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Health Systems in Action

Tajikistan
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This edition of the Health Systems in Action Insight for Tajikistan was written by Susannah Robinson and Bernd Rechel.

The Health Systems in Action series

The Health Systems in Action Insights series supports Member States in the WHO European Region that are not in the European Union. The Insights for each country are intended to:

- provide core information and data on health systems succinctly and accessibly
- outline the country health system context in which WHO’s European Programme of Work is set
- flag key concerns, progress and challenges health system by health system
- build a baseline for comparisons, so that Member States can see how their health systems develop over time and in relation to other countries.

The series is co-produced by the WHO Regional Office for Europe and the European Observatory on Health Systems and Policies. It draws on the knowledge and understanding of the WHO Country Offices and of the Division of Country Health Policies and Systems (CPS), the Barcelona Office for Health Systems Financing and other WHO/Europe technical programmes; as well as the Health Systems in Transition series and the work of the European Observatory on Health Systems and Policies.

The Insights follow a common template that provides detailed guidance and allows comparison across countries. The series is publicly available on the websites of the WHO Regional Office for Europe and the European Observatory on Health Systems and Policies (eurohealthobservatory.who.int).
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HEALTH SYSTEMS IN ACTION: TAJIKISTAN

Key points

- Tajikistan’s health system provides a publicly financed basic benefit package of services, with eligibility determined by a specific set of criteria. A significant number of people fall outside the scope of this package.

- Health spending per capita is the lowest in the WHO European Region, although public spending on health has increased over the past few years.

- There is still a markedly high rate of out-of-pocket payments, which accounted for 71.2% of health spending in Tajikistan in 2019.

- Life expectancy has improved in recent years and is higher than the central Asian average. However, it lags behind the WHO European Region average.

- The country has one of the smallest ratios of health workers to population in the WHO European Region, and there are major regional inequalities in the geographical distribution of health workers.

- Childhood vaccination coverage rates are high in Tajikistan, with 97% coverage of DTP3 in 2020. Rates for some communicable diseases have improved in recent years, but challenges remain for others such as tuberculosis (TB).

- The overall burden of noncommunicable diseases (NCDs) has been steadily increasing. NCDs accounted for 69% of all deaths in 2016, although this share is lower than for regional neighbours such as Uzbekistan and Kyrgyzstan.

- High blood pressure, poor nutrition and high blood sugar are major risk factors contributing to poor health in Tajikistan, although overweight and obesity are less of a concern than in many other countries in the WHO European Region.

- Excess mortality is estimated to have increased during the COVID-19 pandemic, which also disrupted access to essential health services.

- Rates of antimicrobial resistance in the country are unknown, but there has been a National AMR Action Plan since 2018.

This report looks at the action Tajikistan is taking to strengthen its health system; to achieve the Sustainable Development Goals; to address the priorities of the European Programme of Work; and to ensure that no one is left behind.
Tajikistan’s health system is centrally organized

Tajikistan is a former Soviet country in central Asia, and the organization and governance of its health sector is still in large parts shaped by its Soviet legacy. Ownership and administration of the majority of health facilities have remained almost exclusively in the public sector. Private sector involvement is small but there has been a progressive opening of the health sector in recent years to private provision, in particular for certain diagnostic and ambulance care services and dental care.

The organization and governance of the health system is shaped by the general system of public administration. The government is responsible for approving the national health policy, which is developed by the Ministry of Health and Social Protection. The Ministry of Finance is charged with the implementation of the state budget. The Ministry of Health and Social Protection is responsible for funding the republican health facilities and regulating service provision. Local government bodies at the provincial (violet or oblast) and city/district (rayon) levels are responsible for health service provision and funding at these levels. Generally, decentralization of policy-making from the national to the local government remains limited.

The comprehensive National Health Strategy for 2010–2020 laid the foundations for fundamental health system reforms. It placed emphasis on improving access to services and bringing medical training and practice in line with international principles. The strategy also aimed to strengthen health promotion and disease prevention, step up measures to combat infectious diseases, prevent and control NCDs, and support family medicine in primary care.

Historically, little emphasis has been placed on patient rights and public involvement in health policy. However, the health sector has recently begun to engage patients and the public in health policy decisions, primarily through feedback via surveys. In addition, a number of donor-funded projects have mobilized and train community-based volunteers who work to deliver health messages and sessions to support health promotion and disease prevention.

A basic benefit package has been introduced but needs expanding further

A Basic Benefit Package (BBP) of publicly paid health services was first introduced in 2005 and revised in 2007. The programme aimed to define which services should be provided at no cost for people in need – focused on essential primary and emergency care – and to formalize co-payments for other groups of the population. Implementation of the revised programme in 2007 started in four pilot districts and, by 2022, the programme had been extended to cover 31 of the country’s 65 districts.

Several population groups are entitled to publicly covered health services and pharmaceuticals under the BBP. They include veterans of the Great Patriotic War (1941–1945), children with disabilities, adults with certain disabilities, children under 1 year, orphans living in state orphanages, and adults over 80 years. Services provided for free to these groups include emergency medical services, certain diagnostic services, certain specialist services, most dental services, and some preventive services such as immunization. Patients with certain health conditions are also entitled to public funding, including patients with TB, HIV/AIDS, haemophilia, cholera, diphtheria and diabetes. Other services not fully covered by the public sector generally require co-payments of either 50% or 70%. In reality, there can be challenges accessing certain services due to limited capacity or high eligibility requirements.

In the remaining districts of the country, where the BBP has not yet been introduced, health services are provided under a programme that is similar to the BBP but with 80% co-payments or fees for services, under a special decree that allows fees for some types of services (Decree 600).

Due to underfunding of both the BBP and Decree 600 from the state budget, out-of-pocket payments are extremely common for patients. This contributes to catastrophic health expenditure and health-related impoverishment (see section 2).

The introduction of a mandatory health insurance system has been envisaged for many years but has been postponed several times. Voluntary health insurance is largely absent.

Health service provision is mostly through the public sector

Health care providers are overwhelmingly public. There are a limited number of private services for specific areas, such as consultations with specialists, diagnostics and ambulatory care. However, the government has been progressively legalizing private ownership of health facilities and options for private provision of services. The majority of dental services are now run privately, and the pharmaceutical sector is fully privatized. Most private health services are based in and around major urban areas such as Dushanbe, limiting their accessibility for rural populations.

In the years since independence, a number of nongovernmental organizations (NGOs) have increasingly been working to support health and social services in Tajikistan. NGOs have tended to focus on areas not well covered by public health services, such as community awareness of health (especially nutrition), TB, HIV/AIDS prevention, reproductive health and health service access for vulnerable groups.

International agencies also play an important role in supporting the health sector. In 2021, seven large investment projects in health were undertaken with the support of four international financial institutions. In addition, cooperation agreements with 34 international organizations in the field of health and social protection of
the population are in place. Focus areas have historically tended to include infrastructure, primary health care and pharmaceutical supply for priority diseases. While the support is very welcome, their level of involvement risks an over-dependence on development agencies, and the work can be hindered by issues linked to coordination, duplication and standardization.

There are different models for health service delivery in rural and urban areas. In urban areas, basic primary care is delivered by district or city health centres, and more complex or specialist care through either provincial or national hospitals. In rural areas, primary care is delivered through Health Houses, rural health centres and rural hospitals. The primary health care network includes 2,890 facilities under the guidance of managers based at the district levels. Services at these facilities include reproductive, maternal, newborn and child health; HIV/AIDS; immunization; NCDs; and prevention work. Many vertical services operate from national level to district level through specialized structures, but service provision is fully managed via subnational facilities such as Health Houses, Rural Health Centres, City Health Centres and district-level Family Medicine centres. Each facility has a geographical catchment area assigned to it, and populations residing in the area are automatically attached to these health facilities. Theoretically, referrals are done starting at the lowest level of care, where patients are assigned, and patients move from one level to the next. In practice, patients often bypass various levels of care and show up at district, provincial or even national-level specialized facilities.

Due to high levels of out-of-pocket payments, patients often delay seeking care. In addition, screening services are limited and diseases are frequently detected in the advanced stages, especially for patients with NCDs such as cancer. Mental health services are in need of a review and upgrade.

2 FINANCING AND ENSURING FINANCIAL PROTECTION

Health spending per capita is the lowest in the WHO European Region

The largest sources of funding for health are out-of-pocket payments from patients (both official and unofficial), followed by general government expenditure (mostly from the central, oblast or local governments) and international development assistance. In terms of overall health spending, inpatient care received the bulk of spending (44.3% in 2019), with a much smaller share going to outpatient care (25.2%) and only 2.1% going to prevention.

In terms of national economic development, gross domestic product (GDP) per capita has increased steadily over the past two decades, reaching US$ 3,858 in 2020. This remains far below the WHO European Region average (US$ 35,340) and was less than a third of the central Asian average (US$ 12,326). Tajikistan’s health expenditure per capita is the lowest in the WHO European Region, amounting to US$ 251 per capita in 2019, less than half the central Asian average (US$ 552) and less than a tenth of the average of the WHO European Region (US$ 3,226) (Fig. 1).

Public spending on health has increased from a very low starting point

The central government is the main public funder and provider of health services in Tajikistan. Given the large role of private out-of-pocket payments, public spending on health has been traditionally one of the lowest in the region, but has increased from 0.9% of GDP in 2000 to 1.9% in 2019, matching the central Asian average (Fig. 2).

International and bilateral agencies play an important role in supporting the country’s health system, but their contribution to overall health spending declined from a peak of 14.5% in 2011 to 1.3% in 2019. Voluntary health insurance is rarely used, accounting for less than 0.1% of health spending in 2019. The payment of providers is still based on inputs rather than outputs, leading to inefficiencies (Box 1).

Fig. 1
Health spending per capita in Tajikistan is low and dominated by out-of-pocket payments

Notes: 2019 data. LMIC: lower-middle income countries in the WHO European Region (including Tajikistan, a low-income country).
A high share of out-of-pocket payments undermines financial protection

The high share of out-of-pocket payments in Tajikistan results in insufficient pooling of risks, exposing many households to catastrophic or impoverishing health spending. Many patients, particularly those on lower incomes, cannot afford the care they require, leading to unmet needs.

Out-of-pocket payments accounted for 71.2% of health spending in Tajikistan in 2019 (Fig. 3), a much higher share than the central Asian average (57.1%) and the average of lower-middle income countries in the WHO European Region (52.4%). WHO recommends that out-of-pocket spending should account for less than 15% of current spending on health to ensure good financial protection (WHO, 2019a).

The introduction of the BBP was intended to improve the financial protection of the population. Initial results from the pilot districts where it was rolled out were mixed. While patients made fewer payments for hospitalization in pilot districts, the cost of individual payments was higher, and in absolute terms patients in the pilot districts paid more. The situation is further complicated by the widespread presence of informal payments, which represent a significant challenge to transparency and accountability within the health system.

3 GENERATING RESOURCES, PROVIDING SERVICES AND ENSURING ACCESS

Physical resources are outdated

Tajikistan’s health infrastructure has suffered from decades of underinvestment. In recent years external donors have provided some assistance, but basic necessities (such as heating, water, sanitation and electricity) are still not guaranteed in many health facilities. Medical equipment is often either outdated or lacking altogether (Khodjamurodov et al., 2016). However, due to the COVID-19 pandemic, additional resources have been provided by both the government and development partners to equip and upgrade intensive care units and other hospital services. In addition, some modern new hospitals have been funded by development partners.

The country has made efforts to reduce the overcapacity of hospitals and hospital beds that it inherited from the Soviet period. The ratio of hospital beds to population decreased from 654 per 100 000 population in...
2000 to 467 in 2014, the latest year for which data were internationally reported (WHO, 2022b). This ratio was lower than the average of the WHO European Region of 553 and on a par with central Asia overall (Fig. 4).

However, the number of beds remains high relative to Tajikistan’s population size and available resources, and a low bed occupancy rate indicates ongoing overcapacity. Furthermore, the declining ratio of hospital beds in Tajikistan has to be seen in the context of substantial population growth and a young overall population structure.

**Tajikistan has comparatively few doctors and nurses**

Tajikistan has one of the smallest ratios of health workers to population in the WHO European Region (Fig. 5). In 2014 there were only 172 practising physicians per 100,000 population in Tajikistan (a slight increase from 167 in 2000), compared with an average of 358 in the WHO European Region in 2019. There are also far fewer nurses than in most other European countries, with only 473 practising nurses per 100,000 population compared with 741 in the WHO European Region and 876 in central Asia overall (WHO, 2022b).

Almost all health workers are civil servants and employed by the government. The salaries of health care professionals and social workers are adjusted annually. However, due to fluctuations in pricing and new economic challenges caused by the COVID-19 pandemic, these funds do not always fully cover the needs of health workers.

**Health workers are lacking in rural and remote areas and outmigration is a major concern**

There are major regional inequalities in the geographical distribution of health care staff. Health workers are primarily concentrated in the capital, Dushanbe, and staffing rural areas has historically been a challenge. The government has introduced a range of incentives to try and motivate doctors to spend time in rural areas but with limited success. For example, the Ministry of Health has adopted a policy that obliges recent graduates, whose education was fully funded by the state, to spend the first 3 years after obtaining their diploma practising in rural areas, although in reality the policy is not fully implemented.

Similar to some of its central Asian neighbours, such as Kyrgyzstan, Tajikistan has struggled with migration of health workers to other countries (in particular the Russian Federation), which contributes to the relatively low ratio of doctors and nurses. However, no precise data exist on the numbers of health professionals leaving the country each year.

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**Box 1**

**The inefficiencies of an input-based system**

Despite some health reforms, Tajikistan’s budgeting system is primarily based on inputs (such as number of beds and health workers), rather than results or per capita financing. Provincial administrations receive a designated budget amount from the national government. They can then choose whether to top up their health budget with local funds. The end result is that per capita health expenditure in different regions varies significantly, with the poorest areas spending the least per capita, a difference that risks exacerbating inequalities and means that health spending is not related to social or health needs, to the disadvantage of poor and rural areas. It also increases the risk of catastrophic health expenditure for individual households in those regions.

Per capita financing for primary health care has been implemented nationwide since 2016 but still only works as a guiding allocation norm based on a fixed primary health care budget. It does not offer pooled funds or equalization, and is not used to formally regulate payments made in practice.
Provision of essential health services is improving slowly

There are geographical and financial barriers to accessing health services. Physical access to specialist services can be a challenge in rural areas, in particular in mountainous and remote locations.

Due to the high prevalence of out-of-pocket payments, there are also major financial barriers to accessing services, especially for poorer groups of the population (see section 2). In 2016, Tajikistan began piloting the implementation of a programme to expand universal health coverage, with the support of the national government and international development partners. A platform was created to support health financing reform, and a new oblast-level Health Financing Mechanism Unit was established for purchasing health services. The results of the pilot are expected to accelerate the use of pooling funds – something which is expected to improve equitable access and financial risk protection – as well as to improve the basic benefits package. It is also hoped that new health financing mechanisms will trigger improvements in efficiency and transparency.

The country adopted regional development programmes as part of a strategic focus on improving access to quality health and social services. However, economic pressures – due in part to the COVID-19 pandemic – have limited some of the work originally planned.

Notes: UHC service coverage index in 2019, defined as the average estimated coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health; infectious diseases; noncommunicable diseases; and service capacity and access; among the general and the most disadvantaged population.

Source: WHO, 2022c.
The universal health coverage (UHC) service coverage index—a global indicator that monitors progress towards Sustainable Development Goal (SDG) 3, target 3.8.1, on coverage of essential health services—increased in Tajikistan from 41 in 2000 to 66 in 2019. While this was a major improvement, the score was below the WHO European Region average of 77 (Fig. 6).

Quality of care remains a major concern, given historic underinvestment in facilities and equipment (particularly those in rural areas), and outdated training programmes and clinical guidelines. Another challenge for health care provision is how to integrate a number of vertical programmes into primary care, to facilitate uptake, continuity and efficiency of care. Various public health services are currently delivered through vertical programmes, including some related to maternal and child health, TB, HIV/AIDS, immunization and health promotion.

**Tajikistan has made major progress in addressing communicable diseases**

Vaccination coverage rates are high for many vaccine-preventable diseases in Tajikistan. The National Immunization Programme is a priority for the government, which has received support from the Global Alliance for Vaccines and Immunization (GAVI) since 2001 (GAVI, 2022). One challenge for the programme is to achieve financial sustainability for the procurement of traditional and novel vaccines. Tajikistan remains the only country in the WHO European Region that is not able to cover the cost of traditional vaccines for the population.

The European Vaccine Action Plan (EVAP) includes elimination goals for polio, measles, rubella, hepatitis B and maternal and neonatal tetanus. Tajikistan has achieved three of these goals, having been verified by WHO as polio-free in 2002 and achieving both measles and rubella elimination by 2016. The hepatitis B seroprevalence target is <0.5%, and while this had not been achieved by 2010, the country had shown a dramatic reduction of prevalence from 12% to 2%. Tetanus goals were also evaluated in 2010, and, given the low protection against diphtheria and tetanus, the country implemented a national vaccination campaign for persons between 3–21 years old with either DT or Td vaccine (depending on age) in 2012. Since then, Tajikistan has taken other steps to sustain progress in the control and elimination of vaccine-preventable diseases.

In 2019 rates of childhood vaccination for the first dose of the measles vaccine achieved 98% coverage, and 97% for the second dose. Rates of vaccination for DTP3 also saw 97% coverage in 2019 and 2020, a significant improvement from the 83% coverage in 2000.

Rates for some infectious diseases have improved in recent years. The incidence of measles in Tajikistan is reported to be exceedingly low, recorded as 0.1 per 100 000 in 2019, compared with a WHO European Region average of 11.2 and the Central Asian Republics average of 24 in the same year (WHO, 2022b).

Between 2000 and 2014 the estimated prevalence of TB decreased from 457 per 100 000 population to 128. This was in line with the average for central Asia overall, although more than double the WHO European Region average of 48. Effective treatment coverage of TB has improved markedly, reaching 68.3% in 2017, which exceeded the average of the WHO European Region (Fig. 7).

The country’s HIV incidence rate in 2019 was 14.1 per 100 000 people, in line with the average for central Asia (14.2). Some challenges remain around accuracy of reporting, given the ongoing stigma associated with the condition and limited access to testing. UNAIDS estimates suggest a growing share of people with HIV/AIDS are receiving antiretroviral treatment (ART), but Tajikistan still lags far behind the UNAIDS targets for diagnosis and treatment (Fig. 8).

In general, access to pharmaceuticals for the treatment and management of some diseases can be irregular and funding relies to a large degree on donors. Patients cover a substantial share of the costs for pharmaceuticals out of their own pocket. Historically, an exception was for pharmaceuticals for the treatment of TB, HIV/AIDS, malaria and diabetes, which the country received free of charge until 2015 under agreements with international development partners, but this is no longer the case.
**Fig. 8**
Tajikistan lags behind global targets for HIV/AIDS diagnosis and treatment

The UNAIDS 95:95:95 vision calls by 2025 for:
- 95% people living with HIV who know their status
- 95% people who know their status who are on ART
- 95% people on ART who achieve viral suppression

By 2020 Tajikistan had achieved:
- 66% people living with HIV who know their status
- 56% people who know their status who are on ART
- -48% people on ART who achieve viral suppression

**Note:** ART: antiretroviral treatment.

**Source:** UNAIDS, 2022.

**Fig. 9**
Life expectancy is higher than in central Asia overall

Life expectancy at birth (years)

**Notes:** Data are for 2019 or latest available year (shown in brackets). No data for 2000 for Türkiye and Bosnia and Herzegovina; data for Georgia for 2000 not shown, as only marginally lower than in 2019. CIS: Commonwealth of Independent States; SEE: South-Eastern European countries (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia, Republic of Moldova, Romania, Serbia).

**Source:** WHO, 2022b.
4 IMPROVING THE HEALTH OF THE POPULATION

Life expectancy has improved, although still lags behind the average of the WHO European Region

Following the civil war in the 1990s, Tajikistan has seen progress in many areas of health. These include reductions in infant and child mortality, in maternal mortality and mortality from communicable diseases, and increases in overall life expectancy.

In 2017, life expectancy at birth in Tajikistan was 74.5 years (Fig. 9). This was lower than the WHO European Region as a whole (78.3), but above the 2015 average of central Asia (73 years) and higher than in Kazakhstan (73.1 years in 2017) and Uzbekistan (73.9 years in 2016).

When disaggregated by gender, life expectancy for males in 2017 (72.8 years) was lower than for females (76.4 years), but this gender gap of 3.6 years was much smaller than the central Asian average gap of 6.9 years in 2015.

An apparent underreporting of infant and child deaths means that actual life expectancy may be lower than captured in official statistics. The existence of a registration fee for birth certificates has acted as a deterrent to many poorer families in the past. The registration fee has been reduced in recent years and stands now at US$1, although this does not account for informal payments (Khodjamurodov et al., 2016).

Infant and maternal mortality rates have seen major improvements

Infant and maternal mortality in Tajikistan remain comparatively high, although improvements have been made in recent years and both issues are a priority for the government. Factors contributing to poor health outcomes for maternal and child health include poor quality of maternal and emergency obstetric care, and reluctance to seek medical assistance due to high out-of-pocket costs.

Tajikistan, at 29.6 deaths per 1 000 live births, had the second-highest estimated rate of infant mortality in the WHO European Region in 2019, more than four times the WHO European Region average of 7 deaths per 1 000 live births. However, this was an improvement from an estimated 67.6 deaths in 2000.

Maternal mortality is also high, estimated at 17 maternal deaths per 100,000 live births in 2017, which was higher than the WHO European average of 12.7, but lower than the central Asian average of 23.6. Here, too, major improvements have been made, with maternal mortality estimated at 53 deaths in 2000.

Mortality data are very limited

Internationally reported data on mortality in Tajikistan do not allow a detailed analysis of trends in causes of death, due to gaps in reporting (Fig. 10). Furthermore, the causes of a large number of deaths (130 per 100,000 population or 14.2% of all deaths) are ill-defined, indicating problems in cause of death registration.

According to data reported for 2017, ischaemic heart disease was the leading cause of death, at 138 deaths per 100,000 population, a decline from 221 in 2005, and much lower than the rate of 240 in central Asia overall. Stroke was the second leading cause of death in 2017, at 133 deaths per 100,000 population. This was above the averages for central Asia (112) and the WHO European Region (69).

Reporting of deaths from cancer was more consistent, with 67.9 deaths per 100,000 population in Tajikistan in 2017, which was below the averages for central Asia (92.2 in 2015) and the WHO European Region (146.8 in 2017). Stomach cancer is the most prevalent type and saw an increase in mortality in recent years. In 2017 its standardized death rate per 100,000 population was double that of the WHO European Region: 18.3 compared with 9.2.

Deaths connected with diabetes appear to have also increased substantially, from 23.3 per 100,000 population in 2005 to 48.2 in 2017. This compares to a smaller increase in central Asia overall, from 21.2 in 2005 to 31.5 in 2015, and a largely stagnating trend in the WHO European Region overall (from 14.6 in 2005 to 15 in 2017). The vast majority of these deaths are preventable through public health interventions (healthy diets, physical activity, maintaining a healthy body weight, avoiding tobacco use) and chronic disease management (medication, screening and treatment of complications).

Noncommunicable diseases have been recognized as a major health challenge

The overall burden of NCDs, in particular cardiovascular diseases, has been steadily increasing since the mid-1990s. In 2016 NCDs accounted for 69% of all deaths, and the probability of dying prematurely from cardiovascular disease (CVD), cancer, diabetes or chronic respiratory disease was 25.3% and higher among men than among women (WHO, 2018a). The Ministry of Health and Social Protection has recognized that NCDs represent a major challenge for the country, and has adopted a national strategy for NCD prevention and control for the period 2013–2023.

In 2017 Tajikistan’s age-standardized rate of premature deaths from NCDs was 521 per 100,000 population, roughly in line with other countries in central Asia, but much higher than the WHO European Region average of 359 deaths (Fig. 11). As is the case in all countries in Europe, premature mortality from major NCDs for men is higher than for women, with 601 male deaths per 100,000 population in Tajikistan in 2017, compared with 445 for women.
In terms of other health challenges, Tajikistan has made good progress in controlling many communicable diseases, with vaccination campaigns having been especially successful. However, HIV and TB remain persisting challenges (Box 2).

The COVID-19 pandemic has resulted in new challenges

As in most other countries in Europe, the COVID-19 pandemic is expected to have affected overall mortality rates since 2020, with excess mortality estimated to have exceeded the average of the WHO European Region in 2020 but to have remained very low in 2021 (Fig. 12).

According to the national COVID-19 vaccination plan, all adults (5.8 million people) are eligible for COVID-19 vaccination and the aim is to have all adults fully vaccinated by the end of 2022. As of 13 June 2022, a total of 13,782,905 vaccine doses had been administered, indicating progress towards this target.

In addition to increased mortality, the COVID-19 pandemic disrupted access to essential health services, with a negative impact on the timely diagnosis and treatment of many diseases. There have also been major economic repercussions, which will affect the health and well-being of the population in the short and long term.
High blood pressure, poor nutrition and high blood sugar are major risk factors

High systolic blood pressure and dietary risks were estimated to be the risk factors that caused the most deaths in Tajikistan in 2019, followed by high blood sugar levels (Fig. 13). These risk factors point to deficiencies in the detection and treatment of chronic conditions, underdeveloped public health interventions and issues with the general living conditions of the population. Relevant factors include an unbalanced diet rich in animal fats, underdeveloped food safety, lack of food in some households (particularly in rural and mountainous areas), and poor feeding practices for infants and young children. One of the most common project objectives for NGOs is to increase community knowledge and awareness of health and nutrition (Khodjamurodov et al., 2016).

Box 2
Tuberculosis in Tajikistan

Like many of its central Asian neighbours, Tajikistan struggles with tuberculosis (TB). Its estimated prevalence rate in 2014, at 128 per 100 000 population, was more than twice the rate of the WHO European Region as a whole (48). Tajikistan is also among 27 countries worldwide with a high burden of multidrug-resistant TB (MDR-TB).

The country has historically struggled with issues connected to drug-supply management and there have been problems with the procurement of quality-assured anti-TB drugs (WHO, 2011). However, for over a decade the country has been working to address many of these issues with support from international development partners including WHO, the Global Fund and USAID. TB is now considered a government priority and is included in the national immunization strategy. A National Tuberculosis Programme (NTP) provides services to the population, including access to new drug regimes for MDR-TB and extensively drug-resistant TB (XDR-TB) patients.

The COVID-19 pandemic has negatively impacted the global TB response, and Tajikistan is no exception. There was reportedly a decline in TB and drug-resistant TB cases in 2020 compared with 2019, indicating reduced health system capacity or a lower number of patients seeking medical assistance. It is hoped that reporting will revert to trend in 2022 but the situation remains uncertain.

Excess mortality was lower than in the WHO European Region overall

Excess deaths per 100 000 population

-10 0 10 20 30 40


Tajikistan WHO European Region

Note: Excess mortality from all causes of death, defined as the difference between the total number of deaths and the number that would have been expected in the absence of a crisis (e.g. the COVID-19 pandemic). This difference is assumed to include deaths attributable directly to COVID-19 as well as deaths indirectly associated with COVID-19 through impacts on health systems and society.

Source: WHO, 2022d.
Lack of awareness is a major issue for prevention, and there is very limited early detection. In a national survey in 2016/17, only 12% of women aged 30–49 years had ever received cervical cancer screening, and less than 2% of respondents were aware that they had high cholesterol levels. In addition, the survey found that one third of respondents had never had their blood pressure measured, while over three quarters with known elevated blood pressure were not receiving appropriate treatment (WHO, 2021).

Overweight and obesity are less of a concern than in many other countries in the WHO European Region. Age-standardized prevalence of overweight in adults in Tajikistan was 45.3% in 2016, lower than both the central Asian average (49.5%) and the WHO European Region average (58.7%), although it has slowly increased during the past decade. There is a slightly higher prevalence of overweight women than men: 46.3% compared with 44.2%, a difference that has remained relatively constant since the 2000s.

Other risk factors include tobacco use and air pollution. There is limited data available on tobacco use, but in 2017 male smoking prevalence was estimated at 17%, which was below the average for central Asia of 33.4 in 2016 (WHO, 2018b). Female smoking prevalence was estimated at 0.3%. A new tobacco control law was signed on 2 January 2018 which applies to all tobacco products, including cigarettes, cigars, hookahs, smokeless tobacco and e-cigarettes. It envisages the creation of 100% smoke-free indoor places for most settings (although excluding prisons, psychiatric institutions and care homes for older people); a complete point-of-sale display ban; pictorial health warnings covering 75% of the front and back of tobacco packets; and a number of sales restrictions (Box 3).

Liver cirrhosis is considered to be a significant cause of death and disability. A common contributing factor for this condition is excessive alcohol consumption. Recorded alcohol consumption is estimated to be one of the lowest in the WHO European Region, at just 0.8 litres per capita in 2019, compared with an average of 7.8 in the WHO European Region. However, unreported alcohol consumption has been estimated as 2.3, nearly three times the recorded rate, and the consumption rate of drinkers only was 15.8 litres per capita in 2016 – significantly higher.

There is a growing public awareness of the importance of healthy lifestyles, thanks in part to promotion and outreach organized by the Republican Centre for Healthy Lifestyles, an entity responsible for health promotion under the Ministry of Health and Social Protection. However, many people still have insufficient access to information on health and healthy lifestyles, and they lack awareness of the causes of ill health. This is especially true with regard to NCDs, unhealthy diets and tobacco control (Box 3).

### Fig. 13
High blood pressure and dietary risks are leading risk factors for mortality

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Share of All Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>High systolic blood pressure</td>
<td>26.8%</td>
</tr>
<tr>
<td>Dietary risks</td>
<td>22.2%</td>
</tr>
<tr>
<td>High fasting plasma glucose</td>
<td>16.4%</td>
</tr>
<tr>
<td>Air pollution</td>
<td>15.3%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>11.9%</td>
</tr>
<tr>
<td>High LDL cholesterol</td>
<td>11.6%</td>
</tr>
<tr>
<td>High body mass index</td>
<td>9.6%</td>
</tr>
<tr>
<td>Child and maternal malnutrition</td>
<td>8.5%</td>
</tr>
<tr>
<td>Non-optimal temperature</td>
<td>6.4%</td>
</tr>
<tr>
<td>Kidney dysfunction</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

**Notes:** LDL: low-density lipoprotein. Shares overlap and therefore add up to more than 100%.

**Source:** IHME, 2019.
Environmental risk factors include air pollution, poverty and poor access to water and sanitation

Access to safe water varies considerably across Tajikistan. In urban areas, water systems are badly decayed and subject to frequent service outages. In rural regions, where less than half of residents have access to improved water sources, large parts of the population take their water from ponds, canals, rivers and other unsafe sources. Inevitably, this leads to issues around sanitation, including for health care settings.

Air pollution is considered a risk for population health in Tajikistan, but data on air quality and emission sources are scarce. To address this, the government has been working with the United Nations Economic Commission for Europe (UNECE) to build capacity for developing national emission inventories. The burning of solid fuels (such as wood) in homes is also a contributing factor to poor air quality, with one fifth of the population in 2016 estimated to have to use such fuels.

Road safety is also a concern. Tajikistan is the country with the highest fatality rates from traffic injuries in central Asia (19 cases per 100,000 population). Although the number of collisions on national roads has remained more or less constant, the number of fatalities has increased nearly fivefold in the past 5 years. In addition, coordination and data sharing on road traffic injuries between different government agencies is weak, and accurate or disaggregated data are often not accessible. However, Tajikistan has committed to improving road safety under the Central Asia Regional Economic Cooperation (CAREC) Road Safety Strategy, meaning it aims to reduce road traffic deaths along CAREC corridors by 50% by 2030 compared with 2010. Road safety legislation in Tajikistan requires amendments in order to comply with international standards and enforce the implementation of existing safety requirements. It also needs a special focus on more vulnerable road users such as pedestrians, children and adolescents, and people with disabilities.

As the least wealthy country in the WHO European Region (by GDP per capita), poverty is a major obstacle to health and well-being in Tajikistan. Poverty is considered to be one of the primary factors affecting population health in the country. While the percentage of the population living below the national poverty line declined from 73% in 2003 to 33% in 2014, over a quarter of the population (27.4%) was below the poverty rate at national poverty lines in 2018. Both absolute and relative poverty continue to cause challenges for health through various socioeconomic factors. These include poor housing, access to clean water and sanitation, use of polluting household fuels, and education levels.

Tajikistan uses a lot of antibiotics that should only be used for a limited number of specific indications

Tajikistan participates in relevant networks set up by the WHO Regional Office for Europe (the Antimicrobial Medicines Consumption Network and the Central Asian and European Surveillance of AMR (CAESAR) Network). Tajikistan’s rates of antibacterial consumption lie in the middle range of countries in the WHO European Region (Fig. 14). However, there was a high share of antibiotics that should only be used for a specific, limited number of indications, classified as Watch category under the WHO AWaRe classification for antibacterials. Tajikistan did not meet the WHO national monitoring target of at least 60% of total antibacterial consumption being from the Access category in 2018, indicating that stronger antimicrobial stewardship efforts are needed.
Rates of antimicrobial resistance are unknown

There is a lack of national data on rates of antimicrobial resistance. Improving the surveillance system for antimicrobial resistance and use is one of four strategic areas of the national AMR Action Plan. Tajikistan participates in a WHO project to foster blood culture diagnostics in cases of suspected bloodstream infections. The data will provide indicative information on resistance rates for a subset of health care facilities in Tajikistan.

Tajikistan has adopted a National AMR Action Plan

The National Multisectoral Action Plan to Tackle Antimicrobial Resistance (AMR) in 2018–2022 guides national efforts to tackle AMR. It aims to raise awareness and improve education on AMR, improve surveillance of antimicrobial resistance and use, improve infection prevention and control, and achieve a more rational use of antimicrobial medicines.

Implementation of AMR policies is still at an early stage

At present, antimicrobials are easily accessible and widely used for preventing and controlling different infectious diseases in Tajikistan. Worryingly, there was an upsurge of use in 2020, although it is not clear whether this was because of the COVID-19 pandemic. In order for rates of antibiotic consumption and resistance to decline, there is a need for effective high-impact policies and measures, including infection prevention and control programmes, ending the over-prescription of antibiotics, rapid testing for patients to determine whether they have bacterial or viral infections, delayed antibiotic prescriptions and mass media campaigns.
6 EUROPEAN PROGRAMME OF WORK (EPW)

Moving towards universal health coverage

The Government of Tajikistan has initiated a range of health reforms over the last decade designed to advance UHC and strengthen primary care. These have included the development of a state-guaranteed basic benefits package; the introduction of per capita health financing; the piloting of a performance-based financing mechanism; case-based hospital payments; and new legislation to establish a Mandatory Health Insurance Fund.

A pilot project on health financing reform in Sughd oblast has been of paramount importance for accelerating health financing reform. A Unit on Health Financing Mechanisms has been established to improve strategic purchasing in Sughd oblast, guide implementation of health financing reform in this oblast, and support progress towards UHC.

Protecting against health emergencies

Public health emergency preparedness and response, as well as strengthening IHR core capacities, is a priority in the national health agenda. Work has begun on developing hospital emergency preparedness and response plans, and staff competencies in the Public Health Emergency Operating Centre are being developed with WHO support. Tajikistan is also preparing for an Intra-Action Review (IAR) of the COVID-19 response, the results of which will be integrated into the development of a National Action Plan.

Promoting health and well-being

Although there has been a reported decline in premature NCD deaths since the mid-2000s, NCDs remain the leading cause of mortality. Tajikistan has developed and implemented a national NCD strategy that also includes injury prevention. With support from WHO, the government is planning to collect new data on NCD risk factors, using the WHO STEPwise survey (STEPS) to allow for comparisons with previous years.

In addition, and in partnership with GIZ (German Agency for International Cooperation), WHO has provided Tajikistan with technical assistance to scale up and implement essential interventions for preventing cardiovascular diseases in primary care. This includes better diagnosis and management of hypertension.

Improving diets has also been a significant focus. WHO is supporting the implementation of the National Strategy and Action Plan on Diet and Physical Activity (2015–2024), which has a special focus on malnutrition. To protect priority target groups, a National Roadmap for the Promotion of Healthy Nutrition and the Prevention of Obesity in Women and Children has also been developed and implemented. WHO supports the analysis and interpretation of data on child nutrition via the WHO Childhood Obesity Surveillance Initiative (COSI). A WHO FeedCities survey has produced recommendations on reducing the use of salt, sugar and trans fats in diets, especially for women and children. Finally, WHO has assisted the Ministry of Health and Social Protection to update national hospital protocols for the management of severe and moderate acute malnutrition in children under 5 years of age.

COUNTRY DATA SUMMARY

<table>
<thead>
<tr>
<th></th>
<th>Tajikistan</th>
<th>Central Asia</th>
<th>WHO European Region</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth, both sexes combined (years)</td>
<td>74.5 (2017)</td>
<td>73 (2015)</td>
<td>78.3 (2017)</td>
<td>80.9 (2018)</td>
</tr>
<tr>
<td>Estimated maternal mortality per 100 000 live births (2017)</td>
<td>17</td>
<td>23.6</td>
<td>12.7</td>
<td>6.3</td>
</tr>
<tr>
<td>Estimated infant mortality per 1 000 live births (2019)</td>
<td>29.6</td>
<td>17.7</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>Population size, in millions (2020)</td>
<td>8.9</td>
<td>72.6</td>
<td>927.2</td>
<td>512.1</td>
</tr>
<tr>
<td>GDP per capita, PPP$ (2020)</td>
<td>3 858</td>
<td>12 326</td>
<td>35 340</td>
<td>44 421</td>
</tr>
<tr>
<td>Poverty rate at national poverty lines (2018)</td>
<td>27.4</td>
<td>14.1</td>
<td>14.9</td>
<td>17</td>
</tr>
</tbody>
</table>

Notes: EU: European Union; GDP: gross domestic product; PPP: purchasing power parity.

Source: WHO, 2022b.
References


WHO Regional Office for Europe

WHO is the authority responsible for public health within the United Nations system. The WHO Regional Office for Europe (WHO/Europe) covers 53 countries, from the Atlantic to the Pacific oceans.

To support countries, WHO/Europe seeks to deliver a new vision for health, building a pan-European culture of health, where health and well-being goals guide public and private decision-making, and everyone can make healthy choices. WHO/Europe aims to inspire and support all its Member States to improve the health of their populations at all ages. WHO/Europe does this by providing a roadmap for the Region’s future to better health; ensuring health security in the face of emergencies and other threats to health; empowering people and increasing health behaviour insights; supporting health transformation at all levels of health systems; and by leveraging strategic partnerships for better health.

European Programme of Work ‘United Action for Better Health in Europe’

The European Programme of Work (EPW) sets out a vision of how the WHO Regional Office for Europe can better support countries in our region in meeting citizens’ expectations about health.

The social, political, economic and health landscape in the WHO European Region is changing. United action for better health is the new vision that aims to support countries in these changing times. “United”, because partnership is an ethical duty and essential for success, and “action” because countries have stressed their wish to see WHO move from the “what” to the “how”, exchanging knowledge to solve real problems. The WHO European Region’s solidarity is a precious asset to be nurtured and preserved and, through the EPW, WHO/Europe supports countries as they work together to serve their citizens, learning from their challenges and successes.

The European Observatory on Health Systems and Policies

The European Observatory on Health Systems and Policies supports and promotes evidence-based health policy-making so that countries can take more informed decisions to improve the health of their populations. It brings together a wide range of policy-makers, academics and practitioners, drawing on their knowledge and experience to offer comprehensive and rigorous analysis of health systems in Europe. The Observatory is a partnership hosted by WHO/Europe. Partners include the governments of Austria, Belgium, Finland, Ireland, Norway, Slovenia, Spain, Sweden, Switzerland, the United Kingdom, and the Veneto Region of Italy (with Agenas); the European Commission; the French National Union of Health Insurance Funds (UNCAM), the Health Foundation; the London School of Economics and Political Science (LSE) and the London School of Hygiene & Tropical Medicine (LSHTM). The Observatory is based in Brussels with hubs in London (at LSE and LSHTM) and at the Berlin University of Technology.