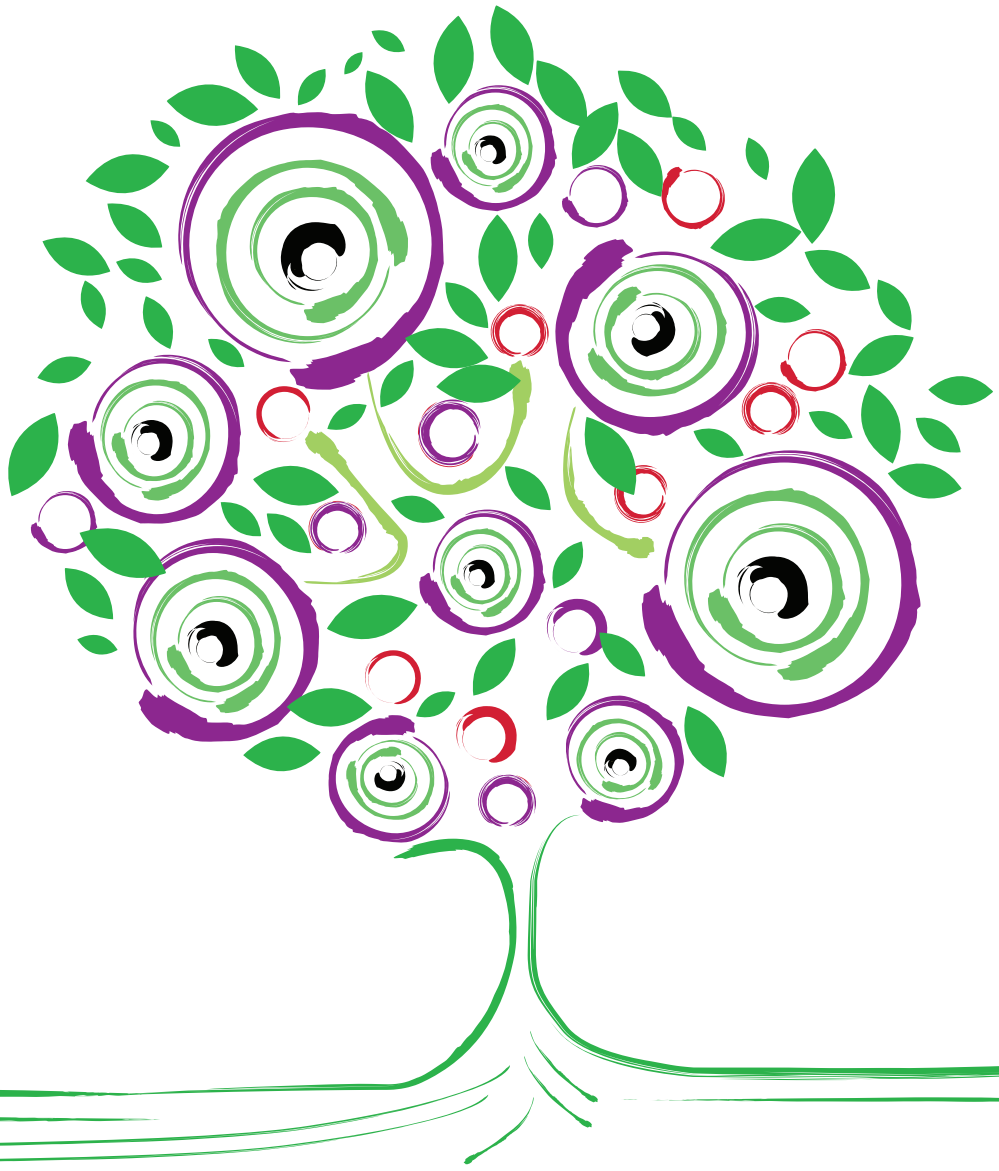
Prevention and management of mental health conditions in

Kyrgyzstan

The case for investment



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Contents

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Abbreviations

DALY	disability-adjusted life-year
GBD	Global Burden of Disease (survey)
GDP	gross domestic product
LMIC	low- and middle-income countries
mhGAP	WHO Mental Health Gap Action Programme
MHIF	Mandatory Health Insurance Fund
NCD	noncommunicable disease
NGO	nongovernmental organization
OOP	out of pocket
PHC	primary health care
ROI	return on investment
SDG	Sustainable Development Goal
SEL	social and emotional learning

Kyrgyzstan

Key findings

CURRENT BURDEN OF MENTAL HEALTH CONDITIONS

3.97 billion som in 2022 (US$ 47.3 million)

0.4% of GDP (in 2022)

352 million som in 2022 (US$ 4.2 million)

due to health-care expenditure

3.62 billion som in 2022 (US$ 43.1 million)

due to loss of workforce and reduced productivity

INVESTMENT REQUIRED

5.31 billion som (US$ 63.1 million)

788 som (US$ 9.3) per capita

Investment required for selected clinical packages and population-based preventive interventions over a 10-year period

ANXIETY DISORDERS	DEPRESSION	PSYCHOSIS	BIPOLAR DISORDER	EPILEPSY
632 million som (US$ 7.5 million)	**928** million som (US$ 11 million)	**847** million som (US$ 10 million)	**1767** million som (US$ 21 million)	**434** million som (US$ 5.1 million)

ALCOHOL USE DISORDER	UNIVERSAL SCHOOL-BASED INTERVENTIONS
231 million som (US$ 2.7 million)	**475** million som (US$ 5.6 million)

RETURN ON INVESTMENT

21.57 billion som (US$ 258.6 million)

includes productivity gains and social value of health

	Benefit–cost ratio	Healthy life-years gained	Total productivity gained
Anxiety disorders	4.9	12 360	1186 million som (US$ 14.1 million)
Depression	8.8	34 824	2739 million som (US$ 32.6 million)
Psychosis	1.1	3492	375 million som (US$ 4.4 million)
Bipolar disorder	0.8	5230	552 million som (US$ 6.6 million)
Epilepsy	8.6	14 297	1522 million som (US$ 18.1 million)
Alcohol use disorder	9.4	6205	1229 million som (US$ 14.6 million)
Universal school-based SEL interventions	4.5	13 201	11 million som (US$ 130 780)

Figures are subject to rounding. The exact figures in som are available in the report.

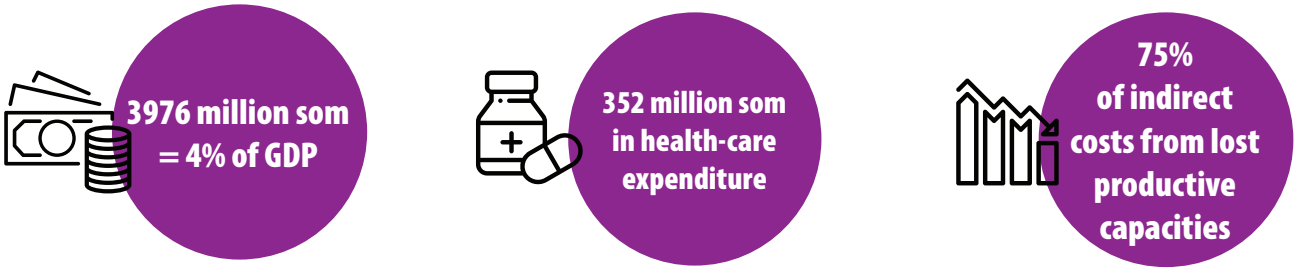
Executive summary

Mental health conditions such as depression, anxiety, schizophrenia and substance use disorders are a global public health and development priority. The burden of these conditions in Kyrgyzstan is substantial and growing, and their impacts extend beyond ill health, suffering and social exclusion of people and their families. Mental health conditions also have significant social and economic consequences, including increasing demand on already stretched health system resources and loss of economic productivity as people who suffer from mental health conditions are more likely to leave the labour force (due to premature death or disability), miss days of work (absenteeism) or work at reduced capacity (presenteeism). There is also a bidirectional relationship between socioeconomic status and mental health and well-being, which can drive a self-reinforcing vicious cycle of increased vulnerability, impoverishment, increased demands on the health system and negative spillover effects to other sectors.

This report presents the findings of the case for investing in prevention and management of mental health conditions in Kyrgyzstan by scaling up cost-effective policies, strategies and interventions. These interventions include clinical interventions, such as basic psychosocial support, psychological support and medications, as well as population-based interventions, such as school-based social and emotional learning (SEL) to prevent depression, anxiety and suicide. The economic evidence for investing is described, including intervention costs, health impacts and economic benefits associated with six priority mental health conditions (depression, anxiety, psychosis, bipolar disorder, epilepsy and alcohol use disorder) and suicide. It also includes recommendations on steps that the Government of Kyrgyzstan can take to strengthen a whole-of-government approach to preventing and managing mental health conditions, informed by the economic evidence and assessment of the political and institutional context.

Main findings

The cost of mental health conditions



Mental health conditions affect 11% of the population in Kyrgyzstan and accounted for 5.2% of the overall burden of disease in the country in 2019, as measured by disability-adjusted life-years (DALYs). The total cost of premature death was estimated to be 752 million som. Losses due to premature death were highest for alcohol dependence, linked to various causes such as cancers and road traffic accidents. Alcohol use disorders were responsible for 6.2 deaths per 100 000 population.

The investment case findings indicate there is a significant economic burden posed by mental health conditions. In 2022 the total economic burden of the selected mental health conditions and suicide on the Kyrgyz economy was estimated to be 3976 million som, which was equivalent to 0.4% of the national gross domestic product (GDP). While the direct costs were 352 million som (measured as Government expenditure), indirect costs due to absenteeism (missing days of work due to illness), presenteeism (being at work but with reduced capacity to do work due to illness) and premature death related were more than 10 times higher, 3624 million som. Among the indirect costs, three quarters was linked to absenteeism and presenteeism, with anxiety disorders and depression being the costliest conditions in terms of absenteeism and presenteeism.

These figures indicate that the economic burden associated with mental health conditions goes beyond health expenditure and spills over to lower economic productivity and the loss of the lives of breadwinners for families and the economy. A whole-of-government and multisectoral approach is needed and other sectors would benefit from supporting mental health prevention and management efforts as they would result in a healthier and more productive workforce.

Despite this large economic burden, the treatment and service gaps remain substantial. Critical service gaps and challenges are that specialized, facility-based care models predominate; access to services is unevenly distributed with rural areas underserved; public services for children and elderly people are limited; and nationally representative data on mental health burden are lacking, which limits the ability to monitor and respond to evolving needs.

Why invest in interventions

In responding to these challenges and strengthening the national mental health system, the Government of Kyrgyzstan has notable strengths and opportunities to leverage. There is high-level leadership and multisectoral commitment towards mental health care, existence of a comprehensive and progressive national action plan on mental health (2018–2030), successfully piloted models of community-based services, initiated integration of mental health services into primary health care (PHC) via implementation of the WHO Mental Health Gap Action Programme (mhGAP), and a positive track record of achieving the United Nations Millennium Development Goal targets. The introduction of the Mandatory Health Insurance Fund (MHIF) has since 2019 provided incentive payments to PHC clinicians for early detection and management of mental health conditions. A key piece of legislation is also underway that will, once approved, supersede the 1999 Law on psychiatric care and guarantees of the rights of citizens in its provision. This is the Law on the protection of the health of citizens in Kyrgyzstan, dated 12 January 2024, No. 14, which covers 11 clinical areas including mental health conditions.

The investment case findings demonstrate that scaling up mental health interventions would over the next 10–15 years show significant gains.

Gain 38 899 extra healthy life-years

Save lives and gain 38 899 additional years of healthy life by 2032. All of the interventions analysed significantly increase the total number of healthy life-years gained (additional years of healthy life). The greatest impacts were observed for interventions involving depression (14 817 healthy life-years gained over 10 years), the universal school-based SEL intervention (7641), epilepsy (5868) and anxiety disorders (4767). Interventions for bipolar disorder, depression and alcohol use disorder also reduced mortality. Furthermore, health-care expenditure would be reduced as a result of averting 102 087 prevalent cases of mental health conditions. In this respect, it is worth mentioning the role of multidisciplinary and multiprofessional teams – where home patronage by health professionals establishes productive team dynamics – which contributes to stable remission and, as a consequence, to a reduction in the number of hospitalizations.

Provide economic benefits

Restore 3385 million som worth of productivity over 10 years, achieving economic gains that outweigh the costs (3324 million som) of implementing the selected mental health interventions. Analysis shows that most mental health intervention packages produce a benefit–cost ratio greater than 1.0 over 15 years. This means that these interventions produce a positive return on investment (ROI), with economic gains being higher than cost of implementing the interventions. The alcohol use disorder intervention package had the highest benefit–cost ratio: for each som invested in delivering the intervention, the expected ROI is 3.9 som over 10 years and 5.3 som over 15 years.

The clinical interventions for alcohol use disorder and epilepsy incurred the lowest estimated costs as total costs incurred over a 10-year scaling-up period: 133 million som (20 som per capita) and 289 million som (43 som per capita), respectively. Out of all the interventions, the population-based intervention of universal school-based SEL was the lowest in cost, requiring 313 million som (or 46 som per capita) over a 10-year scaling-up period.

Economic productivity gains, such as increased participation in the labour force and reduced absenteeism, are not the only considerations to be made in assessing the benefits of investing in mental health interventions. A more holistic appraisal of benefits would be one that incorporates the social value of health, where the intrinsic value of improving health as an end in itself would be warranted. When considering the social value of health, the estimates for benefit–cost and ROI ratios for the selected interventions are even more favourable.

Bipolar disorder and psychosis are less common health conditions and their interventions have higher costs and lower benefit–cost ratios compared with others. While this is the case, it is critical that interventions to address these conditions be included given that affected individuals are at higher risk of suffering, marginalization and human rights abuses. Investing in these interventions will ensure that Kyrgyzstan provides the services needed to support individuals in need and upholds its universal access and human rights agenda.

Recommendations for consideration

The results of this investment case confirm the severe economic impact of mental health conditions in Kyrgyzstan. In addition, they show that investment in a selected number of evidence-informed interventions can significantly improve people's mental health and life expectancy and decrease national economic losses (Table ES.1). The following actionable steps can be taken to further strengthen a multisectoral, whole-of-government, whole-of-society response to mental health conditions and their consequences.

- Leverage the 2024 draft Law (bill) and ensure its enforcement.
- Increase taxes on alcohol.
- Strengthen intersectoral coordination, including across noncommunicable disease (NCD) and injuries programmes.
- Expand coverage of care by scaling up community-based interventions, equitable financial protections and strengthening the health-care workforce.
- Establish and expand telemedicine systems throughout Kyrgyzstan.
- Provide services and support to meet the needs of older adults, children and those living with enduring psychosocial disabilities.

Table ES.1. Summary of main findings

Every year, mental health conditions are responsible for…	Over 10 years, adopting new interventions and intensifying existing ones would…
5.2% of the national burden of diseases (DALYs)	Gain 38 899 additional healthy life-years
352 million som in health-care expenditure, resulting from those treated among 674 504 prevalent diagnosed cases (11% of population)	Reduce health-care expenditure as a result of 102 087 prevalent cases averted
3624 million som in economic productivity losses	Prevent 3385 million som in economic losses (through productivity gains)
Overall economic costs equivalent to 0.4% of GDP (3976 million som)	Generate economic benefits of 3385 million som, which outweigh the costs (3324 million som) of intensifying interventions

Photo: © UNDP


1
Introduction

1. Introduction

Mental health is a core aspect of living, health and well-being. Mental health conditions are a group of conditions that include mental disorders, psychosocial disabilities and mental states associated with significant distress, impairment in functioning or risk of self-harm. The most prevalent mental health conditions are anxiety disorders, depression, psychosis, bipolar disorder, epilepsy and alcohol use disorder.

The global burden of mental health conditions is substantial and rising *(1)*. WHO estimated in 2019 that one in every eight people or 970 million people around the world were living with a mental disorder *(2–4)*. That same year an estimated 703 000 people died by suicide *(2)*.

The total economic cost (direct and indirect costs) of mental health conditions was estimated at US$ 2.5 trillion in 2010 and is projected to rise to US$ 6 trillion in 2030 *(5)*. Of those living with mental health conditions, 82% are in low- and middle-income countries (LMICs) *(2)*. The leading mental health conditions are anxiety (accounting for 31% of all mental health conditions, affecting 301 million people including 58 million children) and depressive disorders (accounting for 29% of mental health conditions, affecting 280 million people including 23 million children). In the wake of the 2020 COVID-19 pandemic, it is estimated that the prevalence of anxiety and major depressive disorders increased by 26% and 28%, respectively, over just 12 months. One recent review article reported that, overall, about two thirds of the DALYs from mental health conditions are caused by depression, anxiety, drug use disorders and alcohol use disorders, with overall age-adjusted rates of 598, 375, 276 and 220 per 100 000 population, respectively *(6)*.

Despite this high burden of disease, there remain large treatment gaps. WHO estimated in 2022 that worldwide approximately 71% of people living with psychosis are untreated *(2)* and that four fifths of people living with mental health conditions in LMICs are untreated *(7)*. On average, only 2% of health budgets are spent on mental health conditions *(2)*. This global burden of mental health conditions and gaps in treatment coverage also applies to Kyrgyzstan.

The impacts of mental health conditions are far reaching. Not only do mental health conditions cause human suffering, they also disproportionately affect disadvantaged and marginalized individuals. Risk factors for developing a mental health condition include adverse socioeconomic circumstances such as poverty, violence and disability. Many people suffering from mental health also suffer from stigma, discrimination and violations of human rights.

The impacts of mental health conditions go beyond the suffering and marginalization of people and their families. There is also a bidirectional relationship between social and economic conditions and mental health and well-being *(8)*. Further impacts include loss of economic productivity, as people who suffer from mental health conditions are more likely to leave the labour force (due to premature death or disability), miss days of work (absenteeism) or work at reduced capacity (presenteeism). In turn, social and economic conditions and their inequities have a strong impact on the protection and promotion of mental health and well-being, with some experiencing greater vulnerability than others. For example, individuals who have lost their jobs, are engaged in atypical and/or insecure work and employed under precarious terms are at increased risk of poor mental health and well-being. When mental health conditions persist and are left untreated and when social and economic conditions decline, this bidirectional relationship can turn into a negatively reinforcing vicious cycle of increased vulnerability that increases demand on already stretched health system resources, with negative spillover effects in other sectors.

Evidence-informed cost-effective interventions to prevent and control mental health conditions exist. A menu of policy options and cost-effective interventions for mental health was developed by WHO, in response to a request by the Seventy-second World Health Assembly in 2019 *(9,10)*. Yet adoption and national scale-up of these interventions has been limited, particularly in LMICs. Responding to the burden of mental health conditions is challenging because of a number of factors, including financial and resource limitations and competing demands for the limited resources.

Strengthening policy and increasing investment in mental health is beneficial for both public health and sustainable development. Investment in evidence-informed mental health interventions could improve the overall health and quality of life of people and increase life expectancy. In addition, such investments will contribute to the achievement of a number of Sustainable Development Goal (SDGs), including Target 3.4 (by 2030 to reduce by one third premature mortality from noncommunicable diseases (NCDs) through prevention and treatment and promote mental health and well-being; indicator 3.4.2 is suicide rate), Target 4 (education), Target 5 (gender), Target 8 (employment and economic growth), Target 10 (equality), Target 11 (safe cities), Target 16 (reducing violence) and Target 17 (partnership, capacity-building and domestic resource mobilization). Improving mental health is critical to the SDG vision of a just, inclusive and equitable society. It is also in line with Kyrgyzstan's vision encapsulated in the National Development Strategy 2018–2040 and the global commitment to leave no one behind.

This report presents the case for investing in mental health in Kyrgyzstan. Investment cases are designed to help countries to make their own economic and political rationales for action to address mental health conditions, informed by the costs and benefits of scaled-up action, and the costs of not doing so, at baseline (2022), 10 (2032) and 15 years later (2037).

Strengthening policy and increasing attention to and investment in mental health are major goals for public health and sustainable development.

This report is divided into the following sections:

- section 2 outlines the situation analysis for mental health conditions in Kyrgyzstan and the current and planned responses by the Government;
- section 3 outlines the methodology for the economic analyses;
- section 4 gives the results of the analysis, describing the economic burden of mental health conditions and suicide, health impacts, economic gains and total costs, and cost–benefit and ROI for each intervention package; and
- section 5 provides the conclusions drawn from these findings and provides recommendations for consideration by the Government of Kyrgyzstan for strengthening and scaling up cost-effective policies and clinical interventions that address mental health conditions.

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2
Situation analysis

2. Situation analysis

Epidemiological review and institutional context analysis were conducted to complement the economic analysis and identify opportunities for action that can be taken by Kyrgyzstan. The purpose was to assess the political space relevant to mental health policy adoption, implementation and enforcement and uncover the most promising policy pathways for a country to take (for example, areas of general consensus, political appetite or barriers to adoption).

The institutional context analysis was conducted by the investment case team from January to June 2023. Findings and recommendations were based on inputs from a desk review and interviews.

- **A desk review** was carried out to characterize epidemiological burden of disease and national responses to date (for example, policies and regulations, financing, resources, action plans, programmes and services, impacts) and other relevant information about the country context, socioeconomic profile and pertinent historical events. Existing legal, policy and programme documents were reviewed, a targeted literature review was conducted and descriptive analyses of public domain databases (for example, Global Health Data Exchange) were performed.
- **Key informant interviews (online) and group discussions with diverse stakeholders** were carried out to gain understanding of the various actors, their interests, capacity to influence and institutional and governance arrangements. These consultations provided insights on historical legacies, social trends, opportunities and challenges that may have a bearing on success of mental health-related interventions. Group discussions were held as part of an in-country United Nations Inter-Agency Task Force mission that took place in March 2023 and included representatives from the following institutions:

» Office of the President

» Ministry of Health

» Ministry of Labour

» Ministry of Education and Science

» Ministry of Economy

» Social and Policy Committee of the Parliament of the Kyrgyz Republic

» WHO Country Office

» United Nations Development Programme Country Office

» Patients' Association for Cancer and Diabetes

» Alliance of Women's Legislative Initiatives of Kyrgyzstan (Women's Forum).

2.1 Country context

Kyrgyzstan is a land-locked country in central Asia classified by the World Bank as an LMIC. The nation is home to 6.74 million people and boasts notable public health and development achievements to date. These include achieving Millennium Development Goal 4 and reducing infant and child mortality by two thirds compared with 1990 *(11)*. Furthermore, while Kyrgyzstan ranked 122nd (out of 189 countries) in the Human Development Index *(11)*, it ranked 48th in its achievement of SDG targets based on 2019 reporting *(12)*. However, the country faces several constraints. These include current per capita health expenditure at US$ 64 (among the lowest in the WHO European Region) *(13)*, critical shortages within the mental health workforce, centralized hospital-based services, high out-of-pocket (OOP) spending (accounting for 45% of current health expenditure) and inequitable availability of mental health services (Tables 1 and 2).

Table 1. Development statistics fo Kyrgyzstan

Category	Indicator	Kyrgyzstan	Reference year
General	Population (millions)[a]	6.7	2021
General	GDP (current US$ billion)[a]	8.5	2021
General	GDP per capita (current US$)[a]	1277	2021
General	Access to electricity (%)[a]	100	2020
General	People using safely managed sanitation services (% population)[a]	92	2020
General	Life expectancy at birth (years)[a]	72	2018
General	Current health expenditures, per capita (US$)[b]	73	2021
General	OOP spending (% of current health expenditure)[b]	40.7	2021

Sources: [a]World Bank *(14)*; [b]WHO *(15)*.

Table 2. Overview of Kyrgyzstan mental health system response

Category	Indicator	Kyrgyz Republic	Reference year
Governance	Mental health policy or strategy available	Yes, integrated	2017
Governance	Mental health legislation available	Yes, integrated	2017
Resources	Mental health expenditure (% Government total health expenditure)	0.10	2017
Resources	Child psychiatrists (per 100 000 population)	0.2	2017
Resources	Total mental health workforce (per 100 000 population)	11.0	2017
Services	Mental hospital beds (per 100 000 population)	27.7	2017
Services	Community residential facility beds (per 100 000 population)	1.6	2017
Services	Annual visits to hospital/community facility (per 100 000 population)	6138/347 424	2017
Information	Mental health data availability and reporting	Public data reporting	2017

Source: WHO *(16)*.

Kyrgyzstan's historical backdrop influences its current mental health situation. In the 1990s mental health services weakened in Kyrgyzstan, as was the case in many countries of the former Soviet Union, following a decline in funding *(17)*. The resulting gap in service delivery contributed to the rise in use of traditional healers *(17)*. Further driving this is that belief in the supernatural causes of mental illness is deeply rooted in the Kyrgyz population both in rural and urban areas *(18)*. Formal cooperation between modern medicine and traditional medicine practitioners does not frequently occur *(19)*, although the importance of this cooperation is being recognized and a few examples exist *(20)*. Stigma related to mental health conditions is high *(17)*. In 2010 Kyrgyzstan suffered interethnic conflicts. These resulted in the departure of mental health specialists, displacement of 400 000 people and increased depression, post-traumatic stress disorder, anxiety and high suicide rates in vulnerable groups such as children and adolescents *(18)*.

2.2 Epidemiology and burden of mental health conditions

Table 3 summarizes the burden of mental health conditions in Kyrgyzstan. Nationally representative data on the burden of mental health conditions, other than harmful use of alcohol, are limited. According to Global Burden of Disease (GBD) survey 2019 estimates, mental health conditions affected more than one in 10 people in Kyrgyzstan and accounted for 5.2% of all-cause DALYs.

Suicide rates were 9.2 per 100 000 people and over four times higher in men than women. Depression (major depressive disorders), alcohol use disorders and anxiety were the most prevalent mental health conditions. Depression affected 3.3% of the total population (all ages). Women were slightly (50%) more likely to be affected by depression than men. Levels of depression tended to be slightly higher in adults aged 15–69 years compared with older adults (70 years and above).

Anxiety affected 2.1% of the population, with a similar tendency to affect women more than men.

Alcohol use disorders, which often occur along with depression and/or anxiety disorders, affected 3.1% of adults. Men were nearly four times more likely to suffer from alcohol use disorders than women.

Epilepsy prevalence is 0.4%, slightly higher in children (under 15 years) and older adults (over 70 years). While the prevalence of epilepsy was relatively low, its impact on DALYs was disproportionately high, reflecting the premature death and years lived with disability associated with the condition.

Table 3. Burden of mental health conditions in Kyrgyzstan, GBD 2019 estimates

Condition	Male (%)	Female (%)	Both (No. (%))	DALYs (%)
Mental disorders	11.1	10.9	674 504 (11.0)	5.23
Depressive disorders	2.6	4.0	202 782 (3.3)	2.09
Alcohol use disorders	5.0	1.3	190 105 (3.1)	2.16
Anxiety disorders	1.6	2.6	130 177 (2.1)	0.76
Attention deficit hyperactivity disorder	1.8	0.7	73 201 (1.2)	0.05
Bipolar disorder	0.5	0.6	32 819 (0.5)	0.43
Idiopathic epilepsy	0.5	0.4	26 643 (0.4)	1.19
Autism spectrum disorders	0.6	0.2	25 055 (0.4)	0.23
Schizophrenia	0.3	0.3	16 651 (0.3)	0.66
Suicide rate (deaths, per 100 000 population)	14.9	3.6	9.2 (–)	–

Source: Institute For Health Metrics and Evaluation *(21)*.

Of note is that the national WHO STEPwise approach to NCD risk factor surveillance survey conducted in 2013 found a prevalence of harmful alcohol use of 31.4% among individuals aged 14–64 years *(22–24)*. A 2008 paper reporting on the findings of national surveys conducted in eight nations of the former Soviet Union, including Kyrgyzstan, found similarly high levels throughout the region of heavy episodic drinking in men (23%) and much lower levels in women (2%) *(25)*.

Despite global evidence of the rising burden of attention deficit hyperactivity disorder and autism spectrum disorder, prevalence data and general research on these conditions are particularly lacking in central Asia *(26)*. GBD estimates indicate a 2019 prevalence of attention deficit hyperactivity disorder (1.2%), which was higher than for bipolar disorder and schizophrenia combined.

According to official data from the National Centre for Mental Health, there were 48.1 new registered cases of mental disorders per 100 000 population in 2022. In 2021 the Centre treated 3182 patients for mental health conditions. The presentation diagnoses, in descending order, were mood disorders including mild depressive disorders (21%), schizophrenia and schizoaffective disorders (18%), anxiety and traumatic stress disorders (17%) *(27)*. Among those admitted, a high proportion (33%) were admitted for mental disabilities and neurodevelopmental conditions *(27)*. There are 212 352 people with disabilities in Kyrgyzstan, including more than 37 000 children under the age of 18 years. There is a great need for additional medical and support services for rehabilitation, particularly for children with disabilities and neurodevelopmental and mental health conditions. Therefore, it is recommended to fully provide medical facilities for the rehabilitation of children with disabilities, including children with mental illnesses.

The burden of mental health conditions in Kyrgyzstan is similar to that of other countries in central Asia. Compared with LMICs in general, the burden of alcohol use disorders is higher in Kyrgyzstan. Furthermore, Kyrgyzstan's mental health condition burden is growing over time, with an increasing gap in service needs and service provision (Table 4).

Table 4. Prevalence of mental health conditions in Kyrgyzstan compared with countries in the region and globally, 2019

Condition	Prevalence				
	Kyrgyzstan	Armenia	Tajikistan	LMIC	Global
Mental disorders, all	11.0	11.9	10.7	12.7	13.0
Depressive disorders	3.3	3.7	2.6	3.5	3.8
Alcohol use disorders	3.1	2.4	2.4	1.0	1.5
Anxiety disorders	2.1	3.6	2.4	3.4	4.1
Attention deficit hyperactivity disorder	1.2	0.9	1.3	0.8	1.1
Bipolar disorder	0.5	0.6	0.5	0.4	0.5
Idiopathic epilepsy	0.4	0.4	0.5	0.3	0.3
Autism spectrum disorders	0.4	0.4	0.4	0.3	0.4
Schizophrenia	0.3	0.3	0.3	0.3	0.3

Source: Institute for Health Metrics and Evaluation *(21)*.

2.3 Mental health legislation and policies

The 1999 Law of Kyrgyzstan on psychiatric care and guaranteeing the rights of people receiving such care"is to date the only legal document defining the key aspects of mental health care in the country *(27)*. This was amended in 2017; however, the key provisions of the Law remain unchanged *(27)*. While this Law has a strong emphasis on human rights of service users, it lacks procedural guarantees on how people can use their rights and its application to health-care reform by the Ministry of Health have been limited *(26)*.

Kyrgyzstan's three public health reforms, **Manas** (1996–2005), **Manas Taalimi** (2006–2010) and **Den Sooluk** (2012–2018), did not prioritize the needs of patients with mental conditions *(28)*. The national programme, entitled Mental health of the population of Kyrgyzstan, in 2001–2010 was an early attempt at shifting care from facilities to the community by training PHC professionals on the identification and management of mental health conditions. However this programme was suspended through insufficient funding, which contributed to further underfunding and decline of quality of services *(18)*.

A shift in the mental health policy and strategy occurred in 2018 when the Kyrgyz Government launched three strategic documents, which taken together articulate the policy framework and operational plan for advancing health and well-being in Kyrgyzstan and achieving sustainable development. These documents are:

- the National Development Strategy 2018–2040;
- the Development Programme of Kyrgyzstan 2018–2022: Unity. Trust. Creation; and
- the Programme of the Kyrgyzstan Government on Public Health Protection and Health-care system Development for 2019–2030: Healthy Person, Prosperous Country (Health 2030).

In the same year, a document specific to mental health was adopted: the Programme of the Government of Kyrgyzstan on the Protection of the Population's Mental Health 2018–2030. This policy document emphasized "the provision of qualified, comprehensive, integrated and responsive mental health and social care at the community level that followed evidence-informed approaches" *(27)*. The Programme also sought to address problems of severe human resource shortages in the country and to encourage the reform of financing for mental health care. A policy implementation plan was adopted for 2018–2022. Implementation of the Programme has, however, proved difficult. Challenges include lack of financial support from the Government, continued departure of well-trained specialists to other countries and limited cooperation between ministries *(27)*.

Finally, several measures have been taken to reduce the harmful use of alcohol. These include raising taxes on alcohol for domestic products; restrictions on the advertising of alcohol beverages; a ban on the sale of alcohol in public transport, Government offices, parks, city squares, children's areas and educational, medical, sports and cultural institutions and organizations; and the adoption of stricter legislation on blood alcohol levels (maximum 0.3 g/L) when driving *(11)*.

2.4 Mental health resources

Chronic underfunding is often cited as a key barrier. Currently, Kyrgyzstan's health budget is US$ 0.24 billion, representing 3.4% of GDP. The mental health budget (excluding prescription drugs) comprises 0.1% of the total Government health expenditure. Over time there has been significant reduction in the share of mental health expenditure out of the total health budget *(29)*. The MHIF has been established, which functions as a single payer system pooling public funds at national level for the procurement of a standardized package of services from health-care organizations (which are largely public) *(13,30,31)*. Current per capita health expenditure is among the lowest in the WHO European Region and OOP spending accounts for 45% of current health expenditure *(13)*. The financial protections and benefits of MHIF are limited by inadequate enforcement of mandatory health insurance contributions (the payroll tax). This leads to a shortfall in funding and means that 26% of the population, comprising relatively vulnerable groups of people, is unable to benefit from lower co-payments for hospital care or from access to the subsidized outpatient medicines covered. Introducing means-tested exemptions (specifically targeting poor people) has not yet been conducted and would require a joint approach with the Ministry of Labour and Social Development *(30,31)*.

The mental health system is severely understaffed, with the total mental health workforce of 11.0 per 100 000 population and 0.2 child psychiatrists per 100 000 population. There is a shortage of specialists such as psychiatrists, psychologists and speech therapists. The few psychiatrists are concentrated in urban areas *(27,28)*. Low salaries contribute to staffing turnover, further worsening the workforce shortages. In a paper published in 2022, average monthly salaries for a psychiatrist, psychologist and psychiatric nurse (with 4–10 years professional experience) were reported as US$ 130.18, US$ 153.85 and US$ 142.01, respectively *(29)*. Due to high stigmatization and poor working conditions, studying psychiatry is unpopular among medical students *(32)*. The number of early career psychiatrists has been decreasing steadily since the early 2000s, with the average age of psychiatrists now 50–55 years (preretirement age) *(27)*.

WHO has published evidence-informed guidance and tools for scaling up care for mental health and substance use disorders, thus working to close the gap between mental health services need and provision. The recent implementation based on WHO's mhGAP Intervention Guide *(33)* in Kyrgyzstan reflects the country's motivation towards strengthening the mental health system. A 2021 publication reported successful use of the mhGAP Intervention Guide in a multicountry (including Kyrgyzstan) implementation effort that involved training medical and allied health profession students at the undergraduate and postgraduate levels *(34)*. Training modules covered were dementia, epilepsy, substance use disorders and child and adolescent mental and behavioural disorders. The training in Kyrgyzstan was well received and evaluation targets were reached (using feedback survey, pre- and post-testing, and pre- and post-clinical chart audit methodologies for evaluation). Further work is needed to scale up this training and assess whether training has translated to closing the gap between service need and service provision *(34)*. A national licensing system for psychologists is also needed *(28)*. Stakeholder consultations have confirmed both the need and interest of family doctors for training in managing people with mental disorders and working with electronic mental health records.

The following salary data were provided by local Kyrgyz collaborators and the Kyrgyzstan Health System Review 2022 *(13)*: the average salary for a psychiatrist (and occupations with an equivalent salary level) was 26 000 som per month or 312 000 som (US$ 3710) per year; the average salary for a nurse (and occupations with an equivalent salary level) was 18 000 som per month or 216 000 som (US$ 2568) per year; and the average salary for other medical personnel (and occupations with an equivalent salary level) was 7155 som per month or 85 860 som per year.

2.5 Mental health services

Coverage of treatment is uneven by condition and particularly low in rural areas *(13)*. For example, it is estimated that 62% of people with schizophrenia are treated, while only 8% of people with epilepsy are treated and figures are even lower for anxiety and major depressive disorders. Coverage for methadone treatment for people using opioid drugs is low at 4.4% *(35)*. Coverage estimates are provided in more detail in the next section.

Beyond coverage, the quality of mental health services is limited in some areas by staff shortages and chronic underfunding *(36)*. There are also reports published by ombudsmen and civil society organizations on human rights violations in psychiatric hospitals *(37)*.[1]

Psychiatric treatment remains concentrated in hospitals *(14)*. This is in keeping with a hospital-focused care delivery seen in the health system in general and in the Region and in part is influence by the Semashko model of highly centralized health-care infrastructure seen in countries of the former Soviet Union *(38)*. The limited state funding primarily supports psychiatric hospitals and provision of low-cost medications prescribed in old-fashioned treatment schema (drugs that also are associated with higher side-effects) *(18)*. A cross-sectional review of mental health-care expenditure in Eurasian countries found that inpatient hospital care accounted for 86% of the Kyrgyz health budget *(29)*.

In recent years, 12 community-based multidisciplinary mental health services have been successfully piloted *(29,38)*. These tend to be funded by international donor organizations *(18)* and/or delivered by nongovernmental organizations (NGOs) such as Soros Foundation Kyrgyzstan, the Mental Health Initiative of the Open Society Institute and the European Department of Caritas. Community-based multidisciplinary team services have been created, where each team (made of up a psychiatrist, a psychologist, a home-care worker and a nurse) monitors and manages patients through home visits as well as providing training for family members/carers. This approach has resulted in a decrease in hospitalizations, a reduced number of admission days and lower treatment-related costs *(11,39)* and improving symptoms and quality of life *(36)*. One economic analysis report by the Institute of Social Development project found that the cost of mental health treatment in PHC centres was far lower than at secondary and tertiary levels. At the PHC level, the average cost per patient was 949.71 som, compared with 6659.62 som at the secondary level and 40 180.74 som at the tertiary level *(39)*.

Other community-based care examples are outpatient rehabilitation programmes through the NGO Family and Society, and services helping autistic children and their families provided by the NGO Hand-in-Hand *(36,40)*. These are examples of community-based initiatives that have yielded some positive results. These efforts are, however, challenged by lack of funding and limited cooperation between ministries *(38)*. There remains a need to scale up efforts, particularly addressing service gaps for children and older adults; enhance state funding that is more sustainable; and to transition systematically away from a predominantly specialized and facility-based care model to a nonspecialist health-care workforce and community-based services, such as SLE in schools. This may help to expand access, enhance equitable reach of interventions and better respond to the psychosocial aspects of preventing and managing mental health conditions. The incidence of depression, anxiety and suicide rises significantly during adolescence. Additionally, children and adolescents spend more time in school than in any other formal institutional structure *(41)*. Evidence-informed school-based SLE interventions have both ethical and scientific justifications: integration of mental health services and schooling democratizes access to services and it can help to promote the healthy development of children and young people *(41)*.

1 Prava lits, nakhodyashchikhsya v Respublikanskoy psikhiatricheskoy bol'nits [Human Rights in the Republican Psychiatric Hospital]. Report of the Ombudsman of Kyrgyzstan, 2017 (in Russian).

2.6 Mental health information

Other than those related to drug addiction, mental health indicators are not available in the statistics listed by the National Statistics Office of Kyrgyzstan *(42)*. Nationally representative statistics on the prevalence of mental health conditions remain limited, for various reasons. Patients who seek care at private psychological centres are not recorded in the national statistical system *(27)*. Stigma-related concerns may hinder affected individuals or their family members from reporting a mental health condition, as in the case of substance use, psychotic disorder or suicide. Patients with dementia are more likely to be kept at home as cultural traditions discourage taking elderly relatives to a psychiatrist and many, particularly in rural areas, do not consider a person to have a mental disorder if "he/she can speak normally" *(27)*. It is likely that current figures reflect underreporting to the registration systems and are underestimates of prevalence of mental health conditions.

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3
Methodology

3. Methodology

3.1 Estimating the economic consequences of mental health conditions

A model was developed to estimate the current economic burden attributable to both the direct and indirect costs of six mental health conditions and suicide in Kyrgyzstan. Population data were obtained by age and sex for the period 2022–2037 from the National Statistical Committee of Kyrgyzstan and the United Nations Department of Economic and Social Affairs World Population Prospects study. The OneHealth Tool (Box 1) was used to model prevalence and mortality rates by age and sex for depression, anxiety, psychosis, bipolar disorder, epilepsy and alcohol use disorder. The model enabled estimation of the projected prevalence and mortality for each condition between 2022 and 2037, while holding current rates constant.[2] These projections were summarized as the total number for prevalence and mortality across the entire population and the working-age population (aged 15–64 years).

Box 1. OneHealth Tool and its mental health module

The OneHealth Tool is software designed for national strategic health planning in LMIC. Development of the Tool is overseen by a group consisting of experts from United Nations agencies and development institutions *(43)*.

A mental health module was devised as part of the Tool for estimating the costs and health impacts of mental health services and interventions at population level. The module allows estimation of the number of people living with mental health conditions in a country and linkage of the epidemiology of mental health conditions to national life tables for estimation of the numbers of cases averted and healthy life-years gained over time at population level.

The direct and indirect economic burden of mental health conditions and suicide in Kyrgyzstan was estimated using the following approach.

The **direct economic burden of mental health conditions and suicide** in Kyrgyzstan comprises all health-care expenditures related to the management and care of people living with a mental health condition. An estimate of the total health expenditure on mental health was derived using data obtained from local experts (converted to 2022 prices). This estimate included all mental health-related expenditures by the Government but did not include expenditure by corporations, households, local non-profit-making organizations and international funders. Non-health-care costs such as transport, waiting times and informal care were also excluded.

2 The model estimated growth in prevalence and mortality due to population growth only, not growth in disease rates.

The **indirect economic burden of mental health conditions and suicide** in Kyrgyzstan quantifies the lost productivity resulting from impaired mental health. Lost productivity can be the result of (i) absenteeism, where people take sick days from work because of a mental health condition; (ii) presenteeism, where people experience impaired job performance due to a mental health condition; and (iii) premature death, which encompasses the lost productivity resulting from excess mortality among people with a mental health condition. The steps involved in estimating the indirect economic burden are as follows.

1 ESTIMATION OF TOTAL EMPLOYED LABOUR FORCE

The annual value (in terms of economic output) of each full-time worker in Kyrgyzstan was calculated from the GDP per employed person, defined as the country's GDP (919.4 billion som in 2022) divided by its total employed labour force. Local data on the total labour force aged 15 years and over, the unemployment rate and the labour force participation rate were used to determine the total employed labour force.

2 ESTIMATION OF REDUCTION IN WORKER PRODUCTIVITY DUE TO MENTAL HEALTH CONDITIONS

Data were obtained to quantify the reduction in worker productivity due to each mental health condition. As in a previous global ROI study *(44)*, rates from the World Mental Health Surveys were used to describe (i) the reduction in labour force participation due to each of the six mental health conditions, (ii) the reduction in full-time hours worked due to mental health-related absenteeism, and (iii)) the reduction in productivity due to mental health-related presenteeism.

3 ESTIMATION OF NUMBER OF WORKERS WITH MENTAL HEALTH CONDITIONS

The number of Kyrgyz workers with a mental health condition during 2022 was estimated after adjusting for labour force participation, unemployment and mortality. This involved taking the total number of people aged 15–64 years with a mental health condition then subtracting those who were not participating in the labour force (such as those still at school), were unemployed, could not participate in the labour force because of their mental health condition or were no longer alive.

4 CALCULATING ECONOMIC LOSSES

The economic losses attributable to absenteeism, presenteeism and premature death among workers with a mental health condition were finally calculated by taking the reductions in productivity quantified for each mental health condition and applying these to the total number of Kyrgyz workers impacted by a mental health condition; this was then multiplied by the GDP per employed person. This calculation resulted in the total indirect economic burden of mental health conditions in Kyrgyzstan.

3.2 Calculating the costs and health effects of scaling up clinical and population-based intervention packages

Two broad categories of interventions were examined as part of the economic analysis: clinical interventions and population-based interventions.

Clinical interventions comprise a range of evidence-informed intervention packages (collections of related interventions) for the identification and management of mental health conditions. These intervention packages were derived from the WHO mhGAP Intervention Guide *(33)*. Clinical interventions contained in the Guide can be divided into basic psychosocial support, which encompasses psychoeducation, stress reduction, social support and the promotion of functioning in daily activities and community life, and psychological treatment, which covers evidence-informed, structured psychological treatments such as cognitive behavioural therapy or interpersonal psychotherapy.

Population-based interventions aim to prevent the onset of mental health conditions and/or suicide deaths by targeting the broader population. This includes SEL programmes to increase the psychological resilience of adolescent school students and, in turn, reduce the risk of experiencing mental health problems later in life.

The OneHealth Tool was used to estimate costs arising from selected clinical interventions for each of the six mental health conditions (depression, anxiety, psychosis, bipolar disorder, epilepsy and alcohol use disorder). A custom-built Excel model was used to estimate the costs associated with the population-based mental health intervention (universal delivery of SEL programmes to adolescents in schools to prevent depression, anxiety and suicide). Each intervention modelled in the OneHealth Tool and the custom-built Excel model contained assumptions made by WHO experts about the quantity of resource items required for implementation and enforcement at national level. In line with the methodological guidance for mental health investment cases *(45–47)*, the main categories of resource cost were:

- **inpatient care:** people with mental health conditions who require hospitalization (for example, 5% of those with moderate–severe depression, with an average stay of 14 days);
- **outpatient and primary care:** most people require regular outpatient visits (for example, from four visits per person each year for basic psychosocial support or pharmacological management to monthly or twice monthly visits for those with moderate–severe conditions receiving psychological treatment);
- **medication:** essential psychotropic medications include antipsychotic drugs, antidepressants and antiepileptic drugs; and
- **programme costs and shared health system resources:** include programme management and administration, training and supervision.

Unit costs for each resource item were obtained from local sources such as the Kyrgyzstan Health System Review 2022 *(13)*, information provided by Kyrgyz experts and the WHO CHOICE database *(48,49)*. Intervention delivery was assumed to occur through a mix of community-based and facility-based mental health care.

To estimate the health impact of these interventions, a population-based model was used in the OneHealth Tool to calculate the number of healthy years of life lived in the population at current and target levels of coverage (see Table 1). Healthy life-years include both expected changes in life expectancy (for example, as a result of a decrease in the case fatality rate due to fewer people with depression) and non-fatal health outcomes (such as reduced incidence or duration of depressive episodes after treatment). Default effect sizes for the modelled interventions were taken from WHO's cost–effectiveness work programme and are summarized in Table 5.

Table 5. Interventions considered in the mental health investment package

Intervention	Baseline coverage (2023) (%)	Target coverage (2030) (%)	Health impacts assessed and source references for treatment/model
Anxiety disorders (service delivery setting: PHC)			
Basic psychosocial support for mild conditions	5	20	Improved functioning/level of disability (7–12%) and rate of remission (36–42%) among people with anxiety disorder aged ≥ 15 years, after adjustment for non-adherence (30–40%) *(44)*
Basic psychosocial support plus antidepressant medication for moderate–severe conditions	20	40	
Psychological treatment plus antidepressant medication for moderate–severe conditions	10	30	
Depression (service delivery setting: PHC)			
Basic psychosocial support for mild cases	5	20	Improved functioning/level of disability (4–9%) and rate of remission (15–25%) among people aged ≥ 15 years with depression, after adjustment for non-adherence (30–40%) *(44,50)*
Basic psychosocial support plus antidepressant medication for first episode of moderate–severe cases	5	25	
Psychological treatment plus anti-depressant medication for first episodes of moderate–severe cases	5	25	
Psychological treatment plus anti-depressant medication for recurrent moderate–severe cases episodically	25	70	
Psychological treatment plus antidepressant medication for recurrent moderate–severe cases for maintenance	5	25	As above, plus reduced incidence of recurrent episodes (28%), after adjustment for non-adherence (30%)
Psychosis (service delivery setting: secondary health care)			

Table 5. contd

Intervention	Baseline coverage (2023) (%)	Target coverage (2030) (%)	Health impacts assessed and source references for treatment/model
Basic psychosocial support plus anti-psychotic medication	45	55	Improved functioning/level of disability (21–35%) among people aged ≥ 15 years with psychosis, after adjustment for non-adherence (30–35%) *(51)*
Psychological treatment plus anti-psychotic medication	15	25	
Bipolar disorder (service delivery setting: secondary health care)			
Basic psychosocial support plus mood-stabilizing medication	40	47	Improved functioning/level of disability (22–29%) among people aged ≥ 15 years with bipolar disorder, after adjustment for non-adherence (28–35%) *(52)*
Psychological treatment plus mood-stabilizing medication	20	23	
Epilepsy (service delivery setting: PHC)			
Basic psychosocial support plus antiseizure medication	50	70	Improved functioning/level of disability (47%) and rate of remission (60%) among people aged ≥ 1 year with epilepsy, after adjustment for non-adherence (30%) *(53)*
Alcohol use disorder (service delivery setting: PHC and secondary health care)			
Identification and assessment of new cases of alcohol use disorder	5	30	Improved rate of remission (10–15%) among people aged ≥ 15 year with alcohol use disorder, after adjustment for non-adherence (50%) *(54,55)*
Brief interventions and follow-up for alcohol use disorder	5	20	
Management of alcohol withdrawal	5	20	
Population-based mental health interventions			
Universal school-based SEL intervention to prevent depression/ anxiety and suicide in adolescents aged 12–17 years	5	100	Reduced rate of incidence for depression and anxiety (16%) and reduced rate of suicide mortality (6%) among adolescents attending school *(56)*

The universal school-based SEL intervention is described in Box 2.

Box 2. School-based SEL interventions

The onset of depression and suicide increases rapidly during adolescence (10–19 years). Prevention of depression and suicide during these crucial developmental stages could result in substantial health gains during the life-course of an individual. School-based SEL interventions to prevent depression and/or suicide typically involve a trained facilitator (such as a teacher, health professional or lay worker) who delivers a series of modules to teach psychotherapeutic strategies to improve overall well-being and/or reduce the risk of poorer mental health outcomes. Evidence has been published that school-based SEL interventions targeting adolescents are effective in reducing the incidence of depression and/or suicide *(57–59)*. Schools are increasingly being recognized as an important platform for population delivery of preventive mental health interventions to young people *(41,60)*. School psychological interventions are typically delivered universally to all students, regardless of their underlying risk profile.

3.3 Analysis of ROI

An Excel model was developed by WHO to perform the ROI analysis. This model can produce estimates of the economic gains that accrue from investing in a range of cost–effective mental health interventions previously identified by WHO. The list of in-scope clinical and population-based interventions is outlined in Table 1. Pesticide ban intervention has been excluded based on feedback that pesticides are not a leading cause of suicide in Kyrgyzstan. Furthermore, the intervention package for alcohol use disorders excludes an intervention involving relapse prevention medication for alcohol use/dependence given that this intervention is prohibitively expensive as it involves the use of the high unit price drug naltrexone. Estimates were made of how each of the mental health interventions would improve national productivity, measured in terms of GDP. For all the interventions (excluding interventions for psychosis, bipolar disorder and epilepsy), restored productivity was estimated using a direct method that explicitly calculated the increased productivity attributable to (i) increased labour force participation through avoided mortality and illness, (ii) reductions in absenteeism, and (iii) reductions in presenteeism. An imputed method was used to indirectly quantify productivity gains attributable to interventions for psychosis, bipolar disorder and epilepsy. This alternative method was necessary due to data limitations that hindered the application of the direct method for these three conditions.

Under the direct method for estimating restored productivity, the economic value of increases in the healthy labour force due to **avoided mortality** was calculated by taking the total number of deaths avoided and adjusting this number to account for those who participated in the labour force and were currently employed; this was then multiplying by the net present value of foregone GDP per capita over the model time horizon of 15 years. The economic value of increases in the healthy labour force due to **avoided cases of illness** was calculated by taking the total number of prevalent cases averted and applying the same employment-related adjustments as above; this was

then multiplied by the annual GDP per employed person and the result was further multiplying by 5 to reflect the increase in labour force participation among those with a mental health condition who receive treatment. The figure of 5 for the increase in labour force participation was based on the findings from a previous global ROI study, indicating restored productivity factor of 5 after mental health treatment *(44)*. The economic value of reducing absenteeism and presenteeism was estimated in a similar manner. In this case; however, multiplication by 5 represented the decrease in absenteeism and presenteeism among those with a mental health condition who received treatment as derived in the previous global ROI study *(44)*.

Productivity gains resulting from each mental health intervention (excluding interventions for psychosis, bipolar disorder and epilepsy) were calculated under the direct method as the sum of the productivity gains attributable to increased labour force participation (by avoided mortality and illness) and reduced absenteeism and presenteeism. In the case of the universal school-based SLE intervention for adolescents, only productivity gains due to increased labour force participation could be estimated as gains due to reduced absenteeism and presenteeism were not relevant to people of non-working age. Moreover, there is currently no established method for determining how impacts on educational attainment during adolescence (which can be improved by preventing mental ill health) translate into better earning potential later in life.

An alternative method, the imputed method, was used to estimate restored productivity resulting from the treatment of psychosis, bipolar disorder and epilepsy as the direct method could not be applied because of a lack of data on labour force outcomes for people living with these three mental health conditions. A Lancet Commission on investing in health determined that the value of a healthy life-year gained is approximately 1.5 times GDP per capita *(61,62)*. Two thirds of this value (1.0 times GDP per capita) is attributable to the instrumental value of improved health (increased job productivity in the workplace). One third (0.5 times GDP per capita) is attributable to the intrinsic value of health (the social value of health as an end in itself). For the current analysis, productivity gains for psychosis, bipolar disorder and epilepsy were estimated by taking the total healthy life-years gained by an intervention, multiplying this by the GDP per capita for Kyrgyzstan and further multiplying the result by a factor of 1.0 (quantifying the productivity-related instrumental value of health as a multiple of GDP per capita).

Two base case scenarios were examined for the ROI analysis. The first analysed the impact of only including productivity gains as the main economic benefit (the instrumental value of health), while the second quantified the joint impact of including productivity gains and the social value of health (the instrumental and the intrinsic value of health). Both the direct and imputed methods for estimating restored productivity focus on quantifying productivity gains (the instrumental value) attributable to improvements in health. The additional impact of the social value of health as a measure of economic gain was estimated by multiplying each healthy life-year gained by 0.5 times GDP per capita and then adding this to the total productivity gains estimated using either the direct or the imputed method.

In a sensitivity analysis, separate assessments were made to determine how the base case results might change under different assumptions. The first sensitivity analysis (SA1) tested the impact of applying the imputed method, rather than the direct method, to value the productivity gains produced by interventions for anxiety disorders, depression and alcohol use disorder. The second sensitivity analysis (SA2) tested the impact of reducing the instrumental economic value assigned to 1 year of healthy life by 50, when applying the imputed method to interventions for psychosis, bipolar disorder and epilepsy. This would reduce the productivity gains attributable to 1 healthy life-year gained to 0.5 times GDP per capita (instead of 1.0 times GDP per capita). The concept of healthy life-years gained is explained in Box 3.

Box 3. Healthy life years gained

Healthy life-years gained (equivalent to DALYs averted) is commonly used in the global health literature as a summary measure of population health. National life tables are used to compute healthy life-years, which reflect the combined time spent by the population in a state of health with a known degree (or absence) of disability. A disability weight ranging from 0 (denoting death) to 1 (denoting perfect health) is used to adjust the time spent in a particular health state. For example, if a person lives with disease X for 10 years and the disability weight for disease X is 0.4, the total healthy life-years gained for that person is 4 (10 multiplied by 0.4).

Photo: © WHO/Mikhail Grigorev

The ROI for each intervention was calculated by comparing the productivity gains produced by the intervention (measured as an increase in GDP) with the total costs of setting up and implementing the intervention. Projected costs and projected productivity gains were estimated using the net present value approach when applying a 3% annual discount rate. Future impacts on health, productivity and future intervention costs were discounted to their present value to account for the time value of money, whereby a unit of money obtained in the future is worth less than the same unit of money obtained in the present. The ROI resulting from each intervention was presented in terms of two alternative metrics: (i) the benefit-to-cost ratio, defined as the present value of total health and/or productivity gains divided by the present value of total intervention costs; and (ii) the ROI ratio, defined as the present value of total health and/or productivity gains minus the present value of total intervention costs, divided by the present value of total intervention costs *(45)*. The formulae used to calculate the benefit–cost ratio and ROI for the two base case scenarios are presented in equations 1 and 2, respectively, where PV is the present value.

Eq. 1a

$$\text{Benefit—cost ratio (productivity only)} = \frac{\text{PV of productivity gains}}{\text{PV of intervention costs}}$$

Eq. 1b

$$\text{Benefit—cost ratio (productivity + social)} = \frac{\text{PV of productivity gains + PV of social value}}{\text{PV of intervention costs}}$$

Eq. 2a

$$\text{ROI ratio (productivity only)} = \frac{\text{PV of productivity gains} - \text{PV of intervention costs}}{\text{PV of intervention costs}}$$

Eq. 2b

$$\text{ROI ratio (productivity + social)} = \frac{(\text{PV of productivity gains + PV of social value}) - \text{PV of intervention costs}}{\text{PV of intervention costs}}$$

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4
Results

4. Results

4.1 Economic burden

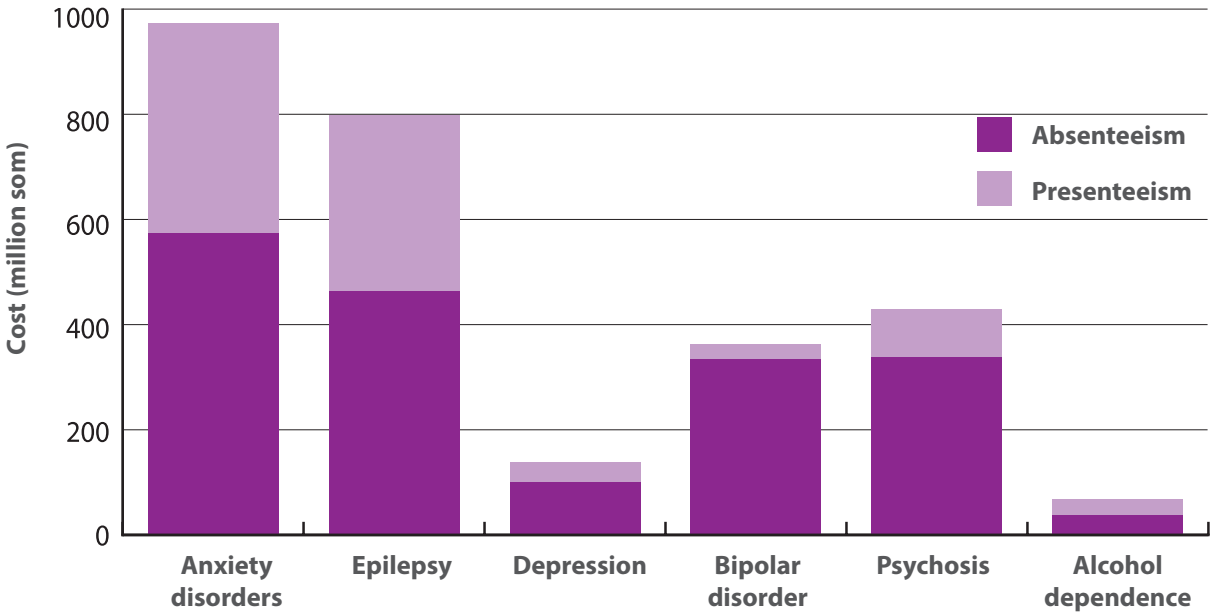
4.1.1 Direct costs

The total health expenditure for mental health in Kyrgyzstan was 352 million som in 2022. This estimate reflected all expenditures by the Government (provision of mental health services in hospital and PHC care), contributions to the MHIF and incentive payments to fund multidisciplinary teams to provide mental health services in the community. This estimate of mental health expenditure did not include financing by private corporations, households, non-profit-making organization organizations or international funders. Total mental health expenditure could not be disaggregated by mental health condition.

4.1.2 Indirect costs

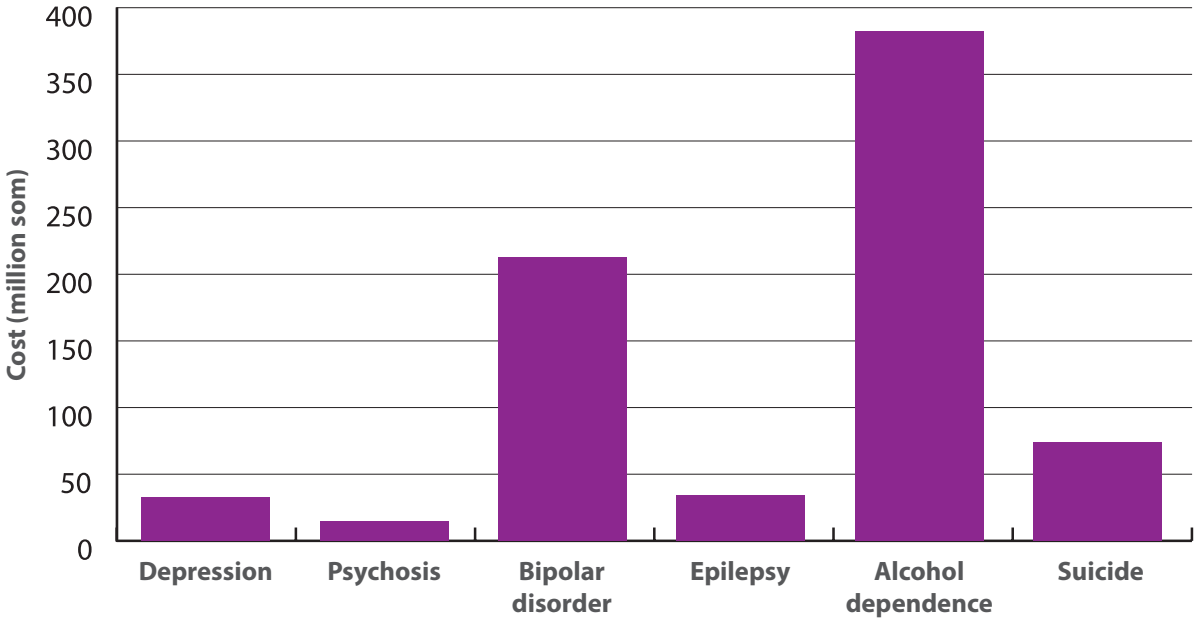
The indirect economic losses caused by mental health conditions and suicide were estimated as the sum of losses due to absenteeism, presenteeism and premature death. The total combined cost of absenteeism and presenteeism in Kyrgyzstan is presented in Fig. 1. The total number of working days absent was estimated to be 1.26 million for absenteeism and around 706 000 for presenteeism, which resulted in a total cost of 2872 million som in 2022. Absenteeism and presenteeism costs were highest for anxiety disorders. Although anxiety is associated with fewer days off work than depression for the average individual, the estimated prevalence of anxiety in Kyrgyzstan was higher than that for depression.

Fig. 1. Costs of absenteeism and presenteeism for mental health conditions (million som), 2022)



The total costs of premature death due to mental health conditions were estimated to be 752 million som in 2022 (Fig. 2).

Fig. 2. Costs of premature death for mental health conditions (million som), 2022



Bipolar disorder and alcohol use disorder are the costliest mental health conditions in terms of premature death. This is due to the high excess mortality estimated for these two conditions by the GBD study, which is the source of epidemiological data used in OneHealth Tool (at least 12 times more estimated deaths in the population due to bipolar disorder and alcohol use disorder compared with depression and psychosis). High mortality among those with alcohol use disorder was linked to various causes such as cancers or injuries (traffic accidents and falls). Anxiety disorders are less likely to lead to death but, as described above, are associated with a high economic burden due to absenteeism and presenteeism. It should be noted that the data do not account for known comorbidities, such as common occurrences of comorbid alcohol use disorder with major depression, bipolar and anxiety disorders *(63)*, which could influence mortality results.

4.1.3 Total economic costs

Table 6 shows the total direct and indirect costs of mental health conditions and suicide in Kyrgyzstan. The indirect economic costs are much higher than the direct costs. Total expenditure on health care for mental health conditions was 352 million som, while losses to the economy due to absenteeism, presenteeism and premature death amounted to 3624 million som.

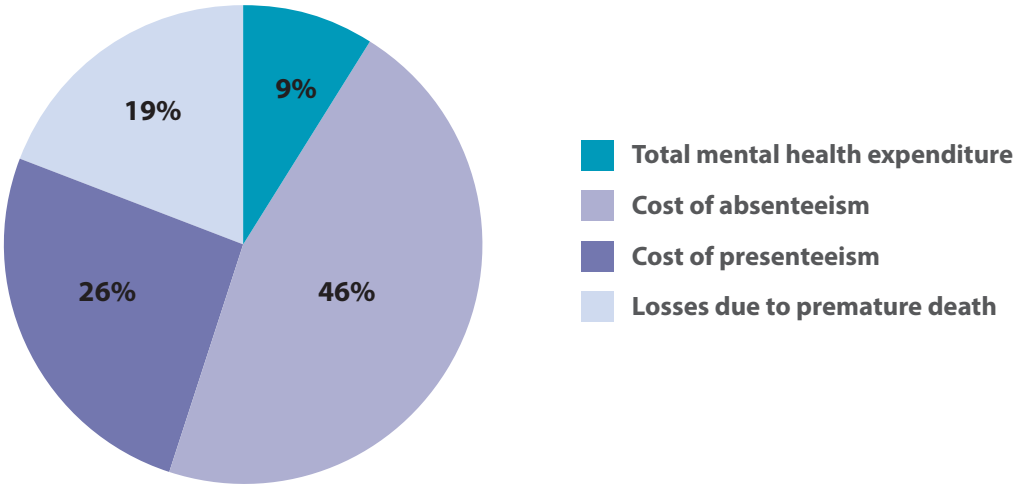
Table 6. Economic burden of mental health conditions in Kyrgyzstan (million som), 2022

Cost	Total costs in 2022 (million som)
Direct costs	
Health care	352
Total direct costs	352
Indirect costs	
Absenteeism	1845
Presenteeism	1028
Premature deaths	752
Total indirect costs	3625
Total	**3977**

The total economic burden of the selected mental health conditions and suicide on the Kyrgyz economy in 2022 was estimated to be 3976 million som. This is equivalent to 0.4% of national GDP in 2022. Despite this large economic burden, the treatment gap remains substantial.

Fig. 3 shows the structure of the economic burden of mental health conditions in Kyrgyzstan in 2022. Total health-care expenditure represented 9% of all mental health-related costs, representing a small proportion of the overall economic burden.

Fig. 3. Structure of the current economic burden of mental health conditions (direct and indirect) in Kyrgyzstan



4.2 Costs of intervention

The costs of the interventions were estimated for the period 2022–2037. Table 7 shows the absolute costs during each of the first 5 years of this period, plus the net present value of the 10-year and 15-year total costs. Table 8 shows the corresponding per capita costs.

Table 7. Estimated absolute costs of interventions (million som), 2022–2037

Mental health intervention package[a]	2022	2023	2024	2025	2026	Total for 10 years[b]	Total for 15 years[b]
Clinical interventions							
Anxiety disorders	25	29	32	36	39	389	632
Depression	31	36	42	48	54	547	928
Psychosis	55	57	58	60	62	584	847
Bipolar disorder	69	78	87	97	106	1069	1767
Epilepsy	24	26	27	29	30	289	434
Alcohol use disorder	7	8	10	11	13	133	231
Population-based interventions							
Universal school-based SEL intervention	19	17	18	18	18	313	475
Total	**230**	**250**	**274**	**297**	**322**	**3323**	**5313**

[a] Mental health intervention packages for clinical interventions include multiple intervention approaches (e.g. basic psychosocial support, psychological treatment and medications) across PHC and secondary levels of health care.
[b] Totals are presented as a net present value, discounted at a 3% annual rate.

Table 8. Estimated per capita costs of interventions (million som), 2022–2037

Mental health intervention package[a]	2022	2023	2024	2025	2026	Total for 10 years[b]	Total for 15 years[b]
Clinical interventions							
Anxiety disorders	3.8	4.2	4.7	5.3	5.8	57.6	93.7
Depression	4.5	5.4	6.2	7.1	8.0	81.0	137.6
Psychosis	8.1	8.4	8.6	8.9	9.1	86.5	125.5
Bipolar disorder	10.3	11.6	12.9	14.3	15.8	158.5	261.9
Epilepsy	3.6	3.8	4.0	4.2	4.5	42.8	64.3
Alcohol use disorder	1.0	1.2	1.4	1.7	1.9	19.7	34.2
Population-based interventions							
Universal school-based SEL intervention	2.8	2.5	2.6	2.6	2.6	46.4	70.4
Total	**34.1**	**37.0**	**40.5**	**44.0**	**47.7**	**492.4**	**787.5**

[a]Mental health intervention packages for clinical interventions include multiple intervention approaches (e.g. basic psychosocial support, psychological treatment and medications) across PHC and secondary levels of health care.
[b]Totals are presented as a net present value, discounted at a 3% annual rate.

The clinical intervention for bipolar disorder incurred the largest estimated costs due to the multiple care and support needs required for this condition. Implementation of the entire package of clinical interventions (excluding population-based interventions) would cost 3009 million som (or 446 som per capita) over the 10-year scaling-up period and 4839 million som (or 717 som per capita) over the 15-year scaling-up period.

The clinical interventions for alcohol use disorder and epilepsy incurred the lowest estimated costs. These would, respectively, cost 133 million som and 289 million som over a 10-year scaling-up period, or 234 million som and 431 million som over a 15-year period. The total cost of the population-based mental health intervention (universal school-based SEL) was also among the lowest of all the intervention packages. It would cost 313 million som (or 46 som per capita) over 10 years and 475 million som (or 70 som per capita) over 15 years.

Interventions involving psychological treatment and antidepressant medication have large, planned costs. Even so, numerous low-cost interventions exist, such as basic psychosocial support for anxiety disorders and depression.

4.3 Health benefits, lives saved

All the interventions significantly increase the total number of healthy life-years gained (absolute results presented in Table 9). As described in Box 3, healthy life-years gained is a measure of the additional years of healthy life produced by an intervention after adjusting for disease-related health states via the application of disability weights. The greatest impacts were observed for interventions involving depression (14 817 healthy life-years gained over 10 years), the universal school-based SEL intervention (7641), epilepsy (5868) and anxiety disorders (4767).

Table 9. Estimated absolute health impacts

Mental health intervention package[a]	Total healthy life-years gained		Prevalent cases averted		Total deaths avoided	
	10 years	15 years	10 years	15 years	10 years	15 years
Clinical interventions						
Anxiety disorders	4 767	12 360	20 631	57 684	NA	NA
Depression	14 817	34 824	43 776	102 464	106	257
Psychosis	1 551	3 492	NA	NA	NA	NA
Bipolar disorder	1 979	5 230	1 024	3 096	293	663
Epilepsy	5 868	14 297	3 773	11 288	25	78
Alcohol use disorder	2 276	6 205	6 569	16 615	129	350
Population-based interventions						
Universal school-based SEL intervention	7 641	13 201	26 314[b]	47 373[b]	47[c]	74[c]
Total	**38 899**	**89 609**	**102 087**	**238 520**	**600**	**1 422**

NA: not applicable.
[a] Mental health intervention packages for clinical interventions include multiple intervention approaches (e.g. basic psychosocial support, psychological treatment and medications) across PHC and secondary levels of health care.
[b] Prevalent cases of depression or anxiety.
[c] Deaths due to suicides attributable to depression.

Several interventions also reduce mortality, which is a consequence of the decreasing prevalence of the mental health conditions that lead to excess mortality (such as depression, bipolar disorder and alcohol use disorder).

Bipolar disorder and psychosis are less common conditions than depression and anxiety. However, they are severe mental health conditions that usually persist throughout the life of an affected individual and often result in substantial suffering and human rights abuses. In the case of psychosis, the PHC impact on healthy life-years gained is through a reduction in the severity

of symptoms and an improvement in a person's daily functioning (quantified through reductions in the disability weight) and not through reductions in the number of prevalent cases or deaths.

4.4 Productivity gains

The total net present value of productivity gains generated by the mental health intervention packages are presented in Table 10 (and categorized by the method used to estimate restored productivity). When applying the direct method for estimating restored productivity, it was observed that reduced mortality had an important impact on productivity through increased labour force participation (with productivity gains worth 644 million som over 10 years), followed by avoided cases of illness, reduced presenteeism and reduced absenteeism (1635 million som, altogether). When applying the inputed method, productivity gains were seen from the treatment of psychosis (184 million som), bipolar disorder (232 million som) and epilepsy (691 million som). The mental health packages resulted in a net present value of 3386 million som in productivity gains over 10 years, which would accrue to 7615 million som over 15 years.

Table 10. Estimated productivity gains produced by mental health intervention packages (million som), 2022–2037

Method used to estimate restored productivity[a]	Total productivity gains[b]	
	10 years	15 years
Direct method		
Increased labour force participation due to avoided mortality	644	1486
Increased labour force participation due to avoided cases of illness	545	1226
Reduction in absenteeism	545	1226
Reduction in presenteeism	545	1226
Imputed method		
Productivity gains for psychosis	184	375
Productivity gains for bipolar disorder	232	552
Productivity gains for epilepsy	691	1522
Total	**3386**	**7615**

[a]The direct method for estimating restored productivity was applied to the mental health intervention packages for anxiety disorders, depression, alcohol use disorders and universal school-based SEL (see Table 8) with restored productivity presented here by the type of productivity gain generated (increased labour force participation due to avoided mortality/illness and reductions in absenteeism/presenteeism); the imputed method for estimating restored productivity was applied to the mental health packages for psychosis, bipolar disorder and epilepsy.
[b]Totals are presented as a net present value, discounted using a 3% annual rate.

4.5 ROI

Most mental health intervention packages produce a benefit–cost ratio greater than 1.0 over 15 years (Table 11), indicating that these packages have a positive ROI and that total productivity gains exceed total costs. For some interventions, the ratio is lower largely because of comparatively high intervention costs (for example, for psychosis or bipolar disorder) or methodological limitations around the quantification of long-term productivity outcomes (such as for universal school-based SEL).

Table 11. Costs, benefits (productivity gains only) and benefit–cost ratios at 10 and 15 years by intervention package (million som), 2022

Mental health intervention package[a]	Total costs[b]		Total productivity gains[b]		Benefit–cost ratio (productivity gains only)		Return on investment ratio (productivity gains only)	
	10 years	15 years	10 years	15 years	10 years	15 years	10 years	15 years
Anxiety disorders	389	632	471	1186	1.20	1.90	0.2	0.9
Depression	547	928	1286	2739	2.40	3.00	1.4	2.0
Psychosis[c]	584	847	184	375	0.30	0.40	–0.7	–0.6
Bipolar disorder[c]	1069	1767	232	552	0.20	0.30	–0.8	–0.7
Epilepsy	289	434	691	1522	2.40	3.50	1.4	2.5
Alcohol use disorder	133	231	514	1229	3.90	5.30	2.9	4.3
Universal school-based SEL intervention[d]	313	475	7	11	0.02	0.02	–1.0	–1.0

[a] Mental health intervention packages for clinical interventions include multiple intervention approaches (e.g. basic psychosocial support, psychological treatment and medications) across PHC and secondary levels of health care.
[b] Totals are presented as a net present value, discounted using a 3% annual rate.
[c] The ROI for the psychosis and bipolar disorder intervention packages was lower than other intervention packages because the cost of treatment for these conditions is high relative to the monetized health impacts; however, it should be emphasized that there may be strong non-economic reasons for choosing to invest in an intervention package with a low ROI (e.g. to protect human rights or rule of rescue).
[d] These results exclude productivity gains among students due to methodological limitations around estimating future productivity gains in students with improved mental health.

The alcohol use disorder intervention package had the highest benefit–cost ratio: for 1 som invested in the package of these interventions, the expected return is 3.9 for 10 years and 5.3 som for 15 years. This is followed by the package of epilepsy interventions, which provides a benefit–cost ratio of 2.4 over 10 years and 3.5 over 15 years. Over a 10-year time horizon, the intervention packages for psychosis, bipolar disorder and the universal school-based SEL intervention were found to have negative ROI ratios (i.e. benefit–cost ratios less than 1.0). This indicates that these intervention packages did not produce a positive ROI as total costs exceeded total productivity gains over the 10-year time horizon.

Table 12 shows the impact of incorporating the social value of health alongside productivity gains when calculating the benefit–cost ratio (the social value of health is the intrinsic value of improving health as an end in itself, estimated to be 1 healthy life-year gained multiplied by 0.5 times GDP per capita). The benefit–cost ratios for all of the intervention packages increased substantially; with the biggest gains observed for the intervention packages involving depression, anxiety disorders and the universal school-based SEL intervention. The highest benefit–cost ratios were observed for depression, alcohol use disorders, epilepsy and universal school-based SEL. These interventions can produce 7.0 som (depression), 6.8 som (alcohol use disorders), 5.9 som (epilepsy) and 4.3 som (universal school-based SEL) of economic benefit for every 1 som spent over 10 years. Over the course of 15 years, these intervention packages can produce 8.8 som (depression), 9.4 som (alcohol use disorders), 8.6 som (epilepsy) and 4.5 som (universal school based SEL) of economic benefit for every 1 som spent.

The incorporation of the social value of health alongside productivity gains led to positive ROI ratios (benefit–cost ratios greater than 1.0) for the psychosis intervention package over 15 years and the universal school-based SEL intervention over 10 and 15 years. It follows that the inclusion of the social value of health (the quantification of health as an economic benefit in its own right) strengthens the case for investing in interventions encompassing psychosis and universal school-based SEL. This is particularly true for the universal school-based SEL intervention given that the economic value of productivity gains (restored productivity) among school students aged 12–17 years is negligible when compared with the economic value of resulting health gains (social value of health).

Table 12. Costs, benefits (productivity gains plus social value of health) and benefit–cost ratios at 10 and 15 years, by intervention package (million som), 2022

Mental health intervention package[a]	Total costs[b]		Total productivity gains plus social value of health[b]		Benefit—cost ratio (productivity gains plus social value of health)		Return on investment ratio (productivity gains plus social value of health)	
	10 years	15 years	10 years	15 years	10 years	15 years	10 years	15 years
Anxiety disorders	389	632	1283	3087	3.3	4.9	2.3	3.9
Depression	547	928	3830	8154	7.0	8.8	6.0	7.8
Psychosis[c]	584	847	451	921	0.8	1.1	–0.2	0.1
Bipolar disorder[c]	1069	1767	570	1356	0.5	0.8	–0.5	–0.2
Epilepsy	289	434	1697	3737	5.9	8.6	4.9	7.6
Alcohol use disorder	133	231	901	2178	6.8	9.4	5.8	8.4
Universal school-based SEL intervention[d]	313	475	1332	2138	4.3	4.5	3.3	3.5

[a]Mental health intervention packages for clinical interventions include multiple intervention approaches (e.g. basic psychosocial support, psychological treatment and medications) across PHC and secondary levels of health care.
[b]Totals are presented as a net present value, discounted using a 3% annual rate.
[c]The ROI for the psychosis and bipolar disorder intervention packages was lower than other intervention packages because the cost of treatment for these conditions is high relative to the monetized health impacts; however, it should be emphasized that there may be strong non-economic reasons for choosing to invest in an intervention package with a low ROI (e.g. to protect human rights or rule of rescue).
[d]These results exclude productivity gains among students due to methodological limitations around estimating future productivity gains in students with improved mental health.

The clinical intervention packages for alcohol use disorders and epilepsy exhibit the best value-for-money for maximizing productivity gains, as they result in the highest ROI values over 10 and 15 years. By comparison, the ROI for the universal school-based SEL intervention underestimates the potential economic gains produced among adolescents with improved mental health. There is currently no established method to calculate the net present value of future gains in productivity or employment due to the improvement of educational outcomes among adolescents after they reach adulthood. As such, methodological limitations resulted in productivity gains being restricted to the quantification of reductions in premature mortality over the short term.

The ROIs for the intervention packages involving psychosis and bipolar disorder were lower than other mental health interventions because the cost of treatment was high relative to the monetized health impacts. Despite their low ROI values, the intervention packages for psychosis and bipolar disorder are critical to ensure that Kyrgyzstan has the services necessary to support its human rights objectives and the universal access of person-centred health-care treatment. Furthermore, these conditions are often highly distressing and disruptive to both the individuals experiencing them and their families and communities.

The results of the sensitivity analysis are presented in Table 13. The one-way sensitivity analysis SA1 involving the application of the imputed value of 1.0 times GDP per capita to each healthy life-year gained when estimating productivity gains across all mental health conditions did not result in substantive changes to benefit–cost ratios. For example, the benefit–cost ratios for anxiety disorders, depression and alcohol use disorders remained greater than 1.0. The second sensitivity analysis, SA2, examined the effect of halving the value attached to the instrumental value of a healthy life-year to 0.5 times GDP per capita. This reduced the overall benefit–cost ratios for the intervention packages involving psychosis, bipolar disorder and epilepsy. When incorporating the social value of health alongside productivity gains, the benefit–cost ratio for psychosis fell below 1.0. Overall, the results of the two sensitivity analyses demonstrate that the results produced by the base case analysis were largely robust to changes around important methodological assumptions.

Table 13. Benefit—cost ratios at 15 years for each sensitivity analysis scenario relative to the base case (million som), 2022

Mental health intervention package[a]	Benefit–cost ratio (productivity gains only)			Benefit–cost ratio (productivity gains plus social value of health)		
	Base case	SA1[b]	SA2[b]	Base case	SA1[b]	SA2[b]
Anxiety disorders	1.90	2.1	NA	4.9	5.1	NA
Depression	3.00	4.0	NA	8.8	9.8	NA
Psychosis	0.40	NA	0.2	1.1	NA	0.9
Bipolar disorder	0.30	NA	0.2	0.8	NA	0.6
Epilepsy	3.50	NA	1.8	8.6	NA	6.9
Alcohol use disorder	5.30	2.8	NA	9.4	6.9	NA
Universal school- based SEL intervention[c]	0.02	NA	NA	4.5	NA	NA

NA: not applicable.

[a] Mental health intervention packages for clinical interventions include multiple intervention approaches (e.g. basic psychosocial support, psychological treatment and medications) across PHC and secondary levels of health care.

[b] Sensitivity analysis SA1 used the imputed method to estimate the restored productivity resulting from interventions for anxiety disorders, depression and alcohol use disorder; SA2 used a 50% reduction of the instrumental economic value assigned to 1 healthy life-year (i.e. 0.5 times GDP per capita) when applying the imputed method.

[c] These results exclude productivity gains among students due to methodological limitations around estimating future productivity gains among students with improved mental health.

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5
Conclusions and recommendations for consideration

5. Conclusions and recommendations for consideration

The results of this investment case confirm the large economic impact of mental health conditions in Kyrgyzstan. In addition, they show that investment in a selected number of evidence-informed interventions can significantly improve people's mental health, life expectancy and decreasing national economic losses. Table 14 summarizes the main findings. Box 4 outlines the strengths, weaknesses, opportunities and threats that have been identified.

Table 14. Summary of main findings

Every year, mental health conditions are responsible for…	Over 10 years, adopting new interventions and intensifying existing ones would…
5.2% of the national burden of diseases (DALYs)	Gain 38 899 additional healthy life-years
352 million som in health-care expenditure, resulting from those treated among 674 504 prevalent diagnosed cases (11% of population)	Reduce health-care expenditure as a result of 102 087 prevalent cases averted
3624 million som in economic productivity losses	Prevent 3385 million som in economic losses (through productivity gains)
Overall economic costs equivalent to 0.4% of GDP (3976 million som)	Generate economic benefits of 3385 million som, which outweigh the costs (3324 million som) of intensifying interventions

Box 4. Strengths, weaknesses, opportunities and threats analysis findings

Strengths	Weaknesses
• Existence of a comprehensive national action plan for mental health (2018–2030) • High-level leadership and commitment on mental health (including the Ministry of Health, the Ministry of Labour, Social Security and Migration and the Psychiatric Association) • Piloted models of community-based services (multidisciplinary teams) • Initiation of integrating mental health services into PHC health care (via mhGAP) • Track record of achieving Millennium Development Goal targets	• Inadequate financing, leading to service provision gaps and high OOP spending for families • Severe shortages in the mental health workforce • Emphasis on biomedical, specialized, facility-based care models • Unequal access and availability of care • Some gaps in public services available for vulnerable populations: children (conditions such as autism) and older adults (including for dementia) • Limited nationally representative mental health data
Opportunities	**Threats**
• Better interministerial and intersectoral coordination, which would address shared concerns across NCD, injuries and mental health initiatives • Ongoing drafting of new law that can be leveraged to embed recommendations from this investment case • Restructuring of Cabinet of Ministers and the Presidential Office in 2022 • SDG global agenda and positive reviews and progress so far (2019 and 2020 reports), providing impetus to continue along the same route • Digital era and transformation, which can help to address data gaps and strengthen electronic health information systems	• Post COVID-19 economic shifts and uncertainties • Landlocked LMIC status • Traditional beliefs about mental health conditions and related stigma, which influence behaviour in seeking medical help

5.1 Recommendations for consideration

The following actionable steps can be taken to further strengthen a multisectoral, whole-of-government, whole-of-society response to mental health conditions and their consequences:

Leverage the 2024 draft Law (bill) and ensure its enforcement.

This Law presents the opportunity to embed recommendations from the investment case and provide legislative instruments that strengthen the mental health system. Enforcement will drive investment and help to fully realize the potential health, social and economic gains.

Increase taxes on alcohol.

Increasing taxes on alcohol (a recommendation made in the accompanying NCD investment case report) would reduce affordability, decrease alcohol consumption and increase revenue. The revenue gained should be put towards interventions to prevent and manage mental health conditions, including better remuneration and training of the health-care workforce. Severe financing shortfall has been identified as a key barrier to strengthening Kyrgyzstan's mental health system.

Strengthen intersectoral coordination, including across NCD and injuries programmes.

Targeted efforts to improve interministerial and intersectoral coordination can more efficiently and synergistically address shared concerns and risk factors across NCDs, injuries and mental health. Engagement of civil society (patient organizations, advocacy groups), professional societies, NGOs and private sector actors can be stepped up to increase support for public–private partnership projects in the health-care sector.

Expand coverage of care by scaling up community-based interventions and strengthening the health-care workforce.

This can be conducted by expanding mhGAP (PHC care) and by community-based mental health programmes such as multidisciplinary home visit teams and universal school-based SEL programmes. Taking this approach would strengthen health care by expanding the scope and quality of PHC and community services and integrating service provision; if coupled with more progressive financial protection for individuals and households, it would also facilitate more equitable reach of interventions and services. Furthermore, transitioning away from the predominantly specialized health facility-based models may result in lower per-capita costs of treatment and care. Closer collaboration with traditional healers (for example, for providing training and formal mechanisms for referral) may enhance awareness, community-based supports, referral and access for patients whose first point-of-care contact may be traditional healers.

Establish and expand telemedicine systems throughout Kyrgyzstan.

In order to achieve universal health coverage and equitably enhance accessibility to mental health services, it is imperative to establish and expand telemedicine systems, particularly through remote online consultations, across all regions of Kyrgyzstan. Conducting a national digital health business case for NCDs and mental health could empower the Government of Kyrgyzstan in scaling up telemedicine and other digital health solutions.

Provide services and support to meet the needs of older adults, children and those living with enduring psychosocial disabilities.

There is a need to ensure adequate coverage of electronic health services, medicines and financial protection, particularly for vulnerable groups. Clinical service gaps exist for bipolar disorder and psychosis. While not included in the economic analysis, attention deficit hyperactivity disorder and autism are conditions that are rising in prevalence; individuals are affected from childhood and are at risk for human rights abuse, and skilled personnel to support them are in short supply.

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