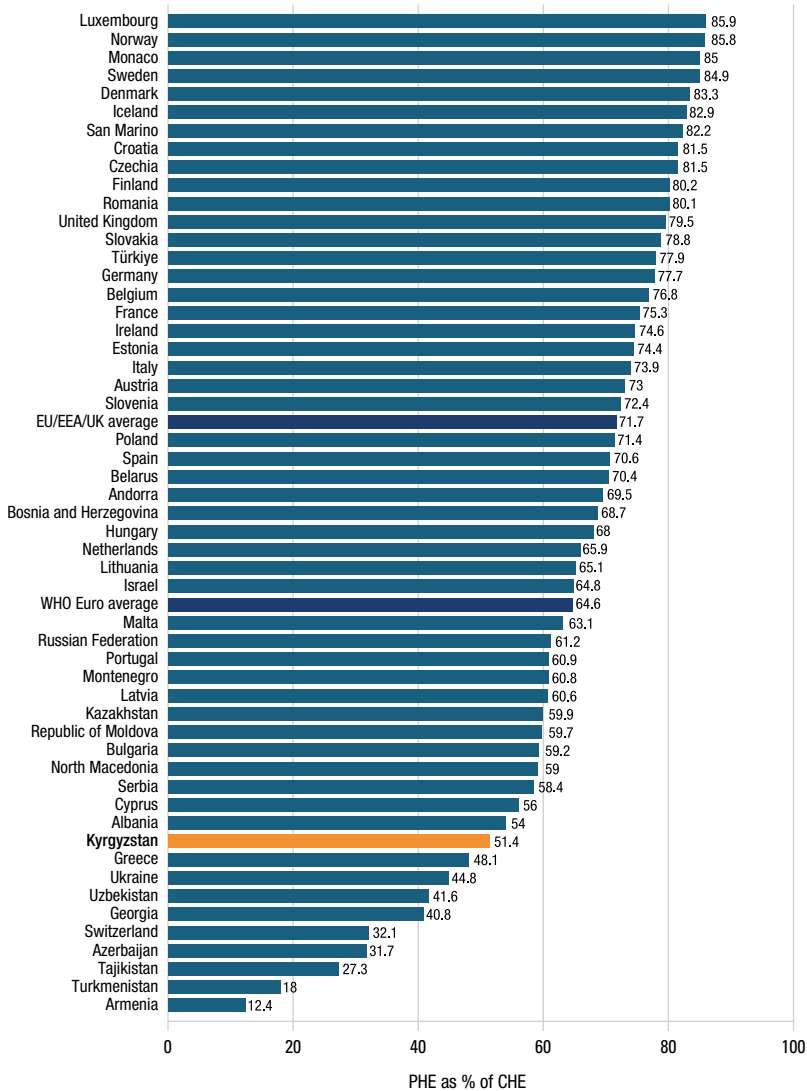
FIGURE 3.3 Current health expenditure in US\$ PPP per capita in the WHO European Region, 2019



Source: WHO, 2022b

Note: data for Albania are from 2018

FIGURE 3.4 Public sector health expenditure as a share (%) of current health expenditure in the WHO European Region, 2019



Source: WHO, 2022b

Note: data for Albania are from 2018

As already mentioned, the changes in health expenditure in Kyrgyzstan were heavily influenced by the implementation of health reforms and SWAp. One of the key conditions of external agencies involved in health financing within the SWAp was an annual increase in the state budget for health, as a percentage of general government spending, and execution of the public budget at a level of at least 95%.

Consequently, public sector current expenditure on health as a share of total government expenditure increased from 7.1% in 2000 to 12.8% in 2005, although it declined again to 7.1% in 2019 (Table 3.1). Compared to other Central Asian countries, this share is lower than in Kazakhstan, Turkmenistan and Uzbekistan but higher than in Tajikistan (Figure 3.5).

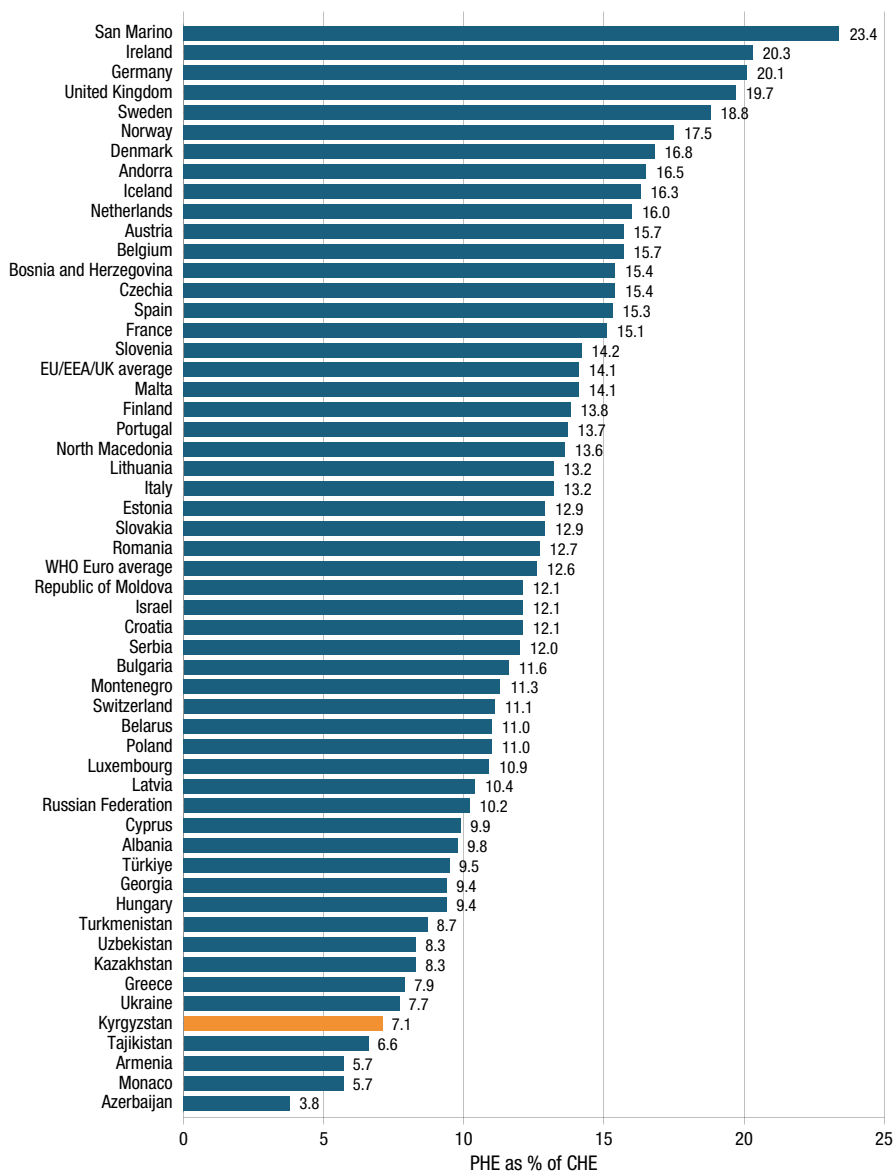
According to National Health Accounts data (Table 3.2), private out-of-pocket payments, mostly for medical devices and pharmaceuticals, accounted for 46.3% of total health spending in 2019. The share of government expenditure (including mandatory health insurance funds) on medical devices and pharmaceuticals was very small, accounting for 1.9% of overall health expenditure. Most public funds were spent on inpatient and outpatient care, although households paid out-of-pocket a large share of expenditure for inpatient and outpatient care.

TABLE 3.2 Expenditure on health (in %) by function and type of financing, 2019

	PUBLIC	PRIVATE	EXTERNAL	TOTAL
Total	51.4	46.3	2.3	100.0
Curative care	41.2	17.0	0.7	58.8
Inpatient curative care	26.6	4.9	0.4	31.9
Day curative care	0.1	0.0	0.0	0.1
Outpatient curative care	13.9	12.0	0.2	26.1
Home-based curative care	0.4	0.0	0.0	0.5
Other curative care	0.2	0.0	0.0	0.2
Rehabilitative care	0.2	0.0	0.0	0.2
Long-term care (health)	0.8	0.0	0.0	0.8
Ancillary services (non-specified by function)	0.1	1.0	0.0	1.2
Medical goods (non-specified by function)	1.9	28.2	0.0	30.1
Preventive care	1.9	0.0	1.5	3.4
Governance, health system and financing administration	5.3	0.0	0.1	5.5
Domestic General Government Expenditure on Other health care services	0.0	0.0	0.0	0.1

Source: WHO, 2022b

FIGURE 3.5 Public sector current expenditure on health as a share (%) of total government expenditure in the WHO European Region, 2019



Source: WHO, 2022b

Note: data for Albania are from 2018

■ 3.2 Sources of revenue and financial flows

The principal sources of revenue are private patient payments (mostly out-of-pocket), mandatory health insurance funds, state budget funds and external funds. The Mandatory Health Insurance Fund (MHIF) was established in 1997 and has become the single payer for most publicly funded health services, despite the small volume of funds collected under the mandatory health insurance system.

In the early years of independence there used to be a fragmented financing system, similar to that of other Central Asian countries, which included district, regional, republican (national) and rural levels, resulting in duplication, inefficiencies and inequities. Beginning in 2006 the number of financing tiers was reduced and in 2015 a single national pool at the republican level was established (Figure 3.6). The MHIF pools the state budget funds, allocated by the Ministry of Finance, the funds of the mandatory health insurance system, formal patient co-payments and other funds (e.g. from external donors), and allocates them to providers of hospital and outpatient (ambulatory) care.

Figure 3.6 illustrates the main financial flows in the health system. The tax authorities collect all taxes that go to the republican budget and local budgets. These funds are then channelled through the MHIF system for the payment of health care providers. The mandatory health insurance funds are collected by the Social Fund – a body that collects financial contributions from the population for pensions and health insurance – and then transferred to the MHIF. Currently collection of all funds by just the tax authorities is being piloted in two districts.

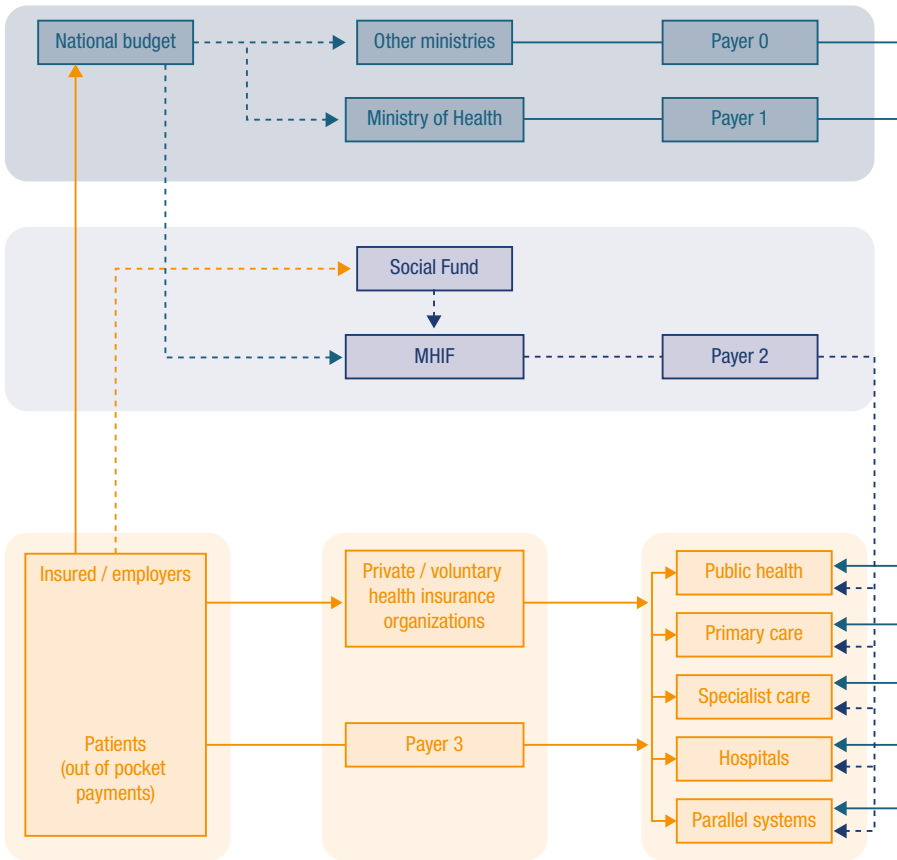
The Ministry of Health funds that go directly to health care providers (rather than those being channelled through the MHIF) mostly cover public health services, some management structures and other support programmes. Parallel health systems, such as those run by the army or police, continue to be funded separately (Figure 3.6).

Since 2017 the Law “On the Budget of the MHIF” needs to be approved annually by the national parliament. This has become the basis for setting up an automated treasury system AIS “Treasury: MHIF Module”.

According to the Law “On the Republican Budget for 2022” and the Law “On the MHIF Budget for 2022”, approved government expenditure for health amounted to 9.7% of the anticipated overall state budget. Most

of these funds (71.9%) were anticipated to be allocated through the MHIF system and only 28.1% were anticipated to be allocated through the Ministry of Health. According to WHO, in 2019 the share of health expenditure comprised 7.1% of general government spending (Figure 3.5).

FIGURE 3.6 Financial flows



Source: Authors' compilation

■ 3.3 Overview of the statutory financing system

■ 3.3.1 Coverage

As in many other countries, Kyrgyzstan's constitution is the main document guaranteeing the right to health care coverage. Article 43 of the 2021 constitution (previously Article 47 of the 2010 constitution) guarantees everyone the right to health protection. The article states that free health services, as well as health services on preferential terms, shall be ensured within the state guarantees, as set out in legislation. This was a change from the country's first constitution of 1993 which provided for the right to free use of state and municipal health institutions, a guarantee that could not be upheld in practice.

The Law "On Health Protection" establishes the SGBP, including the scope of, types and conditions for health services provided free of charge or requiring co-payments. Health services not included in the SGBP have to be paid in full by patients out-of-pocket.

Primary care, outpatient specialist care provided at primary care facilities (e.g. FGPs, FMCs) and basic laboratory tests are free for the population enrolled with providers of primary care.

Outpatient specialist care provided by hospital outpatient departments and inpatient hospital services are free to patients entitled to benefits by social status or clinical indications. There are 30 categories of patients according to social status and 16 categories based on clinical indications (Table 3.3). Patients covered by mandatory health insurance are entitled to a discount of 50% of the health service cost, while all other patients have to pay out-of-pocket according to the price list for medical services set centrally by the Ministry of Health.

Population coverage by mandatory health insurance was estimated at 69% of the population in 2019 (Box 3.1). The patient groups shown in Table 3.3 are covered by the MHIF without having to make mandatory health insurance payments. Unemployed citizens are covered if they are officially registered with the employment services. Foreign nationals officially working in Kyrgyzstan pay insurance premiums, or can purchase a mandatory health insurance policy from the MHIF. The United Nations High Commissioner for Refugees (UNHCR) purchases MHIF policies for foreign refugees. Free emergency care services are provided to persons without documents, including foreign nationals, in emergency situations or for acute conditions.

TABLE 3.3 Categories of patients entitled to free health services at the outpatient level and in hospitals

BASED ON SOCIAL STATUS	BASED ON CLINICAL INDICATIONS
<ol style="list-style-type: none"> 1. Participants of the Great Patriotic War. 2. Persons who became disabled as a result of participating in the Great Patriotic War and the 1999 Batken events. 3. Citizens affected by operational activities in the fight against international terrorism. 4. Citizens awarded with orders and medals of the USSR during the Great Patriotic War. 5. Former concentration camp prisoners. 6. Survivors of the Siege of Leningrad. 7. Labour veterans older than 70 years. 8. Persons awarded with the Order "Baatyr Ene" and the Mother Heroine Order. 9. Citizens who were illegally and forcibly mobilized to labour camps during the Great Patriotic War and subsequently rehabilitated. 10. Heroes of the Soviet Union and persons awarded with the Order of Glory, third grade. 11. Heroes of Socialist Labour. 12. Citizens honoured with the highest merit of Kyrgyzstan. 13. Participants in hostilities on the territories of other states. 14. Citizens affected by the Chernobyl nuclear power plant accident. 15. Persons with disabilities who have been wounded and injured when performing military service. 16. Citizens affected by the events of 17 March 2002 in the Aksy district of Jalal-Abad province, 6 April 2010 in Talas province, 7 April 2010 in the cities of Bishkek and Naryn, 13, 14 and 19 May 2010 in Jalal-Abad province and the June 2010 events in Osh city, Osh and Jalal-Abad provinces. 17. Persons with disabilities of disability groups I and II, due to work-related injuries, occupational or general illness. 18. Persons with sight and hearing impairments. 19. Persons with disabilities since childhood. 20. Children with disabilities under 18 years. 21. Children up to 6 years of age. 22. Orphans living in state orphanages, family orphanages (foster families), residential homes for orphans and children deprived of parental care. 23. Citizens living in residential homes for older people and people with disabilities. 24. Citizens subject to call-up for active military service sent by military medical boards. 25. Service personnel. 26. Persons living with HIV/AIDS. 27. Children from low-income families under 16 years. 28. Retired people over 70 years. 29. Persons under pre-trial investigation and persons serving their sentence. 30. Leavers of orphanages and boarding houses without parental care, aged under 23 years. 	<ol style="list-style-type: none"> 1. Women registered for pregnancy. 2. Women with pregnancy pathologies under hospital care (for the main diagnosis). 3. Women admitted for pregnancy termination by social and medical indications. 4. Women admitted for childbirth. 5. Women with postnatal complications within 10 weeks after childbirth. 6. TB patients. 7. Bronchial asthma patients. 8. Cancer patients in the terminal stage. 9. Patients with mental diseases (paranoia, chronic delirium, affective disorders). 10. Epileptic patients. 11. Diabetes mellitus patients. 12. Diabetes insipidus patients. 13. Contact persons and patients with diseases caused by high-threat infections requiring quarantine (typhoid fever, paratyphoid, anthrax, plague). 14. Rabies patients and persons who had contact with the patient and may have been infected with rabies. 15. Patients with meningococcal meningitis. 16. Haemophilia patients.

Persons not included in the categories listed in Table 3.3 have to make co-payments for hospital services (Table 3.4). The minimum level of co-payment is paid by pensioners under the age of 70, persons awarded with the medal “Veteran of Labour” and persons receiving social benefits. The average level of co-payment is paid by citizens insured by health insurance and the maximum level is paid by uninsured persons.

According to MHIF data for 2019, 65% of hospitalized patients were exempted from co-payments and 35% made co-payments, with 10% paying the maximum amount, 19% paying the average amount and 6% paying the minimum amount. Among all hospitalized patients in 2019, 76% were insured under mandatory health insurance. However, co-payments and mandatory health insurance do not cover the costs of expensive diagnosis or treatment, which have to be met by private payments.

TABLE 3.4 Co-payments for patients per episode of hospitalization (in KGS and US\$ at the average rate of KGS 84.8/US\$ 1 as of 1 February 2021)

TYPES OF CO-PAYMENT		SECONDARY LEVEL HOSPITALS	TERTIARY LEVEL HOSPITALS
Therapeutic co-payments	Minimum level	KGS 330 (≈US\$ 3.8)	KGS 330 (≈US\$ 3.8)
	Average level	KGS 840 (≈US\$ 9.9)	KGS 1 160 (≈US\$ 13.6)
	Maximum level	KGS 2 650 (≈US\$ 31.2)	KGS 2 980 (≈US\$ 35.1)
Surgical co-payments	Minimum level	KGS 430 (≈US\$ 5.0)	KGS 430 (≈US\$ 5.0)
	Average level	KGS 1 090 (≈US\$ 12.8)	KGS 1 510 (≈US\$ 17.8)
	Maximum level	KGS 3 440 (≈US\$ 40.5)	KGS 3 870 (≈US\$ 45.6)

TYPES OF CO-PAYMENT		SPECIALIZED CANCER CARE (INPATIENT TREATMENT)	SPECIALIZED CANCER CARE (DAY OUTPATIENT TREATMENT)
Therapeutic co-payments	Minimum level	KGS 1 093 (≈US\$ 12.8)	KGS 546 (≈US\$ 6.4)
	Average level	KGS 4 198 (≈US\$ 49.5)	KGS 2 099 (≈US\$ 24.7)
	Maximum level	KGS 6 613 (≈US\$ 77.9)	KGS 3 306 (≈US\$ 38.9)
Surgical co-payments	Minimum level	KGS 3 318 (≈US\$ 39.1)	KGS 1 596 (≈US\$ 18.8)
	Average level	KGS 12 220 (≈US\$ 144.1)	KGS 3 055 (≈US\$ 36.0)
	Maximum level	KGS 14 293 (≈US\$ 168.5)	KGS 4 810 (≈US\$ 56.7)

Note: Minimum level: pensioners under 70 years, persons awarded with the “Veteran of Labour” medal, recipients of social benefits; Average level: citizens covered by mandatory health insurance; Maximum level: those not listed in other groups (often: uninsured persons)

At the outpatient level patients with diabetes, diabetes insipidus, haemophilia and TB receive essential medicines for these conditions free of charge. The government allocates targeted financial resources for the purchase of these drugs. The specialized tertiary health care organizations carry out the purchases and the medicines are then delivered to health care organizations as needed.

In addition, there is a programme of preferential drug provision, under the SGBP, for patients with paranoia, schizophrenia, affective disorders, epilepsy, bronchial asthma and cancer in the terminal stage. The government also allocates funds for this programme. The MHIF manages this programme, and enters into contracts with retail pharmacies to dispense the medicines to patients. Unlike the additional mandatory health insurance programme, the source of funding for it is the republican budget. For the additional mandatory health insurance programme, the source of funding is the mandatory health insurance.

BOX 3.1 What are the key gaps in coverage?

In 2019 only 69% of the population was covered by mandatory health insurance, a decline from 76% in 2016. One of the reasons for this decline is the introduction of digital technologies for registration and accounting, making it possible to delete duplicate records and increase the reliability of data. Another reason is the migration of working-age people to other countries. Furthermore, enrolment in the mandatory health insurance scheme requires at least a temporary residence permit and basic identification documents, a potential barrier to access for internal migrants who might lack them. These migrants make up an estimated 18% of the population and do not always have the necessary paperwork to enrol.

The share of private expenditure as a percentage of overall health spending has risen again in recent years, reaching 46.3% in 2019, illustrating the limits of public coverage. Much of this out-of-pocket expenditure is for pharmaceuticals and medical products (see Section 3.4). One of the features of the benefits package is that it targets certain categories of the population. For example, all persons over 70 years or participants in various events are exempt from co-payments.

According to the National Statistics Committee, the informal economy amounted to 23.6% of GDP in 2017, and people involved in this sector do not make official insurance payments. This affects their health insurance coverage and reduces formal incomes for the health sector. About three times more people are estimated to work in the informal sector in rural areas (1.2 million people) compared to urban areas (408 000 people), with more men working in the informal sector than women.

Primary care medicines covered by the MHIF have to be prescribed by a family doctor.

Those in formal employment receive allowances for temporary disability, as well as pregnancy and childbirth. Responsibility for paying these allowances rests with the employer. Other types of allowance are provided by social services to the population that is not in formal employment, for example disability allowance or allowances for looking after ill children.

■ 3.3.2 *Collection*

The main sources of state financing for health are funds from the republican budget, which are provided by the Ministry of Finance, and funds from the mandatory health insurance system. In addition, there are direct payments or co-payments made by patients.

According to the Ministry of Finance, in 2018 tax revenues contributed 76% of the republican budget, non-tax revenues accounted for 14.5% and grants from international organizations and partners made up 9.5%. In terms of tax revenues, 52.5% is value-added tax (VAT); 10.3% income tax; 16% profit tax, sales tax, and tax from the Kumtor gold mine; 12.7% excise tax; and 8.5% other types of tax. Tax funds are collected by the State Tax Service, which has subdivisions throughout the country, and are then pooled in the treasury system of the Ministry of Finance.

In 2019, according to the report of the National Statistical Committee, state budget revenues amounted to 28.3% of the country's GDP. Tax revenues accounted for 20.6% of GDP, social contributions accounted for 2.2% and non-tax revenues accounted for 5.5% (National Statistical Committee, 2021).

After taxation, the second largest source of public financing for health is mandatory health insurance. The mandatory health insurance funds are collected by the Social Fund, which has territorial subdivisions, and then transferred to the MHIF. The amount of funds transferred to the MHIF is reflected annually in the Law "On the Budget of the Social Fund" and the Law "On the MHIF Budget".

Contributions are made by legal entities, farms, individual entrepreneurs and individuals. Employers pay 2% of the payroll fund for their employees. Farmers contribute according to rates that depend on geographical location,

farm conditions and other factors. Furthermore, 10% of all social benefits are allocated to the MHIF. Individual entrepreneurs pay 1% of the average monthly salary. Tariffs for social contributions are approved by law. Uninsured people can purchase a mandatory health insurance policy. For Kyrgyz citizens the cost is KGS 1200 (≈US\$ 18) per year. In 2018 more than 73 000 mandatory health insurance policies were sold.

BOX 3.2 Is health financing fair?

Social insurance funds, including those for mandatory health insurance, are linked to salaries and incomes. Contributions to mandatory health insurance by employers are capped at 2%, a proportion that does not increase with salaries, making them a proportional source of health financing. Most of the tax revenue is derived from VAT, which is a regressive source of financing, hitting the poorest hardest. Finally, the substantial out-of-pocket payments in the Kyrgyz health system pose a particular burden for the poorest households, making them also a regressive source of financing. Overall, the health financing system in Kyrgyzstan seems to be regressive, despite health reforms aimed at improving financial protection of the population.

■ **3.3.3** *Pooling and allocation of funds*

The Government establishes the general public funding policy for the health system. There are efforts to introduce programme-based budgets and the health sector was identified in 2019 as a pilot. However, these initiatives are still at a very early stage.

All public funds are accumulated at the Ministry of Health and the MHIF. According to the Law “On the Republican Budget” and the Law “On the MHIF Budget”, the total budget for 2022 amounted to KGS 28 149 million, equivalent to 9.7% of all public expenditure, with 7.0% provided through the MHIF and 2.7% through the Ministry of Health.

The Ministry of Health finances public health programmes, medical education, some organizations providing medical and rehabilitation services, and the purchase of equipment and some medicines. Funds are provided to more than 120 health organizations throughout the country.

The MHIF finances over 150 medical organizations and over 180 pharmaceutical organizations that participate in preferential drug provision programmes. The MHIF budget is largely made up of allocations from the national budget and mandatory health insurance contributions. The health insurance fees are collected by the Social Fund through its subdivisions. The amount of funds transferred to the MHIF is determined and adjusted on an annual basis. In general, the size of funds depends on the number of payers of insurance premiums. The MHIF budget also includes payments for various fee-based services, as well as co-payments from patients. The budget of the MHIF, and the budgets of health organizations with which it enters into service delivery contracts, as well as the movement of funds under the single payer system, are recorded in the information system “AIS Kazna: MHIF module”.

The Ministry of Finance and the Social Fund do not directly control the use of the collected and transferred funds. The Government makes a decision when the approved funds of the national budget are exceeded or reallocated, or when funds are channelled to specific target measures.

The pools of funds of the Ministry of Health and the MHIF do not depend on each other, and the funds are not reallocated between them.

The health financing system has two levels, including the health organizations regardless of their geographical location which receive funding directly from the national level. The MHIF has territorial divisions that participate in the administration and control of financial flows, and in quality assurance of medical services provided in their administrative area.

Local authorities are not involved in the procurement of medical services, but they can allocate their resources for additional supplements to health worker salaries, as well as for the repair and construction of facilities and the purchase of equipment. These are local initiatives and decided on by the regions, depending on their capabilities and priorities.

Since 2003, with the Law “On the Single Payer in Healthcare Financing”, a single payer system has been established, in which the MHIF plays the role of the single public purchaser of most publicly paid health services.

Since 2018 the MHIF budget has been approved by a separate law adopted by the Jogorku Kenesh. This law approves revenues by source, spending of the MHIF budget and key rates, such as for capitation funding or the basic rate of cases treated in hospitals. Over the course of the year

it is allowed to make amendments in case of increased revenues or for the allocation of funds for targeted activities. Allocations from the national budget are based on historical precedent as well as political decisions (e.g. salary increases, targeted activities).

The MHIF has eight administratively and geographically distributed territorial units. There is a single account, to which all revenues are transferred. This account is used to transfer funds to the organizations with which contracts have been concluded. The contracts are concluded by the MHIF's territorial divisions.

Expenditures related to expensive treatments, except for haemodialysis services, are covered by the budget of the Ministry of Health, although they are very limited.

BOX 3.3 Are resources put where they are most effective?

The steering possibilities of the Government relate mostly to the allocation of public funds, which account for a little more than 50% of current health expenditure. This undermines its ability to put resources where they are most effective. As discussed in Section 3.1, most government expenditure (including mandatory health insurance funds) is spent on inpatient and outpatient care, with only a very small portion going to pharmaceuticals and medical devices.

Despite the creation of the single payer system in 2003, real accumulation of funds in a single account has taken place only in the last few years. The approval of the MHIF budget by law has made it possible to set the state's obligations for health sector financing. Despite only two years of experience in implementing the Law "On the MHIF Budget", budget execution (the degree to which allocated funds were used) in 2018 reached 97.8%. At the same time regulating the MHIF budget by law can reduce management flexibility and efficiency, and there may be political influence in the process of adopting the law.

Having only one public purchaser of health services can be a powerful tool for improving health system efficiency, although one that has been underutilized so far in Kyrgyzstan. Since there were few opportunities for the redistribution of resources from hospitals to services such as primary care, other outpatient services and preferential drug programmes, the MHIF has begun to expand hospital-substitution services and to introduce new financing methods in addition to the basic ones (treated cases for hospital care and capitation payment for primary care). Additional measures include paying for outpatient treatment of TB patients, reducing subsidies to inefficient and ineffective hospitals, and developing information and communication systems.

■ 3.3.4 *Purchasing and purchaser–provider relations*

The state finances the health sector via two separate systems, through the Ministry of Health and the MHIF. The Ministry of Health funding system does not differentiate between purchaser and provider of services and allocates funds according to expenditure items and approved budgets. The organizations financed by the Ministry are its subordinate entities. They provide public health services, medical education and rehabilitation care.

With the establishment of the MHIF in 1997, a purchaser–provider split was introduced for the first time. At present the MHIF is the sole public purchaser of health services. Through its territorial divisions it agrees service delivery contracts with providers throughout the country. The relationship between the MHIF and the providers is based on contractual terms and conditions, such as the scope of services, the financing mechanism, quality criteria and indicators of the organization's activity.

Due to competition and alternative providers, selective contracts may be concluded with private medical organizations and pharmaceutical institutions, while public organizations always receive contracts, partly due to a lack of competitors. This has a negative effect on the performance of some providers. In these cases the Ministry of Health sometimes restructures, optimizes or changes the management of these organizations.

Generally, there is no competition at the local level, especially when there is only one service provider in the area. This can be clearly seen in the primary care organizations and small hospitals in remote villages. Competition and patient choice are increasing when several providers of similar services are geographically accessible to patients. The MHIF's strategic purchasing system is just beginning to implement active procurement methods. The practices that have existed to date were based on passive procurement methods, where services provided were reimbursed based on the previous year's data. With the support of WHO, activities have now been initiated to facilitate transition from passive to active procurement based on health priorities. For example, a revision of Diagnostic Related Groups (DRGs) is under way, taking into account the priorities of the health system. Furthermore, there is an expansion of services such as day hospitals.

Contracts between purchaser and providers are based on the types of services, such as hospital/inpatient services, primary care services, emergency and ambulance services and haemodialysis services. The territorial units of

the MHIF conclude contracts with the organizations located in their territory and monitor contract implementation, quality of services provided and performance against contract indicators. However, irrespective of quality and performance, it is not possible for the MHIF not to enter contracts with public sector organizations.

In order to reduce inpatient care and unnecessary hospitalizations, contracts with hospitals set a limit on the number of hospitalizations to be paid for. Previously, the MHIF applied financial sanctions to providers that exceeded these limits, but it has now switched to funding for achieving quality and other indicators.

The Government establishes the co-payments to be made by patients, while providers have to coordinate fees for certain services with the state anti-monopoly authority. The MHIF monitors payment volumes and cases. Patients may contact the MHIF (both by phone or in other ways) to clarify information or check the validity of their co-payments. If co-payments are found to be invalid, they are returned to the patients.

■ 3.4 Out-of-pocket payments

In Kyrgyzstan the decline in public spending on health in the early transition period was dramatic: the government budget allocated to the health sector in 2000 was only 30% of the 1991 allocation in real terms. Nearly 80% of this spending was absorbed by the fixed costs of the inherited health service delivery system, which was characterized by over-capacity, in particular in the hospital sector (Jakab & Kutzin, 2009). Improved financial protection was one of the key health reform objectives. The introduction of the SGBP aimed to reduce the financial burden of health care spending and to replace informal payments. Beginning in 2000, the share of private expenditure that dominated in the 1990s gradually decreased, while state expenditure grew more rapidly since 2005. The results of national household budget surveys in 2001–2010 showed that the financial burden of seeking health services had declined. However, they also showed that sustaining these improvements over the longer term is a challenge (Table 3.1).

The main drivers of out-of-pocket spending are medicines and medical products, which together accounted for more than 50% of household spending on health in 2000–2014 (Figure 3.7). The second largest expenditure item

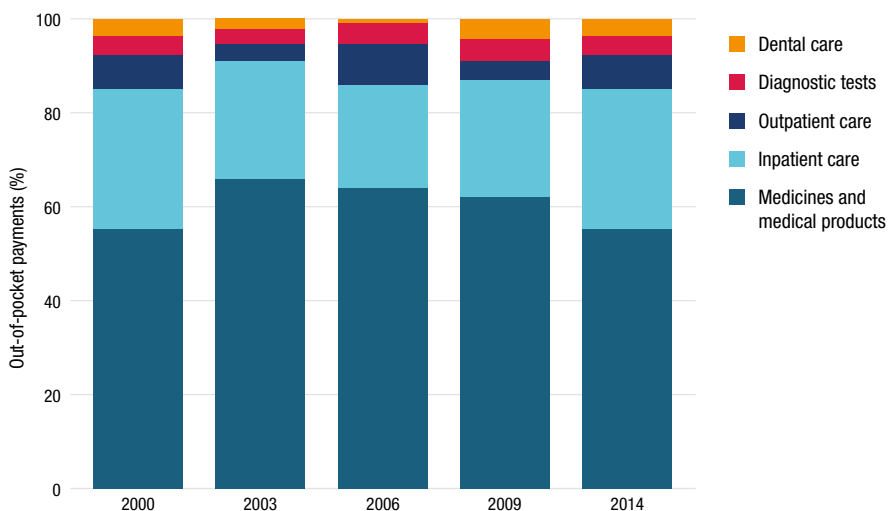
is inpatient care; its share has fallen from 30% in 2000 to 16% in 2014. The share of out-of-pocket payments for outpatient care, diagnostic tests and dental care has risen from 15% in 2000 to 20% in 2014; this is in line with an expansion in the availability of outpatient services, including in urban areas through the private sector (Akkazieva, Jakab & Temirov, 2016).

Between 2000 and 2014 the share of households making out-of-pocket payments increased substantially. In 2000, 57% of households reported paying for health services out-of-pocket, while by 2014 this share had risen to 82% (Jakab, Akkazieva & Habicht, 2018).

The share of households who were further impoverished, impoverished or at risk of impoverishment after out-of-pocket payments decreased from 14.0% in 2000 to 10.3% in 2014 (Figure 3.9). This trend was driven by a large fall in the share of households further impoverished after out-of-pocket payments.

Households with catastrophic levels of out-of-pocket payments can be defined as those which spend more than 40% of their capacity to pay for health care (Jakab, Akkazieva & Habicht, 2018). This includes households which are impoverished after out-of-pocket payments (because they no longer have any capacity to pay) and those which are further impoverished (because they have no capacity to pay even before paying out-of-pocket for health care) (Jakab, Akkazieva & Habicht, 2018).

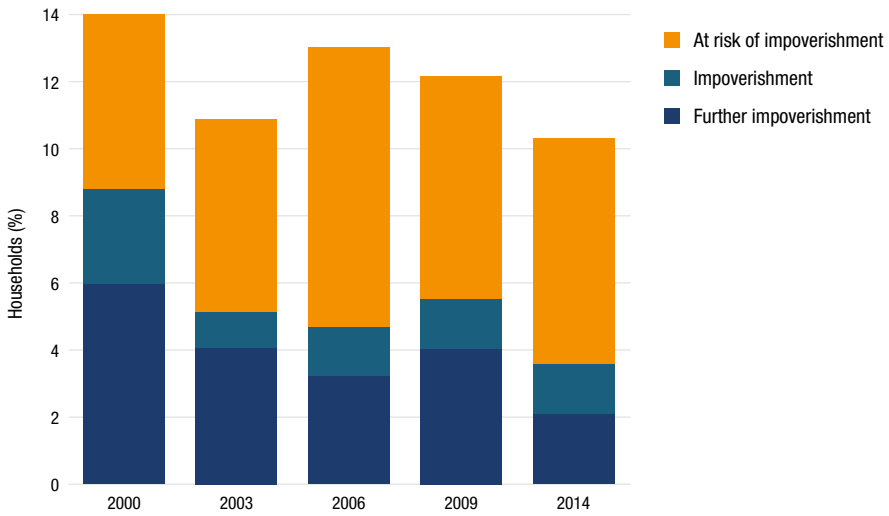
FIGURE 3.7 Breakdown of total out-of-pocket spending by type of health care



Source: Based on Jakab, Akkazieva & Habicht, 2018

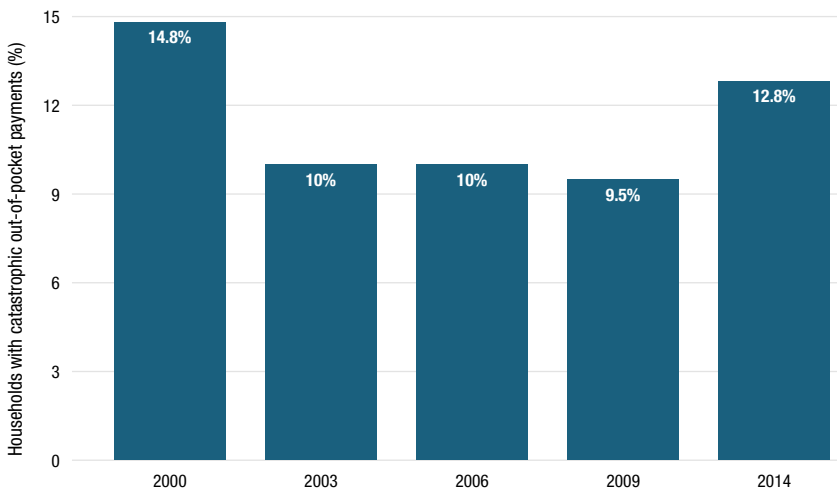
In 2014, 12.8% of households experienced catastrophic spending on health (Figure 3.9). The share of households with catastrophic out-of-pocket payments declined substantially between 2000 and 2003, coinciding with the early phase of the single payer reforms. Between 2009 and 2014 the share of households with catastrophic out-of-pocket payments increased again (Jakab, Akkazieva & Habicht, 2018).

FIGURE 3.8 Share of households impoverished after out-of-pocket payments



Source: Based on Jakab, Akkazieva & Habicht, 2018

FIGURE 3.9 Share of households with catastrophic out-of-pocket payments



Source: Based on Jakab, Akkazieva & Habicht, 2018

■ 3.4.1 *Cost-sharing (user charges)*

Co-payments were introduced in 2001 within the SGBP which determines the scope, types and conditions of publicly funded health services. It sets out which services are provided free of charge, which on preferential terms and which require full payment, depending on regions, referral status and entitlements to benefits. Co-payments were introduced with several aims: to transform already existing out-of-pocket payments (including informal ones) into official and transparent methods of payment, to protect people with low incomes and serious diseases from the impoverishing impact of health expenditure, and to set up a transparent system of patient participation in covering the costs of medical services. Not all of these aims have been achieved, with particular concerns regarding the impoverishing effects of out-of-pocket payments (see Section 7.3). Table 3.5 lists the cost-sharing policies in place within the different subsectors of the health system.

To summarize, the following health care facilities and activities are subject to co-payment:

- At ambulatory level: laboratory and diagnostic tests (except basic laboratory and diagnostic tests provided under the SGBP free of charge) performed in FMCs, Centres of General Medical Practice, ambulatory-diagnostic departments or units of general profile hospitals, or consultative-diagnostic departments of tertiary hospitals.
- At hospital and inpatient level: all measures directly associated with the treatment process and the provision of meals for patients.
- At FMCs, ambulatory-diagnostic departments or units, clinical diagnostic units and ambulatory departments of Health Care Delivery Centres: co-payments are required for laboratory and diagnostic tests in accordance with the official price list for health services. This price list is developed and approved by the Ministry of Health in consultation with the State Agency on Anti-Monopoly Policy and Competition Development, and applies to all health care providers working in the single payer system.

There are 28 privileged social categories (children under 5 years, Second World War veterans, pensioners aged 75 years or older, victims of the events

TABLE 3.5 Direct and indirect cost-sharing

HEALTH SERVICE	TYPE OF USER CHARGE IN PLACE	EXEMPTIONS OR REDUCED RATES	CAP ON OOP SPENDING
Primary care, including GP visits	Free for the population enrolled with providers of primary care (FGPs, FMCs) under the SGBP Full service fee for people not enrolled with FMCs, FGPs Full service fee for services outside of SGBP coverage	No	No
Outpatient specialist visit	Free for the population enrolled with providers of primary care (FGPs, FMCs) under the SGBP Full service fee for people not enrolled with FMCs, FGPs Full service fee for services outside of SGBP coverage	No	No
Outpatient prescription drugs	ADP of SGBP for insured population: users pay the difference between the retail price and the reimbursement (reference) price specified in a handbook approved by the MHIF and calculated as 50% of the median wholesale price of the largest wholesalers Outpatient medicines through the pharmacy network for people with epilepsy, asthma, schizophrenia, mood disorders and cancer pay 0% of the reimbursable (reference) price of medicines, and these prescriptions are issued by family doctors or psychiatrists at the place of residence Another group of patients (with diabetes, haemophilia and TB) receive drugs in primary care organizations and hospitals free of charge; the procurement of these drugs is centralized at the republican level and distributed to medical organizations as needed	No	No
Inpatient stay	None for emergency care Fixed co-payment for non-emergency admissions with or without referral; co-payments vary based on oblast, type of admission – childbirth, surgery (KGS 1 090; €PPP 39) or internal medicine (KGS 840; €PPP 30) – as well as insurance status, exemption status and referral status Uninsured people pay higher co-payments than insured people: KGS 3 440 (€PPP 123) for surgery and KGS 2 650 (€PPP 94) for internal medicine People without a referral pay the maximum level of co-payment, regardless of insurance and exemption status	List I with referral for up to two planned hospitalizations a year; additional planned hospitalizations incur a co-payment (except for children under 5 years) List II with referral but only for the conditions listed Poor people, people without a permanent residence, people without official identification and conscripts	
Inpatient prescription medicines	Usually none but if the hospital has insufficient funds for medicines, it asks patients to purchase medicines for their treatment	NA	No
Medical devices	Similar to outpatient prescription medicines	No	No
Diagnostic tests	None for 12 basic laboratory and diagnostic tests in primary care for enrolled people with referral and for basic tests in outpatient diagnostic departments at inpatient level with referral Users pay the full price for other tests, based on a price list	Exempt from payment for other tests: List I and List II with referral Exempt from payment for eight costly tests: people who fought or were wounded in the Second World War	No

of 2010 and their families, people with disabilities) and priority medical conditions that are exempted from co-payments. There are also exemptions based on poverty which can be granted at the point of care (hospital) but the rule for such exemptions is not clear. If a health organization grants the exemption, the funding will be sourced from a 10% reserve fund from co-payments received. Making an application for the exemption based on income status is complicated, ultimately acting as a disincentive. Taken together, the current policy of co-payments does not favour the poor: 45–50% of quintiles 1 to 4 are eligible for co-payment exemptions, with only a slight decrease to 39% for the richest quintile 5 (Jamal & Jakab, 2013).

Following an extension of co-payment exemption categories, which was not accompanied by an increase in public funding, the share of official co-payments in total hospital spending fell from 7% in 2006 to 4% in 2013, but the share of informal payments increased from 26% to 35% and the share of public spending decreased from 67% to 61%.

■ 3.4.2 *Direct payments*

Health care providers can provide medical services that are not included in the SGBP, as well as non-medical services. To this end, they must develop a price list that requires approval from the State Agency on Anti-Monopoly Policy and Competition Development. The following types of services are provided against direct payments (Ibraimov et al., 2010):

- Medical examinations upon recruitment, and upon receipt of a driving licence;
- Termination of pregnancy at the ambulatory level in FMCs;
- Routine medical examinations;
- Anonymous testing and treatment of sexually transmitted infections (STIs);
- Dental services (orthopaedic, orthodontic, surgical and therapeutic);
- Non-medical services (e.g. improved comfort in inpatient facilities, homecare services);
- Production of children's formula; bio-stimulators; biological dietary supplements; vaccines; sera; preparations from blood components; pharmaceuticals of vegetable, mineral and animal origin;

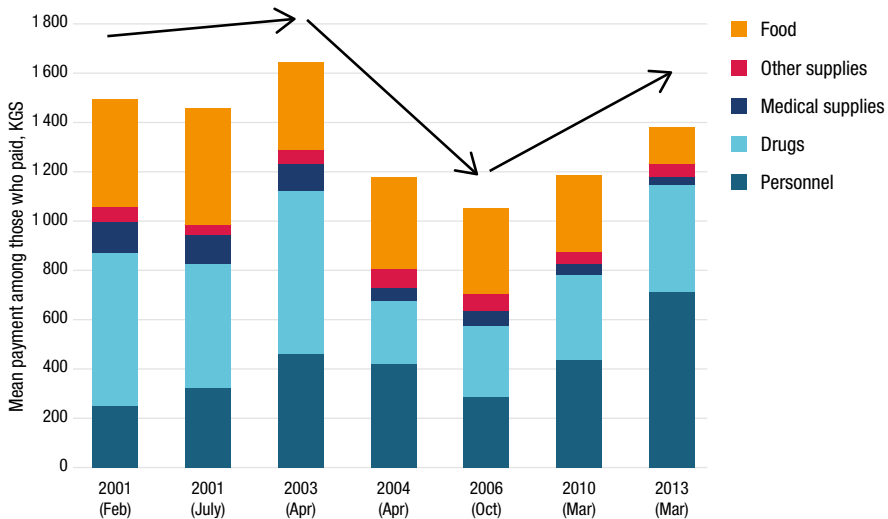
cultures; disinfectants; medical purpose items; agricultural and other products;

- Cosmetology services;
- Forensic and ceremonial services;
- Providing ambulance teams to mass events, such as concerts; and
- Consultative, informational-educational and other contractual services.

■ 3.4.3 Informal payments

Informal payments in real terms (based on 2001 prices) increased between 2001 and 2003, declined considerably in 2003–2006 and increased again between 2006 and 2013 (Figure 3.10).

FIGURE 3.10 Trends in informal payments, 2001–2013 (in real terms based on 2001 prices)



Source: Based on Jakab, Akkaziya & Kutzin, 2016

The decline in informal payments between 2003 and 2006 shows the impact of the nationwide introduction of the single payer system, with new rules regulating entitlements through an explicit definition of benefits through the SGBP, free primary care for the entire population, and referral

care with a formal co-payment. Several information campaigns were conducted to improve public awareness of patient entitlements. It is noticeable that the composition of informal payments changed between 2001 and 2013. In 2004, for the first time, informal payments for medicines made up a smaller share than those to medical personnel. This change is likely due to new contractual arrangements triggering a reconfiguration of service delivery, with significant savings on fixed costs, which in turn allowed the use of resources of health care providers for medicines and supplies (Jakab, Akkazieva & Kutzin, 2016).

In 2013 the largest share of informal payments went to medical personnel (51%) and medicines (32%). Informal payments for medical and non-medical supplies were small (7%), while payments for food represented the remaining 10% (Jakab, Akkazieva & Kutzin, 2016).

As mentioned above, there was also an increase in the share of hospital spending derived from informal payments between 2006 and 2013, from 26% to 35%. This was due to a slower growth rate in public expenditure for hospitals and because co-payment collections had decreased.

■ 3.5 Voluntary health insurance

Voluntary health insurance accounted for only 0.1% of total health expenditure in 2019 (WHO, 2022b). The existing gaps in publicly financed coverage, services and entitlements are not covered by voluntary health insurance but by out-of-pocket expenditure. The private health insurance market is supervised by the State Service for Financial Market Regulation and Supervision and guided by the Law “On the Organization of Insurance” (#96, 23/07/1998).

■ 3.6 Other financing

■ 3.6.1 *Parallel health systems*

Parallel health systems are run by the Ministry of Labour and Social Protection, the Ministry of Internal Affairs, the Ministry of Defence, the Ministry of Transport and Roads, and the Border Service. They have not

undergone structural reforms and their health care delivery and financing framework remains the same as it was during the Soviet period. However, the Ministry of Health sets out national health policies that are also obligatory for these organizations. In 2017 the share of parallel health systems in total health expenditure was very small, amounting to only 1.6%.

■ 3.6.2 *External sources of funds*

Donors have played an important part in supporting health reforms in Kyrgyzstan. In the early transition period they followed a traditional approach, changing to a formal sector-wide approach in 2005 to support the “Manas Taalimi” (2006–2011) and “Den Sooluk” (2012–2018) reforms and the current reform programme “Healthy Person – Prosperous Country” (2019–2030). The Ministry of Health leads the national reform programmes and development partners channel their support to programme priorities either as parallel financing or directly to the state budget via the Treasury. The group of development partners includes the World Bank, the Swiss Agency for Development and Cooperation and the German Development Bank. A World Bank Trust Fund has been opened for the purpose of accumulating external contributions and disbursing them to the Treasury account of the Ministry of Finance. The modality of financial support for the new health programme “Healthy Person – Prosperous Country” (2019–2030) has changed to a Payment for Results approach, in which disbursement depends on achieving a set of agreed indicators (see Section 2.2.8).

The group of donors providing parallel technical or financial assistance is wider and includes more than 20 external agencies, such as WHO, the Swiss Agency for Development and Cooperation, USAID, the German Government, the Global Fund, GAVI, UNICEF, UNFPA, UNAIDS, UNDP and other partners.

External health expenditure as a percentage of overall current health expenditure stood at 2.3% in 2019, a decline from 15.7% in 2004 (WHO, 2022b), reflecting Kyrgyzstan’s transition from a Low-Income Country (LIC) to a Low Middle-Income Country (LMIC) in 2014.

■ 3.6.3 *Other sources of financing*

There are many local and international NGOs working in Kyrgyzstan on areas such as HIV, TB, reproductive health, palliative care and support for people with disabilities. Most depend on donor funding.

A unique Kyrgyz phenomenon is the network of Village Health Committees, community-based organizations independent of the formal health system and local self-government entities but cooperating closely with both. By 2013 about 1700 Village Health Committees had been established, covering 85% of villages in all districts and approximately 3.3 million people. The main activities of Village Health Committees are to raise health awareness and promote healthy behaviours among village inhabitants. Health promotion staff of primary care organizations visit the Village Health Committees regularly and provide training on organizational development and health campaigns.

Data on voluntary and charitable financing are not available.

■ 3.7 **Payment mechanisms**

■ 3.7.1 *Payment for health services*

Payment mechanisms for health services have changed with the establishment of the MHIF. At primary care level capitation financing was introduced, while payment of hospitals was based on treated cases, following a DRG system. In recent years payment for results and quality of care has been piloted under a system called RBF for hospitals and F4P for primary health.

The RBF pilot covered all rayon hospitals of the country. They were divided into hospitals in which quality indicators were assessed and bonuses were paid for their achievement, hospitals where indicators were assessed without payment, and a control group in which there was no assessment of quality indicators and no additional payment. The results showed that it is important to monitor quality indicators, as even in the absence of payment, they significantly improve results. While the RBF project supported by the World Bank ended in 2018, the MHIF continued to allocate funds to hospitals for achieving quality indicators in 2019, but this approach was discontinued in 2020 and 2021.

Table 3.6 illustrates the key provider payment mechanisms.

TABLE 3.6 Provider payment mechanisms

	MHIF	MINISTRY OF HEALTH	PRIVATE/VOLUNTARY HEALTH INSURERS
FGPs	C, F4P	–	–
Outpatient specialists	C	–	FFS
Other outpatient care	C	–	FFS
Hospitals for emergency conditions	DRG, F4P	–	FFS
Other hospitals	DRG, F4P	state budget	FFS
Dentists	C	–	FFS
Pharmacies	Compensation payment	–	–
Public health services	–	C, FFS, line-item financing by the state budget	–

Notes: FFS: fee-for-service; DRG: case-based payment; C: capitation; F4P: funding for performance

PRIMARY CARE

Several mechanisms are used for paying primary care providers. FGPs are paid on a capitation basis. Under the Law “On the MHIF Budget for 2019”, the standard capitation rate for FGPs per enrolled patient and year amounted to KGS 173 (\approx US\$ 2.5). For insured people an additional coefficient of 2.16 was applied to the standard capitation rate, resulting in KGS 373 (\approx US\$ 5.4).

In addition to funding by capitation, in recent years F4P has been used, with the allocation of funding depending on regular assessments by the MHIF and reaching a maximum of 5% of the total budget of primary care providers. In 2018 an additional payment system was introduced for family doctors who achieve specific indicators, with bonus payments on top of regular salaries. In 2021, however, additional payments for indicators by family physicians were abolished and replaced with a blanket increase in doctor salaries, which was largely due to the added challenges posed by the COVID-19 pandemic.

SPECIALIZED OUTPATIENT CARE

Specialized outpatient care provided by family medicine centres is also funded on a capitation basis. In 2019 the capitation rate was KGS 166 (\approx US\$ 2.4). The outpatient services provided by hospitals are not reimbursed by the MHIF, but are covered by the general hospital budget formed according to a case-based system.

Dental services are also paid on a capitation basis. Unlike payments for primary care services, where the total population assigned to an FGP is taken into account, only children under 10 years, people aged 70 years and over, and pregnant women are considered for dental services. In 2019 the standard capitation rate for dental polyclinics was KGS 139 (\approx US\$ 2) per person and year.

The haemodialysis services in medical centres are paid by the MHIF at a fixed rate per session, amounting to KGS 4700 (\approx US\$ 68.1) in 2019.

INPATIENT/HOSPITAL TREATMENT

Hospital services are largely paid on the basis of a DRG system. The DRG classifier identifies 10 groups related to TB pathologies, 88 therapeutic groups, 50 surgical groups, 35 diagnosis groups for therapeutic emergency units and 22 groups for surgical emergency units. Additional factors, such as geographical distance or mountainous or rural location, are also considered in the payment mechanism. Hospitals register discharged patients in the MHIF information system. The MHIF then considers treated cases to determine funding volumes. WHO is currently providing technical support for the development of strategic procurement and for modernizing the DRG system. Consequently, DRG groups, weighting factors and the classifier for medical interventions are being revised.

Some rayon hospitals were involved in the World Bank-supported Results-Based Funding Project in 2014–2018. After the Results-Based Funding Project ended, the MHIF continued in 2019 to allocate funds to hospitals for achieving quality indicators. It extended this payment mechanism to all hospitals at rayon and oblast level, but only to a maximum of 5% of the organizations' annual budgets. While this was a promising move in reforming provider payment mechanisms, during the COVID-19 pandemic in 2020 and 2021 these additional payments were not made.

PHARMACEUTICAL SERVICES

At the outpatient level the MHIF administers two programmes for the reimbursement of medicines purchased by patients from pharmacies. The first programme covers patients with paranoid schizophrenia, affective disorders, epilepsy, bronchial asthma and terminal cancer. Under this programme, reimbursement to pharmacies exceeds 90% of the costs of pharmaceuticals. The second programme, the ADP, pays part of the costs of pharmaceuticals at the outpatient level for patients covered by the MHIF.

In Kyrgyzstan prices of pharmaceuticals are not regulated and prices are determined by the free market, but initial regulatory attempts are currently under way. The Ministry of Health procures vaccines and medicines for patients with diabetes, diabetes insipidus and haemophilia.

PUBLIC HEALTH SERVICES

Public health services are funded by the Ministry of Health. In 2019 the Government decided to transfer public health organizations to capitation funding and to base funding for certain services on achieved standards. Exceptions are HIV/AIDS services, the Health Promotion Centre, and the Scientific and Production Association “Preventive Medicine”, which continue to be funded based on traditional budgets and expenditure items.

■ 3.7.2 *Payment of health workers*

The salary of publicly employed health workers consists of the basic salary, additional payments, and incentive and compensatory allowances.

In 2019 and 2020 base monthly salaries were KGS 5000 (≈US\$ 72.4) for doctors, KGS 4300 (≈US\$ 62.3) for nurses, KGS 5000 (≈US\$ 72.4) for administrative and managerial staff and KGS 3000 (≈US\$ 43.4) for junior staff. Premiums and increments (for academic degree; honorary title; qualification category; management of a structural unit; length of service; work in rural areas; work in mountainous and remote areas; work in special working conditions; length of service in mountainous and remote areas) are added to the base salary.

In 2020 employees of medical organizations working in inpatient facilities with COVID-19 patients, as well as laboratories and other structures, received bonus payments. From July 2020 the daily pay for health workers working in these infectious disease wards (including intensive care departments, intensive care units, virology laboratories, observatories and mobile teams) was increased by 30%, reaching KGS 3000 (US\$ 35.4) for physicians, KGS 2500 (US\$ 29.5) for nurses and KGS 2200 (US\$ 25.9) for junior medical personnel.

Monthly salaries of hospital workers in 2019 averaged KGS 12 918 (US\$ 184.9) for doctors, KGS 10 631 (US\$ 152) for nurses, and KGS 9024 (US\$ 129) for other medical personnel. The salaries of employees of primary care organizations averaged KGS 14 777 (US\$ 211.5) for doctors, KGS 9147 (US\$ 130.9) for nurses, and KGS 7155 (US\$ 102.4) for other medical personnel. While the formal salaries for doctors in primary care are higher than for doctors in hospitals, the latter supplement their salaries to a greater degree with informal payments from patients.

According to the National Statistical Committee, the average salary in 2020 (January–September 2020) for medical and social workers (including doctors, nurses and technical staff) amounted to KGS 10 682 (US\$ 126), which was below the average salary of all public employees, amounting to KGS 14 836 (US\$ 175, exchange rate from 1 December 2020).

New mechanisms for paying health workers were piloted in some districts of Issyk-Kul oblast, allowing more flexibility in the use of payroll budgets. These pilots have not yet been expanded to other parts of the country, but there is the general intention to increase the flexibility of health organizations in the calculation of salaries and to make them more performance-based.

To improve the performance and quality of work of primary care workers, in September 2018 the Government decided to increase salaries of family doctors through bonus payments for achieving certain performance criteria. For this purpose the Ministry of Health approved criteria based on the main primary care priorities, such as improving maternal and child health, controlling noncommunicable diseases, and treating TB. The Government allocated KGS 630 million (\approx US\$ 9 130 435) for the implementation of this mechanism in 2019. Under this programme family doctors can earn up to KGS 16 894 (\approx US\$ 245) per month in addition to their basic salary. According to the MHIF, in the first half of 2019 the salaries of family doctors increased on average by 95%, reaching KGS 21 712 (\approx US\$ 315) per month.

According to the MHIF report in 2019, the average salary of a family doctor under this mechanism was KGS 25 188 (US\$ 360.6), of which KGS 14 153 (US\$ 202.6) are paid in addition to performance indicators, which is 128.3% of the official salary of family doctors (Exchange rate of the National Bank of the Kyrgyz Republic – KGS 69.85, 2 December 2019).

Physical and human resources

■ Chapter summary

- The number of hospital beds per 100 000 population has declined dramatically since the early 1990s (from 1206 hospital beds per 100 000 population in 1991 to 385 in 2021). While this is below regional averages, it still represents over-capacity in terms of hospital infrastructure.
- Health facilities are geographically well distributed, but there are still remote areas with limited access to health services.
- The ratio of doctors to population is much higher in urban areas and the country's capital, Bishkek, with a much lower ratio in rural areas. The COVID-19 pandemic seems to have exacerbated these geographical imbalances. In contrast, the coverage by nurses is considered adequate in all regions.

■ 4.1 Physical resources

■ 4.1.1 *Capital stock and investments*

The public sector health care delivery system consists of 204 health facilities. As of March 2022, there were 17 family medicine centres (seven oblast level facilities and 10 in Bishkek), 61 general practice centres (primary care facilities with beds – the product of merging territorial family medicine centres with territorial hospitals) and 1059 feldsher-obstetrical points located in remote rural areas and staffed by nurses.

Hospital care is provided by 126 hospitals with a total of 25 787 hospital beds (including 1188 beds for COVID), of which seven hospitals are at the oblast level, and 40 at rayon level as part of the Centres of General Practice (data from E-Health Centre, January 2022). The public health system is still very fragmented and comprises 63 institutions, including 51 of the Department of Sanitary-Epidemiological Surveillance, nine AIDS Centres and three Health Promotion Centres.

Between 1997 and 2021 the number of hospitals was reduced from 450 to 126, with the aim of reducing costs and strengthening primary care and prevention. The remaining hospitals are well distributed across the country, with hospitals in all seven oblasts and 40 rayons, and smaller-scale hospitals in remote villages. Most hospitals (85%) are very old (built between 1955 and 1970) but in some regions new buildings either have been or are being built, with financing from the national government and international donors. Maintenance of buildings and equipment is not clearly stipulated and regulated. Directors of health facilities make efforts to finance investments from savings in the budget or raise funds from donors and sponsorships.

The number of hospital beds per 100 000 population has declined dramatically since the early 1990s, decreasing from 1206 hospital beds per 100 000 population in 1991 to 704 in 2000 and 385 in 2021. While this is below regional averages, there is still over-capacity in terms of hospital infrastructure.

There is no clear steering of capital investments in the health sector. The Ministry of Health can only regulate investments by international donors, while the state financing for infrastructure is managed by the Ministry of Finance. Due to the increasing budget deficit in the overall republican

budget in recent years, the level of state investment in health infrastructure is very limited. All newly constructed health facilities and major medical equipment are financed by traditional (e.g. KfW, WB, SDC, USAID, GIZ, UN agencies, JICA) and non-traditional donors (e.g. China, Turkey, Saudi Arabia, Kuwait).

All buildings of public hospitals are owned by the Ministry of Health, although there is a legal provision to transfer property rights to local municipalities (“Law on Health Facilities 2004”). The land on which health facilities are being built is owned by local municipalities or the republican level, but there is no clear delineation of roles and responsibilities between these levels of government. In some cases the buildings of FGPs and FAPs are registered as the property of local municipalities, but there is no financing assigned in municipal budgets for the maintenance of health facilities.

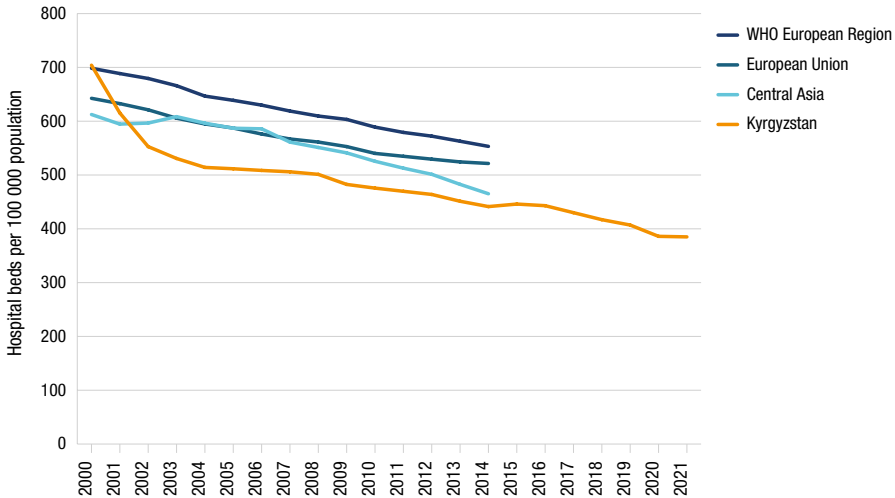
Since 2008 the private health sector has increased, predominantly in Bishkek and Osh, where there were 29 private hospitals and 30 private diagnostic outpatient centres in 2018, of which 10 provided haemodialysis services and were contracted by the MHIF for their services.

■ 4.1.2 *Infrastructure*

BOX 4.1 Are health facilities appropriately distributed?

The public sector health facilities are geographically well distributed, but there are still remote areas with limited access to health services. Primary care services are provided by a mix of family medicine centres, general practice centres (primary care facilities with beds – the product of merging territorial family medicine centres with territorial hospitals) and feldsher-obstetrical points. The latter are located in remote rural areas and are present in almost 90% of villages. The hospital network consists of 22 republican tertiary facilities located in Bishkek and Osh, seven oblast and 40 rayon hospitals providing secondary care, eight rehabilitation centres, six psychiatric hospitals and 21 TB hospitals. The total bed capacity of these hospitals was 25 787 beds in 2021, including 1188 beds for COVID-19 patients.

FIGURE 4.1 Acute care hospital beds per 100 000 population in Kyrgyzstan and comparator regions, 2000–2021



Sources: WHO, 2022a; national data for 2015–2021

■ 4.1.3 Medical equipment

Most expensive equipment in public hospitals and FMCs is procured through donor funding. Since 2006 the Ministry of Health has equipped all FMCs, FAPs and maternity wards in the country with basic equipment through joint financing of the SWAp by WB, KfW and SDC. The Ministry has recently procured cardiograph machines for tertiary facilities in Bishkek and Osh. There are also donors who provide some medical equipment, including KfW, WB, SDC, UNICEF, GIZ, GFATM, GAVI and JICA.

Health facilities also invest their limited savings into renewal of equipment, but resources are insufficient. Most equipment provided by donors is not properly maintained, and at the same time there is a huge demand to renew and modernize health technology. The issue of equipment is also of concern for ambulance services, which lack vehicles and reanimation equipment. In the regions the ambulances can only serve the population living close to rayon or oblast centres, while villages are not served at all.

Modern diagnostic and treatment technologies tend to be only available in private health facilities in Bishkek, Osh and some oblast centres. Data on the number of MRI and CT scanners in the country are not available and most of these exams are done in the private sector.

■ **4.1.4** *Information technology and e-Health*

The concept note on the development of a Unified Health Information System 2001–2010 resulted in the creation of a single database for the Ministry of Health to collect primary health care data. Another database is functioning at the MHIF to collect data from hospitals, with a linkage to payment mechanisms per treated case in hospitals. Since 2016 the Kyrgyz Government has been promoting e-technologies in all sectors, including health. The Ministry, with donor support, developed an e-Health Concept and renamed the previous Republican Medical Information Centre as the E-Health Centre. Since then, several donor projects have been piloted, testing different models of electronic health records in hospitals and FMCs. The pilots demonstrated that information technologies not only eased the administrative burden on medical personnel, but also increased access to training through the e-learning platform.

The E-Health Centre implemented e-clinical information forms that are used at primary health care level. There is potential to expand their use to all family medicine centres. These forms are compiled in an e-database which soon will be transformed into an e-patient card. The e-patient card will allow the consolidation of all health data (including for hospitals and primary care) on each patient in one card. However, so far the infrastructure for e-Health is highly dependent on donor financing. The Ministry of Health elaborated a clear strategy to scale up and consolidate all piloted versions of e-Health in the health sector, but its implementation requires major investment in infrastructure as well as a strong policy and vision on the side of the Government to set standards and ensure the quality of data collection and analysis.

■ **4.2** **Human resources**

■ **4.2.1** *Planning and registration of human resources*

Registration of health professionals working in public and private health facilities in an e-database is undertaken by the Ministry of Health, but not systematically. The Human Resources Department of the Ministry of Health is responsible for the registration of the health workforce in the country. All

medical graduates are registered when they finish six years of pre-diploma education, two to five years of postgraduate education for medical doctors and three years for nurses. As soon as they have a licence to practise, after completion of postgraduate education, they are registered in the database of the Ministry of Health, as well as in the places of employment. The information is also recorded at the Kyrgyz State Medical Institute on Retraining and Continuous Medical Education (KSMIRCME), which manages the data in the process of continuous medical education and attestation (assessment of competences) of health personnel.

According to an internal order of the Ministry of Health, medical doctors are obliged to revalidate their qualification every five years and nurses every three years and undergo an attestation process to obtain higher qualification. The order also obliges health facilities to provide data on physicians and nurses working in the health sector on an annual basis. At the same time there is no proper registration of health workforce personnel leaving the country.

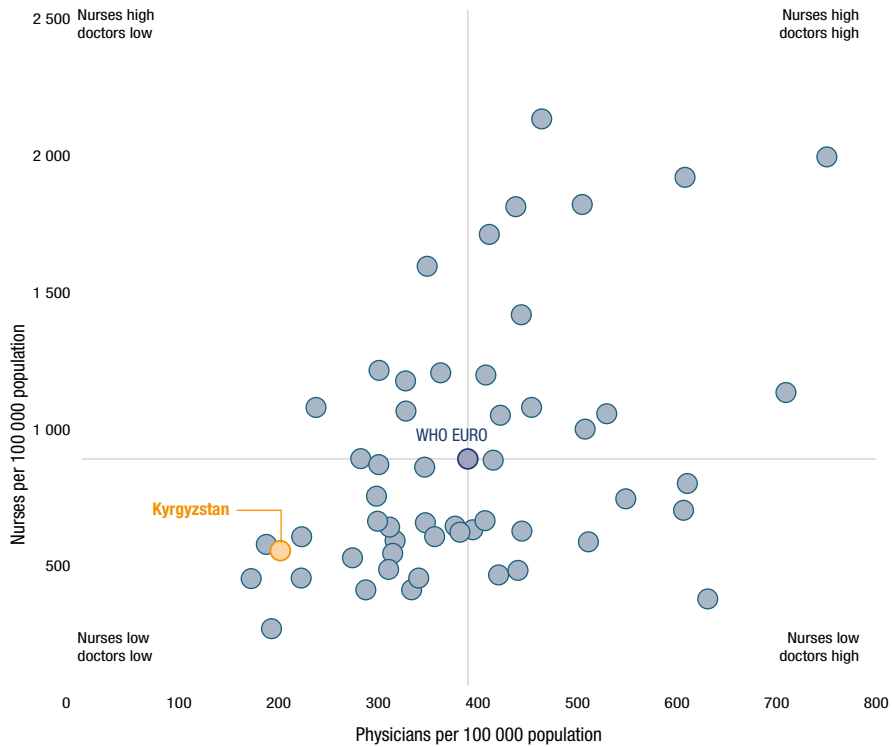
The professional associations do not register health workers in a separate system, but provide some continuous training courses and attestation (a function delegated to them by the Ministry of Health in 2021). The Kyrgyz Medical Association, created in 2016, represents all medical doctors and the Nurses Professional Association represents all nurses in Kyrgyzstan. These two associations have led competency development and assessment since April 2021.

At the time of writing, there is no proper planning of the health workforce in the country, nor is there a human resource strategy. WHO is currently providing technical support for the development of a National Roadmap for Human Resources for Health Planning. This Roadmap supports ongoing plans to create a unified Human Resources database in the E-Health Centre to register the health workforce with updated information on their status, workplace, continuous education process and attestation results.

■ 4.2.2 *Trends in the health workforce*

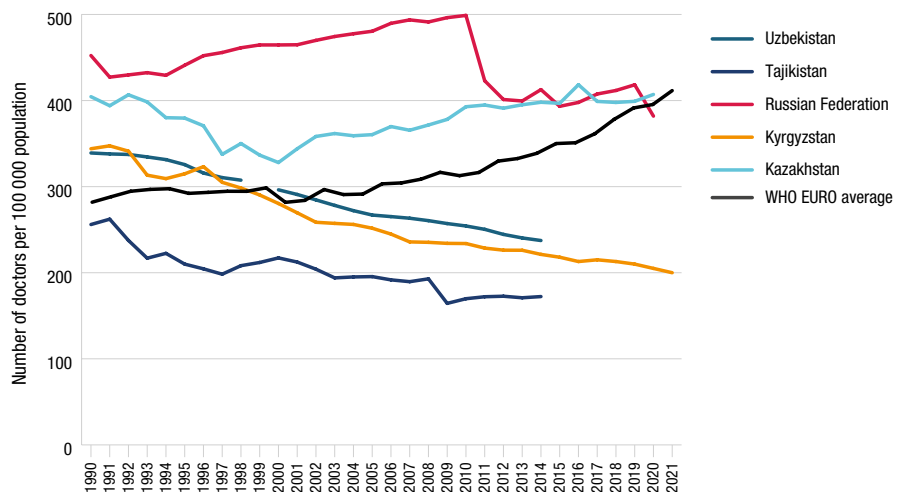
Overall staffing levels included 13 599 physicians and 33 303 nurses in 2021, equivalent to 203 physicians and 498 nurses per 100 000 population, which was below the averages for the WHO European Region (Figures 4.2, 4.3 and 4.4). There are significant imbalances across different parts of the country (Box 4.2).

FIGURE 4.2 Practising nurses and physicians per 100 000 population, latest available year



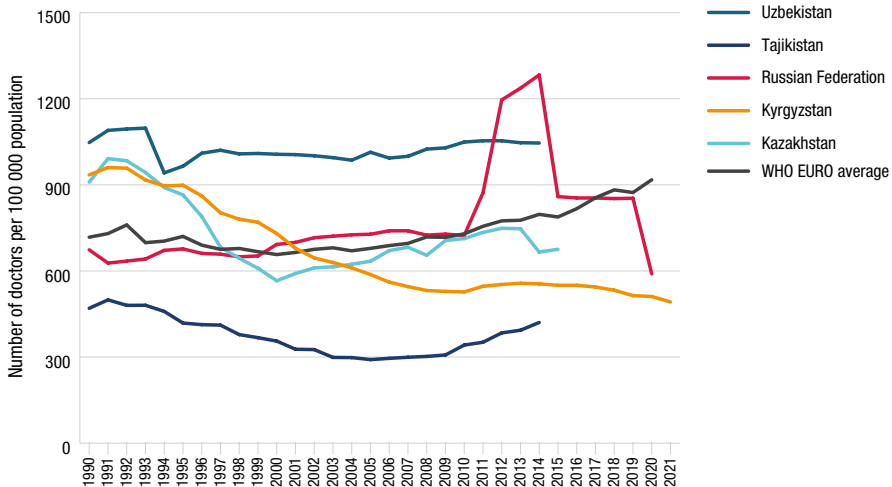
Source: WHO, 2022c

FIGURE 4.3 Number of physicians (physical persons) per 100 000 population in Kyrgyzstan and selected countries, 1990–2021



Sources: WHO, 2022c; national data for Kyrgyzstan for 2015–2021

FIGURE 4.4 Number of nurses (physical persons) per 100 000 population in Kyrgyzstan and selected countries, 1990–2021



Sources: WHO, 2022c; national data for Kyrgyzstan for 2015–2021

The highest numbers of physicians in 2021 were concentrated in Bishkek and Osh (225 and 246 per 100 000 population, respectively), while in some rural areas there were only about 70 physicians per 100 000 population (equivalent to one physician per 1429 people). In 2021 there were 2194 family doctors in the country, equivalent to 33 doctors per 100 000 population. In the cities one family doctor serves 4000–5000 people, while in remote areas this number increases to over 7000. This deficit is partially compensated by students in postgraduate education who are studying in rural areas. The COVID-19 pandemic exacerbated geographical imbalances, with physicians leaving primary care posts in rural areas to take on better-paid posts in hospitals.

In contrast, the coverage by nurses is considered adequate in all regions. Furthermore, the public health system is served by 634 sanitary-epidemiologists, 1417 dentists and 316 pharmacologists. In 2021, there were 3221 midwives, 1511 feldshers and 28 571 nurses (E-Health Centre's data 2021).

Kyrgyzstan was the first country in Central Asia to introduce the Family Medicine system in the late 1990s by transforming polyclinics into FGPs and retraining narrow-profile specialists into family doctors. International donors (initially the World Bank and USAID) provided substantial support

BOX 4.2 Are health workers appropriately distributed?

Health workers are not equally distributed across the country. Since 2008 the concentration of medical staff in Bishkek and Osh has been increasing, while in rural areas specialists are lacking. This situation concerns only medical doctors, in particular family doctors, while the coverage by nurses is considered adequate in all regions.

Overall, the ratio of physicians per 100 000 population was 203 in 2021, but there were differences across oblasts: the highest ratios were in Osh (with 246 physicians per 100 000 population) and Bishkek (225 physicians), and the lowest in Talas oblast (113) and Naryn oblast (118). There were 161 physicians per 100 000 population in Batken oblast, 126 in Jalal-Abad oblast, 138 in Issyk-Kul oblast, 168 in Osh oblast and 128 in Chui oblast.

The total number of nurses (including midwives) was 33 303, equivalent to 498 per 100 000 population. The highest ratio was in Batken oblast (701 nurses per 100 000 population) and the lowest in Osh oblast (319). There were 495 nurses per 100 000 population in Naryn oblast, 478 in Jalal-Abad oblast, 419 in Issyk-Kul oblast, 514 in Osh oblast, 453 in Talas oblast, 312 in Bishkek city and 449 in Osh city.

to retrain specialists as family doctors, as the state medical education system had not been revised to train family doctors, instead focusing on the training of specialists.

This focus resulted in a human resources crisis in primary care, exacerbated by labour migration to Kazakhstan and Russia, as well as by the ageing of family doctors. Since 2008 population coverage by family doctors has declined to 53%. Of the total number of family doctors working in rural areas, 79% will soon reach pension age or have reached it already. Overall, family doctors account for 12% of the total number of doctors in the country, with the remaining 88% being narrow-profile specialists.

■ 4.2.3 Professional mobility of health workers

Health workers in the regions are appointed by the Ministry of Health, based on the request of health facilities. However, not all health workers are ready to work in the regions. Movement of medical personnel to the regions depends on the benefits package provided there. Due to higher salaries, health

professionals prefer to migrate to the Russian Federation, Kazakhstan or some European countries. According to data of the E-Health Centre in October 2018, 938 medical doctors had left the health system in 2018, of whom 30 had migrated abroad. Although this was made up for with 885 young physicians joining the health sector, this did not cover gaps in rural areas.

Reasons for the imbalance in the geographical distribution of health workers include social and living conditions, access to informal payments, and the opportunity to work in the (higher paid) private sector. A major problem is the shortage of family doctors in the regions, due to the low attractiveness of this specialty, with a high workload and low salaries (approximately KGS 5000 per month, equivalent to US\$ 70 (rate of 2018)). These factors have resulted in the outflow of physicians from the primary care system. To address this shortage, in October 2018 the Kyrgyz Government adopted a budget for incentives based on results for family doctors, which allowed doctors to earn up to KGS 25 000 per month, in addition to their fixed salary. However, in April 2021 the Kyrgyz Government decided to cancel this payment mechanism and increase wages for all medical personnel. This reform slightly improved the salaries of doctors and nurses, while salaries of family doctors only reached KGS 10 '000 (\approx US\$ 117), which was three times less than they used to get in 2019 and 2020. It should also be noted that all these changes to the salaries of health professionals still do not provide adequate remuneration, with the gap made up by informal payments.

■ 4.2.4 *Training of health personnel*

UNDERGRADUATE TRAINING

Medical education in Kyrgyzstan starts with six years of undergraduate education, provided by 22 higher medical education institutes. The Kyrgyz State Medical Academy (KSMA) is considered the leading institute in undergraduate medical education. It has six faculties: general practice, paediatrics, public health with a focus on sanitary-epidemiology, pharmacy, dentistry and nursing. In 2012 the Ministry of Education approved a new standard for medical education and the Kyrgyz State Medical Academy became the first institution to revise the curriculum for the specialty of general practitioners according to international standards. In June 2018

the first graduates finished their pre-diploma education in accordance with this new curriculum and 80% of graduates reported they were satisfied with their training.

The number of medical schools increased from four in 2010 to 22 in 2021 (comprising both public and private institutions), accompanied by an increase in the number of admitted students. In 2020–2021 there were overall 36 845 students (approximately 20 000 from abroad, mainly India and Pakistan, and approximately 16 000 from Kyrgyzstan) in years 1–6 of undergraduate medical education. Annually approximately 4200 medical students graduate. The vast majority of students from abroad return to their countries of origin. The increasing number of students undermines the quality of medical education, as students do not have sufficient exposure to clinical practice. The Ministry of Health is not in a position to address this situation, because it is the Ministry of Education that is in charge of licensing educational institutions. State financing for higher education is very limited (only the KSMA receives state financing of around 20% of its annual budget) and universities cover their financing gaps by increasing the number of paying students.

POSTGRADUATE TRAINING

The next stage of medical education before getting a licence to practise is postgraduate education, provided by seven higher medical education institutions, although two of them are reserved for students from abroad. The licensing for this type of institution is issued by the Ministry of Education, while the Ministry of Health determines the number of postgraduate medical students and the type of education, with limited state financing for postgraduate education and institutes enrolling additional students on a paid basis.

Until 2018 the duration of the postgraduate medical education was two years for all specialties, with around 1200 medical residents taking up postgraduate medical education per year. In 2018 there were 2427 medical residents, 1188 in their first year of studies and 1239 in their second year. The most popular specialties are surgery, obstetrics and gynaecology, cardiology, neurology and dentistry. Most residents prefer to stay in Bishkek or Osh hospitals for their postgraduate education. According to a 2016 study by the Health Policy Analysis Centre, the total number of medical specialists

(including residents and medical students) in Bishkek and Osh city hospitals amounted to 13 specialists per patient. This illustrates that clinical training of residents is hampered by limited access to practical work in hospitals.

Against this background, the Ministry of Health decided to decentralize postgraduate medical education to regional hospitals and to increase the duration from two to four or five years depending on specialty, in line with international standards. The Government approved this new regulation in December 2017, mandating that postgraduate education should start with two years' compulsory clinical practice as a generalist in regional hospitals. Only after this practice will residents be able to apply for a medical specialty. The decentralization of clinical practice during postgraduate education is expected to increase the competences and skills of young physicians and to help address the lack of family doctors in rural primary health care.

The reform was not well received by universities, students and parents and the regional health facilities needed time to prepare for accepting and training residents. Therefore the Ministry of Health decided to grant a transition period and make general practice training in regional hospitals obligatory only for students financed from the state budget. In 2018 the Ministry of Health enrolled 117 students as first-year residents in general practice; this figure increased to 166 in 2021. However, only half of them went to the regions; the remainder stayed in Bishkek and Osh.

CONTINUOUS MEDICAL EDUCATION

Continuous medical education (CME) is provided by the Kyrgyz State Medical Institute for Retraining and Continuous Medical Education (KSMIRCME) and its branch in Osh. Physicians and nurses are required to collect a certain number of credits during a five-year period to maintain their right to practise and obtain defined salary grades. Based on collected credits, doctors and nurses can apply for attestation and revalidation. The professional associations have been in charge of the competency development and assessment of physicians and nurses since 2021. The catalogue of competences and requirements for assessment are developed and coordinated by the professional associations. The courses are mainly developed and delivered by KSMIRCME based on a catalogue of competences and clinical guidelines, but not necessarily with adequate clinical practice. Due to limited state

financing, physicians must cover the costs of travel and accommodation in Bishkek or Osh. In order to facilitate the process, the Ministry of Health has introduced distance-learning courses since 2015, with an e-learning tool available in each oblast centre. By 2021 KSMIRCME had developed more than 80 distance-learning courses on different topics and introduced “peer review” groups for family doctors as a new type of CME. In early 2020 the Swiss Government supported the establishment of a telecommunication network in Kyrgyzstan, which now connects more than 60 structures: all health facilities at oblast and rayon level, academic institutions, the Ministry of Health, the E-Health Centre, MHIF and tertiary facilities. This network was especially useful during the onset of the COVID-19 pandemic in 2020 to deliver online courses for all health professionals involved in COVID management. The Primary Health Care Quality Strengthening Project (funded by the World Bank, KfW and SDC) is supporting KSMIRCME to build a national e-learning system through upgrading its learning management system, developing a methodology for e-learning content development and introducing changes to existing CME regulations to make e-learning an integral part of CME.

NURSING EDUCATION

Nursing education is provided by 25 nursing colleges, of which 10 are accountable to the Ministry of Health and four to the Ministry of Education, while the remaining 11 are private institutions with licences from the Ministry of Education. The nursing colleges have the following faculties: nursing, nursing with massage skills, general practice, obstetrics, dental orthopaedics, dentistry, health promotion, laboratory services and pharmacy. Similar to medical education, the number of institutions providing nursing education has increased since 2012. The number of graduates of nursing colleges increased from 3878 in 2012 to 6592 in 2017. Every year the health system employs approximately 7000 new nurses, of whom 1500 graduated with state funding and 5500 were self-paying. Due to the shortage of family doctors in rural areas, the Ministry of Health decided to upgrade the roles and responsibilities of nurses in primary care to provide adequate services to the population (Fonken et al., 2020). The nurses in rural areas are sometimes the only medical professionals to deliver medical services. At the rayon and

oblast levels nurses at primary care facilities receive patients before they see a family doctor. This independent work by nurses has allowed them to fulfil more tasks than they could before by assisting doctors, such as in vaccinations against COVID-19.

Reforms in medical and nursing education have been supported by the Swiss Government since 2008 through the medical faculty of Geneva University, in partnership with the local NGO “Initiatives in Medical Education”.

■ **4.2.5** *Physicians' career paths*

To become a medical doctor, candidates undergo six years of undergraduate education, followed by two years of postgraduate education with obligatory general practice, and two to four years of specialty training. They then receive a certificate and permission for clinical practice. Throughout their career as medical doctors, they need to validate their qualifications every five years through the continuous medical education system and attestation.

Medical doctors can become head of a hospital department or family medicine centre; this promotion is usually done internally at the facility level. The highest position for medical doctors is to become manager of a health facility nominated by the Ministry of Health, with approval by the rayon administration. Medical doctors can also be involved in the medical education system, by being faculty members of higher medical education institutes. In big cities such as Bishkek and Osh, where a private health sector exists, medical doctors can combine their practice in public and private health facilities.

■ **4.2.6** *Other health workers' career paths*

Nurses need to revalidate their qualification every three years. For nurses in primary health care, the career path is limited. They may start working as a nurse at an FAP and finish their nursing career without any change. Nurses working in hospitals can be promoted to chief nurse.

The graduates of the public health faculty of KSMA usually work in the sanitary-epidemiological system. Some work as health promotion specialists

at the Republican Health Promotion Centre and its branches at oblast and rayon level.

As a domestic pharmaceutical industry is largely lacking, pharmacists work mainly in pharmacies or as representatives of foreign pharmaceutical companies.

Public facilities for dental care have been transformed into semi-private organizations, where to a large extent services have to be paid by patients. Only selected groups of the population, such as children under 5 years and pensioners over 65 years, receive publicly funded dental care. The private sector is prominent in the big cities and this creates an opportunity for dentists to earn decent salaries.

5

Provision of services

■ Chapter summary

- Public health services are state-run and coordinated nationally. The country achieves high coverage rates for routine childhood vaccinations, but less emphasis is placed on addressing noncommunicable diseases, such as through measures addressing tobacco smoking, alcohol consumption, obesity and nutrition. The COVID-19 pandemic has posed new challenges.
- Primary care facilities are the most easily accessible health care providers, with FGPs most commonly responsible for the initial visit, check-up and, if necessary, examination and treatment.
- Specialized outpatient care is provided by FMCs, specialists of hospital outpatient departments, as well as private medical centres. Hospital or inpatient care is provided by hospitals at district and regional level. Tertiary care is mainly provided by health care organizations located in the capital, Bishkek.
- Government programmes aim to ensure the provision of essential medicines to vulnerable groups of the population, but out-of-pocket payments remain a major concern.

■ 5.1 Public health

Public health services are provided by organizations under the Ministry of Health. The public health functions of protecting the environment, occupational health and safety, food safety and emergency preparedness are provided by other agencies, including the State Agency for Environmental Protection and Forestry, the State Inspectorate for Environmental and Technical Safety, the Ministry of Emergencies and the Ministry of Agriculture.

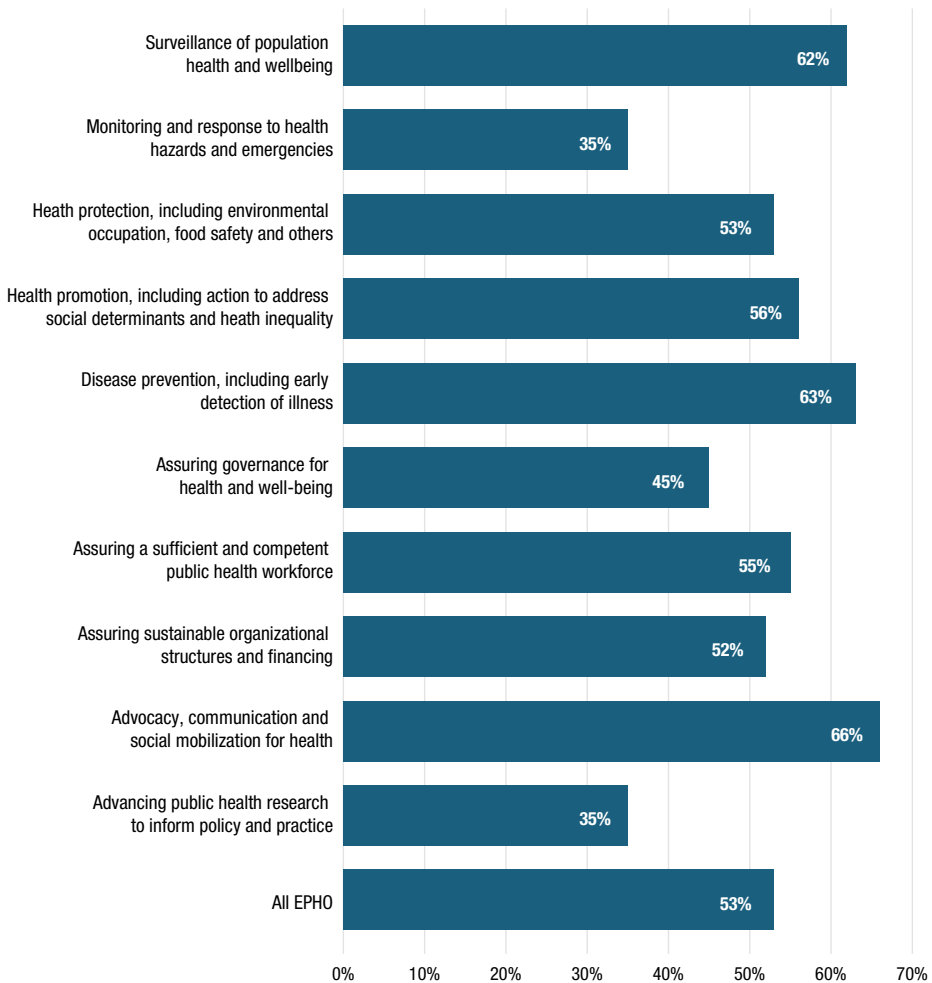
The Ministry of Health coordinates public health services in the health sector. One of the Deputy Ministers oversees the public health service and is also the Chief Sanitary Doctor. Republican level institutions include the Department of Disease Prevention and State Sanitary Epidemiological Inspection, the Republican Centre for Health Promotion, the Republican Centre for Immunoprophylaxis, the Centre for Quarantine and High-Threat Infections, and the Republican and Regional Centres for AIDS Prevention and Control, as well as the Scientific and Production Association “Preventive Medicine”. At the regional level there are regional, district and city Centres for Disease Prevention and State Sanitary and Epidemiological Control.

In 2014 the Coordination Council for Public Health was established at the government level, with the Vice Prime Minister as chairperson and the Deputy Minister of Health as deputy. The main objectives of the Public Health Coordination Council include monitoring the implementation of policies and practical measures in the areas of public health and the International Health Regulations, and coordinating the activities of ministries, the State Committee, administrative departments, local state administrations, public organizations, business communities and other partners in the areas of disease prevention, health protection and public health strengthening.

In 2016 a self-assessment of essential public health operations (EPHOs) was carried out with WHO support, with the aim of informing reform processes in public health (Ministry of Health, 2017). The assessment covered the 10 EPHOs, with a ranking system in which 0–20% meant that an EPHO was not developed and 80–100% that an EPHO was sustainable. Overall, Kyrgyzstan scored 53%, with no single EPHO exceeding a score of 66%. Scores were lowest for the EPHOs related to health hazards and emergencies and public health research

(both ranked at 35%), the EPHO on governance (45%) and the EPHO of assuring sustainable organizational structures and financing (52%) (Figure 5.1). Overall, there is a continued focus on infectious diseases and much less is done in the area of noncommunicable diseases, in terms of both surveillance and public health action. Public health services have their own health information systems that provide information to the E-Health Centre.

FIGURE 5.1 Results of the self-assessment of essential public health operations (EPHOs)



Source: Ministry of Health, 2017

Kyrgyzstan achieves high coverage rates for routine childhood vaccinations, with 96% of infants receiving the first dose against measles in 2019 (compared with 96% in the WHO European Region) and 98% of children receiving the second dose (compared with 91% in the WHO European Region). Immunization services are provided in maternity hospitals at birth and subsequently by primary care providers under the coordination of the Republican Centre for Immunoprophylaxis. Vaccinations provided under the national immunization calendar approved by the Ministry of Health are free of charge. However, vaccinations at primary care level require doctors to be present, as nurses and feldshers are not allowed to vaccinate independently.

Family planning activities and antenatal services are provided by primary care providers according to Ministry of Health standards.

The Republican Centre for Health Promotion in Bishkek and its branch in Osh take measures to maintain and strengthen public health, enhance healthy lifestyles and provide education on sanitary hygiene. At primary care level Health Promotion Units have been established in each FMC; these units interact closely with Village Health Committees that are engaged in health promotion activities at the community level throughout the country.

In 2019 the Newborn Screening Programme was launched, aimed at detecting congenital conditions. Work is under way to initiate regular antenatal screening, but systematic cancer screening for adults is still lacking.

The Government Programme on public health protection and health system development for 2019–2030, “Healthy Person – Prosperous Country”, includes the following objectives for the development of public health:

1. establish a single national system for health risk assessment and management for the purpose of effective public health management;
2. modernize the public health service, expanding its essential operations and assuring quality of services for prevention, surveillance, protection and promotion of health;
3. establish an integrated surveillance system for priority noncommunicable and communicable diseases; and
4. develop health promotion services through the widespread use of modern information and communication technologies, involving local governments, the local community and other key partners.

BOX 5.1 Are public health interventions making a difference?

Public health services in Kyrgyzstan retain a traditional focus on the prevention and control of communicable diseases, especially TB, HIV/AIDS and diarrhoeal infections. They are much less involved in addressing noncommunicable disease, such as through measures addressing tobacco smoking, alcohol consumption, obesity and nutrition.

Despite the fact that Kyrgyzstan is a signatory of the WHO Framework Convention on Tobacco Control, the country has so far not implemented many of the required measures. Tax and non-tax measures are inadequate; tobacco tax in Kyrgyzstan is among the lowest in the WHO European Region. Nicotine-replacement therapy has to be paid for out-of-pocket and is not supported by the state. In the 2019 Global Youth Tobacco Survey of schoolchildren aged 13–15 years, 25.5% of boys and 8.9% of girls indicated that they had smoked tobacco at least once.

Measures to reduce alcohol consumption are also inadequate. For example, despite the legal prohibition of selling alcohol to those under 18 years, there are no control mechanisms and no fines for violations. Alcohol consumption per capita increased slightly from 3.6 litres in 2000 to 3.9 litres in 2018.

According to the STEPS Survey, 23% of the population was obese (BMI \geq 30) in 2014, and BMI 56% was overweight (BMI \geq 25).

■ 5.2 Patient pathways

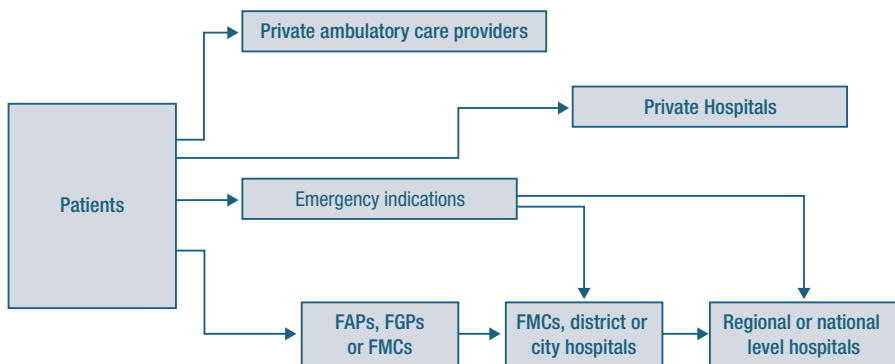
Primary care facilities are the most easily accessible health care providers. Physicians in FGPs are responsible for the initial visit, check-up, and, if necessary, examination and treatment (Figure 5.2). If a consultation with narrow-profile specialists is needed, the family doctor refers patients either to FMCs or to a hospital. To improve accessibility in rural areas, the so-called “Feldsher-Obstetric Points” (FAPs) have been established, run by a feldsher, as well as a family doctor who visits the FAP regularly. Primary care services are provided free of charge to the enrolled population. Services beyond the basic package have to be paid according to an approved price list (see Section 3.3).

Specialized outpatient care is provided by FMCs and specialists of hospital outpatient departments. To be admitted to hospital, patients will need a referral from a primary care physician. As stipulated under the SGBP, in the absence of such a referral patients have to cover the full cost of treatment

during routine hospital admissions. Hospital admissions and emergency or ambulance care for urgent indications do not require a referral and are provided free of charge.

Patients can also seek care from private providers and pay for it out-of-pocket. The number of private health care organizations contracted by the Mandatory Health Insurance Fund (MHIF) is limited, and they mainly include medical centres providing dialysis services. Referral to dialysis services is determined by a Commission under the Ministry of Health. Access to other high-cost services covered by the state is regulated by the Ministry of Health.

FIGURE 5.2 Patient pathways in the health system



Source: Authors' compilation

■ 5.3 Primary/ambulatory care

Primary care is the patient's first contact with the health system. In Kyrgyzstan it remains a priority area of health reforms. The Government Programme for 2019–2030, “Healthy Person – Prosperous Country”, envisages the development of an efficient primary health care model, including improvements in treatment, prevention and the early detection of disease, an expansion of services, improved payment mechanisms, the introduction of electronic patient records and other information technologies, and increased staff capacity.

In 2019 the MHIF concluded agreements with 49 FMCs, 17 legally independent FGPs and 29 General Practice Centres, all of which provide primary care services.

The main functional unit for delivering primary care services to the enrolled population are FGPs. According to the E-Health Centre, in 2020 a total of 662 FGPs were operating throughout the country, with 96% of the population enrolled in FGPs in 2020. FGPs can function independently, but most are part of FMCs or General Practice Centres. FGPs are staffed by a family doctor, but may also include an internist, paediatrician or gynaecologist, as well as medical nurses. However, there is a shortage of family doctors in many FGPs, especially in rural areas, and many staff positions are vacant. In 2020 only 81.8% of physician posts were filled. At the same time many physicians have several part-time positions. In 2020, 30% of physicians in FGPs had two or more positions. The situation seems to have improved somewhat in some of the regions. In 2020, 85.8% of positions for family doctors were filled in Osh and 97.4% in Bishkek.

In order to improve the quality and efficiency of primary care services and motivate family doctors, the Government allocated additional funding for 2018 and 2019 to increase health workers' wages (see Section 3.7). The number of visits to primary care providers per person in 2014 and 2015 was 2.6 and 2.5 respectively, decreasing to 1.6 in 2020 (E-Health Centre).

Outpatient services also include antenatal and postnatal services, home visits, diagnostic and laboratory services, and prescription of medicines (including preferential drug programmes), as well as vaccination and health education activities.

FGP doctors are gatekeepers to higher levels of care which require a referral. Patients can be enrolled in the FGP of their choice, but choice may be limited by location and number of doctors.

In some rural areas with a population of over 500–700 people, FAPs have been established with the purpose of making primary care services more accessible. As a rule, they are staffed with a feldsher. In larger settlements a midwife and a medical nurse also work in this type of health care facility. FAPs are embedded in FGPs. The FGP doctor in whose territory the FAP is located visits and sees patients according to a prior schedule. FAP services are limited to basic health care activities, antenatal and postnatal care, immunization and health education. The number of visits to FAPs per person and year remained fairly constant at 3.1–3.2 in 2015–2019.

In 2020, 1057 FAPs were operating throughout the country. This number has increased slightly in recent years, although no evidence is available on whether this has led to improvements in the accessibility and quality of

primary care. The staffing rate for doctors at FMCs in 2019 was 85%, while for nurses, feldshers and midwives it stood at 93.5%.

In addition to FGP doctors, FMCs also include narrow-profile specialists, such as cardiologists, ophthalmologists and surgeons. There is an ongoing discussion in the country on the role of narrow-profile specialists at the level of primary care. In some districts of Issyk-Kul oblast, pilots were conducted to strengthen the skills and capacities of family doctors and to transfer narrow-profile specialists to hospital organizations.

In 2021 the Ministry of Health conducted major changes to the structure of health care provision, reorganizing health care organizations by merging territorial family medicine centres with territorial hospitals, and territorial centres of state sanitary epidemiological surveillance into interdistrict centres of disease prevention and state sanitary-epidemiology control.

As of March 2022 there were 17 family medicine centres (seven oblast level facilities and 10 in Bishkek), 61 general practice centres (primary care facilities with beds – the product of merging territorial family medicine centres with territorial hospitals) and 1059 Feldsher-Obstetric Points located in remote rural areas and staffed by nurses.

The stated reasons for these changes were inefficiencies in the utilization of human, financial and material resources by small health care providers at the district level and the duplication and incomplete use of laboratory and diagnostic equipment. The purpose of the reform was to optimize available resources through the consolidation of accounting, personnel, laboratory services, public procurement, and data reporting and analysis. The reform aimed to reduce the number of managerial and administrative personnel.

Reforms to the structure of primary care facilities aimed to bring tangible results both in financial terms and in improving the quality of medical services provided. At the same time the departments for collecting statistical and analytical data and reporting, and for laboratory services, were not merged. Furthermore, when merging financial departments, there was no major reduction in staff positions. The utilization of a uniform approach to payroll and the use of a unified policy in evaluating the activities of FMC employees led to the “equalization” of salaries of medical workers serving residential areas and the central districts of the city. This led to an outflow of medical personnel from FMCs serving difficult sections of the city (e.g. suburban areas), which in turn led to an increase in queues, overcrowding

of patients, an increase in the risk of the spread of infections and a further decrease in the quality of medical services provided. Family medicine centres, left without financial resources, lost their independence, and thus their ability to tackle emerging and urgent issues. One of the main issues causing dissatisfaction among medical workers of FMCs following the mergers was the lack of transparency in the distribution of financial resources. In the context of the coronavirus pandemic, the shortcomings of the centralization process were laid bare. The integrated FMCs could not purchase PPE in a timely manner, and there was no control over the execution of orders from the Ministry of Health.

According to a 2014 study on primary care (Kyrgyz Court of Accounts, USAID & UNDP, 2014), population satisfaction with FGP services was satisfactory, reaching on average 3.4 to 4 on a 5-score scale in the dimensions explored by the survey. Patients were least satisfied with the time allocated to patients by the family doctor during the consultation (with a score of 3.4). The assessment of the quality of services found that about a quarter of patients registered as having hypertension did not have their blood pressure controlled when consulting the family doctor. There is a common practice of prescribing more expensive pharmaceuticals than necessary, usually due to pharmaceutical companies incentivizing doctors to prescribe certain drugs. This contributes to some patients not taking their pharmaceuticals for hypertension control on a regular basis, as well as to restricted access to other pharmaceuticals (Kyrgyz Court of Accounts, USAID & UNDP, 2014).

Patients with diabetes are the responsibility of endocrinologists in FMCs and family doctors are not involved in diabetes treatment and care, unless there are no endocrinologists. This situation complicates access to FGPs for patients with diabetes who are living in villages and are enrolled in FGPs away from FMCs. These patients face transportation barriers and costs in getting to FMCs, in order to be seen by an endocrinologist and receive medication.

Accessibility to preferential medicines for pregnant women and children under 5 years of age is limited. These groups of the population underuse their rights under the preferential drug programmes (Kyrgyz Court of Accounts, USAID & UNDP, 2014). Reasons include geographical factors, such as living in small villages, lack of pharmacies and distance from FGPs.

At the FGP level access to laboratory and diagnostic tests is limited, despite the fact that they are listed in the SGBP. There have been cases when

patients had to pay for these types of services at the FMC or FGP or when they were referred to private diagnostic laboratories and centres. Furthermore, FGP patients in villages often have to go at their own expense to FMCs for laboratory tests, as there may be no laboratories at FGPs or they may be understaffed. Reasons for this include insufficient funding for primary care and consequently poor infrastructure and laboratory equipment, especially when compared with hospitals or private diagnostic centres.

BOX 5.2 What are the key strengths and weaknesses of primary care?

Primary care providers are located throughout the country and are accessible to the population. The Government and the Ministry of Health have recognized the development of primary care as a priority, which is reflected in an additional allocation of funds in 2018 and 2019, as well as the priorities of the Government Programme on Public Health Protection and Health System Development for 2019–2030. Kyrgyzstan is implementing various pilots in primary care in order to improve the efficiency of service delivery. The financing system can now redistribute funds from hospital to outpatient care in order to strengthen primary care.

Despite these attempts to strengthen primary care, a number of persistent challenges remain. Public confidence in primary care services remains low, compared to services offered by hospitals and narrow-profile specialists. One of the challenges is the limited scope of diagnostic and treatment services available in primary care. Another challenge for strengthening primary care is that the prestige of hospital care remains quite high.

The Government's 2021 Plan for Improving Healthcare Delivery resulted in primary care organizations being merged with hospitals at district level. Whether this will strengthen or weaken primary care remains to be seen.

■ 5.4 Specialized care

Specialized ambulatory care is provided by specialists at FMCs, outpatient departments of hospitals, as well as private medical centres. Hospital or inpatient care is provided by hospitals at district and regional level. Tertiary care is mainly provided by health care organizations located in the capital, Bishkek.

■ 5.4.1 *Specialized ambulatory care*

FMCs are distributed throughout the country and provide specialized ambulatory care to the population enrolled in FGPs. For those not enrolled, specialized services are provided on a fee-for-service basis, in accordance with the approved price list. Narrow-profile specialists at FMC level cover different areas, which may include cardiology; surgery; ear, nose and throat; ophthalmology; endocrinology; gynaecology; and neurology. Despite the standards established by the Ministry of Health for FMCs with narrow-profile specialists, there are wide differences in the services offered by these specialists, depending on the specific institution, as well as the territory and population covered. In some FMCs specialists may provide surgical interventions, while in others they may only provide consultations and refer patients to hospitals. Narrow-profile specialists are more widely available in the FMCs of regional capitals and the city of Bishkek. The uneven distribution of narrow-profile specialists at primary care level impacts on the development of competencies of FGP doctors. For example, there are differences in managing paediatric or pregnant patients in Bishkek and the regions. In Bishkek pregnant women are usually seen by an FMC gynaecologist, regardless of their condition. In the regions pregnant women are managed by FGP doctors, and are referred to gynaecologists only in the case of certain indications.

There are no specialized independent clinics in the country. In the past there used to be children's clinics in the cities, which were later merged with adults' clinics, and FMCs were created on the basis of these merged facilities. In some areas of Issyk-Kul region, pilots were carried out to transfer narrow-profile specialists from FMCs to "territorial" hospitals (at regional, city or district level) in order to improve the efficiency of primary care.

One of the problems of narrow-profile specialists working at FMC level is their lower qualification compared to specialists working at hospital level; many of them carry out activities which could be delegated to FGP doctors. Furthermore, the range of manipulations and medical interventions performed by FMC narrow-profile specialists is limited. Narrow-profile specialists are, for example, involved in conducting preventive medical examinations and check-ups of the population, as well as examining draftees for military medical commissions. For relatively more complex outpatient procedures, patients are referred to hospitals.

Ambulatory specialized care at hospital level is provided by

ambulatory-diagnostic sub-departments of hospitals. Patients are referred by FGP doctors or narrow-profile specialists or come without referral. The laboratory and diagnostic equipment of hospitals is generally much better than the equipment in adjacent FMCs. There is an ongoing discussion on the role of narrow-profile specialists at FMC level, and the piloting of new models of narrow-profile specialist work at district level might open up new solutions.

Ambulatory care provided by private medical centres is delivered by a fairly wide network of private medical organizations, most of which are concentrated in large cities. In practice, there is no integrated interaction with FMCs or other public organizations. Patients seek care from both sectors, after seeing advertisements or following the advice of specialists. Ambulatory private medical services are not covered by the MHIF. The exception is dialysis services of private medical centres which are contracted by the MHIF and paid per session. In 2018 contracts were concluded with 14 private medical centres and services were provided to 1177 patients.

■ 5.4.2 *Day care*

Day care services can be provided by FMCs and hospitals. The Ministry of Health has issued an order to approve the “Regulations on day care hospital at the level of Family Medicine Centres”. The first steps in this direction were taken in 2000. Daycare services began to be provided to patients who had traditionally been treated in inpatient settings, such as those with mild or moderate severity of diseases, as well as those at convalescent stages. This helped to reduce the burden on inpatient care and improve access to services.

Patients are referred for daycare services in hospitals or FMCs by FGP doctors as well as by narrow-profile specialists. In accordance with the SGBP, services are provided free of charge to recipients of social benefits and those with certain clinical indications. Those covered by mandatory health insurance have to pay 50% of costs as specified in the price list, while the rest of the population has to pay the full costs as specified in the price list. In most cases medicines have to be purchased by the patients themselves and are not covered by the MHIF.

In order to improve delivery of inpatient care to children who do not need long-term hospitalization and to improve the efficient use of state funds,

in 2015 a mechanism was introduced to fund cases of short-term hospitalization of children. In 2017 one-day or short-stay beds were opened in 77 health care organizations providing inpatient care to children, with overall 720 one-day or short-stay beds. The MHIF assesses the performance of these hospitals on a regular basis. Introduction of short-stay units has improved timely delivery of care to children, including through a reduced time from a child's admission to first intervention, improved access to basic laboratory services, and improved supply of equipment and medicines. According to MHIF data, in 2018 a total of 35 981 children were treated in one-day or short-stay units, an increase of 26.7% compared to 2017.

Funding was also introduced for cases of emergency medical care for patients admitted to emergency health care departments in pilot hospitals in Osh oblast, which were equipped with the support of the German Credit Institute for Reconstruction (KfW). Previously, cases in which patients were discharged after less than 48 hours of stay were not paid by the MHIF. Consequently, hospitals used to keep patients longer to ensure reimbursement.

There are plans to develop provider payment mechanisms for one-day surgery services, such as for hernias or cataracts. Currently, these services are still provided in inpatient settings.

■ 5.4.3 *Inpatient care*

Inpatient or hospital services are provided in General Practice Centres, territorial hospitals, regional hospitals, specialized hospitals and hospitals at the republican level. According to the E-Health Centre, in 2020 inpatient services in the public sector were provided by 135 organizations (Table 5.1).

In accordance with the administrative-territorial division of the country, in each district inpatient care is provided either in the district territorial hospital, or, in districts with a small population size, in General Practice Centres. Some hospitals have branches, the so-called "territorial hospital branches", which are located in the largest settlements of the district. According to the E-Health Centre, in 2017 there were 14.1 hospital admissions per 100 000 population. The regional merged hospitals are the best equipped and staffed hospitals in the regions. There are seven regional hospitals, located in the regional centres.

Tertiary health care is provided by republican (national level) organizations, which include republican hospitals, research institutes and centres.

TABLE 5.1 Hospital and hospital bed numbers according to type of services and administrative affiliation, 2020

	ALL ORGANIZATIONS, 2020		REPUBLICAN ORGANIZATIONS, 2020	
	NUMBER OF ORGANIZATIONS	NUMBER OF HOSPITAL BEDS	NUMBER OF ORGANIZATIONS	NUMBER OF HOSPITAL BEDS
National hospital	1	1 070	1	1 070
National and scientific centres	6	2 099	6	2 099
Scientific-research institutions	4	917	2	378
Narcology centres	2	230	1	180
Oblast merged hospitals	7	3 436		
Territorial hospitals (including adult, oblast, city and rayon hospitals)	40	9 353		
Child hospitals (including oblast, city and rayon hospitals)	3	1 050		
Gynaecology hospitals	1	45		
Maternity hospitals	2	245		
Perinatal hospitals	1	230		
Rehabilitation centres for adults (except for TB)	2	162		
Rehabilitation centres for children (except for TB)	4	265		
TB organizations (hospitals, rehabilitation centres, centres for TB treatment)	20	1 873	4	380
Psychiatric organizations	6	1 495	4	1 225
Infectious disease hospitals	1	500	1	500
General Practice Centres	29	1 827		
Others	6	465	2	170
TOTAL	135	25 262	21	6 002

All tertiary level institutions provide highly specialized care in such areas and specialties as phthisiology (TB), oncology, haematology, cardiology, cardiac surgery and psychiatry. Tertiary level organizations also provide specialized outpatient or ambulatory services. Virtually all tertiary care institutions are clinical sites for medical education, for both under- and postgraduate education. They also participate in the development of national diagnostic and treatment standards, clinical protocols and development programmes. Tertiary care organizations are mostly located in Bishkek and the majority of hospitalized patients are residents of Bishkek city and Chui oblast. Tertiary level services are also provided by private organizations, including in cardiology, cardiac surgery, ophthalmology and orthopaedic surgery. According to the MHIF, about 18% of its budget in 2018 was allocated for the financing of tertiary level organizations. There are also substantial out-of-pocket payments for high-cost services.

BOX 5.3 Are the efforts to improve integration of care working?

Various pilots are being implemented to improve the integration of services, including for HIV/AIDS, TB and mental health care. There are efforts to improve the integration of HIV services for patients at primary care and community level, but lack of staff motivation and continued stigma towards patients remain major barriers. In some regions initiatives are being implemented that aim to facilitate integrated services at primary care level for TB patients, such as through a “case management” model and MHIF payment for successful treatment outcomes. In recent years the role of primary care has markedly increased in early detection, diagnosis and treatment, while interaction with other services (such as for TB and public health) and so-called “community-based treatment supporters”, who provide support to patients and interact with medical personnel, has intensified. Services for patients in need of outpatient mental health care have also been expanded, but are still at an early stage of development.

There are also efforts to strengthen primary care and expand the functions of doctors and nurses. New information systems are being developed at the levels of primary and specialized care, and interaction with information systems of other sectors (e.g. social services, state registration and MHIF) is being improved. A major role is played by the implementation of the “Tyunduk” system of interagency interaction, supported by the Government. The new Health System Development Programme 2030 envisages further measures for the integration of vertical programmes, as well as for expanding interagency interaction in the area of public health.

Inpatient or hospital care is evenly distributed across the country. Most of the infrastructure was inherited from the Soviet period, although there are some new hospitals. Access to inpatient services is generally not considered to be a problem. However, according to MHIF data, the number of hospitalizations decreased in 2020 by 15.9% compared to 2019, which is likely due to the COVID-19 pandemic affecting access to inpatient services.

BOX 5.4 What do patients think of the care they receive?

Patient experience data are not yet systematically collected and often derive from ad hoc surveys supported by international development partners (Ahmedov et al., 2020). Available patient assessments of the care they receive vary greatly across studies and settings. In 2017 the MHIF, with the involvement of Village Health Committees, interviewed 314 patients who had previously received inpatient treatment. Of those, 80% indicated that they had purchased some pharmaceuticals themselves, and only 20% said that all required pharmaceuticals were provided by the hospital. In terms of informal payments, 95% of respondents reported paying for various services in the hospital. When asked to evaluate the quality of treatment, 70% said they were satisfied, while 30% were unsatisfied. In 2017 and 2018 the MHIF also interviewed patients in hospitals (with more than 2000 respondents). The reported level of informal payments was about 5%, and 20% of patients reported purchasing pharmaceuticals during their inpatient treatment period. The stark discrepancy between these results and those of the earlier study is likely due to the fact that this survey was conducted in hospitals at a time when patients were receiving inpatient treatment.

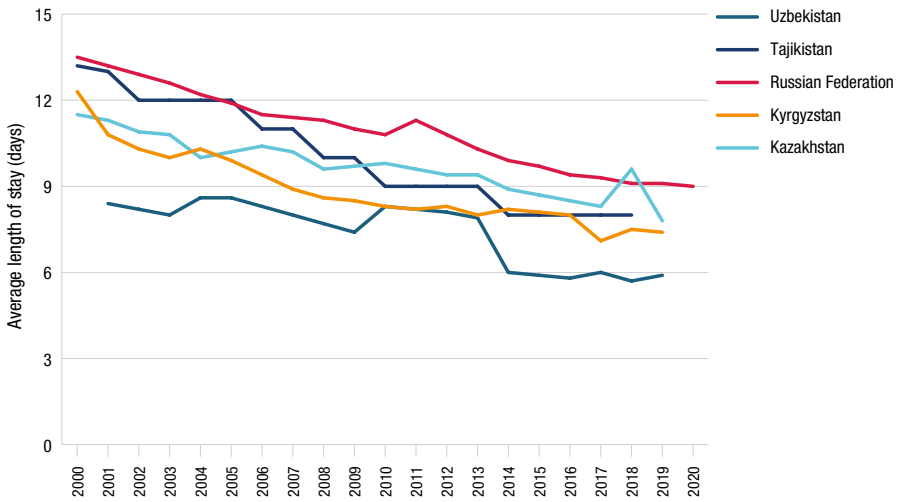
The World Bank-funded primary care strengthening project is supporting the Ministry of Health in implementing continuous data collection on patient experience from primary care facilities. Health facility level data are expected to be publicly available and linked to MHIF payments in an effort to improve the quality of care and responsiveness in state health facilities.

The quarterly assessments carried out under the Results-Based Financing Project, which sought to improve the quality of maternal, neonatal and paediatric care at rayon hospital level in 2014–2018, covered 43 health care organizations and selected discharged patients by random sampling. Patient satisfaction with hospital services was low only in the first year (2014) of the project, ranging from 8% to 55%. Already in the second year of the project satisfaction levels had reached 80%, and by the end of the project in 2018 levels exceeded 90%. Respondents consisted of mothers who had given birth in rayon hospitals and satisfaction was measured using such indicators as access to hot water and timely assistance.

The average length of stay in acute care hospitals has decreased in Kyrgyzstan in recent years and is now below levels in the Russian Federation, Kazakhstan and Tajikistan (Figure 5.3).

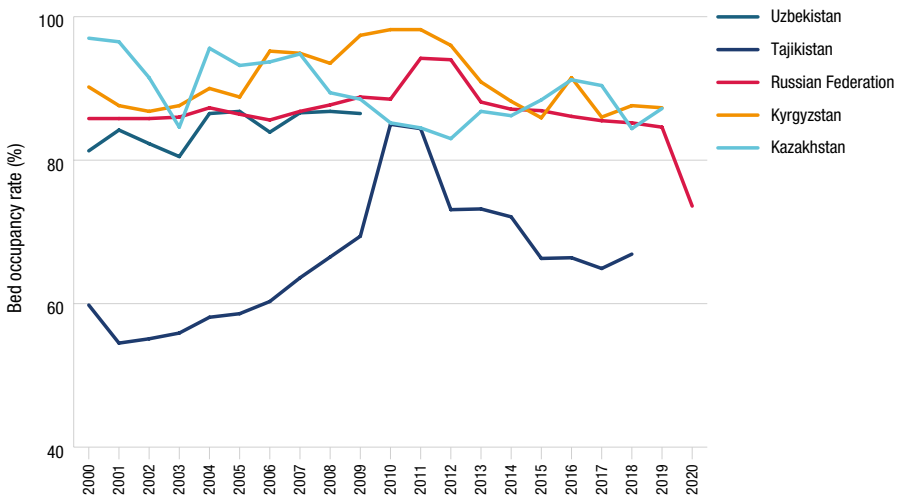
The bed occupancy rate in acute care hospitals in Kyrgyzstan has declined in recent years, but remains above 85% (Figure 5.4).

FIGURE 5.3 Average length of stay in acute care hospitals in Kyrgyzstan and selected countries, 2000–2020



Source: WHO, 2022a

FIGURE 5.4 Bed occupancy rate in acute care hospitals in Kyrgyzstan and selected countries, 2000–2020



Source: WHO, 2022a

■ 5.5 Emergency care

According to the State-Guaranteed Benefits Package, emergency care is provided to patients in life-threatening conditions and requiring urgent medical intervention, such as in the case of accidents, trauma or poisoning. Emergency care is provided by:

- emergency care services;
- health care organizations, regardless of form of ownership; and
- emergency consultative health care (carried out by special units of the national hospital and regional hospitals; in the past, these units were called air ambulances, but now they provide specialized assistance by road transport).

Emergency care is provided to all citizens free of charge, including the provision of medicines and medical devices.

In Kyrgyzstan the ambulance service covers both rural and urban areas. Call centres are open around the clock. In 2016 there were two centres for emergency and acute health care, one in Bishkek and the other in the city of Osh. Other parts of the country are less well covered by ambulance services, but there were 128 branches of FMCs or General Health Care Centres providing emergency care.

According to data from the E-Health Centre, in 2019 a total of 111 general-profile and 103 specialized health teams carried out activities in the centres and departments of emergency and acute health care, including 30 cardiology, 20 intensive care and 14 psychiatric teams. In the same year 481 feldsher-midwifery points (FAPs) delivered health care throughout the country. Overall, the emergency care services comprised a total of 293 doctors and 1332 paramedical personnel, reaching a staffing level of 65.1% for doctors and 96% for paramedical personnel. Despite the high number of filled positions, there is a high level of turnover, in particular among doctors.

In 2019 a total of 851 681 patients received emergency health care, with on average, 1006 calls per feldsher-midwifery team and 895 calls per specialized team. In total, 635 186 calls were served, amounting to 131 per 1000 population.

BOX 5.5 Patient pathway in an emergency care episode

1. In Kyrgyzstan a patient with acute appendicitis, or those close to the patient, call the ambulance service by phone, using the number 103.
2. In cities and large settlements, the call is received by the dispatcher, who registers the call and then dispatches the ambulance team. In small towns calls may be handled by feldshers of the ambulance service, which then provides services to the patient.
3. The team responding to the call assesses the patient's condition and delivers them to the hospital admission unit.
4. At the hospital the patient is seen by the doctor on duty, in consultation with other specialists if needed, who then conducts all necessary examinations. If the condition requires a surgical intervention, the patient is examined by a surgeon, and the patient is referred to the operating unit.

Alternatively, the patient can access directly the hospital's emergency unit, or can be immediately referred to the hospital after examination by a primary care provider.

The ambulance teams are funded by the MHIF. In accordance with the Law "On the MHIF Budget for 2019", KGS 448 million were allocated to emergency care services, equivalent to KGS 570 000 per team and year.

In 2004 reforms of emergency care services aimed to strengthen primary care and assure continuity in the work of the services, transferring all ambulance units from territorial (district level) hospitals to FMCs. In recent years, with the development of emergency services in hospitals and the opening of emergency health care units in territorial hospitals, pilots have been implemented in Issyk-Kul oblast, merging the ambulance service with these new units with the purpose of improving efficiency of emergency care for patients.

The main problems in ambulance care include the inadequate number and equipment of ambulance vehicles, and the large number of obsolete vehicles that are rarely upgraded. There is no air transport for emergency health care.

The following activities in the area of emergency care are envisaged by the 2019–2030 Health Development Programme:

- development of an ambulance service development plan, determining its place and role in the overall health system;
- development of mechanisms for the efficient operation of ambulance services based on the principles of fair and equal access for the entire population;
- development and implementation of efficient methods of financing of ambulance health services;
- improving the capacity of specialists of ambulance services to enable them to provide timely and high-quality services; and
- development and implementation of qualification requirements for medical specialists of ambulance services and retraining of nursing staff on a short-term basis.

■ 5.6 Pharmaceutical care

Pharmaceutical policy is set out by the Ministry of Health. The Department of Drug Provision and Medical Equipment serves as the national regulatory agency for the regulation of medicines and medical devices. It implements on behalf of the Ministry of Health national policies on pharmaceuticals and is responsible for the market authorization, as well as the post-marketing surveillance, of medicines, vaccines and medical devices.

In January 2020, 5756 medicines and 1428 medical devices had market authorization. The pharmaceutical sector's production capabilities are limited, and pharmaceutical products produced by domestic manufacturers in 2019 amounted to only 7.9% of total consumption. There are 36 domestic manufacturing sites, mostly producing herbal medicines and packaging bulk products.

Overall, there are 2703 private pharmacies, including small ones (kiosks), 37 hospital pharmacies and 340 wholesalers. The wholesale business entities are not separated from the retail network as they are in many other countries and most of the big wholesale companies have a nationwide retail network that undermines fair pricing mechanisms and equitable access.

Since independence, Kyrgyzstan has adopted four strategic documents in the pharmaceutical sector. The latest State Drug Policy spans the period from 2014 to 2020 and a new State Drug Policy was being developed at the time of writing. It was developed by an Interagency Working Group,

established by the Ministry of Health with the support of the Medicines Transparency Alliance project. The process of development was transparent and accompanied by extensive consultations to take into consideration the interests, needs and expectations of citizens, balanced with the wishes of the state, nongovernmental organizations and business.

Since the adoption of the State Drug Policy, far-reaching steps have been taken to improve access to affordable, safe, effective and high-quality medicines. The legislative framework has been comprehensively revised and three new laws regulating the pharmaceutical sector were adopted in 2017, followed by revision of sub-laws according to international expertise but also taking into account the requirements for the EAEU (see Section 2.7.4). Kyrgyzstan started the procedure to join the EEU in 2011 and officially became its fifth member in 2015. The pharmaceutical sector is one of the first to establish a common market within the EAEU. The common market is anticipated to start functioning at full capacity from January 2022 for medical devices and from January 2026 for medicines.

A Good Distribution Practice and Good Manufacturing Practice Inspectorate was set up in 2019. The inspectors were trained by WHO.

Household out-of-pocket payments for medicines (formal and informal) have severe implications for access and financial protection. The increase in catastrophic expenditure in recent years has been driven mainly by increased out-of-pocket spending on outpatient medicines. This increased spending can be attributed to price increases, which in turn can be attributed to a lack of price and mark-up regulations, vulnerability to exchange rate shocks in a market heavily reliant on imported medicines, and inappropriate use of medicines due to limited enforcement of prescriptions. To address this issue, a new regulation approved by Government Decree No. 579 of 29 October 2019 introduced price regulation mechanisms for the medicines included in the ADP.

The new price control mechanism will be tested nationwide in 2022, covering all medicines included in the ADP, the SGBP and a selected list of medicines for COVID-19 management. This inception phase aims to identify problems and shortcomings of the new mechanism before adopting permanent rules for price registration and mark-ups on sales of medicines.

Two programmes are being implemented for the preferential provision of medicines to certain groups of the population. The first is the ADP,

implemented since 2000, and the second is the provision of medicines for specified categories of patients (those with bronchial asthma, epilepsy, paranoid schizophrenia, affective disorders and cancer) under the SGBP, implemented since 2006. The two programmes are regulated by Government Decree No. 28 of 12 January 2012 “On approval of the Regulation on preferential drug provision of the population at the outpatient level under the SGBP and the Additional Programme of Mandatory Health Insurance”.

The ADP has characteristics of disease-specific reimbursement schemes, as it mainly targets noncommunicable diseases. It can also be considered population-specific, because only those with mandatory health insurance can benefit from the programme. Insured people must enrol at their FGP and can then receive special prescription forms from their attending physician. These prescriptions can only be dispensed in pharmacies that have entered a contract with the MHIF. The contract allows pharmacies to sell specified medicines at lower prices, as the remainder of the amount is paid by the MHIF, the single purchaser of publicly paid health services. The range and the payment mechanism for medicines dispensed under the ADP are regulated in the contract between pharmacies and the MHIF.

The goals of introducing preferential drug programmes were to ensure the availability of drugs and their affordability, and, most importantly, to allow patients to be treated on an outpatient basis (essentially at home) in consultation with a family doctor, instead of having to be admitted to hospital, incurring large financial costs.

■ 5.7 Rehabilitation/intermediate care

Rehabilitation services are provided by various organizations under the Ministry of Health, as well as by the Ministry of Social Development, the Federation of Trade Unions and other institutions and private sector organizations. Rehabilitation services under the Ministry of Health system are funded, regulated and managed by the Ministry of Health. They include one Research Institute, two Rehabilitation Centres for adults, and four Rehabilitation Centres for children, but exclude TB Rehabilitation Centres.

The Kyrgyz Research Institute of Balneology and Rehabilitation is located near Bishkek. The Institute’s capacity is more than 500 beds, of which 310 are funded by the Institute’s budget, while the remaining beds

are funded on a fee-for-service basis. Rehabilitation care is provided to more than 12 000 people annually. Rehabilitation Centres are located in other regions of the country. They have overall 125 beds for adult patients and 265 for paediatric ones. Rehabilitation services include physical therapy, thermotherapy, hydrotherapy, electrotherapy, light therapy, climatotherapy and mud therapy. There is also a range of services offered by private sector organizations.

In accordance with the Law No. 38 of 3 April 2008 “On the Rights and Guarantees of Persons with Disabilities”, health resort treatment of persons with disabilities is provided by the social protection authorities at the applicant’s place of residence according to disability groups. People with disabilities from Group I can receive health resort treatment once every five years for free; those from Group II can receive treatment once every five years with a 50% discount; and those from Group III can receive it once every five years with a 30% discount. Vouchers for health resort treatment for people with disabilities are provided at the expense of the republican budget.

Those in formal employment contribute 0.25% of their payroll to the Health Recovery Fund, whose funds are earmarked for health resort treatment. These contributions are collected by the Social Fund and forwarded to the Federation of Trade Unions. In 2019, in accordance with the Law “On the Budget of the Social Fund for 2019”, KGS 287 million was allocated to the Health Recovery Fund. Based on the contributions received, the Federation of Trade Unions determines the annual funding volume and distributes vouchers to health resorts.

In general, further development of rehabilitation services in the country is needed, especially for complications of cardiovascular diseases, the musculoskeletal system, neurological pathology and early interventions for children in need of treatment.

■ 5.8 Long-term care

Formal long-term care is provided by the institutions of social protection, and the health and education systems. However, most long-term care is provided informally within families.

The Ministry of Labour and Social Development has 116 inpatient institutions that are used for long-term care. These include nursing homes,

rehabilitation centres and other residential care facilities. There are also three institutions for children with disabilities with overall 384 beds. Under the Ministry of Education and Science there are 56 boarding schools, nine orphanages and 14 institutions directly engaged in delivering long-term care to people with disabilities. These 14 institutions have over 2000 places for people with disabilities. The system of the Ministry of Health includes three facilities for overall 250 children aged under 4 years. Once children turn 4 years, they are transferred to children's institutions of the social protection system.

Discussions are under way on reducing the number of inpatient facilities and developing community-based and outpatient services, and in recent years bed capacity has decreased. The country lacks homes for older people in need of nursing care and there is a high level of hospital admissions of older people with chronic diseases. Nongovernmental and private organizations also provide long-term care services. The Ministry of Labour and Social Development uses a “State Social Contract” mechanism, which is used to contract NGOs for the delivery of rehabilitation services, including for people with disabilities.

■ 5.9 Services for informal carers

The main burden of care for people with disabilities falls on family members, including parents, children or other relatives. Formal care is provided by social workers, generally through the Ministry of Labour and Social Protection. Informal carers are also supported by the National Red Crescent Society, some NGOs and volunteers.

The territorial divisions of social welfare services cover only a small proportion of informal carers. Often, these services are limited to the provision of a limited period of paid leave (based on a sick-leave certificate) to parents taking care of a child who is ill. However, there is no integrated system that meets the needs of informal carers.

The exact number of informal carers is unknown. However, given the high relevance of the problem, the Government introduced a system of personal assistants beginning in January 2019. This system provides state support (KGS 4900, approximately US\$ 70, per month) to parents who take care of children with disabilities. It is envisaged to revise the rate annually,

based on changes in the cost of living. Personal assistants can be parents, legal representatives (adoptive parents, guardians, trustees), close relatives (grandmother, grandfather, brothers and sisters, foster parent) or other persons under 65 years of age, after being trained. When personal assistants take care of several (two or more) children with disabilities from the same family, they are entitled to receive an additional 50% of the allowance per child. Furthermore, carers of people with disabilities of Group I are entitled to a 50% discount on health resort treatment once every five years. The system of personal assistants was developed by the Ministry of Social Development to support people financially who have to take care of their own sick children. However, the training is not systematic, as the main goal was to provide financial support.

■ 5.10 Palliative care

The first palliative care organizations emerged in Kyrgyzstan with the support of international organizations. In 1990 the first hospice was created on the basis of the National Centre for Oncology with the technical support of City Hope International Project. In the same year another hospice was created in the Issyk-Kul region, in the city of Karakol. These hospices did not last long. Subsequently, palliative care departments were created in the National Oncology Centre with 25 beds, in the Osh Interregional Oncology Centre with five beds and in the Palliative Care Hospital in Kemin with 60 beds for TB patients (Asanalieva, 2017). The funding of these hospitals is provided by the MHIF. In 2015 the “First Children’s Hospice” with eight beds was established by a public charity foundation. The Bishkek City Hall has provided the building and the hospice’s operation is supported through charity.

Since 2010 the Soros Foundation-Kyrgyzstan has promoted the development of palliative care. Since 2013 it has supported three pilot sites for the provision of outpatient services and home care in the cities of Bishkek and Osh. The work is carried out by interdisciplinary teams consisting of a doctor, a psychologist and nurses. In 2010 a palliative care needs assessment was conducted (Connor, 2012) which found that over 20 000 people per year are in need of palliative care, including over 3300 people who need it daily.

One important aspect of palliative care is the inclusion of painkillers, including narcotic drugs, in the preferential outpatient drug programmes. Since 2003 the MHIF has financed a programme for reimbursement of pharmaceuticals for terminal stage cancer patients. In 2015 morphine tablet formulations were introduced and the norms for their dispensing to patients were increased. However, there are still some barriers to accessing narcotic painkillers, limitations in the doses of morphine, and limited availability of tablet forms. The pharmacy chain is not sufficiently motivated to engage in the distribution of these drugs, as they have to meet many requirements and profit margins are small. The annual demand for patients is equivalent to 18kg of dry morphine, while the annual consumption amounts to about 500 grams, indicating considerable unmet need. Another barrier is a rather complicated mechanism of accounting and regulation for the sale, storage and prescription of narcotic drugs. It has been proposed to simplify these mechanisms to increase access to drugs, especially in the regions.

In 2016 the Ministry of Health approved standards for the delivery of palliative care services, and these services were included in the list of services requiring licensing. Training programmes in palliative care have been developed and implemented by the Kyrgyz State Medical Institute for Continuous Education, with the support of the Soros Foundation-Kyrgyzstan. The programmes are designed for family doctors, nurses and specialists working with palliative care patients. Training programmes are also provided to nursing students at the undergraduate level in a number of medical colleges.

In recent years several laws have been amended to expand palliative care services and increase their accessibility. In addition, government decrees have been drafted (but have not yet been adopted) on the prescription and circulation of painkillers; it is also planned to introduce a mechanism for the financing of palliative care services at home.

In 2017 a survey of 405 members of the public involved in palliative care and 460 health workers was conducted. According to the members of the public who took part in the survey “lack of palliative care departments and hospices” was the greatest problem, noted by 39% of respondents, a share reaching 70% in some regions. “Lack of specialists” was noted by 37% and “inability to give people the chance to die with dignity” by 21.6%. Home-based care was the most popular option, chosen by 49.6% of respondents, while 27.4% resorted to hospital-based care and 22.2% to hospice-based

care. Most doctors who took part in the survey noted that they encountered palliative care patients in their work. The most common diagnoses of critical and incurable patients were cancer (64.6%), cardiovascular diseases (32.4%), TB (26%), neurological diseases (27%) and HIV/AIDS (24.6%). When asked what difficulties health workers face in prescribing morphine, 36.1% noted the difficulty of accounting and control, 33.5% indicated a complicated system of prescribing morphine, and dose restrictions were mentioned by 22.2% of health workers (Asanalieva, 2017).

■ 5.11 Mental health

In 1999 Kyrgyzstan adopted the Law “On Psychiatric Care and Guarantees of Citizens’ Rights in its Provision”. There are also other legal acts regulating the delivery of services in the field of mental health care.

Inpatient specialized psychiatric care is provided by inpatient departments with a total of 1759 beds in 2015. Between 2001 and 2015 the total number of psychiatric beds in specialized psychiatric health organizations at the secondary and tertiary levels decreased by 69%. Until 2016 the Ministry of Health used to finance tertiary health care organizations that provided mental health services from the state budget and financing was based on their infrastructure. The integration of mental health services into the single payer system in 2016 is one of the initial stages of reforming mental health services in Kyrgyzstan.

Integration of mental health services with primary care has started. One measure was to transfer the psychiatric units of the Republican (national level) Centre for Mental Health and the Osh Oblast Centre for Mental Health to FMCs in Bishkek and Osh. In 2017–2018 a new form of mental health service delivery at primary care level was piloted in 11 regions through multi-disciplinary teams and in 2018 multidisciplinary teams were incorporated into the FMC structure by Ministry of Health Order No. 900.

The activities of centres that provide services to the population at local level are quite diverse and include a wide range of services: one-day and temporary stay centres, crisis centres, rehabilitation centres, social care/assistance centres, self-help groups and family-type homes.

Since 2006, in order to improve financial protection of patients with mental disorders, a number of psychotropic drugs have been included into

the Essential Drug List (an important regulatory document which forms the basis for medicines to be covered by the MHIF). In 2006 the MHIF introduced preferential drug coverage at outpatient level under the SGBP for persons with mental disorders. However, accessibility of medicines remains insufficient in remote regions and there is low public awareness of entitlements under the SGBP and the ADP.

Challenges in the area of mental health include stigma and discrimination of people with mental disorders and their family members; the small number of non-profit organizations, representing and protecting their interests and rights; and the low level of involvement of these organizations in the development, implementation, monitoring and evaluation of regulatory legal documents, government programmes and programmes of local self-governments.

In March 2018 the Government (GoKR Resolution No. 119 dated 1 March 2018) approved the Programme “On the Protection of Mental Health of the Population for 2018–2030” and an action plan for implementation of the programme for 2018–2022. The programme aims to promote mental health, prevent mental disorders, provide accessible and affordable mental health care, develop responsive, integrated services for mental health at the local level, accelerate recovery, respect human rights and reduce mortality, morbidity and disability of people with mental disorders.

■ 5.12 Dental care

Dental care is provided by public and private dental clinics, centres and departments (practices) in FMCs and General Practice Centres. According to the SGBP, the following types of dental care are provided to all citizens free of charge:

- education of the population on dental and oral health;
- preventive examinations of preschool and school children, as well as of pregnant women registered for medical follow-up;
- emergency dental care, including necessary pharmaceuticals; and
- oral rehabilitation for children under 10 years, pensioners aged 70 years and older, and pregnant women registered for medical follow-up.

Specialized outpatient dental care by public providers is based on a nationally set price list. Financing of dental care provided by public providers under the SGBP is allocated by the MHIF. In 2019, based on the Law “On the MHIF Budget”, a total of KGS 294 million was set aside for this purpose, based on per capita financing (KGS 139 in 2019). The funding volume for providers of dental care is calculated on the basis of the number of children under 10 years, pensioners over 70 years, and pregnant women registered for medical follow up, who are enrolled in FGPs. Discussions are ongoing on changing the financing mechanism for dental services. It is planned to conduct pilot projects and transfer financing from capitation to fee-for-service. One of the barriers to doing this is the lack of information systems that could capture the types of health services provided in primary care and dental clinics.

The country has 36 independent dental clinics, as well as 36 dental departments that form part of primary care organizations. In 2018, 1166 dental therapists (“stomatologists”) (1.8 per 10 000 population) and 612 dentists (1.0 per 10 000 population) worked in the public network of health care institutions. In the same year over 2 million dental visits were reported, of which about 1.4 million were at the level of primary care. Preventive examinations covered 1.4 million people.

The number of private dental centres and practices is increasing, especially in large settlements and cities. The cost of services in these institutions is not regulated by the Government and has to be covered by patients themselves.

There are six higher medical universities in the country, with 600 graduating dentists in 2018, and 22 paramedical/secondary medical educational institutions, with more than 1000 graduating technicians in dentistry-orthopaedics and general dentistry.

In July 2017 the Ministry of Health approved the “Concept for the Development of Dental Services in the Kyrgyz Republic for 2017–2022”. The Concept defines the main areas and actions for developing dental services, including with regard to the development of undergraduate and postgraduate education, scientific research and the provision of services to vulnerable segments of the population.

Principal health reforms

■ Chapter summary

- Since independence, Kyrgyzstan has undertaken several far-reaching health reform programmes, with major changes to health financing and the provision of health services.
- The “Den Sooluk” programme (2012–2018) focused on improving health outcomes in four priority areas: control of cardiovascular disease, promotion of maternal and child health, and control and prevention of TB and HIV/AIDS.
- The current “Healthy Person – Prosperous Country” programme (2019–2030) emphasizes the importance of health for achieving economic development.
- Remaining challenges include strengthening public health and primary care, addressing imbalances in human resources and improving access to high-quality services.

■ 6.1 Analysis of recent reforms

Four major health reform programmes have been adopted since the country’s independence: “Manas” (1996–2005), “Manas Taalimi” (2006–2011), “Den Sooluk” (2012–2018) and the current “Healthy Person – Prosperous

Country” programme (2019–2030). The content of the “Manas” and “Manas Taalimi” reform programmes is described in the previous edition of this profile (Ibraimova et al., 2011).

One of the most important elements of health reforms since 1996 was the transformation of the financing system. Key changes included the introduction of a single payer system in the public sector, a split between payer and provider, and creation of a single financial pool at the national level. New provider payment mechanisms were also introduced, including case-based payments for hospitals and capitation-based payments for primary care, and financing from the state budget was changed to single budget lines, granting providers more autonomy over spending.

The introduction of a mandatory health insurance system was another key change, aiming to generate additional resources to increase protection from financial risks and to improve the mechanisms for purchasing health services, in order to achieve greater efficiency. In 2001 the SGBP was launched, which introduced formal patient co-payments, with the purpose of ensuring the delivery of a minimum package of health services. Initially, this led to a decrease in out-of-pocket spending and the share of households that experienced catastrophic payments, but financial protection worsened again in the 2010s (see Section 7.3).

Health financing reforms aimed to achieve a more transparent, fair and sustainable financing of the health sector, an equitable distribution of resources, increased efficiency, better financial protection for the population, and a balance between state commitments under the SGBP and other priority programmes. There was progress towards achieving these aims in the 2000s, but some of this progress was lost in the 2010s (see Chapter 7).

■ 6.1.1 “Den Sooluk” programme (2012–2018)

The “Den Sooluk” programme (2012–2018) focused on achieving specific health goals (the Millennium Development Goals, MDGs, 4, 5 and 6). It aimed to improve health outcomes through four priority areas: control of cardiovascular diseases, maternal and child health, TB and HIV/AIDS. The “Den Sooluk” programme sought to expand and improve service coverage in these four priority areas by eliminating barriers and bottlenecks in the health system. Five components were identified as requiring strengthening:

public health, individual health services, health financing, resource generation and stewardship.

A sector-wide approach was used for the implementation of “Den Sooluk”, under the leadership of the Ministry of Health with the financial support of international development partners (see Section 2.2.8).

During the implementation period progress was achieved in reducing mortality due to cardiovascular diseases, stroke and TB, as well as in child mortality. For the priority area of cardiovascular disease, the aims were to better engage the population in the control of risk factors, strengthen primary care and introduce evidence-based clinical protocols.

The Tuberculosis Action Plan for 2017–2026, adopted in 2017, envisages the restructuring of the network of TB organizations and an expansion of outpatient treatment to ensure the accessibility and safety of services. TB services are being gradually integrated into primary care, and a new payment method for primary care is being piloted for treated cases of TB. These efforts were supported by the USAID-funded Defeat Tuberculosis in the Kyrgyz Republic project, which ran from 2014 to 2019. The number of patients receiving outpatient treatment in pilot sites increased by 93% over the first three years of the project.

Several types of contraceptive have become available for insured women as part of the package of preferential drug provision under the SGBP. In 2018 a five-year programme was developed to gradually increase government funding to meet the needs of 50% of women at high medical and social risk of maternal mortality by 2023. In the first three years of this programme funding increased from KGS 3.2 million to KGS 5.2 million in 2020.

The Communication Strategy for Routine Immunization for 2018–2020 was developed to improve public confidence in immunization. The strategy aimed to improve awareness of and public commitment to immunization and envisaged widespread public engagement and intersectoral coordination. Levels of routine vaccination coverage in 2018–2019 were sustained, but declined in 2020 due to the impact of the COVID-19 pandemic.

Major successes have been achieved in the integration of different services and levels of care and the involvement of primary care in the delivery of prevention, treatment, rehabilitative care and support services. Services for people living with HIV/AIDS are now integrated into primary care and antiretroviral treatment (ART) is provided in 49 FMCs. For the specialty

of “Family Medicine/General Practitioner”, new requirements have been introduced in the curriculum at the postgraduate level, taking into account the decentralization of postgraduate medical education.

The volunteer network of 1670 Village Health Committees continues to operate in 1480 villages, and Public Health Committees have been set up in 51 cities and district centres, providing health promotion services in partnership with primary care providers. By early 2018, 85% of villages were covered by health promotion programmes and several countrywide health promotion campaigns were conducted through the volunteer network of Village Health Committees. This work has resulted in increased health literacy, including improved public awareness of unhealthy behaviours (such as tobacco smoking or alcohol consumption), improved hypertension awareness and control, and improved recognition of danger signs in pregnancy and early childhood (WHO, 2016a).

During the implementation of the “Den Sooluk” programme, special attention was paid to the revision of the legislative framework for the circulation of medicines. Steps were taken to address issues of efficacy, safety and quality, the introduction of good regulatory practices and alignment with the legislative framework of the EAEU. The work is still ongoing and includes efforts to improve the rational use of medicines and decrease high out-of-pocket payments by patients.

The “Den Sooluk” programme introduced new financing mechanisms for the short-term stay of children in paediatric hospitals, extended the principles of results-based financing to all general profile hospitals and primary care organizations, and provided pregnant women with free mandatory health insurance coverage for access to pharmaceuticals under the preferential drug programme.

In 2014 the World Bank project on Results-Based Funding was launched. Until 2018 the project covered all rayon hospitals in the country. They were divided into hospitals in which quality indicators were assessed and bonuses were paid for their achievement, hospitals where indicators were assessed without payment, and a control group in which there was no assessment of quality indicators and no additional payment. The results showed that it is important to monitor quality indicators, as even in the absence of payment they significantly improve results. After the Results-Based Funding Project ended, the MHIF continued in 2019 to allocate funds to hospitals for achieving quality indicators. It extended

this payment mechanism to all hospitals at rayon and oblast level, but only to a maximum of 5% of the organizations' annual budgets. While this was a promising move in reforming provider payment mechanisms, during the COVID-19 pandemic in 2020 and 2021 these additional payments were not made.

■ 6.1.2 *Remaining challenges*

Despite major achievements, some strategic challenges remain. To some extent, the reform programme remains incomplete, and the formal right to receive services under the SGBP is not always realized in practice, partly because of low public awareness of entitlements. There are high levels of out-of-pocket payments and the quality of care needs to be improved further (see Chapter 7).

There is also scope to increase the role of the MHIF as strategic purchaser. The relatively comprehensive consolidation of public expenditure in a single pool gives the MHIF strong leverage for strategic purchasing, but this potential is not fully realized to improve quality of care and reduce costs (Habicht et al., 2020).

The availability, distribution, qualification and motivation of health workers is another challenge. The Government has taken a number of measures to address these issues. For example, in mid-2021 there was a blanket salary increase for all doctors.

There are also gaps in the implementation of cost-effective preventive and clinical interventions for noncommunicable diseases (NCDs). Diseases such as cancer, cardiovascular diseases, diabetes, chronic respiratory and mental disorders, as well as risk factors (tobacco, alcohol, unhealthy diet and physical inactivity) represent a growing public health concern in Kyrgyzstan. NCDs account for 80% of all deaths in the country, but approximately 79.1% of adults with high blood pressure currently do not take medication (WHO & UNDP, 2017).

Reforms of public health services were carried out within the framework of the national “Manas” (1996–2005), “Manas Taalimi” (2006–2011) and “Den Sooluk” (2012–2018) health reform programmes. Despite some achievements, shortcomings remain in the delivery of public health services. In part this is due to the narrow sectoral nature of reforms, and because

intersectoral issues and approaches to addressing health protection and promotion were pursued from a narrow perspective (e.g. salt iodization, fortification of flour with micronutrients).

Primary care is not orientated towards preventive activities and insufficiently addresses disease management, such as for NCDs. Access to good quality primary care and laboratory and diagnostic services remains a problem in rural and remote areas. At the same time the hospital sector absorbs a large share of resources, despite limited access to quality hospital services at rayon level, due to poor infrastructure, insufficient qualifications of staff and a limited range of services.

The network of secondary and tertiary hospitals includes many small scale and single-profile providers, which results in an inefficient use of resources and poor-quality services due to low volumes.

The ambulance service does not meet the needs and requirements of the public. In most cases, with the exception of Bishkek and Osh cities, the ambulance services are limited to the transportation of patients to the nearest health facility and the ambulance service is incapable of providing qualified care for emergency and life-threatening conditions.

The existing laboratories operate within the structure of primary or hospital care organizations in the same territory, causing duplication. At the same time the population in villages and remote areas faces problems in accessing laboratory services.

The reform processes carried out in pharmaceutical supply over more than 20 years have resulted in the availability of a wide range of drugs. However, pharmaceuticals in state health facilities are undermanaged and underfunded, which affects population health and hinders achievement of the “Den Sooluk” programme goal of financial protection.

The pharmaceutical package of the SGBP and the additional package of the mandatory health insurance system are not markedly reducing the financial burden of private pharmaceutical expenditure. The continuous growth in the prices of medicines and the absence of government control over pharmaceutical prices are driving up co-payments for reimbursable drugs.

Macroeconomic developments pose additional challenges. The slowdown in economic growth affected public revenues and contributed to budget deficits, while the loan component in foreign aid packages has increased. The high share of the shadow economy has led to persistently low coverage of mandatory health insurance. Employer contributions to the mandatory health

insurance system are estimated to only cover a third of the total number of employees when including the informal sector. This makes it challenging for the state to cover vulnerable groups of the population through the state budget. Despite an increase in public funding, available funds are insufficient to pay for the SGBP, resulting in a funding gap, which is then made up for by private out-of-pocket payments (Akkazieva, Jakab & Temirov, 2016).

■ 6.2 Future developments

The Government has developed the 2019–2030 Health Development Programme which identifies key issues to be addressed in the health sector. The motto of the programme is “Healthy Person – Prosperous Country”, emphasizing the importance of health for achieving economic development. The programme is in line with the Government’s international commitments in health, including the Sustainable Development Goals and the European Health Programme “Health 2020”.

The programme identifies the following priority areas and key objectives:

Public health and disease prevention:

- Ensuring the quality of services for disease prevention, surveillance and health protection and promotion.

Development of primary and emergency care:

- Creating an effective model of primary care, including services for disease prevention, early detection of diseases and case management;
- Improving continuity and coordination between primary care and secondary and tertiary care organizations;
- Ensuring an effective response by the ambulance service and emergency care (including for traffic accidents, man-made accidents and catastrophes, and other emergencies) and providing timely and qualified health services.

Improvement and rationalization of the hospital system and laboratory services:

- Optimizing and creating a rational and efficient network of health care organizations and laboratories in accordance with a master plan for optimizing the network of health care organizations in

the country. This includes upgrading the network of hospitals, as well as restructuring, optimizing and reprofiling inefficient and outdated hospitals.

Pharmaceuticals and medical devices:

- Improving regulation and management of the supply of pharmaceuticals and medical devices;
- Creating a price regulation system for essential medicines and medical devices in order to reduce out-of-pocket payments.

Health governance:

- Strengthening intersectoral collaboration on the issues of health protection and promotion, as well as prevention.

Health workforce:

- Increasing the availability of health workers in remote areas;
- Completing the process of reforming the system of higher medical education;
- Reforming nursing education in line with demands and health needs.

Development of e-health:

- Creating unified and centralized data processing;
- Information security;
- Accessing information systems in real time;
- Ensuring integration and interaction of health information systems with the single information system of the country;
- Development of the financing system;
- Development of integrated approaches to health care budget management, including the development of programme budgets;
- Revision of the procedure for setting out the SGBP in order to align state commitments with available budgets.

Development of strategic purchasing of health services:

- Implementation of mechanisms for performance- or results-based financing of health care organizations, including introduction of blended mechanisms.

Increasing the coverage of the insured, including those employed in the informal sector, as well as improving the principles of charging insurance premiums:

- Revision of the co-payment policy and provision of paid services under the SGBP for a more targeted provision of benefits to patients in difficult life situations, while maintaining benefits for the general population.

Implementation of the programme is divided into two phases, with an initial action plan for the first five years (2019–2023). An action plan for the second phase will be drawn up based on outcomes and lessons from the first phase. The estimated programme cost for the first five years is US\$ 1.47 billion.

Implementation of the first action plan has started and many of the envisaged activities (52 of 74 in 2019 and 45 of 93 in 2020) have been completed, although the COVID-19 pandemic slowed progress in 2020 and 2021. The indicator package has target values for 2023, so it is still too early to gauge progress.

The 2021 Joint Annual Review and Health Summit reviewed key achievements and challenges in the implementation of the “Healthy Person – Prosperous Country” programme. One of the main suggestions to the Ministry of Health was to revise the current Action Plan in order to take into account the Presidential Decree of 9 February 2021 “On urgent measures to develop the health care sector and improve the quality of life and health of the population in the Kyrgyz Republic”, and the 2026 Country Development Programme.

7

Assessment of the health system

■ Chapter summary

- Health system governance has benefited from several long-term, overarching health reform programmes.
- Despite efforts to ensure access to health services, there are still marked disparities in provision between rural and urban areas, and barriers linked to out-of-pocket payments and gaps in mandatory health insurance coverage.
- During the 2020–2021 COVID-19 pandemic, Kyrgyzstan has tried to maintain essential services, including through mobile health applications, but there has been some disruption, including to mother and child health services.
- Financial protection is undermined by low levels of public spending for health, resulting in financial hardship for people using health services.
- Improvements have been achieved in quality of care, but many initiatives are fragmented in vertical programmes and pilot locations.
- The country continues to struggle with a double burden of disease, comprising persisting or more recent infectious diseases, and a growing burden of noncommunicable diseases.

- The efficiency of the health system is undermined by the high share of out-of-pocket spending, and health resources are not always spent in a way that maximizes health improvement.

■ 7.1 Health system governance

Kyrgyzstan has a history of using national programmes to guide long-term health reforms. Since 1996 three consecutive reform programmes have been implemented: “Manas” (1996–2006), “Manas Taalimi” (2006–2011) and “Den Sooluk” (2012–2016, extended to 2018). “Manas” was evaluated as having achieved a positive impact on financial protection, particularly for the poor, through coordinated action on revenue mobilization, defining a benefits package, formalizing co-payments with exemptions for the poor, hospital restructuring and provider payment reform. The following two national health strategies (“Manas Taalimi” and “Den Sooluk”) have not achieved the same level of strategic direction and coordination of financing with service delivery and pharmaceutical reforms. There has also been weaker political buy-in, partially due to changes of government, leading to some major decisions which were not consistent with these two national strategies. Despite these challenges, there has been a substantial degree of stability and consistency in the major parameters of health financing policy. At times of political crises there have been proposals for changes in health financing policy and structure, questioning the single-payer health insurance system, but so far these proposals have been rejected (Habicht et al., 2020).

The current national strategy, “Healthy Person – Prosperous Country” (2019–2030), was approved in 2018 and should be viewed as a continuation and acceleration of the ambitious health reform agenda Kyrgyzstan embarked upon in 1996. The country has been recognized for its efforts to undertake sweeping reforms of its health system with the broad aims of strengthening primary care, restructuring the hospital sector and introducing a mandatory single payer system with the goals of safeguarding the population from financial risk and guaranteeing the provision of essential services.

The issue of transparency in the health system has been recognized as a challenge in many strategic documents and the Government has aimed to address it, such as in attempts to overcome informal payments. This has become even more pronounced during the COVID-19 pandemic, when

there has been an expressed need for transparent information on where funds donated by the population or given as grants or loans from international institutions are going.

■ 7.2 Accessibility

The SGBP and the ADP are the programmes which regulate health coverage in Kyrgyzstan. Under the SGBP, the insured population is entitled to basic essential health services, including emergency, primary and inpatient care (the latter upon referral and requiring co-payments unless exemptions apply) and a fully covered list of medicines for five priority diseases (see Section 3.3).

Enrolment in the mandatory health insurance scheme requires at least a temporary residence permit and basic identification documents, a potential barrier to access for internal migrants who might lack them. These migrants make up an estimated 18% of the population and do not always have the necessary paperwork to enrol.

The SGBP does not cover co-payments for inpatient care and specialized outpatient care. There are two additional levels of co-payment coverage: they are waived entirely or partly for vulnerable groups and certain medical conditions, while a lower co-payment schedule applies for those covered by the mandatory health insurance system. Those not covered by the exemption schemes or mandatory health insurance have to pay the full price of services (OECD, 2018). Co-payment exemption categories are heterogeneous, including Second World War veterans, as well as children under 5, pregnant women and people with disabilities. In 2012 they covered 48% of the population, with more than half of the exemptions covering care for children under 5 and pregnant women (Giuffrida, Jakab & Dale, 2013). The exemption mechanism has been found to be effective in lowering the health payment burden in exempted categories (Jamal & Jakab, 2013).

Under the ADP, the MHIF covers 50% of the so-called “basic price” of a specified list of medicines (around 70 international nonproprietary names) in primary care. The difference between 50% of the “basic price” and the retail price has to be paid out-of-pocket by patients. Calculation of the basic price is done by the MHIF through an analysis of wholesale prices, which are extracted from price lists provided by wholesalers (usually the largest, although their participation is voluntary) at the MHIF’s request. From the

prices collected, the three highest and three lowest are excluded and the average of the remaining prices is calculated. Until recently, two different multipliers were applied to this average, one for pharmacies in urban areas and one for those in remote areas, yielding two reimbursement values, with differences of around 9%. Starting from December 2020 the electronic prescription of medicines has been rolled out in five regions of the country (in some of them it started earlier as a pilot) and multipliers for urban and remote areas have been abolished.

ADP coverage is linked to enrolment in mandatory health insurance, so those not covered by mandatory health insurance are disadvantaged by both higher co-payments for consultations and not receiving reimbursements for medicines. Even for those covered by the ADP, coverage is limited, as the reimbursement has a ceiling of 50% of the “basic price” for a generic drug, which is often exceeded by the actual price because of the prescription of brand names (WHO, 2016b). Given there are no caps on how much retail pharmacies can charge over wholesale prices, public coverage for some medications may amount to only a small fraction of the retail price. The underuse of generic medicines further aggravates the gap between the retail price and MHIF payments. The MHIF is currently revising the ADP with support from the World Bank-funded primary care strengthening project to address some of these issues.

Crucially, SGBP entitlement does not fully translate into access to health services, as out-of-pocket payments are required for many patients and conditions, resulting in unmet needs. According to the 2015 Kyrgyz Integrated Household Survey, 31.8% of individuals who declared a medical need did not access any health services. The majority (88.5%) instead opted for self-treatment. Other reasons cited for not accessing health services were the high cost of health visits (2.3%), the high cost of drugs (5.8%) or a decision to let the disease/illness run its course (2.7%). Similarly, 61.9% of those referred to a hospital (or who required inpatient treatment) but did not stay at a hospital also opted for self-treatment; 18.0% cited the expense and 6.4% let the disease run its course (OECD, 2018).

There are also geographical barriers to access. While health facilities are geographically well distributed, there are still remote areas with limited access to health services. Similarly, health workers are not equally distributed across the country, and specialists and family doctors are lacking in rural areas (see Chapter 4).

During the 2020–2021 COVID-19 pandemic Kyrgyzstan has tried to maintain essential services, including through mobile health applications, but there has been some disruption, particularly to mother and child health services (Stakeeva et al., 2021). Routine vaccination services were temporarily suspended in March 2020, although the Ministry of Health has since used mobile immunization teams and mobile clinics to deliver catch-up immunizations. Lockdown also decreased the availability of services such as contraception counselling, violence prevention and response, and termination of unwanted pregnancies, and diagnosis and treatment of sexually transmitted diseases. According to the MICS 2020 follow-up assessment of the impact of COVID-19 on children (National Statistical Committee of the Kyrgyz Republic & UNICEF, 2021), antenatal care services were not affected, but there were challenges in postnatal care. In 2020, 39.7% of maternal deaths were connected with COVID-19 infections or community-acquired pneumonia, amounting to 26.6 cases per 100 000 live births (UNFPA, 2021). Only 11% of neonates were visited for postpartum observation in the first two days and 47% in the first six days following discharge from health facilities. This compares to 28.5% in the first two days and 57% in the first six days in 2016–2018 (National Statistical Committee of the Kyrgyz Republic & UNICEF, 2019). Furthermore, in 2020 safe abortion services in government facilities decreased by 25–28%, although those in private facilities increased by 68–85%. Essential services for the population more broadly have also been affected, but it is still too early to assess the impact.

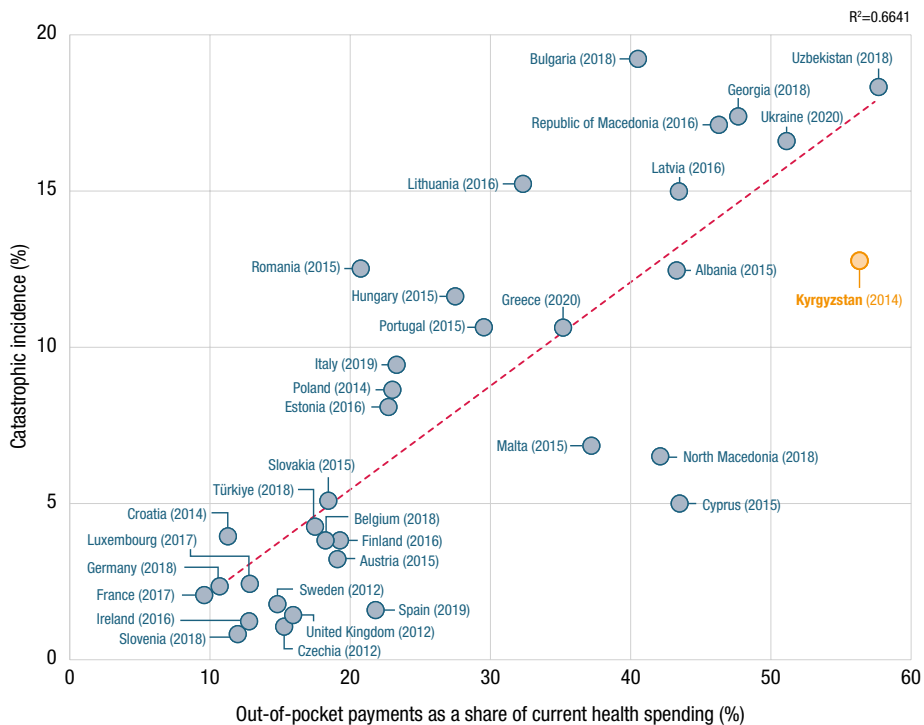
■ 7.3 Financial protection

Out-of-pocket health expenditure decreased in the 2000s, but increased again in the 2010s. Out-of-pocket health spending in per capita household budgets decreased from 5.3% in 2006 to 3.5% in 2009, but increased again to 5.2% in 2014. If considering only those who used health services (at least one medical contact in a year), household out-of-pocket expenditure on health was 22% of per capita household budgets. There was wide regional variation in 2015, with Osh city and Bishkek having higher out-of-pocket spending and Batken having the lowest (OECD, 2018).

The share of households that experienced catastrophic out-of-pocket payments decreased substantially between 2000 and 2003, remained fairly

constant between 2003 and 2009, and increased between 2009 and 2014, reaching 12.8% (Figure 7.1). Catastrophic spending was heavily concentrated among poor households. In 2014 nearly two thirds of households with catastrophic spending were in the poorest quintile. Within this quintile, 40% of households incurred catastrophic out-of-pocket payments. The incidence of catastrophic spending was highest among households aged under 30 years (15%) and over 60 years (14%). It was roughly similar across urban (12%) and rural (13%) populations, but varied significantly by oblast (ranging from 3.8% in Talas oblast to 22.2% in Osh city) (Jakab, Akkazieva & Habicht, 2018). A more recent study on out-of-pocket and catastrophic expenditure confirmed that both had increased further by 2018 (Iamshchikova, Mogilevskii & Onah, 2021).

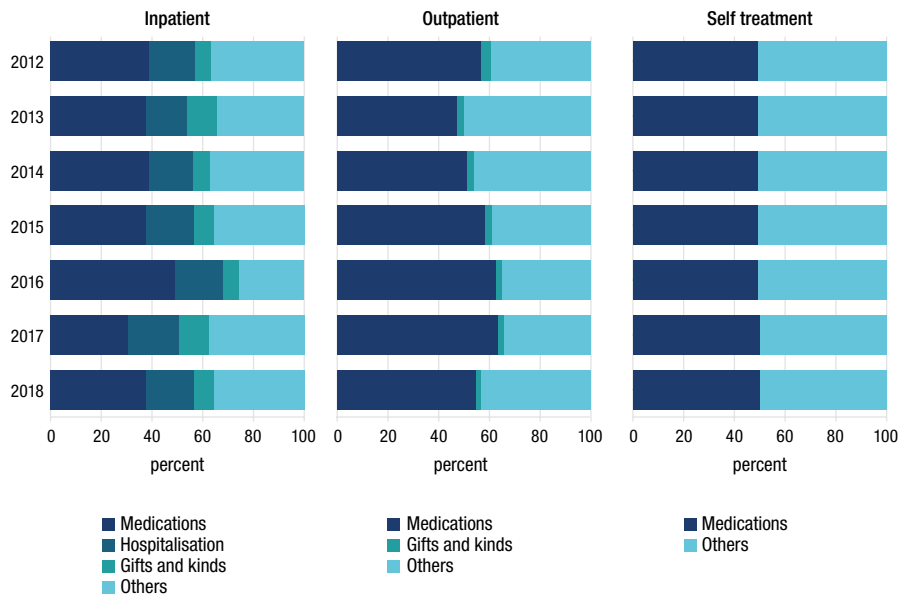
FIGURE 7.1 Incidence of catastrophic spending on health and out-of-pocket share of current health expenditure in selected European countries, latest year available for both indicators



Sources: WHO, 2019b; WHO, 2022b

The share of households further impoverished, impoverished or at risk of poverty after out-of-pocket payments decreased from 14% in 2000 to 10% in 2014 (Jakab, Akkazieva & Habicht, 2018). This trend took place despite an overall increase in out-of-pocket payments after 2009. Outpatient medicines and medical products are the largest single driver of financial hardship, accounting for around 60% of catastrophic spending in all years. The second largest driver is inpatient care, although its share has declined since 2003, while the shares spent on dental care and diagnostic tests have grown. For the poorest quintile, the main drivers are medicines and medical products and inpatient care; the share of medicines and medical products has remained stable over time, at around 60%, but the inpatient care share fell in 2006 and rose again in 2009 and 2014, closely mirroring changes in informal payments. Overall, the incidence of catastrophic out-of-pocket payments in Kyrgyzstan is high compared to many countries in the WHO European Region, but it is lower than in countries with similar or even higher income levels (Jakab, Akkazieva & Habicht, 2018). When seen in the context of the country’s high share of out-of-pocket expenditure on health, Kyrgyzstan was doing reasonably well in 2014.

FIGURE 7.2 Components of out-of-pocket payments



Source: Iamshchikova, Mogilevskii & Onah, 2021

Concerns about financial protection have remained throughout the reform period, in spite of evidence of improvement in the early phases of reform. As access to health services has improved, households have been exposed to a growing burden of out-of-pocket payments, while financial barriers to purchasing prescribed medicines have increased. In 2014, 46% of households reported that it was difficult or very difficult to pay for health services (up from 38% in 2009). Households are increasingly resorting to coping mechanisms such as drawing on savings, reducing consumption, seeking family support or selling assets to pay for health care (Jakab, Akkazieva & Habicht, 2018). Medication remains the biggest driver of out-of-pocket payments in inpatient, outpatient and self-treatment settings (Iamshchikova, Mogilevskii & Onah, 2021) and is the largest component of out-of-pocket spending (Figure 7.2).

■ 7.4 Health care quality

The Government has made a commitment to improve access to and quality of social services (especially health and education), while addressing regional disparities and inequities among different income and cultural segments of society. It has put in place an action plan for 2018–2022 to coordinate the efforts of all involved parties. The action plan has identified several priority areas, including human development, encompassing education, health and social protection. Under the health care dimension, the Government is planning to promote several health awareness campaigns, improve the quality of health services, improve the financing system of the health sector and build the capacity of health personnel (Kyrgyz Government, 2018).

Over the last years some positive developments have taken place in terms of improving the quality of care and providing more and better health services at primary care level. In 2017 an Action Plan for Improving Tuberculosis Care was adopted, which envisions a restructuring of the network of TB hospitals and the expansion of outpatient TB treatment to improve access and safety. TB services are gradually integrated into primary care and a new payment method for TB, per treated case, is being piloted at primary care level.

Another positive recent development was that, from the second half of 2018, 10% of the MHIF budget was set aside to pay for quality in both hospitals and primary care facilities, with quality being measured based on

a Balance Score Card. The decision was inspired by a successful pilot of results-based financing in rayon hospitals supported by the World Bank, and the positive experience in the primary care RBF pilots supported by the World Bank and the Swiss Agency for Development and Cooperation. This development is a significant shift in the Government's take on health financing, as now domestic resources are mobilized to improve quality through strategic purchasing using evidence-based practices (World Bank, 2019). However, in 2019 no more than 5% of the MHIF budget was allocated for the achievement of quality indicators, and no additional payments for achieving quality indicators were made in 2020 and 2021, due to the challenges resulting from the COVID-19 pandemic.

Several initiatives, funded primarily by development partners, sought to translate the intentions of the strategic plans into action in pilot sites. These initiatives, such as the Health Facilities Autonomy Project (2013–2018), funded by the Swiss Agency for Development and Cooperation, illustrate many of the features that could form part of a comprehensive quality system for patient care and health care facilities. In this project the greater autonomy of health facilities, accompanied by the setting-up of facility networks, aimed to improve efficiency and quality, such as through merged procurement or paying health workers more market-oriented salaries.

The World Bank, through its primary care project and technical assistance programmes, is supporting the Ministry of Health to strengthen its national quality improvement system. For example, information systems are being developed for continuous collection and reporting of quality of care data. A number of activities are planned in the next few years to help the Ministry of Health establish key foundational blocks for an effective national quality improvement framework. National specialist hospitals contribute to developing clinical guidelines but have no authority or resources for supervising implementation or for monitoring and evaluation in general.

External assessment and inspection by the MHIF and the Medical Accreditation Commission allow central control but provide little support for organizational development, benchmarking, improving performance or public accountability. Apart from surveillance of communicable diseases and the regulation of medical products and devices, there is weak monitoring of patient safety and no analysis of adverse events and near-misses. Quality councils located within health facilities have little support in terms of tools, statistical benchmarks or local patient-based data for systematic peer review

and improvement. Care guidelines and protocols are not readily accessible across all specialties and in primary care, and many do not provide statistical indicators or audit criteria for monitoring (WHO, 2018).

The quality of services does not yet reach adopted standards. For example, the rate of recurrent infarctions increased from 6.8% in 2011 to 12.3% in 2015, and mortality from acute myocardial infarction in inpatient settings increased from 10.5% in 2011 to 14.8% in 2016. The absence of holistic management and supervision of the quality of health services contributes to this situation.

In terms of the quality of primary care, hospital admissions for conditions that could be treated at primary care level are much higher than in OECD countries (Ahmedov et al., 2020). There were 705 hospital admissions for diabetes per 100 000 population in Kyrgyzstan in 2018, compared to 49 in Iceland (the OECD country with the lowest rate) and 298 in Turkey (the OECD country with the highest rate). Hospital admissions for chronic obstructive pulmonary disease stood at 573 per 100 000 population in Kyrgyzstan in 2018, compared to 29 in Mexico (the OECD country with the lowest rate) and 382 in Turkey (the OECD country with the highest rate). There were 167 hospital admissions for hypertension in Kyrgyzstan in 2018, which was higher than in many other countries covered by the comparison, but lower than in Germany (338) and Lithuania (416).

In terms of the quality of hospital care, a survey in 2017 found low compliance with evidence-based recommendations. For example, stroke patients should be tested for blood glucose and those exceeding a certain threshold should be treated with insulin. The survey found compliance with blood glucose testing to be 70%, but compliance with insulin administration was only 2.6% (Ahmedov et al., 2020).

Governance, monitoring and inspection of public-sector health care organizations are fragmented, weak and ineffective. Multiple committees and councils in the health sector (including three chaired by the Vice Prime Minister, two public advisory councils and a Ministry of Health Concilium made up of health facility representatives) have unclear or overlapping terms of reference and typically limited powers or mandates. These sub-optimal governance structures have negative impacts, such as wasting the scarce capacity of the agencies that report to them. Some of them lack appropriate skills and expertise, and are ultimately ineffective as mechanisms for accountability.

Fragmented governance often leads to conflicting and confusing directions to health care organizations, non-aligned regulations, inconsistent application of policy and regulations, and weak management and accountability of health care providers. Private health care providers operate under a legislative and regulatory framework separate from that of public health care organizations, and those contracted by the MHIF are also affected by uncoordinated governance. The Ministry of Health is responsible for appointing directors of public health care organizations, setting regulations for quality, infrastructure and human resources, and collecting data from health care organizations. It also licenses private providers. However, the Ministry of Health lacks capacity to monitor and review provider performance.

In addition, multiple ministries and the Chamber of Accounts inspect health care organizations under their respective regulations. These multiple checks on health care organizations are poorly aligned, not coordinated, variably and inconsistently enforced and often non-transparent – imposing high compliance burdens on providers and inducing a compliance-oriented culture of caution, without providing clear direction or support for quality assurance and quality improvement (Habicht et al., 2020).

Overall, in Kyrgyzstan quality is driven by top-down command, external inspection and mandatory committees at the facility level, rather than being inherent in the work of clinical teams or embedded in training and continuous professional development. Problems in health care delivery are not systematically identified and analysed for learning and improvement. The complications of care and adverse clinical outcomes are grossly underreported at the local level and inadequately managed at the national level (WHO, 2018).

■ 7.5 Health outcomes

Kyrgyzstan has made progress in population health in recent years and the health system has contributed to this, but it is difficult to quantify this contribution.

The country continues to struggle with a double burden of disease, comprising persisting or more recent infectious diseases, such as TB and HIV/AIDS, and a growing burden of noncommunicable diseases. Cardiovascular diseases are the leading cause of death for people of working age and the largest contributor to years of healthy life lost (OECD, 2018).

Kyrgyzstan faces a high mortality burden from noncommunicable diseases and reducing this burden was one of four priority areas of the “Den Sooluk” reform programme (2012–2018). Cardiovascular diseases account for half of overall mortality, with ischaemic heart disease and stroke being the two leading causes of death (with 390 deaths per 100 000 population from ischaemic heart disease in 2016, compared with 240 in central Asia in 2015 and 128 in the WHO European Region in 2017). Other important causes of death include cancer, respiratory diseases and road traffic crashes.

Premature mortality (in people aged 30–69 years) from the major non-communicable diseases (cardiovascular diseases, cancer, diabetes mellitus and chronic respiratory diseases) is also high in Kyrgyzstan (in particular among males), but shows a declining trend, at least up to 2016. This suggests that improvements in living conditions, lifestyles and health care were having an impact. It is unclear how recent declines in public spending on health and the COVID-19 pandemic will affect these trends in the coming years.

While the country has achieved malaria-free status, TB incidence, at 95.1 cases per 100 000 population in 2019, remains high and effective treatment coverage (the estimated proportion of TB cases that are detected and successfully treated) has stagnated in recent years, reaching 71.3% in 2017 (WHO, 2021). There was an estimated adult (15–45 years) HIV prevalence rate of 0.2% in 2019, but coverage with antiretroviral treatment was estimated to be only 40% (UNAIDS, 2021).

Kyrgyzstan has made substantial efforts to improve child and maternal health. Over the last two decades it achieved considerable progress in reducing child mortality compared with other countries in the region, with a reduction of newborn mortality rates by 46% and mortality rates of children younger than 5 years by 69%. However, maternal mortality is still high, with a reduction over the last two decades of only 7% (Kamali et al., 2020; Rechel & Moldoisaeva, 2020). COVID-19 deaths made a statistically significant difference in overall maternal mortality in the country, with more than one third (39.7%) of maternal deaths (27 cases out of 68 deaths) in 2020 attributed to COVID-19 or community-acquired pneumonia. The rate of maternal mortality associated with COVID-19 in 2020 was 26.6 cases per 100 000 live births.

An analysis of personal health care access and quality for 195 countries and territories using Global Burden of Disease Study 2016 estimates calculated the Healthcare Access and Quality (HAQ) Index, based on age-standardized, risk-standardized death rates from 24 non-cancer causes

considered amenable to health care and age-standardized mortality-to-incidence ratios for eight cancers considered amenable to health care (GBD Healthcare Access Quality Collaborators, 2018). Kyrgyzstan scored 61 on the HAQ Index in 2016 (an improvement from 51 in 1990), compared to 63 for Uzbekistan, 52 for Tajikistan and 69 for Kazakhstan (GBD Healthcare Access Quality Collaborators, 2018). Kyrgyzstan scored comparatively well on vaccine-preventable mortality, but lower on cancer-related mortality. Another study using the same dataset found that 63% of amenable deaths in Kyrgyzstan in 2016 could be attributed to poor quality of care, amounting to 75 deaths due to poor quality care per 100 000 population. The remaining 37% of amenable deaths were attributed to non-utilization of health services. This was in line with the Central Asian average (63.1% versus 36.9%) (Kruk et al., 2018).

■ 7.6 Health system efficiency

According to National Health Accounts data, private out-of-pocket payments, mostly for medical devices and pharmaceuticals, accounted for 46.3% of current health expenditure in 2019. The share of government expenditure (including mandatory health insurance funds) on medical devices and pharmaceuticals was very small, accounting for only 1.9% of current health expenditure (Chapter 3, Table 3.2). Most public funds were spent on inpatient and outpatient care, although households also paid out-of-pocket a large share of expenditure for inpatient and outpatient care. This large share of out-of-pocket payments undermines both allocative and technical efficiency.

■ 7.6.1 *Allocative efficiency*

Allocative efficiency indicates the extent to which limited funds are directed towards purchasing an appropriate mix of health services or interventions that maximize health improvements. The largest share of health expenditure in Kyrgyzstan goes to medical devices and pharmaceuticals, followed by inpatient care and outpatient care. The relatively small share of funding that goes to outpatient and primary care is a challenge for strengthening

primary care and improving allocative efficiency. Furthermore, public funds are insufficient for covering essential medicines, limiting access to highly cost-effective treatments for conditions such as hypertension (WHO, 2019a).

At present, health resources are not always spent in a way that maximizes health improvements. The fiscal space for health and the Ministry of Health's influence in budget decisions are limited and there is no separate health financing strategy (WHO, 2020). One of the ways to reprioritize public resources for health may be in revising the methodology for projecting the costs of the SGBP (WHO, 2019a). However, what is lacking so far is the systematic use of evidence to review priorities for allocating budget resources across programme categories (e.g. on primary care versus specialized care). One of the key activities under the World Bank-supported primary health care strengthening project is the development of a structure, process and methodology for revising the SGBP.

The State Programme on Health Protection and the “Healthy Person – Prosperous Country” programme (2019–2030) aim to rationalize the health system infrastructure with a view to reducing waste and placing more emphasis on primary care. Ongoing reforms in public finance management aim to improve the efficiency and effectiveness of public spending, although progress stalled recently due to political instability and the COVID-19 pandemic. Measures include:

- the introduction of programme-based budgeting (linking budgets with health outcomes), in line with the strategic priorities outlined in national programmes;
- the introduction of performance indicators for budgeted programmes and measures to reflect key State Programme aims;
- expanding hospital-substitution services – a new MHIF initiative aiming to increase the use of primary instead of hospital care; and
- reforming payments for the treatment of TB patients to incentivize outpatient care.

■ 7.6.2 *Technical efficiency*

Technical efficiency indicates the extent to which a health system is securing the minimum levels of input for a given output (or the maximum level

of output in relation to a given input). Some of the most commonly used indicators for technical efficiency are related to hospital utilization.

The hospital bed occupancy rate in Kyrgyzstan has declined in recent years, but remains above 85%, which suggests good utilization of available resources (Figure 5.4). The average length of stay in acute care hospitals has decreased in Kyrgyzstan in recent years and is now below levels in the Russian Federation, Kazakhstan and Tajikistan (Figure 5.3), indicating efficiency gains. The COVID-19 pandemic beginning in 2020 has led to major disruptions in the provision of health services, including hospital care, and the number of hospitalizations decreased in 2020 by 15.9% compared to 2019.

There are plans to develop provider payment mechanisms for one-day surgery services, such as for hernias or cataracts (services that are still provided in inpatient settings) and this would help to improve technical efficiency.

The prescription of brand names instead of generic medicines is an obstacle to improving technical efficiency in pharmaceutical spending. It is hoped that the price regulation mechanisms for the medicines included in the ADP of the SGBP that was introduced in 2019 will bring down pharmaceutical expenditure.

Another area where efficiency gains are possible is people-centred care. This type of care is still underdeveloped, due to the relatively weak referral systems throughout the health system and the vertical structure of most disease programmes (WHO, 2020).

Conclusions

Prior to the COVID-19 pandemic, Kyrgyzstan had achieved important progress in population health, with falling child and maternal mortality rates and declines in premature mortality from communicable and noncommunicable diseases. However, life expectancy at birth was still one of the lowest in the WHO European Region and the COVID-19 pandemic is bound to have been a major setback, although registered cases of infections and deaths were comparatively low. In addition to affecting the population directly, there was disruption in access to essential health services.

Through a number of comprehensive health reform programmes, most recently the “Healthy Person – Prosperous Country” programme (2019–2030), Kyrgyzstan has demonstrated its willingness to undertake sweeping reforms of its health system with the broad aims of strengthening primary care, restructuring the hospital sector and introducing a mandatory single payer system with the goals of safeguarding the population from financial risk and guaranteeing the provision of essential services. However, in the years prior to 2019, when there was a substantial increase in public spending for health, public spending on health as a share of overall government spending had declined and private spending, mostly in the form of out-of-pocket payments, had increased, undermining financial protection and access to health services.

Improving quality of care is an explicit health policy aim, but many initiatives are fragmented in vertical programmes and pilot locations, and overall governance and monitoring of quality of care are still weak. While

data on quality of care are incomplete, it seems that there is low compliance with evidence-based recommendations in hospital care, and high rates of hospital admissions for conditions that could be treated at primary care level, such as diabetes or chronic obstructive pulmonary disease.

Public health action is also underdeveloped and public health services retain their traditional focus on the prevention and control of communicable diseases, especially TB, HIV/AIDS and diarrhoeal infections. More concerted action could be taken to address air pollution, smoking, alcohol consumption, obesity and nutrition.

The current health reform programme and the focus that the COVID-19 pandemic has brought to health and the health sector could be an opportunity to resume the reform agenda, increase public investment in health and improve the efficiency and sustainability of the health system, so that it will be better equipped to deal with future challenges.

Appendices

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■ 9.2 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The latest version of the template (2019) is available on the Observatory website: <https://eurohealthobservatory.who.int/publications/i/health-systems-in-transition-template-for-authors>.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to

published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights and cross-border health care.
3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers and health workers are paid.

4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which IT systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.
5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care, pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care and dental care.
6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.
7. Assessment of the health system: provides an assessment of systems for monitoring health system performance, the impact of the health system on population health, access to health services, financial protection, health system efficiency, health care quality and safety, and transparency and accountability.
8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.
9. Appendices: includes references and useful websites.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process.
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches).

The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with each other to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

■ 9.3 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT.

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