Health and sustainable development: achieving Sustainable Development Goal 3 on health and well-being and other health related SDG targets in Turkmenistan

PROGRESS REPORT 2020
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Abstract

This is the first report to assess progress in the health and health-related targets in the Sustainable Development Goals in Turkmenistan. It describes the current health status of the population based on quantitative and qualitative assessments using trends and forecasts from official national data and international resources. Based on this assessment, recommendations are made in priority areas of national health development, including a national approach to universal health coverage and fiscal expansion for sustainable health financing, with investment and action in other sectors impacting health. Improved access to quality health services should be supported by strengthened primary health care and development of the health workforce. Communities and civil society should receive support for addressing the determinants of health, using human rights-based and gender-sensitive approaches. Innovative programming should include responses to disease outbreaks, and research and development should foster initiatives in data collection and digital health. The report provides a basis for implementation of the Global Action Plan for Health and Well-being for All and strengthened cooperation between the Ministry of Health and Medical Industry and health development partners.

Keywords:
GLOBAL ACTION PLAN, HEALTH EQUITY, SUSTAINABLE DEVELOPMENT GOALS, TURKMENISTAN, UNIVERSAL HEALTH COVERAGE

Document number: WHO/EURO:2020-1802-41553-56703

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Acknowledgements

This report was prepared in the context of a two-year Biennial Collaborative Agreement between the Ministry of Health and Medical Industry of Turkmenistan and the WHO Regional Office for Europe for 2020–2021. It was written by Dr Leyli Shamurudova (National Consultant on SDGs) with the support of Dr Guljema Ovezmyradova (WHO Country Office in Turkmenistan) and Dr Assia Brandrup-Lukanow (Consultant on Health and Sustainable Development, WHO Regional Office for Europe), under the guidance of Dr Paulina Karwowska (WHO Representative in Turkmenistan), and Dr Bettina Menne (WHO Regional Office for Europe), and with the help of many colleagues in national ministries and institutions and international partner agencies. The Government of Turkmenistan, especially the Ministry of Health and Medical Industry but also other ministries and agencies in Turkmenistan, kindly provided professional national consultants for organizational and methodological support in preparation of this document.

We sincerely thank Dr Paulina Karwowska (WHO Representative in Turkmenistan) for technical support, providing WHO reports and working with United Nations agencies in Turkmenistan to provide international health data and indicators; Ms Elena Panova (United Nations Resident Coordinator in Turkmenistan) and representatives of the Global Fund to fight AIDS, Tuberculosis and Malaria, United Nations Children’s Fund, United Nations Development Programme, United Nations Population Fund, World Bank and other agencies who provided invaluable assistance and materials.

We thank Dr Jane Ward for technical contributions during revisions of the report.

Special thanks also to Dr Nino Berdzuli, Dr Masoud Dara, Dr Elkhan Gasimov, Dr Danilo Lo Fo Wong, Mr Satish Mishra and Dr Askar Yedilbaev (WHO Regional Office for Europe). We thank photographer and painter Ahmed Hallyyev for allowing the use of his picture on the cover of this report.

The report was funded through a grant from the Government of the Federal Republic of Germany to support the interagency Global Action Plan for Health and Well-being and and the implementation of the health and health-related SDGs in Turkmenistan.
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<tr>
<td>2030 Agenda</td>
<td>United Nations 2030 Agenda for Sustainable Development</td>
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<tr>
<td>CEDAW</td>
<td>Convention on the Elimination of all Forms of Discrimination against Women</td>
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<td>CESCR</td>
<td>Committee on Economic, Social and Cultural Rights</td>
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<td>GAP</td>
<td>Global Action Plan for Healthy Lives and Well-being for All</td>
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<tr>
<td>GDP</td>
<td>gross domestic product</td>
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<tr>
<td>Global Fund</td>
<td>Global Fund to fight AIDS, Tuberculosis and Malaria</td>
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<tr>
<td>ICESCR</td>
<td>International Covenant on Economic, Social and Cultural Rights</td>
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<td>IHR</td>
<td>International Health Regulations</td>
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<tr>
<td>IHME</td>
<td>Institute for Health Metrics and Evaluation</td>
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<tr>
<td>MAPS</td>
<td>mainstreaming, acceleration and policy support [mission]</td>
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<td>MICS</td>
<td>Multiple Indicator Cluster Survey</td>
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<tr>
<td>NCD</td>
<td>noncommunicable disease</td>
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<tr>
<td>NGO</td>
<td>nongovernmental organization</td>
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<tr>
<td>PHC</td>
<td>primary health care</td>
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<td>RIA</td>
<td>rapid integrated assessment</td>
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<td>SDG</td>
<td>Sustainable Development Goal</td>
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<td>STEPS</td>
<td>WHO STEPwise Approach to Surveillance [survey]</td>
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<td>TB</td>
<td>tuberculosis</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
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<td>VNR</td>
<td>voluntary national review</td>
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Executive summary

This document is the first report to assess the progress made to date in health and the health-related Sustainable Development Goals (SDGs) in Turkmenistan. It is a starting point for a dialogue between the Ministry of Health and Medical Industry of Turkmenistan (referred to hereafter as the Ministry of Health), ministries and agencies involved in health policy and planning, WHO, United Nations agencies, the main development partners and stakeholders for achieving SDG 3 (ensure healthy lives and promote well-being for all at all ages) and health-related targets of other SDGs in Turkmenistan.

This report provides a brief description of the current health situation of the population of Turkmenistan, highlights trends and forecasts, analyses problem issues and obstacles to implementation and provides recommendations on priority areas of national health development.

In developing the report, a quantitative and qualitative assessment was made for each of the health targets using trends and forecasts available from official national data and other resources (e.g. Institute for Health Metrics and Evaluation (IHME), the WHO Global Health Observatory and United Nations reports). National data were also analysed against international data using national health experts to identify areas of progress and identified gaps and bottlenecks in achieving SDG 3 and the health-related SDGs.

In addition, a literature review and desk analysis of national strategic policy documents and programmes related to health and well-being were conducted to assess their relevance to the health priorities that were identified and to assess the extent to which SDG 3 and the health-related SDGs are integrated into national policies and their solutions. A comparison was made of cross-sectoral interactions between United Nations agencies in Turkmenistan and national institutions on priority areas of the national health system in support of the implementation of the 2030 Agenda for Sustainable Development (2030 Agenda) in Turkmenistan.

An assessment based on the seven cross-cutting accelerators outlined in the Global Action Plan for Healthy Lives and Well-being for All (GAP) was also conducted to identify possible areas where closer and more effective cooperation between stakeholders and development partners can be achieved and related actions suggested.

In conclusion, recommendations were made on strengthening the dialogue among key actors involved in promoting coordinated efforts to improve health and well-being in Turkmenistan and on future work to accelerate.
1. Introduction

1.1 The 2030 Agenda

In 2015, Turkmenistan was one of the 193 Member States of the United Nations that adopted and committed to resolution 70/1 on the implementation of the 2030 Agenda and its SDGs (1). Building on the success of the Millennium Development Goals, which covered the period 2000–2015, the 2030 Agenda strives to go further by addressing the root causes of poverty, recognizing the inherent need to balance economic growth with protection of the environment while ensuring equity and social inclusion for current and future generations.

The 2030 Agenda is built on three core principles that are particularly relevant to country level strategies and approaches to achieving health and well-being for all:

- **interconnectedness and indivisibility**, which are core features linking all 17 SDGs and emphasize that countries need to focus on attaining all SDGs if they are truly achieve any of them;

- **leaving no one behind** requires measures that reach out to all people in a manner that targets their specific challenges and vulnerabilities wherever they are, especially those who are most vulnerable, and ensure that all people benefit from the achievement of the SDGs; and

- **inclusiveness**, which means that all segments of society should be participants, irrespective of their race, gender, ethnicity and identity, and contribute to implementation of the aims of the 2030 Agenda.

Participation using a whole-of-society approach is needed to achieve the SDGs and that requires every country to have local, disaggregated data that can be used to assess progress, barriers and opportunities.

The 2030 Agenda includes 17 SDGs with 169 targets that are broad in scope and intersectoral by design. SDG 3 enshrines the global commitment to foster healthy societies and protect the rights of everyone to enjoy the highest attainable standard of physical and mental health. Achieving the targets of SDG 3 is critical to making progress on the implementation of the 2030 Agenda because health is an integral part of human capital and is both a driving force and an overall result of sustainable development. SDG 3 relates to approximately 50 health-related targets within the other SDGs.

Despite significant progress in health over several decades, the world is falling behind the schedule for achieving SDG 3. In addition, there are significant differences between and within countries in the likelihood of meeting many health-related SDG targets by 2030 and leaving no-one behind.

1.1.1 Turkmenistan and the 2030 Agenda

Committed to accelerating national sustainable development in all of its aspects, Turkmenistan was one of the first countries to start consultations on the national adaptation of the SDGs, and on 20 September 2016 adopted all 17 SDGs and 148 targets to be implemented in the country until 2030. The implementation of the SDGs followed a three-step process adopted by the United Nations and the Government: (i) define the SDGs applicable to Turkmenistan; (ii) integrate the selected SDGs into national strategies, programmes and development plans; and (iii) create a measurement system to assess progress in implementing the SDGs (2). As a result, 85% of the adopted SDG targets are reflected in the strategic documents of Turkmenistan today.

The election of Turkmenistan to three United Nations committees at the United Nations Economic and Social Council (the Science and Technologies Committee
The National Programme of Social and Economic Development of Turkmenistan for 2011–2030 and the Programme of the President of Turkmenistan for the Socio-economic Development of the Country for 2019–2025 (Socio-economic Development Programme 2019–2025), adopted in February 2019, outline the framework for achieving the SDGs (3). The strategic goal and main indicator for achieving the SDGs in the framework of the Socio-economic Development Programme 2019–2025 is to ensure both the population’s well-being and further sustainable development of the country. The Programme provides an integrated approach to sustainable development via institutional changes, alongside ensuring intersectoral approaches in social and economic policy, preventing the impact of climate change and protecting environmental biodiversity. The goals and objectives set out in the Programme are linked to the relevant 17 SDGs and are refined to reflect national conditions.

The book “Turkmenistan on the path to achieving Sustainable Development Goals” by the President of Turkmenistan Gurbanguly Berdimuhamedov outlines the main steps for the comprehensive development of the country, the strategic objectives of domestic and foreign policy of the State, and priority areas in the economic, social and environmental spheres (4).

### 1.2 The role of health in sustainable development

Three core documents define the role of health in sustainable development in the WHO European Region: the 2030 Agenda (1); Health 2020, the European policy for health and well-being (5); and the WHO Regional Office for Europe’s roadmap to implement the 2030 Agenda, which was adopted in 2017 (6). They provide a framework for country leaders to forge partnerships with their development partners, national stakeholders and civil society as they work to ensure health and well-being for all while promoting prosperous societies.

SDG 3 contains 13 targets that are intended to address major health priorities, including reproductive, maternal and child health; communicable diseases; noncommunicable diseases (NCDs) and environmental diseases; universal health coverage; and access for all to safe, effective, quality and affordable medicines and vaccines. In addition, health and well-being for all is also addressed directly and indirectly by many of the other SDGs under the 2030 Agenda (Box 1). Ensuring the health and well-being of a population is not just a goal in itself, it is also a necessary precondition for achieving sustainable development. Better health and well-being are heavily determined by economic, social and environmental conditions. Success in one SDG area heavily influences and is dependent upon success in other sectors.
Box 1. Health-related targets in SDGs

In addition to the health-specific targets of SDG 3, the non-health sector SDGs contain many targets that are both directly and indirectly related to health and well-being.

- **SDG 2**: end hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- **SDG 4**: ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- **SDG 5**: achieve gender equality and empower all women and girls.
- **SDG 6**: ensure availability and sustainable management of water and sanitation for all.
- **SDG 8**: promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- **SDG 10**: reduce inequality within and among countries.
- **SDG 11**: make cities and human settlements inclusive, safe, resilient and sustainable.

The challenge for policy-makers, therefore, is to develop an integrated approach to working towards health and well-being for all that covers both health and non-health sectors and recognizes the interdependencies between SDGs.

1.3 The GAP

The GAP represents a new approach and a new joint commitment to strengthening collaboration and accelerating country progress towards health-related SDGs (7). The GAP is hosted by WHO and is composed of 12 of the multilateral health, development and humanitarian agencies: Gavi, the Global Alliance; the Global Financing Facility, the Global Fund to fight AIDS, Tuberculosis and Malaria (Global Fund), Unitaid,1 the United Nations Children’s Fund (UNICEF), the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), United Nations Programme on HIV/AIDS, UN Women, WHO, the World Bank and the World Food Programme.

The GAP outlines a shared vision and renews the pledges from its member organizations to enhance collective action and accelerate impact. The implementation of the GAP is supported by what is known as the E4As approach: engage, assess, align, accelerate and account (Fig. 1).

**Engage** is a stage that functions as the driver and pacemaker, including systematic and meaningful engagement with health and health-related stakeholders across all sectors and levels to identify priorities and plan and implement together.

**Assess** refers to the process of understanding the given situation in health and health interventions using the available data sources, information on resources and knowledge of the processes governing these. This stage should identify outstanding gaps, opportunities and challenges for achieving the health and health-related SDG targets.

**Align** refers to the harmonization of policies and processes within and between sectors and levels of governance, including financial, legal and/or regulatory mechanisms.

---

1. A global health initiative that works with partners to bring about innovations to prevent, diagnose and treat major diseases in low- and middle-income countries, with an emphasis on tuberculosis, malaria, and HIV/AIDS and its deadly coinfections.
**Accelerate** refers to the catalytic elements and selected policy and/or programme areas that can trigger positive multiplier effects across the SDGs and targets and that can increase the pace and support uptake of innovation in achieving the health-related SDG targets at all levels.

**Accountability** examines progress, results, achievements and shortfalls, recognizes shared responsibility for implementing the 2030 Agenda, and promotes improvements in how government and its stakeholders work towards implementation. Accountability encourages collection of good health information and statistics and helps to ensure commitments are achieved.

---

**Fig. 1. Global Action Plan**

**THE GLOBAL ACTION PLAN**

**Current situation:**
Despite remarkable gains, the world is not on track to achieve the health-related Sustainable Development Goal targets by 2030. While some targets are within reach, achieving others by 2030 will require significantly increased effort.

**Response:**
12 global health, development and humanitarian agencies have united under the Global Action Plan to support countries to accelerate progress towards the health-related SDG targets. The agencies bring significant experience in health financing, normative and policy guidance, technical cooperation, market shaping, convening stakeholders and humanitarian responses.

**What we will do?**
- Engage with countries better to identify priorities and plan and implement together;
- Accelerate progress in countries through joint actions under specific accelerator themes and on gender equality and global public goods;
- Align, by harmonizing our operational and financial strategies, policies and approaches in support of countries; and
- Account, by reviewing progress and learning together to enhance shared accountability.

**What we want to achieve by 2030:**
- Better coordination among the agencies in their global, regional and in-country processes;
- A reduced burden on countries as a result of better aligned operational and financial policies and approaches; and
- A focus on purpose-driven collaboration is integrated into the agencies’ organizational cultures.

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Source: WHO, 2019 (7).
In the accelerate stage, the GAP identifies specific opportunities for, and commits agencies to, actions at country and global/regional levels using seven **accelerator themes** that cut across the agencies’ mandates and identify areas where collective efforts could make a significant contribution to accelerating progress on the health-related SDG targets (Fig. 2).

**Fig. 2. The seven accelerator themes**

**1. Primary health care**
Effective and sustainable primary health care is a cornerstone for achieving the health-related SDG targets and progress on the other accelerator themes. It provides a platform for accessible, affordable, equitable, integrated, quality primary care and public health services for all, near where people live and work, linked to higher levels of care. It supports multisectoral action on health and engages people and communities in their own health and well-being.

**2. Sustainable financing for health**
Sustainable financing enables countries to reduce unmet need for services and financial hardship arising from out-of-pocket payments by establishing and progressively strengthening systems to mobilize adequate resources for health and to spend them better to deliver more health for the money. For low-income countries where development assistance is significant, it also involves improving the effectiveness of external funding support.

**3. Community and civil society engagement**
Ensuring that communities and civil society receive the support that they need to be meaningfully engaged enables them to bring their lived experience, perspectives and expertise to knowledge-generation, policy-making and health responses that are rights-based, accountable and ensure that no one is left behind.

**4. Determinants of health**
Addressing the determinants of health is vital to creating an enabling environment for health and well-being for all and ensuring that no one is left behind, including through rights-based and gender-responsive approaches, leveraging investments and action in sectors beyond health and maximizing gains across the SDGs.

**5. Innovative programming in fragile and vulnerable settings and for disease outbreak responses**
Ensuring that health and humanitarian services are available in fragile and vulnerable settings and responding effectively to disease outbreaks require multisectoral coordination, long-term planning and financing, information sharing and strengthening of health system governance and workforce capacity. Action across the accelerator themes is needed to strengthen health services in these settings.

**6. Research and development, innovation and access**
Research and innovation are critical to improving the quality and efficiency of health products and services, while sustainable and equitable access ensures better availability of healthcare interventions to those who need them most.

**7. Data and digital health**
Quality and comprehensive data are key to understanding health needs, designing programmes and policies, guiding investment and public decisions and measuring progress. Digital technologies can transform the way health data are collected and used and contribute to more equitable, rights-based health policies and primary health care services.

*Source: WHO, 2019 (7).*
The GAP represents a new commitment to advance collective action and accelerate progress towards SDG 3 and the health-related targets in other SDGs. While the GAP does focus on health and well-being, the approach cuts across sectors and commits the agencies to develop new ways of working together to maximize resources and measure progress in a more transparent way. Considerations of which accelerator themes to prioritize require high-level commitments and a whole-of-government approach to ensure that efforts are geared towards improvements in health outcomes. Other stakeholders, such as United Nations bodies, have an important role to play in supporting a government’s efforts with respect to implementation of accelerators.

The first step for providing support for a country support under the GAP is to assess the progress made to date and the status of health and well-being and other SDGs using the available instruments developed for this purpose; it is followed by an assessment of a country’s unmet needs through engagement with all stakeholders and dialogue.

1.4 The aim of the report

The purpose of this report is to assess the progress made to date in the field of health in the context of socioeconomic and sustainable development of Turkmenistan and the health-related SDGs, and to support the implementation of the new GAP in cooperation with United Nations GAP signatory organizations and other health development partners to achieve the 2030 Agenda.
2. The country context

Turkmenistan is the second largest of the five central Asian States, covering 491,200 km², spanning 1100 km from west to east and 650 km from north to south. The country (Fig. 3) adjoins Kazakhstan in the north-west, Uzbekistan in the north, Afghanistan in the south-east and the Islamic Republic of Iran in the south and south-west. In the west, the natural border is the Caspian Sea, through which Turkmenistan borders the Azerbaijan.

The population of Turkmenistan was about 5.9 million people in 2019 (8). Turkmenistan is a multinational State with more than 30 nationalities living in the country (Fig. 3). The official language is Turkmen but all citizens are guaranteed the right to use their native language. Alongside Turkmen, Arabic, Chinese, English, Farsi, French, Japanese, Korean and Russian are taught in educational institutions in Turkmenistan.

Fig. 3. Structure of the population of Turkmenistan by gender and age groups

The political structure of the Turkmen State is based on the Constitution of Turkmenistan, adopted on 18 May 1992 and amended on 14 September 2016. According to the Constitution, the State structure is based on the principle of separation of powers into legislative, executive and judicial wings that act independently, balancing each other. Turkmenistan is a democratic, legal and secular State and a Presidential Republic.
Foreign policy is based on the Constitution, and the Constitutional Act on the Permanent Neutrality of Turkmenistan: Turkmenistan is a neutral, democratic and law-based, secular State. Foreign policy is a logical extension of domestic policy and is determined by the international legal status of permanent neutrality, recognized by the United Nations General Assembly in 1995.

The capital of Turkmenistan is the city of Ashgabat, which is an administrative-territorial unit with the rights of a velayat (administrative region). There are five velayats: Akhal, Balkan, Daşoguz, Lebap and Mary. Each velayat is divided into four etraps (districts), with six etraps being cities. Of the 51 cities in Turkmenistan, 11 have etrap rights; there are 62 villages, 605 gengeshliks (rural municipalities) and 1719 rural localities.

The economy of Turkmenistan is based on national and State programmes designed for medium- and long-term periods. Large-scale reforms aimed at diversifying the national economy and giving it an innovative character are currently being implemented in the country. In recent years, traditional industries have developed significantly: oil and gas, electricity, agriculture, construction, transport and communications.

Gross domestic product (GDP) grew by 6.3% in 2019, with growth of 4.1% in the industrial sector, 14.2% in trade and 10.1% in transport and communications. The developing market economy is largely dependent on oil and gas, accounting for 77.8% of total exports and 22.2% of GDP in 2018 (10). About 80% of the State budget of Turkmenistan is allocated annually to the social sector, including pensions, State benefits, education, and health. Salaries, pensions, State benefits and student scholarships are increased by 10% annually. The State has determined the minimum size for housing and public utilities for the population and the transport services based on international standards. In accordance with the Codex of Turkmenistan on social protection of the population, which entered into force on 1 January 2013, the list of State benefits and types of social assistance available for disabled people has been expanded. Turkmenistan is intensifying cooperation with the Asian Development Bank, the European Bank for Reconstruction and Development, the International Monetary Fund, the Islamic Development Bank, the World Bank, and others.

As part of the planned programmes, investments in the construction industry amounted to about US$ 35 billion. New high-technology enterprises have been initiated. In 2019, using finance from all available
sources, 1704 industrial and sociocultural facilities were established at a cost of about US$ 10 billion. At the same time, work is being carried out to create new sectors in the economy and increased production volumes: the chemical industry, the textile industry, the construction materials industry, telecommunications and other high-technology areas. Within the framework of State programmes, construction of industrial and social facilities is carried out in all regions. The volume of investments made from all sources of financing for 2018 amounted to 40.3 billion manats (approximately US$ 12 billion), of which 63.7% was allocated to the construction of industrial buildings, and 36.3% for social and cultural purposes.

Turkmenistan is now almost totally self-sufficient in terms of provision of basic food products. The volume of exports of food products in the private sector increased by 66.2%, and industrial products by 11.2%. Innovative methods of treatment and diagnostics, digital technologies, electronic document management and telemedicine services are being introduced in the health-care sector. The pharmaceutical industry of Turkmenistan is represented by the Association Turkmendermansenagat (11). Use of modern world-class technologies by the pharmaceutical industry makes it possible to provide the country’s population with many high-quality medicines and to export products to other countries.

Turkmenistan has demonstrated significant achievements in human development; the human development index was 0.706 in 2017 compared with 0.673 in 2010 (12). Life expectancy at birth in Turkmenistan increased by 2.9 years between 1990 and 2015; life expectancy on entering education increased by 0.6 years between 2000 and 2015. Gross national income per capita increased by about 86% between 1990 and 2015. For further indicators on the socioeconomic determinants of health see Annex 1.

In implementing the framework of the State Programme for Development of the Medical Industry of Turkmenistan for 2011–2015, six new production enterprises were established and put into operation. These covered the production of medicines and medical devices and the collection of indigenous medicinal herbs for use, including medicinal liquorice root teas, Berzengi mineral water, disinfectants, dressings, iodine products, medicinal clays and sea salt. Currently, these enterprises produce more than 340 medicines in formats such as tablets or infusions; most of these are included in the List of Essential Drugs.
3. Sustainable development and related policies and activities in Turkmenistan

As described above, Turkmenistan actively participated in the development of the 2030 Agenda and was among the first countries to adapt the SDGs to national socioeconomic development plans and programmes (13). Implementation of the 2030 Agenda is intended to ensure sustainable and inclusive growth, social integration and environmental protection, as well as to promote partnerships for sustainable development in Turkmenistan.

The SDG framework now serves as the basis for the development policy and strategy of Turkmenistan. Work on adapting and integrating the SDGs into relevant national strategic programmes and plans in Turkmenistan began in 2016 with national consultations (13). With the support of United Nations agencies, 17 consultations were undertaken, with broad involvement of various stakeholders and covering each of the SDGs. This process allowed identification of the SDGs applicable to Turkmenistan, their integration into national development plans and the creation of a monitoring system. Finally, they were adopted into the Government agenda for the period up to 2030. The Ministry of Finance and Economy was appointed as the coordinator for monitoring progress in the implementation of the SDGs. The State Statistics Committee of Turkmenistan is responsible for the methodology, and creation and maintenance of the SDG database.

Based on the analysis of SDGs objectives and indicators for compliance with the country context, the number of indicators was later revised to 175 to reflect changes at the global level. The Government’s future approach to implementing the SDGs was based on mapping of SDG implementation in existing national strategies and plans. The implementation of the SDGs followed a three-step process adopted by United Nations agencies and the Government (14):
(i) defining the SDGs applicable to Turkmenistan;
(ii) integrating the SDGs selected by the country into national strategies, programmes and development plans; and (iii) creating a measurement system to assess progress in implementing the SDGs (Fig. 4). In the second phase, the United Nations agencies worked in close cooperation with the Government in support of the integration of global SDG goals and indicators into national, regional, and sectoral strategies, programmes and plans (Annex 2).
Fig. 4. Implementation of the SDGs in Turkmenistan

**PHASE 1**
- **PREPARATION**
  - 1st consultation
    - Presentation of the final document on 2030 SDGs
    - National consultations “The World We Want” 2015

**PHASE 2**
- President Programme 2019–2025
  - Integration of agreed SDGs, targets and indicators in the national programme

**PHASE 3**
- Designing evaluation system
  - National monitoring and evaluation system for SDG implementation

**LOCALIZATION OF SDG TASKS**
- SDGs: 17
  - Global targets: 169
  - Accepted Tasks: 121
  - Adapted Tasks: 27
  - Tasks in Turkmenistan: 148

**LOCALIZATION OF SDG INDICATORS**
- 241 Total Indicators
  - Adopted indicators: 109
  - Adjusted indicators: 50
  - National indicators: 39

**RESULTS**
- 22 December 2015
- March 2016 – Present

On 17 November 2017, a Presidential Decree approved the institutional structure of the SDG monitoring system in Turkmenistan, which included 47 representatives of national organizations such as ministries and departments, capital and regional administrations, public organizations, research institutes and higher educational institutions (Fig. 5). Working groups were created for the practical implementation of the SDGs in specific areas (Figs 6–8). The responsibilities of line ministries and departments, local authorities (khakimliks) of velayats and Ashgabat and other participating organizations included to submit relevant data on SDG indicators to the State Statistics Committee and relevant reports, explanatory notes and proposals to the Ministry of Finance and Economy for the preparation of a national review of the SDGs. The dissemination of knowledge necessary for effective implementation of the SDGs was assigned to the Scientific and Practical Centre created at the initiative of the President of Turkmenistan at the Institute of International Relations of the Ministry of Foreign Affairs.

Fig. 5. System for coordinating and monitoring progress in the implementation of the SDGs at the national level

Source: UNDP, 2017 (16).
Fig. 6. Working Group on Economic Diversification and Growth

Notes: IDHR: Institute for Democracy and Human Rights; MAWR: Ministry of Agriculture and Water Resources; MoAT: Ministry of Auto Transport; MoCA: Ministry of Construction and Architecture; MoCom: Ministry of Commerce; MoE: Ministry of Education; MoEnergy: Ministry of Energy; MoFE: Ministry of Finance and Economy; MoJ: Ministry of Justice; MoLSP: Ministry of Labour and Social Protection of the Population; MoMS: Ministry of Municipal Safety; SAFI: State Agency for Foreign Investment; SCEPLR: State Committee for Environment Protection and Land Resources; SCFI: State Committee for Foreign Investment.

Source: UNDP, 2017 (16).

Fig. 7. Working Group on Social Development for All

Notes: MHMI: Ministry of Health and Medical Industry; MoD: Ministry of Defence; MoI: Ministry of Industry; other ministries/agencies are given in Fig. 6.

Source: UNDP, 2017 (16).
During the third phase, United Nations agencies worked with the Government of Turkmenistan to prepare a draft SDG measurement system for Turkmenistan. The approved SDG indicators are now evaluated for performance in key functions throughout the statistical measurement system using the following system: (i) methodology development; (ii) data collection; (iii) data processing; (iv) preparation of the SDG database; (v) analysis of SDG data; (vi) preparation of the SDG and indicators report; and (vii) preparation of a combined SDG report from targeted reports of the line ministries for national and international reporting. The baseline assessment on child-related SDG indicators in Turkmenistan was the first report using the proposed SDG baseline indicators (17).

Meetings were held on each SDG in November and December 2019 in order to establish data on all 17 SDGs within Turkmenistan and their correspondence to megadata at global level. During these meetings, adjustments were made, new tasks were assigned and the SDG indicators were reviewed. Responsibilities were assigned to ministries and institutions regarding the development of methodologies and the collection, processing and analysis of data. At present, national indicators are being revised in light of changes made to SDG indicators at global level.

With the support of the United Nations and participation from civil society and the private sector, the national SDG working group analyses the goals and indicators of the SDGs and distributes responsibilities between different national structures for data collection, analysis and reporting (Fig. 9) (15). Support was also provided to the State Statistics Committee in creating the SDG database and to the Ministry of Education and Ministry of Health in creating electronic management information systems.
Fig. 9. Level of SDG integration in Turkmenistan

In 2018 Turkmenistan hosted the international conference entitled Partnership for Development Financing at the Heart of the Great Silk Road. The conference brought together partners from government agencies, international financial institutions, the private sector and commercial banks to focus on the country’s sustainable development priorities, related financing needs and various options for resource mobilization, particularly from international financial institutions and private capital. Government officials were briefed on the work of the High-level Political Forum on Sustainable Development and the preparation of a voluntary national review (VNR) on the implementation of the 2030 Agenda; this was completed in 2019 with the support of United Nations agencies (Box 2) (15).

Box 2. Turkmenistan’s (VNR) 2019

The 2030 Agenda was derived from international efforts to find solutions to existing challenges. Turkmenistan actively participated in formulation of the SDGs and was among the first countries to officially adopt all 17 SDGs and mainstream these into the national development plans and strategies.

The preparation of the first VNR in Turkmenistan is seen as an important part of the follow-up and review process for SDG implementation but also as an opportunity to strengthen national policies to achieve sustainable development. The main national strategy is based on the 2030 Agenda to deepen the social orientation of existing national policies and achieve balanced development in three dimensions: social, economic and environmental. Given the indivisibility of the SDGs, Turkmenistan maintains an integrated approach to their implementation, as reflected in the VNR report.

Since the adoption of the SDGs, Turkmenistan has achieved significant progress in its social policy, initiated with market transformations and moving on to climate change adaptation and mitigation measures. Positive results for providing the population with affordable and high-quality medical services and education are being maintained even while reforms continue for improving the health-care and education systems. The country has also embarked upon the development of market relations accompanied by the continuation of socially oriented economic growth and greening of economic sectors; the rational use of natural resources; and effective adaptation to climate change. Particular attention is also being given to ensure that national reforms are inclusive and that there are equal opportunities for women to participate fully in the economic, political and cultural life of the country.
Working groups have been established to oversee the implementation and monitoring of the SDGs and their further integration into national, sectoral and regional development programmes (see Fig. 4). Preparation of the VNR included participation from all stakeholders leaving no one behind, including public and civil society organizations, youth and the private sector, which embodies the cooperation established between Turkmenistan and the United Nations system. The preparation of the VNR offered an opportunity to look anew at the measures being undertaken in Turkmenistan and identify further steps for implementation of the SDGs.

- One of the key lessons learned is the need to continue efforts to strengthen statistical capacity. Turkmenistan will work on development of the national SDG indicators framework, the collection of comprehensive, reliable and disaggregated data and the establishment of a national SDG database. This is needed to establish a baseline against which strategies to achieve the SDGs can be monitored and progress tracked. The Government hopes to continue its fruitful collaboration with the United Nations agencies and international organizations and relies on their assistance in this work.

- Ensuring that finance is available for development is a key component in implementation of the 2030 Agenda. Turkmenistan is improving its public finance management system, including through fiscal regulation to mobilize domestic resources. However, it will be important to supplement the increase in domestic finance with international assistance. Consequently, partnerships and cooperation are begin promoted with the United Nations system, Bretton Woods institutions and international development banks, as well as for access to concessional and innovative financing for middle-income countries. The Government looks forward to the assistance of the international community to support its commitment for financing for sustainable development.

- Turkmenistan remains committed to building peaceful societies by realizing human rights and human dignity, disarmament and non-proliferation, promoting global and regional cooperation and engagement frameworks, and working together in addressing global challenges. Turkmenistan will continue working on development of the United Nations Special Programme for the Aral Sea Basin to address water and environmental issues in central Asia.

Turkmenistan's initiatives aimed at consolidating international efforts to addressing the major issues of the global agenda cannot be implemented single-handedly; they require active engagement of the international community, along with technical assistance and investments from international organizations and multilateral development banks.

In 2018, international experts contributed to training courses for representatives of the private and public sectors on the modern system of impact investment. These courses were provided in the framework of a joint project by the State Bank of Foreign Economic Relations and UNDP entitled Support in Expanding Access to International Development Finance, and in collaboration with the National Centre for the SDGs and the United Nations.
Joint projects between United Nations agencies and the Government of Turkmenistan have taken place in the areas of health and education; gender equality; the rights of women, children and people with disabilities; social protection; and the reduction of illegal migration and stateless people (Annex 3). This cooperation supported the National Action Plan for Human Rights in Turkmenistan 2016–2022 and included:

- improvement in the system of social protection through the introduction of inclusive high-quality and community-based social services;
- provision of universal access to high-quality diagnosis of and treatment of drug-resistant tuberculosis (TB) in Turkmenistan;
- cooperation in implementation of the National Action Plan of Turkmenistan on Human Rights for 2016–2020, particularly in terms of rule of law and the access to justice;
- the National Strategy on Early Childhood Development in Turkmenistan 2020–2025;
- the National Programme on Healthy Nutrition of the Population of Turkmenistan 2020–2025;
- National Strategy on Reproductive Health 2010–2020;
- promotion of the strengthening of the system and mechanisms for promoting gender equality; and
- initiatives moving towards decent work for people with disabilities in Turkmenistan and transforming social enterprises into meaningful training and employment opportunities.


Importance is given to delivering a balanced macroeconomic policy and maintaining high investment activity, especially in human capital and in the implementation of social obligations of the State. The Government is also committed to maintaining the share of social expenditure (education, health, culture, pension and social security) from the State budget of at least 70%. In addition, it is planned to invest about 169 billion manats (US$ 49 billion) in the development of the economy, of which 10 billion manats (US$ 3 billion) will be spent on improving social security infrastructure in rural areas, including the construction of hospitals, schools, preschools and sewage treatment plants.

The Government plans to further implement its goals and objectives in the field of sustainable development in national, sectoral and regional programmes, development strategies and plans, as well as through the country’s financial plans.

In collaboration with UNFPA, UNICEF, the United Nations Office on Drugs and Crime (UNODC) and WHO, a number of important state and national health programmes have been adopted that will contribute to the implementation of the SDGs and ultimately lead to improved public health and well-being, and a reduction in the burden of NCDs. The main State health-care programme is the State Programme “Health” of the President of Turkmenistan (State Programme Health), adopted in 2015 and based on SDG 3 and Health 2020.
3.1 The main health targets addressed through national policies

“The Health of the people is the wealth of the country” is a fundamental principle of the national policy in Turkmenistan. This principle and the goals, objectives and indicators of the SDGs were adopted by the Government of Turkmenistan for 2016–2030, and Health 2020 (5) became the basis for the State Programme Health adopted in 2015.

The Aim of the State Programme Health is to improve the health status of the population and increase its well-being, increase average life expectancy, provide citizens with comprehensive equal opportunities and conditions for health protection, and create a perfect and highly effective health-care system. The Programme is primarily focused on disease prevention, health promotion and improvement of the health system, including public health, in accordance with the development of State and society. It is aimed at achieving the highest level of health for every citizen and ensuring the best possible quality of life.

In the development of national health care, Programme priorities include:

- prevention of diseases and strengthening primary health care (PHC);
- multisectoral interagency cooperation;
- sustainable financing for health;
- organization of work on public health protection in accordance with modern requirements and international standards;
- development and reform of the health-care system based on advanced knowledge and achievements of medical science;
- strengthening the material and technical base of health care;
- providing high-quality and affordable medical services; and
- training medical specialists, improving their professional level as part of their training abroad.
Table 1 outlines the national indicators linked to SDG 3 within the State Programme Health.

### Table 1. National indicators of the State Programme Health linked to the SDG 3

<table>
<thead>
<tr>
<th>NATIONAL INDICATOR</th>
<th>SDG INDICATOR</th>
<th>TARGETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.1.1</td>
<td>Maternal mortality rate per 100,000 live births</td>
</tr>
<tr>
<td>2</td>
<td>3.1.2</td>
<td>Percentage of births attended by qualified medical professionals</td>
</tr>
<tr>
<td>3</td>
<td>3.2.1</td>
<td>Mortality rate for children under-5 years of age</td>
</tr>
<tr>
<td>4</td>
<td>3.2.2</td>
<td>Neonatal mortality rate (per 1000 live births)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Infant mortality rate (per 1000 live births)</td>
</tr>
<tr>
<td>6</td>
<td>3.3.2</td>
<td>Incidence of TB per 100,000 population</td>
</tr>
<tr>
<td>7</td>
<td>3.3.3</td>
<td>Incidence of malaria per 100,000 population</td>
</tr>
<tr>
<td>8</td>
<td>3.3.4</td>
<td>Incidence of viral hepatitis B per 100,000 population</td>
</tr>
<tr>
<td>9</td>
<td>3.4.1</td>
<td>Mortality from cardiovascular diseases, cancer, diabetes or chronic obstructive pulmonary disease, by gender and age group</td>
</tr>
<tr>
<td>10</td>
<td>3.5.2</td>
<td>Alcohol consumption in litres of pure alcohol per capita, among adolescents</td>
</tr>
<tr>
<td>11</td>
<td>3.5.2</td>
<td>Alcohol consumption in litres of pure alcohol per capita, among people aged 18 years and older</td>
</tr>
<tr>
<td>12</td>
<td>3.6.1</td>
<td>Deaths caused by road accidents</td>
</tr>
<tr>
<td>13</td>
<td>3.7.1</td>
<td>Percentage of women of reproductive age (15–49 years) whose family planning needs are met by modern methods</td>
</tr>
<tr>
<td>14</td>
<td>3.7.2</td>
<td>Birth rate among adolescent girls (aged 10–14 years and aged 15–19 years) per 1000 women in this age group</td>
</tr>
<tr>
<td>15</td>
<td>3.8.2</td>
<td>Percentage of those covered by voluntary state health insurance</td>
</tr>
<tr>
<td>16</td>
<td>3.a.1</td>
<td>Current prevalence of tobacco use among adolescents</td>
</tr>
<tr>
<td>17</td>
<td>3.a.1</td>
<td>Current prevalence of tobacco use among people aged 18 and older</td>
</tr>
</tbody>
</table>
In order to implement the State Programme Health, the Ministry of Health, with the support of WHO, is working to strengthen control over the main risk factors for NCDs (cardiovascular diseases, cancer, diabetes and chronic pulmonary disease) (Box 3).

An evidence-informed policy was developed by collecting data from three surveys on nutrition and key NCD risk factors: the urban food environment (the FEEDcities project (18)), childhood obesity (the Childhood Obesity Surveillance Initiative (19)), and the prevalence of NCD risk factors (the WHO STEPwise Approach to Surveillance (STEPS) survey (20)). The results were published in preparation for the WHO European High-level Conference on Noncommunicable Diseases in 2019 (21).

Between 2017 and 2019, several comprehensive assessments of the implementation of SDG targets and indicators were conducted by the United Nations agencies mainstreaming, acceleration and policy support (MAPS) mission, rapid integrated assessment (RIA) and a comprehensive assessment of the health system of Turkmenistan by the WHO Regional Office for Europe. The RIA examined strategies, programmes and plans in Turkmenistan for the level of integration of the adopted SDG goals and indicators within them (Annex 2) (9). In 2017, the United Nations country team
Box 3. National plans and strategies developed and approved regarding NCDs


National Programme 2018–2022 for the Protection of Mental Health of the Population of Turkmenistan, and the action plan for its implementation


National Programme for the Prevention of Harmful Effects of Alcohol in Turkmenistan for 2018–2024, and the action plan for its implementation

National Programme of Turkmenistan for Early Development and Preparation for the Child’s School for the Period 2011–2015

National Programme on Healthy Nutrition of the Population of Turkmenistan 2020–2025


National Strategy for Improving Physical Activity in Turkmenistan for 2018–2025, and the action plan for its implementation

National Strategy on Early Childhood Development in Turkmenistan 2020–2025


National Strategy on Reproductive Health 2010–2020
supported the integration and prioritization process with an initial MAPS mission, which was followed by a second (22). MAPS missions are interagency initiatives of the United Nations that represent a critical opportunity to mobilize and take advantage of the cooperation of United Nations agencies to promote sustainable human-centred and rights-based development.

The first mission recommended that the second MAPS should focus on sustainable and equitable regions in Turkmenistan, with a particular focus on sustainable and inclusive economic development (22). Three sectors were identified where acceleration could be considered important and should be included in the second MAPS mission:

- inclusive and sustainable economic growth through economic diversification;
- social development for all and ensuring sustainability through adaptation to climate change; and
- a strong data component to strengthen the SDG nationalization efforts

The WHO Regional Office for Europe’s NCD assessment in 2019 (23) noted that Turkmenistan displayed many positive outcomes: a political commitment to prevention and control of NCDs and health promotion; low levels of behavioural risk factors; a human papillomavirus vaccination programme for boys and girls rolled out without opposition; schools and education booklets on health; infrastructure improvements; and the introduction of an electronic medical record system.

### 3.2 Health and well-being management in Turkmenistan

To implement the State Programme Health and the cross-sectoral approach recommended in Health 2020, the Ministry of Health established a multisectoral interagency Commission on Health Care and a number of regional subcommissions. The commissions consist of representatives of the Assembly (Mejlis), relevant ministries and departments, the khyakim (head or mayor) of the city of Ashgabat, the Union of Industrialists and Entrepreneurs of Turkmenistan, and other enterprises, institutions and organizations. The commissions coordinate and monitor the implementation of public health measures and develop and implement cross-sectoral integrated plans for the implementation of the State Programme Health. The Intersectoral Commission reports on the results of its work to the President and the Cabinet of Ministers of Turkmenistan.

In addition, intersectoral health action mechanisms are established at the national level in the form of coordination committees for various health programmes, such as the Country Coordination Committee for NCD Prevention, the Intersectoral Coordination Committee for Tobacco Control, the Intersectoral Coordination Committee for the Immunization Programme, the Country Coordination Committee for the National HIV/AIDS Prevention Programme, the National Tuberculosis Control Programme and the National Healthy Nutrition Programme of Turkmenistan.

Other ministries, committees and organizations, including nongovernmental organizations (NGOs), such as the National Red Crescent Society, are members of country coordination mechanisms. Multisectoral interdepartmental regional health groups have been established in the velayat administrations made up of representatives of districts and city administrations, institutions, enterprises, organizations and other interested parties (11).
These groups coordinate and monitor the implementation of public health measures and develop and implement cross-sectoral integrated plans at the local level. Regional groups report on the results of their work to the relevant representatives of the velayats and to the central Intersectoral Commission on Health Care (Fig. 10).

Within the framework of their powers, the involved ministries and regional heads of administration constantly monitor factors that impact on local communities, such as use of land resources, construction standards, labour protection and safety requirements, provision of clean drinking-water, maintenance of water supplies and sewerage systems and protection from pollution. They work to encourage local businesses and institutions to protect and promote the health of citizens and to improve the social status of people at risk.

The coordinated work of ministries and departments to implement the State Programme Health, which is primarily aimed at protecting national interests in relation to the health of citizens, ensures the implementation of joint agreed measures and simplifies the procedure for coordinating activities carried out in everyday work. In addressing issues related to health, the vision is to switch to new types of cooperation that use multilevel normative documents, direct contact with the population, persuasion and extensive use of communication technologies.

The Healthy Villages, Etaps, Cities and a Healthy Society Network was created to improve social protection for the population; develop health care, education, sports and culture; ensure environmental protection and road safety; and carry out complex measures in the municipal economy and other areas of the economy.
3.3 Organization and priorities of the health system in Turkmenistan

Health policy in Turkmenistan is supported by a number of national development strategies and national health strategies. The State Programme Health, as the main document of the country in the health sector, defines public health as the primary objective of socioeconomic development; achieving prosperity, increasing life expectancy and enhancing the well-being of the population. Achieving these objectives will ensure sustainable and inclusive economic growth, social development and social justice (15). Providing proper care and ensuring continuity of quality medical care are important elements of Turkmenistan’s health policy.

3.3.1 Maternity and child protection

Protection of the health of mothers and children, as well as protection of reproductive health, are priorities within the national policy of Turkmenistan. As a result of focused efforts of the Ministry of Health, national partners and United Nations partner agencies, with targeted interventions in family planning, prenatal and perinatal care, maternal health has improved significantly. Provision of affordable, high-quality and qualified medical services, as well as prenatal care has resulted in a maternal mortality ratio of 7 per 100 000 in 2017 (see section 4.1.1). To further improve the quality of health care and existing indicators, a National Strategy and Action Plan on Maternal, Newborn, Child and Adolescent Health in Turkmenistan for 2015–2019 was adopted, which focuses on the importance of investment during the life-cycle. A new reproductive, maternal, newborn, child and adolescent health strategy for the period 2020–2030 has also been developed and is currently being approved. The Department of Family Medicine of the Turkmen State Medical University has also integrated reproductive health services in the training programme for family doctors.

Policies include strengthening the capacity of the health system to implement comprehensive packages of essential measures and services in maternal, newborn, child and adolescent health, as well as strengthening mechanisms for sustainable financing.
and rational use of allocated funds. To improve the health of expectant mothers, a tool for assessing the quality of family planning services has been in use since 2013; risk groups have been identified, and a medical passport for the mother’s reproductive health has been introduced. A review in 2019 found that the level of contraception coverage for women at risk had increased from 21.0% in 2013 to 71.4% in 2018 (24). The indicator of satisfied demand for contraception in the country is, therefore, high, with 81% of women aged 15–49 years indicating satisfactory provision (25). This confirms the active work of offices for reproductive health protection.

Special attention is also focused on reducing the mortality rate of children under-5 years of age and neonatal mortality, which is slightly higher than the global aspiration in SDG 3.2.

Turkmenistan has made steady progress over the last 30 years in reducing the under-5 mortality rate: from 84.6 deaths per 1000 live births in 1990 to 45.8 in 2018, a reduction of 45%. This is largely through better services and the introduction of modern perinatal technology. However, the country will need to achieve similar improvements in the 12 years from 2018 to 2030 if it is to reach the SDG 3.2 target of 25 deaths per 1000 live births (26).

Analysis has shown that the main causes of deaths in those under-5 years of age are specific perinatal conditions and respiratory diseases; neonatal deaths (in the first 27 days) are primarily the result of congenital anomalies, deformities and chromosomal disorders (Fig. 11).

Turkmenistan is taking further measures to improve the quality of perinatal and neonatal care, implementing perinatal care regionalization, confidential audits of perinatal mortality and early child development services, and raising parents’ awareness of the correct and timely introduction of beneficial foods and nutrition for young children. For example, the Government is funding measures to promote and support breastfeeding, which has seen the rate of breastfeeding increase from 10.9% in 2006 to 58.9% in 2016 (25).

In addition, a decree has been issued to introduce neonatal screening in order to identify the most common developmental disorders among newborns.

The introduction of integrated management of childhood illnesses (IMCI), ensuring doctors and nurses have the appropriate knowledge and skills and a system of supportive supervision, especially for PHC providers, is intended to improve the quality of medical care provided to children and the growth and development of children under-5 years of age.

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**Fig. 11. Causes of under-5 mortality in Turkmenistan**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congenital malformations</td>
<td>19%</td>
</tr>
<tr>
<td>Respiratory diseases</td>
<td>33%</td>
</tr>
<tr>
<td>Perinatal conditions</td>
<td>29%</td>
</tr>
<tr>
<td>Other</td>
<td>19%</td>
</tr>
</tbody>
</table>

Source: UNICEF communication May 2020.
3.3.2 Communicable diseases

The Government is taking active measures for prevention and treatment of communicable diseases.

**Polio.** Measures are continuing to preserve the country’s polio-free status.

**TB.** The incidence of TB in Turkmenistan has shown a progressive downward trend, from 112 to 43 cases per 100 000 population between 2000 and 2017 (27). This is linked to the continued high efficiency of treatment and diagnosis. Molecular diagnostic test technology has been introduced throughout the country to speed up the detection of TB. The TB service is integrated into PHC. One of the results of the adopted National Programme for the Prevention and Control of Tuberculosis 2016–2020 is the high level of effectiveness of TB treatment for patients newly identified with active TB, which was 81.3% in 2017. The Government is implementing the transition from Global Fund support to its own funding of anti-TB drugs and reagents. As part of the cofinancing agreements signed in 2016–2017, the Government allocated funds to the purchase of high-quality anti-TB drugs, reagents and HIV tests. The Government and the United Nations have agreed on a new mechanism for cofinancing purchases of diagnostic equipment and medicines for 2019–2020.

**Malaria.** The country has also eliminated malaria through multisectoral activities, and in 2010 Turkmenistan was added to the official register of countries certified malaria-free by WHO. Currently, activities are continuing based on the Comprehensive Interagency Action Plan to Prevent the Return Malaria in Turkmenistan for the Period 2016–2020; these include regular research of past foci of malaria transmission and active and passive epidemiological and entomological surveillance. In 2017 Turkmenistan along with other nine countries of the Region signed the Ashgabat Statement, a commitment to sustained political commitment and an adequate level of financing and investment in health systems strengthening to maintain the malaria-free status (28).

**Viral hepatitis.** The incidence of hepatitis B remains stable at a low level: 0.6 cases per 100 000 population in 2016 and 0.5 in 2018 (15). The Government is taking measures to ensure provision of hepatitis B vaccinations to prevent any increases. For example, the coverage of three doses of the hepatitis B vaccine for children under-1 year and adolescents is 98% and 94%, respectively (29). The National Strategy to Strengthen Control Measures for Viral Hepatitis in Turkmenistan for 2019–2030 has been adopted. The purchase of vaccines and vaccination is completely financed by the State and is provided for all (National Programme on Immunoprophylaxis for 2003–2020).
3.3.3 Compliance with the International Health Regulations

National capacity to implement and monitor the International Health Regulations (IHR) is being strengthened (Annex 4) (30). Various national guidelines related to the IHR have been developed and approved (Box 4).

Turkmenistan has comprehensive multisectoral plans to ensure that public health issues such as the occurrence and spread of infections are identified and notified to the highest levels of decision-making. Preparations for an influenza pandemic include improving laboratory diagnostics and instituting standard operating procedures, creating electronic databases for epidemiological surveillance, approving new guidelines for outbreak investigation and response and clinical management of patients with severe acute respiratory syndrome.

Considering the importance of preventing epidemics by providing sanitary and epidemiological conditions, the Government is also expanding its coverage with a centralized water supply (SDG 6.1) and sanitation (SDG 6.2) within the framework of the General Programme to Provide the Population with Clean Drinking-water and is analysing the state of irrigation systems, reservoirs and sewerage. The country also implements the National Programme on Safe Handling and Disposal of Medical Waste in Health Care Institutions.

Box 4. National guidelines related to the IHR

- A national communication plan for informing about the risks of emergency situations.
- The National Policy to Strengthen the Laboratory Service, with Operational Plan for 2018–2020.
- The National Strategy and Action Plan to Combat Antimicrobial Resistance Preparations for the Period 2017–2025, which includes improving surveillance and laboratory capacity.
- Multisectoral plans to ensure that public health issues such as the occurrence and spread of infections (e.g. influenza pandemic) are identified and notified to the highest levels of decision-making, with plans for responding effectively.
- Strengthening control and maintaining the status of a polio-free country.
- The National Strategy to Strengthen Control Measures for Viral Hepatitis in Turkmenistan for 2019–2030 was developed and approved in December 2018.
- Measures to combat TB (see above) include the Ministry of Health and the United Nations implemented comprehensive policy advice, capacity-building and technical support, as well as the provision of medicines and reagents.
3.3.4 NCDs

NCDs remain the main cause of death in Turkmenistan, accounting for 79% of deaths in the country according to WHO estimates (Table 2 and Figs 12 and 13) (31). Multisectoral approaches are being taken within Government to effectively prevent and combat NCDs; the National Strategy and Action Plan for the Implementation of the Ashgabat Declaration on the Prevention and Control of Noncommunicable Diseases for 2014–2020 is being implemented, aimed at improving the health of the population by influencing the determinants of health, promoting a healthy lifestyle and implementing programmes for the prevention and early diagnosis of NCDs.

Table 2. Leading causes of premature death (30–69 years)

<table>
<thead>
<tr>
<th>NCD</th>
<th>Indicator of specific weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Cardiovascular diseases (50%)</td>
<td></td>
</tr>
<tr>
<td>Ischaemic heart disease</td>
<td>45</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>35</td>
</tr>
<tr>
<td>Malignant neoplasms (12%)</td>
<td></td>
</tr>
<tr>
<td>Breast cancer</td>
<td>N/A</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>–</td>
</tr>
</tbody>
</table>

*Note: N/A: not available.*

*Source: Turkmen State Publishing Service, 2019 (15).*
Fig. 12. Unconditional probability of mortality from NCDs (cardiovascular diseases, cancer, diabetes or chronic respiratory diseases) by gender

![Bar chart showing mortality from NCDs by gender and year.](chart12)


Fig. 13. Years of life lost in Turkmenistan 2016 and forecast for 2040

![Bar chart showing years of life lost by cause.](chart13)

Source: Foreman et al., 2018 (32).
Anti-tobacco measures are widely implemented in Turkmenistan, and strong tobacco control legislation is in place. Thanks to these measures, the prevalence and intensity of smoking has decreased in the country. The WHO STEPS survey in 2018 found that 3.4% of the adult population (18–69 years) were smokers, which is almost 2.5 times lower than in 2013 (8.3%) (20). These data have been verified by urinary nicotine testing.

Positive progress has also been made in the level of alcohol consumption, with 4.8% of the population consuming alcohol in 2018 (20), which is 1.8 times lower than in 2013. The National Programme for the Prevention of Harmful Effects of Alcohol in Turkmenistan for 2018–2024 and the action plan for its implementation include measures for pricing and taxation of alcohol products. Taxes on alcohol products now make up 13% of the added value and 35% of the excise tax; moreover, it is planned to introduce requirements for packaging and labelling of alcoholic products. An important element of State policy for prevention and control of NCDs is the prevention of unhealthy habits and promotion of a healthy lifestyle and nutrition.

In this regard, the identification and overcoming of risk factors is a priority over the next few years. Measures include instituting comprehensive risk factor prevention among the population and high-quality and timely treatment and rehabilitation of people who are dependent on psychoactive substances or who have NCDs (cardiovascular diseases, cancer, diabetes or chronic pulmonary disease). In 2019 the Government of Turkmenistan was awarded a certificate for outstanding contribution to the prevention of NCDs by the WHO Director-General.

One of these prevention measures is the regular release of the popular science TV programme Ил саглыгы – yurt baylygy! (The health of the nation – the wealth of the homeland), which covers topics such as healthy lifestyle, proper nutrition, physical culture and sports. This and other such measures have reduced behavioural risk factors among the population.

Despite successes in some areas for NCD risk factors, Turkmenistan performs most poorly on nutrition and physical activity, with dietary risks as number 1 and high body mass index at number 3 among top 10 risk factors contributing to disability-affected life-years (Fig. 14) (33). Available data indicate high levels of salt, trans-fats, saturated fats and sugar in widely consumed food and beverages. While overall population patterns are not available, the Childhood Obesity Surveillance Initiative (19) has revealed that children’s regular consumption of sugary soft drinks and sweets is very high. Consumption of vegetables and fruit has increased in recent years: for vegetables from 5.9 days a week in 2013 to 6.4 days in 2018. An estimated 7% of the population still does not meet the minimum moderate-intensity physical activity level of 150 minutes per week as recommended by WHO. Women are more likely to display insufficient physical activity and children spend comparably little time on sports and physical activity; 51.8% of the population is overweight, with similar distribution among men and women (23) and 18.6% of the population can be classified as obese, with a higher prevalence among women (20.9%) than men (15.9%) (34).
Mental health disorders caused 4.06% of total disability-affected life-years in 2017 in Turkmenistan, with depressive disorders the most common (35). Suicide mortality rate is 6.7 deaths per 100,000 population, below the average of 15.5 for the WHO European Region (8).

High targets have been set to achieve a level of progress that will minimize the impact of such risk factors as tobacco, alcohol, stress, irrational and unbalanced nutrition, and physical inactivity. Within the framework of joint projects between the Government of Turkmenistan and the United Nations (UNFPA, UNODC, WHO and others), educational events have been organized and certification increased for specialists to engage in the prevention and treatment of health disorders associated with psychoactive substances. International programmes such as Family and School Together and Strong Family, aimed at promoting healthy lifestyles and improving family skills among teachers, students and their parents, have proven effective. Currently, a series of updated treatment and rehabilitation protocols is being prepared, as well as the use of evidence-informed tools for evaluating the quality of services provided.

Other aspects of NCD prevention are also being targeted, such as reducing air pollution and avoiding rapid unorganized urbanization. In the context of the National Strategy of Turkmenistan on Climate Change, projects are being implemented to increase green spaces in cities and create green cities. As part of the National Forestation Programme (2013), nationwide campaigns are held annually with the aim of planting up to 3 million young trees across the country.
3.4 Progress towards universal health coverage

The Government of Turkmenistan prioritizes access to medical services for all segments of the population. Public packages of medical care for pregnant women, mothers, newborns, children and adolescents have been developed and implemented for primary, secondary and tertiary levels of medical services. Immunization is mandatory for all children and is provided free of charge.

It is understood in Turkmenistan that the quality of health care in the country depends on the quality of services provided and health-care financing; hence, close attention is given to the training of medical personnel and to increasing their number. Actions to improve the health workforce include increasing admission to medical specialty courses in higher and secondary educational institutions, allowing more specialists to be educated in foreign universities through a framework of intergovernmental agreements and funding continuing professional training for medical personnel.

3.4.1 Health financing

Health care is financed from a combination of general taxes, payroll taxes and funds from patient payments. The central budget funds national medical institutions, public health programmes and specific programmes, such as for cancer detection and treatment. The velayat authorities finance regional medical institutions, while the etrap authorities finance district hospitals and PHC institutions.

The State budget from general taxation is used to finance basic services for certain categories of citizens. The State voluntary health insurance is formed from payroll fees, payment under the scheme and direct payments by consumers for medical services. Budget funds are allocated for providing free guaranteed assistance to defined categories of citizens requiring free assistance, for research projects and for social health programmes.

Financing of PHC accounts for a significant share of health-care expenditure. Additional sources of financing for public health are income from economic and contractual activities and the provision of paid medical services, including for foreign residents; receipts for the registration of imported medicines; the issuance of licences for medical and pharmaceutical
activities; charitable contributions; and investments by international organizations. The presence of multiple sources of financing allows for financial stability with the Ministry of Health.

The introduction of voluntary health insurance in Turkmenistan enabled the transition to mixed budget–insurance financing for health care. In 1996 the State Health Development Fund of Turkmenistan was established and in 2008 this was reorganized into a special (extrabudgetary) account of the Central Bank for the Ministry of Health. The revenue is used to supplement the cost of prescribed medicines for insured citizens and their dependants (see section 5.1.2).

In 2005, the Law “on health protection of citizens of Turkmenistan” revised the contributions to voluntary medical insurance from 4% (set in 1996) to 2% of citizens’ salaries, scholarships, pensions, allowances and income, and for citizens without systematic income from an established base value.

Currently, more than 2 million citizens are insured and more than 3 million citizens (including dependent children) use health insurance services. Deductions for health insurance (3% of salary or pension income) are accumulated in a special account and are used mainly for centralized purchases of medicines and the 50% discount on services and medicines provided to patients in the health insurance system. Patient fees charged at medical facilities have 50% of their value credited to an off-budget account. Excise taxes on alcohol and tobacco remain in the Treasury.

The allocation of State budgets for medical institutions has a per capita basis (e.g. number of beds for the covered population, or staff per bed). Institutions are allocated budgets with around 25 subitems. Staff receive basic salaries with additional payments for hazardous work conditions, academic degrees (e.g. a doctorate), special State awards and on-call duty. The salaries of surgeons and family doctors are 15% higher than those of other doctors. State funds provide 30% of total expenses for so-called budget beds, with the remaining 70% paid for by patients based on a State price list for services. Half of the funds from patient payments (net of taxes) are kept at the institution and used to finance private beds, but can also, at the discretion of the hospital’s chief medical officer, be used to provide services to impoverished uninsured patients.

Domestic general government health expenditure as a percentage of general government expenditures has declined, from 13% in 2000 to 9% in 2015 and 8.7% in 2017 (36). This was 1.5% of GDP in 2017. Out-of-pocket payments made up 72.8% of current health expenditure in 2017. Health expenditure per capita, which increased in other Member States of the Region and in the Commonwealth of Independent States, remains low in Turkmenistan, despite increasing affluence since the late 1990s (36). This trend has been reversed in recent years, as current health expenditure as a share of GDP has increased from 4.8% in 2012 to 6.6% in 2016.

Patients who are covered by the health insurance programme pay a 50% surcharge, while those who are not covered by health insurance pay 100%. Although the total number of hospital beds has decreased significantly since the late 1990s, approximately 70% of patient interactions with the health system occur at hospitals; this helps to explain the low level of outpatient visits per capita. It is intended that 70% of all visits should be at the outpatient level in future.

### 3.4.2 Health infrastructure

The Health Development Fund is also used to finance capital investments for the construction, reconstruction and modernization of health-care facilities and the pharmaceutical industry. From 1995 to 2014, US$ 1167 million foreign investment and 38.490 million manat domestic investment contributed to large-scale construction of health facilities and renovation of existing ones, including the purchase of modern medical equipment from leading world manufacturers, with about 30–40% of this being from foreign investments.

The numbers of health facilities and of health workers per 100 000 population in Turkmenistan are below the averages for the WHO European Region across nearly all relevant indicators: 2.0 hospitals (3.1 in the Region), 229.1 physicians (322.4 in the Region), 456.0 nurses
However, the number of hospital beds is 736.3 per 100,000 population, exceeding the WHO European Region average of 566.6 (37). Similarly to other Members of the Commonwealth of Independent States, the density of physicians declined in the early 1990s after independence but remained stable in Turkmenistan in the 2000s. The number of nurses is among the lowest in the Region, declining throughout the 1990s and 2000s (36). According to the VNR there were 6.29 medical workers per 1000 population in 2018 (15). Earlier studies carried out by WHO and UNICEF in 2014, including PHC home visit assessments, showed an understaffing of family physicians at PHC level (WHO assessment of human resources in health in Turkmenistan 2018, unpublished report). Currently, there are 119 hospitals in the health-care system, with a bed usage of 16.3 bed-days per 100,000 population. There are 420 family doctors per 1000,000 population (Socio-economic Development Programme 2019–2025).

As part of the implementation of the National Programme of the President of Turkmenistan for the Transformation of the Village until 2020, there has been substantial investment in both renovating existing facilities and building new ones all over the country, with 78 new and 86 reconstructed district hospitals. Rural health centres, so-called health houses in residential areas and ambulances have been put into operation using local budgets. Health houses, where people can access PHC services easily, are equipped with modern high-technology medical equipment and provide comprehensive prevention services and medical care so that patients can undergo examination and treatment near their homes without the need for hospitalization.

The increase in the number of new medical facilities has led to a commensurate steady decline in the incidence of diseases in Turkmenistan. In 2009, there were 18,448 patients for every 100,000 people, and in 2014 there were 17,730, a significant reduction of 4.1%.

There has also been an increase in the number of live births from 129,900 in 2009 to 168,300 in 2014; this increase of 22.8% is also considered to reflect the improvement in health infrastructure. Life expectancy at birth has also increased, from 66.5 years in 1990 to 71.4 years in 2017 for women and from 59.1 years to 64.5 years for men (8).

It is expected that the level of day hospital services provided in health homes will increase to compensate for the necessary reduction in the number of hospitalizations. Many PHC institutions have entered into contracts with local employers to pay for medical examinations for their employees. Informing patients and providing advice on risk factors for NCDs is a priority for PHC.

In recent years, improvements in PHC based on international experience has become a national priority. The goal in Turkmenistan is to reorient the activities of the family doctor from a predominantly individual medical focus to a preventive focus encompassing both medical and social factors. It is important to organize comprehensive quality PHC in the health houses with reform of the work of family doctors and multidisciplinary specialists.

An important element of public health promotion within the population is to encourage healthy lifestyles and avoidance of disease risk factors. Educational initiatives vary depending on the age group being targeted but the overall aim is to create a conscious and responsible attitude within individuals for their own health. Approaches use the education and health-care systems and the mass media.

Screening services for cancer is also part of public health promotion (Fig. 15) and that for cervical cancer is discussed in more detail in the next section.
Reproductive health services include family planning, contraception options and advice on sexual and reproductive health for women, men and adolescents. Family planning services are available to all the population. To improve the health of expectant mothers, a tool for assessing the quality of family planning services was introduced in 2013; risk groups have been identified, a new reporting form introduced and an indicator developed to assess the level of coverage of high-risk women with contraception. The Government takes full responsibility for providing and ensuring family planning services and access to free contraceptives for vulnerable women. Since 2018 adolescents aged 15–19 years have been entitled to free access to contraceptives in accordance with the order of the Ministry of Health.

A medical passport for the mother’s reproductive health has also been introduced. Active work by reproductive health offices on improving women’s health and on the reasonable use of contraceptives, together with the increased live birth rate, has resulted in the coverage with contraception for at-risk women from 21.0% (2013) to 71.4% (2018) (24).

Integrated reproductive health services have been improved since 2017. In order to meet the needs of women in high-risk groups, all reproductive health offices are provided with medicines from the State budget, as well as screening services for cervical cancer. Currently, cervical cancer screening is now performed in 90% of reproductive health departments at the PHC level. Cervical cancer screening using the visual inspection with acetic acid methodology can be carried out simply by a nurse or health worker in PHC and is used in addition to the Papanicolaou smear test (PAP test) carried out by clinicians. Diversification of screening methods and providers’ channels has led to increased coverage in the target group (women aged 30–49 years) from 62.2% of women having at least one PAP test in 2013 to 70.1% in 2018 (23,25). Although coverage is relatively high, in the absence of population-based data on incidence, it is unclear whether screening is successful in

### Fig. 15. Score card for individual services for cancer prevention and management

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Rating</th>
<th>Criterion for rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention of liver cancer through vaccination against hepatitis B</td>
<td>Extensive</td>
<td>All newborns (&gt; 96% coverage) and some adult groups (medical staff and medical/nurse students) are immunized</td>
</tr>
<tr>
<td>Vaccination against human papillomavirus</td>
<td>Extensive</td>
<td>An immunization programme for boys and girls aged 9 years using 2 doses of a quadrivalent vaccine has been in place since 2016. The approach is successful, resulting in high coverage (&gt; 95%)</td>
</tr>
<tr>
<td>Screening of cervical cancer and treatment of precancerous lesions</td>
<td>Limited–moderate</td>
<td>PAP tests have been introduced. A screening algorithm involves too many steps with unnecessary visits to different health professionals and repetitive tests/colposcopies. Statistics on the rates of detected and treated precancerous lesions are missing. Women are referred to secondary or tertiary level for treatment of precancerous lesions.</td>
</tr>
<tr>
<td>Early case-finding for breast cancer and timely treatment of all stages</td>
<td>Limited</td>
<td>Various screening algorithms are in use using clinical breast examination, mammography and ultrasound. Age groups and screening intervals are not evidence based or consistent throughout facilities</td>
</tr>
<tr>
<td>Population-based colorectal screening at age &gt; 50 years linked with timely treatment</td>
<td>Limited</td>
<td>A digital rectal examination is conducted but there is no evidence-based test for screening. Late diagnosis is observed (75% of cases diagnosed at a late stage compared to 25% for breast cancer). An early diagnosis programme is needed.</td>
</tr>
</tbody>
</table>

Source: Farrington et al., 2019 (23).
preventing the disease. The International Agency for Research on Cancer estimate of the age-standardized incidence for cervical cancer was relatively high in 2018 (13.6 cases per 100,000 population), indicating that screening has limited results (38). It might be expected that the difficult path for women with positive screening into treatment will lead to high losses from subsequent treatment and this may explain the high incidence despite the high screening coverage in Turkmenistan (23).

The Government has allocated a total of US$1 million for the purchase of medical instruments and simulation equipment for training midwives in emergency obstetric care in accordance with clinical protocols. The Ministry of Health has also adopted an order on the provision of male reproductive services, which contains provisions from early detection of disorders to comprehensive provision of services and solution of male infertility problems.

As part of the National Immunization Programme, free vaccination for boys and girls aged 9 years against human papillomavirus has been carried out since 2016, with coverage of more than 98%. Since 2017 a confidential audit of critical cases in obstetric practice has been implemented in maternity hospitals. A confidential audit provides a more reliable assessment of the main risk factors for the mother’s health, and which of these factors can be eliminated or corrected within maternity facilities. This was initiated in six pilot maternity hospitals in two regions.

Infertility is being recognized as an issue of concern and assisted reproductive technologies are available with demand for such technologies increasing annually. In 2017 Turkmenistan created a national register of couples with infertility and requiring assisted reproductive technologies.

Further improvements are still needed within reproductive health services, both preventive and curative aspects, in order to ensure accessibility and a high-quality service using a life-course approach for all the population, including vulnerable groups and those in need.

Antenatal care has been significantly improved since the late 2000s. The percentage of women who attended an antenatal clinic at least four times during pregnancy in Turkmenistan increased to 85.2% by 2017. Nevertheless, provision of antenatal care is still not efficient nor is it consistent across the country. Additional efforts are crucial to ensure universal access to antenatal care regardless of place of residence, especially with regards to internal migrants.

### 3.4.4 Newborn health

Globally, over a third of all maternal and newborn deaths, as well as intrapartum stillbirths, occur during labour and childbirth. Many of these deaths and complications can be prevented by ensuring high-quality essential care for every pregnant woman and every baby during labour, childbirth, the first 24 hours and the week after birth. Based on a preliminary analysis conducted for the Lancet Every Newborn Series, care around the time of birth (labour, childbirth and the first days after birth) provides a unique period along the continuum of care to prevent maternal and newborn deaths as well as intrapartum stillbirths. By strengthening and investing in this critical window, a triple return on investment is achieved. To improve the quality of medical care and reduce perinatal mortality among low-weight newborns, a methodology and procedure for conducting confidential perinatal audits was introduced in 2018. In addition, a decree has been issued to introduce neonatal screening in order to identify the most common developmental disorders among newborns.

With technical support from UNFPA and UNICEF, introductory seminars on confidential perinatal audits were organized for neonatal health specialists. The country has a referral system for hospitalization based on the assessed level of risk and new effective technologies for providing perinatal care at all levels have been introduced. Regionalization of the perinatal care system was initiated in order to standardize the provision of staff with the right skills, services and medical equipment at each level of maternal and perinatal care. The referral system has already been implemented (with more women referred to, and
preterm newborns born in, facilities of the appropriate level) and is proving cost–effective, but it is not yet fully effective and further efforts are vital for sustaining the regionalized maternal and perinatal care system.

Despite significant investments and interventions focused on children’s health, the relatively high rates of neonatal and infant mortality from preventable causes remain a matter of concern. Perinatal conditions, respiratory disorders and congenital malformations remain the main factors that can lead to the death of young children. The structure of child mortality in the country is basically similar to that in the Region, where neonatal mortality (in first 27 days) is high (46% of the mortality in children under-5 years) and infant mortality (under 1 year of age) is 80% of the mortality of children under-5 years. Not all children receive timely life-saving treatment for diseases such as diarrhoea and pneumonia. Overall, 46.7% of caregivers of children under-5 years of age know at least one of the two dangerous signs of pneumonia; 47.1% of children suffering from diarrhoea receive oral rehydration therapy and only 6.6% of children receive oral rehydration therapy and zinc (25).

3.4.5 Health management information systems, telemedicine and e-health

In 2015, the Law of Turkmenistan “on protection of citizens’ health” introduced several important provisions that defined possibilities and directions for the development of information support in health care, as well as the concept of telemedicine. Regulatory mechanisms for the exchange of information about health and health protection based on electronic document management were established.

The concept Digital Turkmenistan (2018) contributes to the acceleration of the transition to an innovative national economy, with increased employment in knowledge-intensive industries, use of advanced technologies in production and fully moving to electronic document management. The digital management information system for public health protection has been revised and has become part of the unified information system of the country. UNFPA, UNICEF and WHO supported the Ministry of Health in assessing the current state of the health information system, from which a strategy for the development of the health information system in Turkmenistan for 2019–2025 was developed.
3.5 United Nations support for the 2030 Agenda and interagency country work in Turkmenistan

Turkmenistan has always advocated for increasing its role in creating the solid basis for conflict-free development in the world in the 21st century, strengthening relations of friendship and mutual understanding between peoples and states. Relations between Turkmenistan and the United Nations are developing in an atmosphere of mutual understanding and mutual interest in expanding traditional dialogue across the entire spectrum. The Government of Turkmenistan and the United Nations are strategic partners in implementing the 2030 Agenda with joint activities based on the United Nations Development Partnership Framework for 2016–2020 (39).

With the support of the United Nations, the Socio-economic Development Programme 2019–2025 was developed in line with the SDGs. The United Nations also supported preparation of the VNR, which was presented at the High-level Political Forum on Sustainable Development in 2019 (15). Efforts are being made to improve social and economic conditions for people living in villages, cities, etraps and etrap centres.

As part of the preparation for the VNR, a step-by-step review was conducted for the first time in conjunction with the Ministry of Health for SDG 2 and SDG 3, and repeated for the other six SDGs falling within the scope of the 2019 High-level Political Forum. This initiative has proved useful in further clarifying the accountability and capacity development needs of relevant government structures.

In February 2019 a training workshop was organized by the United Nations Economic and Social Commission for Asia and the Pacific and UNDP in support of the preparation of the VNR for Turkmenistan (entitled System thinking and integration of SDGs in national planning). The result was the application of an innovative approach looking at cause-and-effect relationships between SDG objectives and the use of a system approach for drawing up SDG diagrams.

To ensure the participation of multiple stakeholders in this process, the United Nations facilitated meetings between the private sector and NGOs to familiarize them with the process of preparing the VNR and to ensure their contribution to this process.

United Nations technical expertise has also been provided for national statistical systems to improve the availability of data pertaining to indicators and to ensure that they are consistent with global definitions and disaggregation. Several consultative meetings were held to develop a statistical system for measuring SDG indicators; a common system of statistical measurements for the SDGs and indicators was adopted by the Government of Turkmenistan on 20 September 2016 (30). The system defined the departments and agencies responsible for each SDG indicator and was broken down by measurement elements such as methodology development, data collection, data processing, analysis/initial reporting and preparation of SDG reports for national and international reporting systems/users.

The results of the RIA conducted in 2017 showed that the global SDG goals were well integrated into national strategies, programmes and plans (9). Of the 148 targets adopted, the Government of Turkmenistan has integrated or conditionally included 124 (84%) in national and sectoral development programmes and plans. Although many SDGs were included in national policy documents, this inclusion was still normative, and the next stages require the integration of SDG monitoring and evaluation systems into these documents (39).

The experience of the national health sector can be used as a good example of how SDG indicators can be used to monitor national programmes. A number of capacity-building initiatives have been undertaken for this purpose:

- training specialists in the State Statistics Committee and relevant ministries in the use of statistical data collection and analysis programmes;
- training specialists in the Ministry of Finance and Economy and line ministries in setting...
medium- and long-term goals for SDG indicators; and

- training in the use of existing tools (e.g. a systematic approach) that help to identify priority development areas, as well as methods for assessing progress (gaps and distances) in achieving goals.

The baseline estimates covered about 100 SDG indicators adopted by the country. During consultations with the State Statistics Committee and other State bodies, the actual data were analysed and United Nations agencies and partners have begun discussing indirect indicators and the frequency of data collection. Another area of United Nations support was aimed at strengthening national capacity to produce and use disaggregated data for the SDGs and develop evidence-informed policies. The United Nations system supported the State Statistical Committee and other entities in activities such as planning and conducting household surveys and improving trade, economic and environmental accounting data. A workshop was also organized on standardization of statistical information within SDMX (Statistical Data and Metadata eXchange).

WHO has completed and distributed the results of surveys such as STEPS (20) and the Childhood Obesity Surveillance Initiative (19). The Government of Turkmenistan approved a survey of women’s health in families (with the support of UNFPA) that was scheduled to occur early in 2020. Training for this began in 2019 with selection and listing of households and preparation of questionnaires for pre-testing. Representatives of the Intersectoral Commission on Health Care participated in the second series of Multiple Indicator Cluster Survey (MICS) seminars on data processing and starting the application setup. UNDP has also conducted an assessment in support of the implementation of the System of Economic Environment Accounts.

In 2018, the United Nations and the Government increased cooperation in raising national awareness of the SDGs, jointly marking 1000 days of adoption of the 2030 Agenda by holding an SDG month in October. This joint initiative has helped to spread knowledge of the SDGs to the public. In partnership with the SDG Training and Methodology Centre, these initiatives included three-day training sessions for representatives of academic circles and students entitled Let’s talk about SDGs; more than 20 lectures delivered at the Training Centre for NGOs for political parties, teachers and representatives of the mass media; debates for 40 students with a focus on parliamentary debates; a dance festival to promote the SDGs performed by children and young people; and creation of 17 young ambassadors (aged 18–30 years) for the SDGs, who were identified using a competition jointly run by the United Nations the Ministry of Finance and Economy and the Ministry of Foreign Affairs.

3.5.1 Maternal and child health

The Every Newborn Action Plan to improve the quality of care for mothers, newborns and children was in its third year in 2019 and continue to be a priority for the Ministry of Health. The expansion of the Baby-Friendly Hospital Initiative from maternity units in hospitals to PHC facilities in five velayats was also a huge step forward in implementation of the Law of Turkmenistan “on promotion and support of breastfeeding” and has helped to revitalize the Baby-Friendly Hospital Initiative as the health system brings procedure into line with updated guidelines from the Initiative, UNICEF and WHO.

UNFPA, UNICEF and WHO have supported the development of the National Strategy on Maternal, Newborn, Child and Adolescent Health in Turkmenistan and Action Plan for 2020–2025 to address relatively high childhood mortality rates (40). The draft strategic documents and a monitoring and evaluation framework were discussed by the Ministry of Health with the main stakeholders, including the Ministry of Education, the Ministry of Finance and Economy and the Ministry of Labour and Social Protection of Population.

In collaboration with UNFPA, the Ministry of Health has extended reproductive health services for women, men and adolescents to include comprehensive
prevention of reproductive disorders in men and women starting in childhood (see section 3.4.3); as part of this initiative, clinical protocols have also been developed for male reproductive health. To evaluate reproductive health services, data on maternal, newborn, child and adolescent health services have been collected for 143 indicators. These data formed the basis for the development of a new programme in 2019; nine clinical protocols have been developed and submitted for review in the field of pregnancy in women with chronic diseases. The practice of reviewing incidents of missed cases has been extended to five more districts. The national data collection system developed an indicator for the age characteristics of pregnancy in girls aged 10–14 years as a result of strong advocacy; disaggregated data can be collected on age-related fertility and fertility rates. A perinatal audit, which is very effective for the quality improvement cycle, particularly considering the sensitivity of reporting on maternal mortality indicators, was also introduced.

The VNR included a comprehensive assessment of the health system in 2019 (15) and there was an initial assessment of SDG indicators related to children in 2018 (17); both were prepared with support from United Nations agencies. An assessment of the basic indicators adopted by Turkmenistan for the SDGs was prepared for the International Conference on Population and Development in 2018.

3.5.2 Communicable diseases

The Government of Turkmenistan in 2018 continued its commitment to cofinance joint programmes with the United Nations for communicable diseases, investing more than US$ 5 million, significantly more than the total for the previous two years. In addition, the Government introduced three additional vaccines to the Immunization Programme: pneumococcal vaccine, rotavirus vaccine and hepatitis B vaccine. Recent findings from 2018 WHO/UNICEF data indicated over 98% of children having full immunization coverage (29), reflecting both the strong political commitment and the allocation of sufficient public resources for immunization. With support from UNICEF, the allocation of funding for procurement of vaccines for 2019–2020 was an additional US$ 17 million, almost double that for the previous year.

WHO-prequalified vaccines, disposable syringes and medical waste disposal systems with safe containers for used syringes and needles are purchased through UNICEF in accordance with a Memorandum between the Government of Turkmenistan and UNICEF, which is updated every five years. With technical support from WHO and UNICEF in preparing for the effective use of vaccines, safe storage and operating procedures have been developed and implemented at all levels. The cold chain was monitored and measures were taken to eliminate gaps. Today, the availability of refrigeration equipment is almost 100%. Inventory accumulation levels have been set (district level, 1 month; regional level, 3 months; and central level, 6 months or more).

The capacity to detect and control infectious diseases, especially highly infectious pathogens, has also been strengthened with support from WHO for increased national capacity to implement and monitor the IHR (see Box 4).

The United Nations and Turkmenistan have also implemented the Stop TB Strategy across the country, improving laboratory diagnostics, introducing new medicines, new treatment regimens, new definitions and registration forms. National guidelines on multidrug-resistant TB have been updated and assistance provided for its management based on WHO recommendations and infection control requirements. Particular attention has been given to increasing the capacity of TB and PHC specialists for clinical management of multidrug-resistant TB, including six cascading training sessions for key TB specialists throughout Turkmenistan. National capacities and knowledge in the field of TB control (including bioengineered infection control) have been developed, focusing on the prevention of transmission of extensively drug-resistant TB. Such training has helped to improve proper maintenance of laboratory equipment, ventilation systems and biosafety cabinets.

In addition, TB specialists from all over Turkmenistan have improved their knowledge of the quantitative measurement and early warning system (Quan-TB)
tool for the proper management of TB drugs (including new drugs) and the prevention of supply breaks. In 2018 more than 2500 patients with drug-sensitive TB and 680 patients with various types of drug-resistant TB were enrolled for treatment; 4856 were tested for drug susceptibility and 10 482 were tested using the Express molecular GenXpert MTB/Rif technology, which was available at the Central Prison Hospital.

The national reference laboratory and three regional TB laboratories (Mary, Lebap and Daşoguz) have passed an external quality assessment. The Red Crescent Society of Turkmenistan (recipient of a Global Fund grant) trained 77 PHC and TB physicians, provided social and psychological support to 1078 patients with multidrug-resistant TB and their families, provided 394 people with information through teaching patients in schools and conducted 10 274 home visits.

The WHO Regional Office for Europe has also participated in a cooperation agreement with the Ministry of Health for 2018–2019 to support water supply, sanitation and hygiene provision; this included providing technical support for a national workshop on strengthening monitoring in 2019.

### 3.5.3 NCDs

United Nations agencies and the Government of Turkmenistan continue to work together to strengthen control of NCDs through implementation of national strategies on mental health, physical activity, and prevention and control of the harmful effects of alcohol and tobacco.

Turkmenistan has significantly improved its legislation and regulatory framework in the field of mental health services by revising the Law of Turkmenistan “on mental health” and adopting the National Mental Health Strategy for 2018–2022. The Strategy includes integrating mental health services into PHC and improving methods for identifying, preventing and treating borderline disorders.
The United Nations has supported the Government in developing a national nutrition strategy for 2020–2025, which aims to reduce malnutrition (stunting, obesity and anaemia) among children and their mothers. The United Nations supported parents with relevant information and services through effective communication for development, and through health care and counselling for pregnant women, fathers and mothers. The United Nations continued to advocate for the establishment of a health information management system in the country to support improving the quality of health care with evidence-informed decisions to strengthen the health system and monitor progress towards SDG 2 and SDG 3.

3.5.4 Gender inequalities

Two situation analyses have been carried out, one examining issues for women and children (41) and one for youth (42). The situation analyses identified vulnerable groups of children and women who experience inequality, youth at risk and those whose vulnerability puts them outside the national average. Turkmenistan has continued its cooperation with United Nations human rights mechanisms and, with the support of the United Nations, the country regularly submits reports on the Universal Periodic Review, the implementation of CEDAW, the International Covenant on Economic, Social and Cultural Rights (ICESCR), the Convention on the Rights of the Child and the Convention on Rights of Persons with Disabilities. United Nations representatives assist the Turkmenistan Government in the preparation of its delegations using simulation sessions on CEDAW and ICESCR, and, as part of the celebrations dedicated to the 70th anniversary of the Universal Declaration of Human Rights, with training for awareness within local government, public organizations and students about human rights (Box 5).
Box 5. Support for human rights understanding

Simulation sessions

The simulation sessions on human rights reporting helped to prepare Government delegations for meetings on CEDAW and ICESCR, covering:

- the nature and purpose of reporting and the Government's obligations under review;
- the purpose of the review as a constructive dialogue and mechanism to help the Government to meet its obligations under the conventions;
- methods and procedures for working in a constructive dialogue;
- the role that each member of the delegation plays to improve the coherence of the delegation's actions during the review;
- the nature and rigour of the questions asked by the Committee and the expectations for frank and accurate answers from delegates; and
- any gaps in the preparation for the review based on feedback from the layout Committee and self-assessment.

In addition, the 17 members (including nine women) of the working group of the Interagency Commission for the Implementation of National Obligations under International Human Resources Legislation have expanded their knowledge of simplified reporting procedures, which set priorities and group thematically the recommendations of human resources mechanisms. The workshop was aimed at strengthening the capacity of the Interagency Commission, which is the national mechanism for reporting and implementing recommendations of the United Nations human rights mechanisms.

Human rights training

Training included:

- creating six master instructors in human rights;
- raising awareness of nearly 400 students and civil servants about the Universal Declaration of Human Rights through lectures, round tables and intellectual games in Ashgabat, Turkmenabad and Mary; and
- a high-level round table on promotion of the Universal Declaration of Human Rights and the human rights approach to the SDGs with the Ombudsman of Turkmenistan.
More than 150 governmental organizations, NGOs, United Nations representatives and students took part in promoting "a society free of gender-based violence" as part of the 16 Days of Activism global campaign. The messages emphasized that violence against women and girls has serious consequences for their well-being, health, rights and security. If these human rights violations are not addressed, they will have serious consequences for development in general, and hamper efforts to achieve the SDGs.

The Government’s actions and initiatives have received high praise and special recognition following the decision to conduct the first-ever national survey of women’s health and status in the family and the approval of the questionnaire for this survey. A special technical working group has been established consisting of the Ministry of Health, the Ministry of Internal Affairs, the Ministry of Labour and Social Protection of the Population, the State Statistics Committee, the Turkmen Institute of State, Law and Democracy, and the Women's Union. The United Nations will provide advisory support throughout the process, including the preparatory phase, data collection, processing and analysis and reporting.
3.5.5 The environment

In 2018, the United Nations initiated a process of updating the climate change strategy (2012) in Turkmenistan and developing an action plan for implementing the Paris Agreement on climate change (43). The aim of the review was to integrate climate change issues into the country’s recently adopted national socioeconomic development programmes and bring them into line with international instruments such as the 2030 Agenda, the SDGs and the Paris Agreement. The updated strategy defines a monitoring mechanism to track progress in implementing and financing mitigation and adaptation measures at the national level, with a clear set of indicators and timelines.

Awareness of climate change issues should begin at an early age and the United Nations has supported several initiatives to integrate environmental issues into the school curricula from an early age. UNICEF has worked with the Ministry of Education since 2017 to support the development and integration of climate change issues within formal primary and secondary school programmes. Within the framework of cooperation with UNICEF, in 2018–2019, Strengthening Work for Climate Change Adaptation for Children was initiated between the Government of Turkmenistan and UNICEF (44). It was launched and disseminated at the country level and including national intervention measures focusing on introducing climate change, environment and energy issues into the school curriculum. The introduction of the new curriculum was accompanied by the development and introduction of five teacher-training manuals incorporating interactive teaching and learning practices: nature study (grades 3–4), geography (grades 5–9), basic life skills (grades 1–10), agriculture (grades 4–6) and ecology (grades 10–11). Key education professionals and 310 schoolteachers nationwide strengthened their capacity in interactive teaching and learning methodologies to support the implementation of the climate change, environment and energy curriculum.

The Climate Change Education and Awareness Project “Climate Box” is part of the UNDP regional initiative and the Climate Box Educational Toolkit was made available to education authorities (45). The Ministry of Education and provincial local education departments supported training for 30 teachers and national experts on “Climate Box” implementation. One-day seminars were then held in all five regions and Ashgabat, with the participation of about 200 teachers. Two national experts (one on methodological aspects and one on climate change) were hired to develop a localized version of the “Climate Box” for Turkmenistan.

As part of Turkmenistan’s commitments under SDG 12 and SDG 13, the United Nations has supported the development of a National Disaster Risk Reduction Strategy with a special focus on those most vulnerable to disasters (women, children and the disabled). To implement disaster risk reduction standards in preschool institutions and rehabilitation centres across the country, a programme was initiated that considers the interests of children and people with disabilities in collaboration with UNFPA, UNICEF and WHO. The Strategy is to ensure the collection, processing and analysis of health and population data for national planning; monitoring of implementation of State programmes, strategies and the SDGs; and the effective interagency coordination and integration required for a unified data system in the country.
4. Data and monitoring of SDG health targets in Turkmenistan

According to the 2019 Sustainable Development Report (46), and other sources of data such as the MICS, Turkmenistan has made significant progress towards attainment of the SDGs. Its SDG global index was 63.0 in 2019 (Fig. 16), ranking 114 out of 166 countries.

**Fig. 16. SDG progress in Turkmenistan: global index scores and achievements for SDGs**

- **SDG global rank**: 114 (out of 166)
- **Global index score**: 63.0
- **Regional average score**: 70.9
- **GDP per capita in 2018**: US$ 16,389

According to the Sustainable Development Report, Turkmenistan is on track to achieve SDG 1, SDG 6, SDG 7 and SDG 8; SDG 3 and SDG 7 have improved but progress is insufficient to achieve these goals by 2030; SDG 2, SDG 5, SDG 9, SDG 11 and SDG 15 are moving very slowly, with progress of less than 50% and possible stagnation on some goals. The report noted that there is not enough information to determine the trend for Turkmenistan’s compliance with SDG 4.10 and SDG 14. Fig. 17 gives the Sustainable Development Report’s results for SDG 3.

**Fig.17. Performance for SDG 3 indicators in the 2019 Sustainable Development Report**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal mortality rate (per 100 000 live births)</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Neonatal mortality rate (per 1000 live births)</td>
<td>21.3</td>
<td></td>
</tr>
<tr>
<td>Mortality rate, under-5 (per 1000 live births)</td>
<td>47.3</td>
<td></td>
</tr>
<tr>
<td>Incidence of TB (per 100 000 population)</td>
<td>43.0</td>
<td></td>
</tr>
<tr>
<td>New HIV infections (per 1000)</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Age-standardized death rate due to cardiovascular disease, cancer, diabetes, and chronic respiratory disease in populations age 30–70 years (per 100 000 population)</td>
<td>29.5</td>
<td></td>
</tr>
<tr>
<td>Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100 000 population)</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Traffic deaths rate (per 100 000 population)</td>
<td>17.4</td>
<td></td>
</tr>
<tr>
<td>Life expectancy at birth (years)</td>
<td>68.2</td>
<td></td>
</tr>
<tr>
<td>Adolescent fertility rate (births per 1000 women ages 15–19)</td>
<td>24.8</td>
<td></td>
</tr>
<tr>
<td>Births attended by skilled health personnel (%)</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Percentage of surviving infants who received 2 WHO-recommended vaccines (%)</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>Universal Health Coverage Tracer Index (0–100)</td>
<td>68.2</td>
<td></td>
</tr>
<tr>
<td>Subjective well-being (average ladder score, 0–10)</td>
<td>4.6</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Sachs et al., 2019 (46).*
The RIA in 2019 with support of UNDP examined progress for integration of the 17 SDGs into national programmes, strategies or action plans: nine SDGs (1, 2, 3, 7, 8, 9, 13, 15 and 17; 53%) are fully (i.e. 100%) integrated in 18 national documents (9,39). The lowest integration rate (38%) was seen for SDG 14 (conserve and sustainably use the oceans, seas and marine resources). Many documents are characterized by horizontal (narrowly sectoral) links and, to a lesser extent, vertical (complex) links, in particular between SDG 3 and the health-related aspects of other SDGs (Fig. 18 and Box 6). The National Programme of Social and Economic Development of Turkmenistan for 2011–2030 integrates the largest number of SDG targets (48 targets) in its updated indicators; following this, the Socio-economic Development Programme 2019–2025 contains 40 targets.

Fig. 18. Assessment of integration of SDGs in national documents

Note: SCP: sustainable consumption and production.
Source: UNDP Turkmenistan, 2017 (9).
Box 6. The relationship between SDG 3 and the other SDGs

Ensuring a healthy lifestyle and promoting well-being is a cross-cutting goal where positive progress will contribute to economic growth (SDG 8.1), improve the well-being of the population (SDG 1.2) and ensuring social protection (SDG 1.3). However, in the context of guaranteeing achievement of SDG 3, issues in other SDGs will also have impact: eliminating all forms of malnutrition (SDG 2.2), improving the environment by reducing the negative environmental impact of cities (SDG 11.6), ensuring access to green areas (SDG 11.7), managing chemical waste (SDG 12.4), reducing and reusing waste (SDG 12.5) and increasing resistance to dangerous climate events (SDG 13.1).

Water and sanitation

There is a strong link between SDG 3 and SDG 6. SDG 6.1 (access to safe drinking-water) and SDG 6.2 (access to safe sanitation and hygiene) will significantly reduce maternal and child mortality (SDG 3.1 and SDG 3.2) and contribute to ending epidemics (SDG 3.3). This, in turn, will be possible if water pollution is reduced (SDG 6.3), water use efficiency is improved (SDG 6.4), integrated water resources management is ensured (SDG 6.5), water ecosystems are protected (SDG 6.6 and SDG 15.1) and effective measures are taken to combat desertification (SDG 15.3).

Technology

Developments in domestic technologies (SDG 9) will also contribute to improving the quality of health services (SDG 3.1) using high-performance technologies (SDG 17.8), technical upgrading (SDG 8.2) and technology transfer (SDG 17.7). The link between technological modernization and the health sector should be facilitated by development-oriented government policies (SDG 8.2) and increased private sector access to banking and financial services (SDG 8.10).

Universal health coverage

Achieving universal health coverage (SDG 3.8) in Turkmenistan will support the least affluent segments of the population (SDG 10.1), guarantee the realization of reproductive rights and access to sexual and reproductive health services (SDG 3.7 and SDG 5.6), eliminate gender discrimination (SDG 5.1), facilitate issues related to reducing violence (SDG 5.2 and SDG 16.1) and protect people’s fundamental freedoms (SDG 16.10).

4.1 Assessments of the SDG 3 health targets

4.1.1 Maternal and child health (SDGs 3.1 and 3.2)

SDG 3.1 (maternal health) and SDG 3.2 (mortality rates for children under-5 years) are closely linked. Two indicators are used for assessing maternal health: indicator 3.1.1 is the maternal mortality ratio (Fig. 19) and indicator 3.1.2 is percentage of births attended by qualified medical professionals (Fig. 20).

**Fig. 19. Maternal mortality ratio, 2000–2017**

According to the 2019 Sustainable Development Report (46), maternal mortality in Turkmenistan has had a steady downward trend from 59.0 per 100,000 live births in 2000 to 7.0 in 2017 (the target for indicator 3.1.1 being less than 70 per 100,000 live births).

For child health, SDG 3.2 contains two indicators: indicator 3.2.1 considers mortality rates for children under-5 years and indicator 3.2.2 that for newborns.

The under-5 mortality rate for 2018 was estimated at 39.3 per 1000 live births by the United Nations Inter-agency Group for Child Mortality (uncertainty range, 18.5–110.9) (26). The neonatal mortality rate decreased steadily from 29.9 per 1000 live births in 2000 to 21.3 in 2017 (the target for indicator 3.2.2 being below 12). The mortality rate for children under-5 years decreased almost twice as fast from 2000 to 2017: from 29.0 per 1000 live births in 2000 to 7.0 in 2017 (target for indicator 3.2.1 was to be below 25) (26).

This decrease in mortality rates indicate effective implementation of national strategies and action plans aiming to reduce maternal and child mortality and improve maternal and child welfare, including for children with disabilities: the National Strategy on Maternal, Newborn, Child and Adolescent Health in Turkmenistan and Action Plan for 2015–2019 (and revised for 2020–2025) and the Concept and Action Plan for the Implementation of Paediatric Development and National Early Intervention Services in Turkmenistan and Implementation of its Action Plan for 2015–2020. As a result of the implementation of these national strategies, reproductive health indicators have also improved (Figs 21 and 22; see also section 4.2.1 on child nutrition). For example, cervical cancer screening is currently performed in 90% of reproductive health offices at the PHC level and hepatitis B vaccine is given to all newborns and some adult groups (see Fig. 15).
Fig. 21. Neonatal mortality rate, 2000–2017


Fig. 22. Under-5 mortality rate, 2000–2017

4.1.2 Communicable diseases (SDG 3.3)

The incidence of new and relapsed TB has been progressively decreasing: from 112 to 43 cases per 100,000 population between 2000 and 2017 (indicator 3.3.2) (Fig. 23) (47). It is considered that this decrease in the incidence and prevalence of TB has resulted from the continued high efficiency of treatment and diagnosis. Molecular diagnostic test technology has been introduced throughout the country to speed up the detection of drug-resistant TB and the TB service has been integrated into PHC to improve access.

One of the results of the adopted National Programme for the Prevention and Control of Tuberculosis 2016–2020 is shown by the high success rate (81.3% in 2017) for treatment of patients with newly identified TB (by bacterial excretion).

The United Nations and Turkmenistan have implemented the Stop TB Strategy across the country, which includes laboratory diagnostics, new medicines, new treatment regimens and training for TB specialists and clinicians working in PHC (e.g. in bioengineered infection control and prevention of extensively drug-resistant TB transmission; see section 3.5.2). Management for patients with multidrug-resistant TB has been updated to WHO recommendations and infection control requirements.

Turkmenistan has eliminated malaria (achieving the goal of indicator 3.3.3). Multisectoral malaria prevention and control activities were carried out with support and involvement of WHO and in 2010 the country was added to the official register of countries certified malaria-free by WHO (28). The Interagency Action Plan to Prevent the Return Malaria in Turkmenistan for the Period 2016–2020 includes regular research of past foci of malaria transmission and active and passive epidemiological and entomological surveillance (see section 3.3.2).

The incidence of viral hepatitis B has remained at low levels (0.6 cases per 100,000 population in 2016 and 0.5 in 2018) (15). The WHO World Health Statistics for 2019 reported an incidence of 0.22 per 100,000 population (48). The Ministry of Health provides three doses of hepatitis B vaccine for each child under-1 year of age, with an uptake of 98% (29). The purchase of vaccines is from State funds and immunizations are provided to all children regardless of the material well-being of the family (National Programme on Immunoprophylaxis for 2003–2020). The National Strategy to Strengthen Control Measures for Viral Hepatitis in Turkmenistan for 2019–2030 has been adopted.

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**Fig. 23. Incidence of new and relapsed TB in Turkmenistan, 2000–2017**

![Graph showing the incidence of new and relapsed TB in Turkmenistan from 2000 to 2017](source: Sustainable Development Solutions Network, 2020 (47).)
4.1.3 NCDs (SDG 3.4)

NCDs remain the main cause of death in Turkmenistan, accounting for 79% of deaths in the country (Fig. 24). There has only been a small decrease since 2016; data provided for the VNR (15) indicates a small decrease from 25.9% in 2015 to 24.8% in 2018.

According to a 2018 STEPS study, more women than men received treatment for high blood pressure (42.2% of women compared with 29.7% of men) despite the incidence being the same in women and men (20).

The Government has taken a number of intersectoral actions for effective prevention and control of NCDs, for example implementation of the National Strategy and Action Plan for the implementation of the Ashgabat Declaration on the Prevention and Control of Noncommunicable Diseases for 2014–2020, which aimed to improve public health by influencing the determinants of health, promoting healthy lifestyles and implementing programmes for the prevention and early diagnosis of NCDs, and participating in the WHO High-level European Conference on NCDs (21).

The suicide mortality rate (indicator 3.4.2) was 6.7 deaths per 100 000 population in 2016, with a significantly higher rate among men than women, which is below the average of 15.5 for the WHO European Region (8) and below the rate in 2010 for Turkmenistan (7.6) (48).

Fig. 24. Age-standardized mortality rates for NCDs (cardiovascular diseases, cancer, diabetes or chronic respiratory diseases) in those aged 30–70 years, 2005–2016

4.1.4 Prevention and treatment of substance abuse (SDG 3.5)

The average consumption of pure alcohol per capita in Turkmenistan in 2016 was 5.4 litres, which is lower than the average for the Region of 9.8 litres (23). The percentage of the population that never drank alcohol was 41.6%, while the percentage of the population that abstained in the previous year was 28.0% (23). The percentage of the population who said they had consumed alcohol in the previous 30 days also fell significantly, from 8.6% in 2013 to 4.8% in 2018 (Fig. 25).

These figures are among the lowest in the WHO European Region where data are available. The Law “on prevention of harmful effects of alcohol” was adopted in December 2018 and was accompanied by the National Programme for the Prevention of Harmful Effects of Alcohol in Turkmenistan for 2018–2024, and its linked action plan. Linked to these was the Law of Turkmenistan “on advertising” in 2016, which prohibited direct and indirect advertising of alcoholic beverages. Based on existing legislation, measures are being implemented for pricing and taxation of alcohol products, some of which are not related to price incentives to control the production, import, trade and consumption of alcohol but also focus on preventing diseases and accidents, ensuring medical and social rehabilitation and raising public awareness of risk factors.

Fig. 25. Prevalence of alcohol use among adults aged 18–69 years in 2013 and 2018

Source: Farrington et al., 2019 (23).
4.1.5 Deaths and injuries from road traffic accidents (SDG 3.6)

Deaths and injuries from road accidents (indicator 3.6.1) have been a focus of attention at the highest level of Government. This has led to a decline from 18.5 deaths per 100 000 population in 2000, to 17.4 in 2015 and 14.5 in 2019 (Fig. 26) (34,48).

Turkmenistan supported the United Nations initiative Decade of Action for Road Safety 2011–2020, and the Law of Turkmenistan “about road safety” was adopted in 2012 followed by the National Road Safety Programme in Turkmenistan for 2015–2017 and its implementation plan. Measures have included construction of modern roads, underground pedestrian crossings and sidewalks; and installation of warning signs, traffic lights and video registration equipment for vehicle speed control and the safety of road users. The maximum permissible level of alcohol in the blood when driving a vehicle is 0.03%.

A special Interagency Coordination Committee chaired by the Minister of Health coordinates awareness-raising campaigns, the organization of special classes for schoolchildren on road safety, and the organization of first-aid courses for ministries and departments and other segments of the population (11).

Fig. 26. Mortality from road accidents, 2000–2015

4.1.6 Universal access to sexual and reproductive health-care services (SDG 3.7)

SDG 3.7 has two indicators relating to family planning for women of reproductive age and births in adolescents aged 10–19 years. Reproductive health clinics have worked actively to improve women’s health in these areas, encouraging the reasonable use of contraceptives as well as decreasing the number of perinatal deaths. This increased the coverage for women who needed contraception from 21.0% in 2013 to 71.4% in 2018 (Fig. 27) (24). Almost all women, whether married or not, had heard of some of the 14 possible contraceptive methods, the average number known being six (25). Although most were familiar with the most common modern and traditional methods of contraception, some modern methods are little known; 12% of women were aware of the diaphragm and implants, 16% of the female condom, and 20% about emergency contraception.

The adolescent birth rate (indicator 3.7.2) has remained at the same level from 2000 to 2016 (average 24.8 births per 1000 women aged 15–19 years; Fig. 28) (47). The rate is 1.4 times higher in rural areas than in urban areas: 35 and 25 births per 1000 women aged 15–19 years, respectively (17). According to the MICS, the rate went down from 28.0 in 2016 (16) to 22.0 in 2019.

Fig. 27. Demand for family planning satisfied by modern methods for women aged 15–49 years in marriage or in union, 2000–2017

Fig. 28. Adolescent (aged 15–19 years) fertility rate, 2000–2016

To improve the health of expectant mothers, a new tool for assessing the quality of family planning services was introduced in 2013 that enabled those at-risk of health problems to be identified and each woman to be provided with a medical passport to cover her reproductive health (see section 3.3.1). Adolescents aged 15–19 years became entitled to free access to contraceptives from 2018 in accordance with an order of the Ministry of Health. Clinical protocols have also been developed for care of pregnancy in women with chronic diseases. Various approaches are used to improve the quality of maternal care and reduce maternal mortality rates; these include institution of the confidential investigation of maternal deaths programme nationally and an almost completed review of deaths at institutional level carried out by the Network for Medical Communication and Research, which has been piloted for data collection in Turkmenistan since 2017.

Gender-sensitive public awareness and health promotion campaigns are carried out across the country. The Information Centre of the Ministry of Health conducts events to promote and raise awareness of healthy lifestyles. The Centre coordinates multidisciplinary interdepartmental work on health education according to the approved plan. In 2018, 280 events were held for 18,150 people who were employees of various institutions and enterprises or students in schools and higher and secondary professional educational institutions. Regular public information is also provided through the media, with newspapers, magazines, television and radio programmes including sections devoted to healthy lifestyles, healthy nutrition, physical culture and sports.

General education schools have included the subject Fundamentals of life in their curriculum since 2008; this covers issues related to marriage and family, family relations, preparation of young people for family life, and reproductive health. Medical professionals are actively involved in teaching within this subject in secondary schools, covering issues such as diseases and their prevention, hygiene and the sexual characteristics of adolescents. The Ministry of Education has developed and approved a training manual for teaching standards on reproductive health and published a manual on reproductive health in high school as an Appendix to the textbook on the subject of Life Basics for grades 7–8. In 2013–2014, secondary school curricula and textbooks were reviewed by international experts in the field of reproductive health and recommendations were made, based on which changes were made to textbooks and curricula for 2015–2016. In general, awareness-raising and prevention work for education institutions is carried out on a regular basis in conjunction with health authorities, the Inspectorate for Minors and representatives of public organizations and covers issues of health preservation, preventing early pregnancy and reproductive health.

With the assistance of the national Red Crescent Society of Turkmenistan, seminars are provided in Ashgabat and the regions covering the basics of a healthy lifestyle, reproductive health, avoidance of risky behaviours and the prevention of NCDs, HIV/AIDS and sexually transmitted infections.
4.1.7 Universal health coverage (SDG 3.8)

Improving physical and mental health, improving well-being and increasing life expectancy, together with ensuring universal health coverage and access to quality health care, are national health priorities in Turkmenistan. This is evidenced by the expansion of coverage of basic medical services from 60.3% in 2000 to 68.2% in 2017, including maternity and childhood protection (Fig. 29).

Basic medical services include State medical care packages for pregnant women, mothers, newborns, children and adolescents in PHC; provision of medicines from the State budget for reproductive offices; free anti-TB packages; and outpatient monitoring of patients with chronic NCDs, with the provision of free medications for patients with diabetes and cancer. Under the integrated approach to child health, immunization organized using the national vaccination calendar is free as is provision of items such as iron and folic acid supplementation. The Government allocates funds for the purchase of medicines for provision free of charge for vulnerable groups. All medicines subsidized by the State are purchased using a centralized procurement process. The percentage of surviving infants who received two WHO-recommended vaccines was 96.6% in 2008 and 99.0% in 2017 (Fig. 30). Coverage for adolescents against the human papillomavirus was 98%.

Life expectancy at birth has increased from 66.5 years in 1990 to 71.4 years in 2017 for women and from 59.1 years to 64.5 years for men (Fig. 31) (8,47).
Fig. 30. Percentage of surviving infants who received two WHO-recommended vaccines, 2008–2017


Fig. 31. Life expectancy at birth, 2000–2016

4.1.8 Strengthen tobacco control under the WHO framework (SDG 3.a)

According to the WHO STEPS conducted in 2018, the prevalence of smoking among the adult population of Turkmenistan was only 3.4% in 2018 (6.6% in men and 0.2% in women) (20). The adult smoking rate has more than halved since 2013, when the estimated prevalence of smoking was 8.3% (Fig. 32). This figure is the lowest among all countries in the WHO European Region that have recently conducted STEPS studies. The Global Youth Tobacco Survey in 2015 found the prevalence of smoking among young people was 0.3% in Turkmenistan (50); a new survey was carried out in 2018.

In 2011 Turkmenistan ratified the WHO Framework Convention on Tobacco Control and in 2015 it ratified the Protocol on the Elimination of Illicit Trade in Tobacco Products. In December 2013 the Law “on the protection of citizens’ health from exposure to tobacco smoke and the consequences of tobacco consumption” was adopted. The National Programme for the Implementation of the World Health Organization Framework Convention on Tobacco Control in Turkmenistan for 2017–2021 is a continuation of the National Action Plan for Tobacco Control for 2012–2016. Turkmenistan has set a key goal of becoming the first tobacco-free country in the WHO European Region by 2025, with an adult smoking rate of 5% or less.

There is no tobacco industry in the country. The import of tobacco products is carried out by the Ministry of Trade and Foreign Economic Relations; according to the country, the relevant industry fully meets national requirements.

Fig. 32. Smoking prevalence among adults, 2013 and 2018

Source: Farrington et al., 2019 (23).
The law also regulates the use of smokeless tobacco products: the sale of naswai (a type of smokeless tobacco for oral use) and e-cigarettes is illegal. The State regulates the prices of tobacco products. The availability of cigarettes decreased significantly from 2008 to 2016 because of rising prices. The sale of tobacco products to minors is prohibited; all closed public spaces, including public transport and some open areas, are completely smoke-free, but compliance with the law in the hospitality sector is limited.

The National Programme for the Implementation of the World Health Organization Framework Convention on Tobacco Control in Turkmenistan for 2017–2021 stipulates that 70% of the packaging surface of tobacco products must be occupied by health warnings. Warnings about the dangers of tobacco use must cover 65% of the surface of the front and back of the main sides of consumer packaging of tobacco products; 12 warning variants are approved by law. They are placed on consumer packaging, and any external packaging used in retail, and describe the harmful effects of tobacco use. It is planned to follow on with the introduction of standardized packaging that will also display the phone number of the smoking cessation hotline.

The Law “on protection of citizens’ health from exposure to tobacco smoke and the consequences of tobacco product consumption” adopted in 2013 and the Law “on advertising” adopted in 2016 ensured that most forms of direct (national/international television and radio, local/international magazines and newspapers, billboards and outdoor advertising, internet advertising) and indirect (free mailing by mail or other means of communication, advertising discounts, non-tobacco products with tobacco product names, event sponsorship) advertising are prohibited in Turkmenistan.

Advertising in sales locations is prohibited, as is open display of tobacco products at point of sale, where warnings must be placed alongside notices prohibiting the sale of tobacco products to minors. The display or use of tobacco products in any newly created television or film is also prohibited, except where such action is an integral part of the artistic intent. There is also a ban on promoting the activities of tobacco companies by both tobacco companies themselves or any other companies. Violation of these prohibitions is subject to financial penalties, which has ensured a high level of compliance with the law.

Smoking cessation clinics have been opened in the country (four in Ashgabat and five in regional centres) and consultations are free of charge. There is a clinical protocol for the treatment of tobacco dependence, including the use of drug therapy.

4.1.9 Access to affordable essential medicines and vaccines (SDG 3.b)

The availability of quality medicines is ensured through a comprehensive coverage and pricing policy, as well as the promotion of generic brands. Since 1995, Turkmenistan has had a list of essential medicines that follows the WHO recommendations. This is regularly reviewed with WHO support and updated and approved by order of the Ministry of Health. WHO are supporting the Ministry of Health in reviewing NCD drug policy and the list of essential medicines. Quality control for medicines has been strengthened with the support of WHO. Distribution of essential medicines to health and pharmacy facilities is organized through the main pharmacy association under the coordination of the Ministry of Health. The Government of Turkmenistan is making efforts to reduce the costs associated with out-of-pocket payments for medicines.
According to the WHO Joint External Evaluation conducted in 2016 (30), immunization is a priority for the Government of Turkmenistan. The national vaccination calendar includes 14 vaccines (hepatitis B, polio, Bacillus Calmette–Guérin for TB, measles, rubella, mumps, diphtheria, *Haemophila influenzae* type b, whooping cough, tetanus, human papillomavirus, rotavirus, hepatitis A and pneumococcal vaccine against *Streptococcus pneumoniae*). Immunization is mandatory and vaccination is free of charge. Vaccination coverage exceeds 95%, which is in line with WHO recommendations (Fig. 33).

There is a mechanism for mandatory registration and reporting of vaccinations (percentage of children aged 2–3 years who have received all three vaccinations recommended according to the national vaccination calendar by their first birthday (measles, by their second birthday) (29).

Immunization is provided with sustainable funding. The State Sanitary and Epidemiological Service of Turkmenistan is responsible for receiving, storing, transporting and distributing vaccines. Sanitary and epidemiological services have warehouses for storing vaccines in 67 cities/districts, six regional and one national. WHO and UNICEF have supported the safe purchase, storage, use and management for vaccine and associated equipment in accordance with a Memorandum between the Government of Turkmenistan and UNICEF, which is updated every five years (see section 3.5.2).

**Fig. 33.** Vaccination coverage for (a) TB, (b) measles and (c) polio

Source: WHO Regional Office for Europe, 2020 (34).
4.1.10 Strengthen health emergency preparedness (SDG 3.d)

SDG 3.d considers the issue of ensuring that all countries, particularly developing countries, have the capacity for early warning, risk reduction and management of national and global health risks. In 2016 WHO introduced the joint external evaluation tool for assessment of the core capacities for the IHR, and Turkmenistan was the first country in the WHO European Region to volunteer for assessment (30). Annex 4 outlines the results of that assessment. Turkmenistan had an average for all IHR core capacities of 67% in 2018 (trend of progress) (51).

There is an appropriate regulatory framework for the implementation of all rights and obligations under the IHR; new laws have been adopted and existing ones have been amended to bring legislation into line with the IHR requirements. Border agreements have been concluded with neighbouring countries in relation to public health emergencies.

Turkmenistan has a comprehensive multisectoral plan to prevent the occurrence and spread of infections. Cross-sectoral plans have been developed for coordination at the regional and subregional levels. The vertical line of notification of epidemic threats, outlined in regulatory documents, ensures timely messaging about threats of infection to the highest level of decision-making.

The Intersectoral Coordination Committee was established to monitor the overall level of preparedness in the country; the national coordinator is the State Sanitary and Epidemiological Service of the Ministry of Health. The national IHR focal point has access to training materials and best practices of the WHO.

A well-established relationship exists between all levels of the health system and specialized medical personnel have been trained in aspects of preparedness. During 2018 and 2019, Turkmenistan took part in the WHO Exercise JADE (Joint Assessment and Detection of Events) simulation (52). In addition, every year the Ministry of Health sends reports to the WHO Regional Office for Europe on progress for IHR implementation using the WHO questionnaire. There are documents regulating reporting in individual national sectors and consultations in the health sector are conducted on a regular basis.
4.2 Assessment of health-related targets in other SDGs

4.2.1 Achieve food security and improve nutrition (SDG 2.2)

Adequate nutrition is essential for the health of the population at all ages, having a direct impact on the incidence of child and maternal mortality. Nutritional deficit in children under-5 years is indicated by the prevalence of stunting (indicator 2.2.1), as an indication of undernutrition, and wasting and overweight (indicator 2.2.2) as a measure of malnutrition.

Child undernutrition remains a pressing health issue. According to the 2015–2016 MICS in Turkmenistan (25), 3% of children under-5 years were underweight (9% in 2006) and 1% severely underweight (3% in 2006); 4.2% were wasted or too thin for their height (in 2006, 19% were stunted and 7% were wasted) (Fig. 34) (25).

Obesity is also becoming more prominent in Turkmenistan, with 5.9% of children under-5 overweight in 2016 compared with 4.5% in 2006. Obesity is most common in children from richer families or families with relatively few children. The percentage of overweight children increases with age, reaching 11.5% among 7-year-old boys and girls nationwide and 19.1% in Ashgabat.

Turkmenistan was the fourth country in the world to be awarded the International Certificate for achieving optimal iodine nutrition through salt iodization and sustained elimination of iodine-deficiency disorders. The 2015–2016 MICS confirmed 97% availability of iodized salt (15 ppm or more) across the country (25).

Fig. 34. Prevalence of malnutrition among children under-5 years of age, 2015–2016

4.2.2 Ensure all children have access to quality early development to be ready for primary education (SDG 4.2)

In Turkmenistan in 2016, 95% of children aged 3–4 years had no developmental abnormalities and 49.8% of children of preschool age attend preschool education institutions (25). In order to improve reading and numeracy indicators, a number of measures have been developed, including improving the activities of parent education centres for parents of children who do not attend preschool institutions; providing parents with support to improve parenting skills; providing methodological and advisory assistance for the development of their children and preparing them for school at home.

To improve the number of children in preschool education, an operational plan has been developed to introduce a years’ preschool training for all children aged 5 years. Centres in preschool institutions also offer early development support for children with disabilities, which encourages an inclusive environment for their development. Based on these initiatives in educational institutions, pilot consultation centres are now functioning in complexes with rehabilitation centres working with children with developmental disabilities. Interdisciplinary teams of specialists are based in these centres and support children with disabilities and their families to help with their social adaptation and subsequent inclusion in the general education system.

The Ministry of Education, the Ministry of Health and the Ministry of Labour and Social Protection have developed, with support from UNICEF, the National Strategy on Early Childhood Development in Turkmenistan 2020–2025. Furthermore, the Ministry of Education has initiated a programme for completion of preschool facilities for children for 2020–2025, with an accompanying implementation plan. The aim of this programme is to increase the amount of preschool education for children from an early age and to implement a year of high-quality preschool education for all 5-year-old children based on international experiences of early childhood development. Resource documents on early childhood education, preschool preparation and parental support have been developed alongside a checklist for assessing child readiness (Fig. 35 and Table 3). Together with UNICEF, the Ministry of Education has also opened two Centres of Early Childhood Development within existing institutions for children with health limitations, to provide an inclusive environment for development and to facilitate preparation for starting school.

Fig. 35. Early Childhood Development Index, 2015–2016

![Early Childhood Development Index, 2015–2016](image)

4.2.3 Eliminate all forms of violence against women and children and early and forced marriage (SDG 5.2 and 5.3)

Violence against women and children can occur in public or private spheres; it includes trafficking and sexual and other types of exploitation and is associated with a range of poor health outcomes (indicators 5.2.1 and 5.2.2). According to IHME data, the percentage of ever-partnered women and girls aged 15 years and older who have been physically, sexually or psychologically abused by a current or former intimate partner in the previous 12 months has remained at less than 8% between 1990 and 2017 (Fig. 36) (49). There were no reported cases of sexual violence or abuse by someone other than an intimate partner and under 2% of men or women aged 18–29 years reported childhood sexual abuse occurring before they were 18 years of age (49).

Gender development issues are reflected in all national socioeconomic development programmes in Turkmenistan, which are important areas for further integration of women in the socioeconomic and cultural development of Turkmenistan. Turkmenistan’s national socioeconomic development programmes are also linked to the SDGs, including gender equality and the empowerment of all women and girls.

Data from 2018 indicate that 5.7% of women aged 20–24 years had married before the age of 18 years and no women were registered as married before the age of 15 years (indicator 5.3.1) (17).

The National Action Plan for Gender Equality in Turkmenistan for 2015–2020 was adopted in 2015 and contained measures to eliminate gender stereotypes, combat all forms of violence against women, improve women’s access to services and increase women’s representation in all spheres of public, political and

Table 3. Childhood development in boys and girls aged 3–4 years of age, 2015–2016

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socioemotional (%)</td>
<td>94.6</td>
<td>95.3</td>
<td>94.9</td>
</tr>
<tr>
<td>Cognitive (%)</td>
<td>98.8</td>
<td>98.9</td>
<td>98.9</td>
</tr>
<tr>
<td>Reading and counting</td>
<td>20.6</td>
<td>19.9</td>
<td>20.2</td>
</tr>
<tr>
<td>Physical (%)</td>
<td>99.6</td>
<td>99.7</td>
<td>99.6</td>
</tr>
</tbody>
</table>

professional life. Other relevant legislation include the National Action Plan of Turkmenistan on Human Rights in Turkmenistan for 2016–2020, the National Action Plan of Turkmenistan on Combating Human Trafficking for 2016–2018 and the National Action Plan for the Implementation of the Rights of the Child in Turkmenistan 2018–2022. The Interdepartmental Commission for ensuring compliance with Turkmenistan’s international obligations in the field of human rights and international humanitarian law is responsible for coordinating the implementation of the measures provided for in these plans and fulfilling international obligations in the field of human rights. Improved methods of collection and analysis of comprehensive data on the status of women have been developed, and surveys on the health and status of women in the family are part of measures to raise public awareness on issues of gender.

Issues of reproductive health, preventing early pregnancy and gender are covered in schools in programmes initiated by the Ministry of Education and supported by international experts (see section 4.1.6).

Crimes related to human trafficking are not widespread; in 2016, they accounted for 0.03% of the total number of cases reviewed. One crime was registered in 2017 and none in 2018. No crimes related to child trafficking have been registered. On 15 October 2016 the Law of Turkmenistan “on combating human trafficking” was adopted and introduced rules concerning the identification of victims of trafficking, the procedure for granting them protection and status and actions aimed at combating trafficking in people (24).

Following the recommendations of the CEDAW Committee, a national survey on the health and status of women in the family has now been launched; this used a WHO methodology to create a standard questionnaire. A survey roadmap and sample were developed, a listing created and households identified for where the survey will be conducted.

Fig. 36. Prevalence of intimate partner violence among women, 1990–2017 and projection to 2030

Source: Institute for Health Metrics and Evaluation, 2019 (49).
4.2.4 Achieve universal access to safe drinking-water, sanitation and hygiene (SDG 6.1 and 6.2)

The percentage of the population using drinking-water supply services organized in compliance with safety requirements (indicator 6.1.1) was 82.8% in the 2015–2016 MICS (25). Data from the IHME indicate an increase from 84% in 2000 to 94.5% in 2015 (Fig. 37) (49). However, IHME data from 2017 put the risk of using unsafe water sources as approximately 20% (Fig. 38) (49).

The results of the survey will be used to identify the prevalence and causes of gender-based domestic violence. Additions and changes to existing national legislation will be prepared as required, and a proposal will be considered on the feasibility of developing a bill in the field of domestic violence. This survey represents a reference point in the promotion of programmes for the prevention and response to gender-based/domestic violence.
Fig. 37. Population using at least basic drinking-water services, 2000–2015


Fig. 38. Risk-weighted prevalence of population using unsafe water sources, 1990–2017 and projection to 2030

Source: IHME, 2019 (49).
The 2015–2016 MICS found that 98.6% of the population used safety-compliant sanitation services, including hand-washing devices with soap and water (indicator 6.2.1) (25); data from the IHME found 96.6% used safety-compliant sanitation services in 2015 (Fig. 39) (30) and it is increasing. However, according to the IHME, under 20% of the population lacked access to sanitation services, including hand-washing devices with soap and water in 2017 (Fig. 40) (49).

Fig. 39. Percentage of the population using safe sanitation services, 2000–2015

With the aim of improving social and living conditions in the rural population, relevant activities have been carried out in the framework of the National Programme of the President of Turkmenistan on the Transformation of Social Conditions of the Population of Villages, Settlements, Towns of Etraps and Etrap Centres to 2020 and the General Programme Providing Clean Drinking-water to Settlements of Turkmenistan. Since 2008, more than 9200 km of pipelines, 1700 km of drainage channels, approximately 600 wells, six water treatment facilities and five drainage facilities have been built as part of the General Programme to Improve Access to Drinking-water. Institutions of the State Sanitary and Epidemiological Service constantly monitor the production and consumption of drinking-water (24).

Within the framework of the two-year cooperation agreement between the Ministry of Health and the WHO Regional Office for Europe for 2018–2019, a national workshop on strengthening monitoring of water supply, sanitation and hygiene was held in Ashgabat in April 2019 with technical support from WHO. It was noted that the water, sanitation and hygiene monitoring system is well developed in Turkmenistan. The Government gives priority to providing these services to the public and is ready to contribute to international monitoring tools with reporting.

4.2.5 Ensure universal access to affordable and clean energy (SDG 7.1)

The entire population of Turkmenistan had access to electricity in 2018, and this had been achieved even for rural populations by 2000 (53). The country is developing renewable energy sources; work in this direction will continue in the future. A system for reporting on the number of technologies is being developed, and the development of research on renewable energy sources and their implementation in Turkmenistan after 2020 is being increased.
4.2.6 Eradicate forced labour, eliminate hazardous child labour and promote safe working environments (SDG 8.7 and 8.8)

Child labour (SDG 8.7) and safe and secure working environments for all workers (SDG 8.8), including women, migrant workers and those in precarious employment, have a direct impact on the health and well-being of the population. Turkmenistan is a strong advocate for the protection of children’s rights, especially their involvement in work. Even though the percentage of children aged 5–17 years engaged in child labour in the country is low (0.3%), the goal is to eliminate it. To this end, the National Action Plan for the Implementation of the Rights of the Child in Turkmenistan 2018–2022, developed jointly with UNICEF, was adopted. The relevant legislation establishes a minimum age for hiring children (16 years) and prohibits child labour in harmful or dangerous work (actions that, by their nature or the circumstances in which they are undertaken, may harm the health, safety and moral development of children).

Indicator 8.8.1 assesses the frequency of fatal and nonfatal occupational injuries, which the VNR found was very low: 1.83% in 2015, 1.46% in 2018 and with a tendency to decrease (15). Labour protection issues, compensation payments and benefits for workers who have suffered injuries or occupational diseases are supervised by trade unions, which both participate in all investigations of industrial accidents and protect the rights and interests of workers in the event of conflicts with management if the employer does not provide safe working conditions.

Public control over the employer’s compliance with labour protection obligations is widespread. There is a practice of social partnership, in which a collective agreement is concluded between the labour collective and the employer, providing for a balance of rights and obligations of each of the parties, as well as compensation mechanisms for working in dangerous
and harmful conditions. The unemployment rate has not changed drastically between 2000 (3.9%) and 2018 (3.3%), in fact showing a slight decrease (Fig. 41) (47).

The official website of the Ministry of Labour and Social Protection contains information on job vacancies as well as information on people looking for employment. Using this section, citizens looking for employment can quickly acquaint themselves with current job vacancies, and employers, in turn, have access to information on needed specialists and their availability. There is also a central link to the Social Policy of Turkmenistan, which provides social support to those who need it, such as single parents, orphans, first-time job seekers, young professionals or people with disabilities.

In 2016, a quota was introduced (2–5%) for the employment of people in need of social support by all private and non-State institutions. In 2018 people in need of social support made up 2.2% of the total number employed, with 6.0% being people with disabilities, 5.3% orphans looking for work for the first time and 25.8% single parents or carers.

The labour code of Turkmenistan traditionally prohibits women who have children under the age of 3 years, or a disabled child under the age of 18 years, from working in harmful or dangerous conditions, at night, in shifts or for overtime, weekends, holidays or memorial days.

In March 2019, a change was made to the labour code of Turkmenistan that removed the restrictions on the use of women’s labour in jobs with especially harmful or particularly dangerous working conditions. With these changes to the legislation, it is now permitted to employ women in the specified conditions with their consent. In practice, women actively enjoy the right to refuse to engage in these types of work. To combine work with family responsibilities, women are more likely than men to use the more flexible work schedules provided by labour legislation, such as part-time or temporary work (24).

![Fig. 41. Unemployment rate, 2000 to 2018](image)
provides medical, social and vocational rehabilitation services and domestic assistance.

In many countries, migrants can lack equal opportunities and face discriminatory laws, policies and practices (indicator 10.3.1). However, under current legislation migrants are equal to citizens of Turkmenistan in terms of working conditions, payment and rest, and social security. They have the right to receive emergency medical care and have equal access to education, and to their cultural identity. These measures create favourable conditions for the integration and social adaptation of newly arrived migrants. Turkmenistan leads the central Asian region in joining the conventions on statelessness, legislative reform and biometric identification of refugees and stateless people.

To date, Turkmenistan has granted citizenship to more than 22 000 people. The public organization Keik Okara has been implementing a project to assist legal stay in the territory of Turkmenistan for people with documents that have become invalid (e.g. outdated USSR passports) or who lack documents. This has assisted 4167 to become citizens of Turkmenistan between 2015 and 2018.

4.2.8 Provide access to safe, affordable and sustainable transport systems for all (SDG 11.2)

The percentage of the population using public transport (indicator 11.2.1) according to Gallup estimates has declined since 2010 with satisfaction with public transport also declining: from 73.2% to only 57.5% in 2018 (Fig. 42) (47). This is indicative of growing prosperity in that the proportion of the population with their own vehicles has increased.
Fig. 42. Satisfaction with public transport, 2010–2018

4.2.9 Achieve environmentally sound management of chemicals and all wastes including their release into the environment (SDG 12.4)

Responsible and sustainable production and consumption patterns involve both the use of natural resources and the management of chemicals and waste to minimize adverse impacts on human health and the environment through their release to air, water and soil. Carbon dioxide emissions have seen a slight increase, from 12.1 metric tonnes per capita in 2007 to 14.1 in 2016, according to estimates from the World Bank and the Organisation for Economic Co-operation and Development (Fig. 43) (47).

The environmental policy in Turkmenistan prioritizes the environmental interests of society alongside the development of economic activities, taking into account issues of environmental protection and the rational use of natural resources, which are considered as national wealth and an important component of sustainable development in the Region.

Turkmenistan is a party to the Framework Convention on Climate Change, the Convention on Biological Diversity, the Vienna Convention on the Conservation of the Ozone Layer, the Convention to Combat Desertification, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Aarhus Convention on Access to Justice in Environmental Matters, the Convention on Wetlands (Ramsar Convention), and the Framework Convention for the protection of the Caspian Sea Environment (Tehran Convention).

Turkmenistan actively cooperates with many partners, including the United Nations Environment and Development Programmes, the Global Environment Facility, the European Union, the Organization for Security and Cooperation in Europe, the Economic Commission for Europe and the German Society for International Cooperation in implementing its commitments.

Fig. 43. Energy-related carbon dioxide emissions, 2007–2016

![Graph showing energy-related carbon dioxide emissions from 2007 to 2016.](Source: Sustainable Development Solutions Network, 2020 (47).)
4.2.10 Take urgent action to combat climate change and its impacts (SDG 13)

Climate change is a so-called threat multiplier in that it directly affects the socioeconomic development, stability and security of countries (15). Failure to respond to climate change can burden the most vulnerable segments of the population, deepen gender and social inequality, reduce incentives for further adaptation measures and narrow possible alternatives for future adaptation measures.

Turkmenistan, as a country located in the arid zone, feels the effects of climate change keenly. In this regard, special attention is paid to adaptation measures and mitigation of climate change, not only in the environment but also in the economic and social spheres. The country is a party to the Framework Convention on Climate Change and the Paris Agreement.

Special attention is also paid to monitoring adaptation to climate change in Turkmenistan. The country has adopted a national climate change strategy designed to stimulate the transition to integrated and dynamic planning for sustainable development and prepare the economy for the possible consequences of climate change by improving economic, food, water and environmental security.

Although the Government of Turkmenistan has consistently pursued a policy on reforestation since 1998, an official national forest programme was adopted in 2013 for large-scale creation of forest plantations. Forested belts are being created across the country as one method to reduce atmospheric carbon dioxide, stabilize soil and preventing soil erosion. As part of the programme, national campaigns are held annually to plant up to 3 million seedlings across the country. Over the past 20 years, more than 100 million trees, both coniferous and deciduous, have been planted in Turkmenistan. Afforestation measures consider the soil and climate characteristics of the region in order to ensure environmental protection and stability. Other positive actions include the construction of the AltynAsyr (Golden Age) Lake in the Karakum desert.

The Government of Turkmenistan chairs the International Fund for Saving the Aral Sea and actively participates in the development of an action programme to improve the environmental and socioeconomic situation in the Aral Sea basin and in the United Nations Special Programme for the Aral Sea. The Government contributes to the improvement of the organizational structure and legal framework of the International Fund and to the unification of the legal framework for water resources management and environmental protection.

The Government of Turkmenistan has worked with UNICEF and UNDP to introduce climate change, the environment and energy issues into the school curriculum (see section 3.5.5) (44,45). Through this and other methods, such as preparing a plan of measures to support the social work of the community in schools, children’s awareness of climate change can be raised. The goal is to enable them to interact with the environment through field visits, research, and fieldwork, such as green school projects. Such projects will improve understanding of how climate change affects children’s lives, how to reduce the vulnerability of children and communities to risk and contribute to sustainable development.
4.2.11 Promote peaceful, inclusive and just societies (SDG 16)

SDG 16 concentrates on the rule of law and equal justice for all. This includes reducing all forms of violence and related deaths (SDG 16.1) and abuse, exploitation, trafficking and all forms of violence against children (SDG 16.2).

The number of deaths from interpersonal violence per 100 000 population (indicator 16.1.1) has decreased from 5.9% in 2000 to 3.9% in 2017 (Fig. 44); data presented in the VNR indicated a continuing decline: 3.5% in 2015 and 2.9% in 2018 (15).

The 2015–2016 MICS found that 36.6% of children aged 1–17 years had been subjected to physical punishment or psychological aggression from caregivers in the previous month (25). This indicator has improved since. Little change was noted between 1990 and 2017 in the age-standardized prevalence of sexual violence in the previous 12 months (~1%), physical violence in the previous 12 months (just under 5%) or childhood sexual abuse reported by men or women aged 18–29 years that occurred before they were 18 years of age (~2%).

The protection of human rights and the creation of conditions in which citizens can exercise their rights and freedoms is an integral part of State policy, and the Government closely cooperates with relevant United Nations agencies in this area. One of the important fruits of this cooperation was the adoption of the National Action Plan of Turkmenistan on Human Rights for 2016–2020, which is based on international principles for the protection of human rights and recommendations of treaty bodies and United Nations human rights agencies.

Fig. 44. Deaths from interpersonal violence, 1990–2017 and projection to 2030

Source: IHME, 2019 (49).
Special attention is paid to the protection of children’s rights, based on the principles of ensuring the best interests of the child and the right to life, as well as providing favourable conditions for child development in conditions of freedom and dignity. Registration of a child’s birth is an integral part of protecting the child’s rights, ensuring their full participation in society and ensuring they have access to education, employment and social security (indicator 16.9.1). The percentage of children under 5 years of age whose birth was registered with civil authorities was 99.6% in the 2015–2016 MICS (25).

Registration of a child at birth is mandatory under the Family Code of Turkmenistan, and achieving timely registration of all born babies is a priority; Turkmenistan has now reached 100% registration of births. An indirect incentive for timely registration is that it provides access to a one-time benefit at birth, and monthly benefits paid to mothers/guardians for the care of a child up to the age of 3 years. Another important area of State policy is the prevention of crimes and offences among minors. Turkmenistan has adopted the State Programme of Youth Policy for 2015–2020, which supports the use of well-known preventive methods when working with young people, which include creating an environment conducive to engaging in a healthy lifestyle, preventing the use of psychoactive substances and the emergence of illegal and deviant behaviour, creating positive interaction between families and schools, and helping young people to cope with stress and psychological pressure (15).

4.2.12 Partnerships for the goals (SDG 17)

SDG 17 looks at means of strengthening implementation of the GAP. One aspect is the mobilization of resources from domestic sources through increased national capacity to collect taxes and other revenue (SDG 17.1). The total amount of State revenue as a percentage of GDP was 13.9% in 2018 compared with 16.6% in 2015 (indicator 17.1).

The Social and Economic Development Programme 2019–2025 provides for 70% of budget to be spent in the social sphere, including education, health and social security. In addition, budget funds are allocated to the creation of high-quality, affordable, reliable and sustainable infrastructure, including transport, energy, water and sanitation for all. These measures are envisaged as part of the implementation of programmes to transform the social and living conditions of the population of villages, towns, cities and etrap centres. Between 2019 and 2025, it is planned to allocate about 10 billion manats.
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5. GAP accelerators and roadmap to improve health and well-being in Turkmenistan

A number of areas can be recommended based on the GAP accelerators for building on current and future joint action to follow the SDG roadmap strategic directions to achieve SDG 3 targets:

**accelerator 1**: PHC;

**accelerator 2**: sustainable financing for health;

**accelerator 3**: community and civic engagement;

**accelerator 4**: determinants of health;

**accelerator 5**: innovative programming in fragile and vulnerable settings and for disease outbreak responses;

**accelerator 6**: research and development, innovation and access; and

**accelerator 7**: data and digital health

5.1 Universal health coverage and PHC (accelerator 1)

5.1.1 PHC

Strong PHC is the primary accelerator because it is a cornerstone for achieving SDG 3 and the health-related SDG targets; it supports progress on the other accelerator themes and the achievement of universal health coverage (7). One of the main priorities of the State Programme Health is to improve the efficiency of public health services, improve family medicine and provide comprehensive medical care for the population in all regions and localities.

The policy for multidisciplinary PHC focuses on providing medical care to mothers and children, patients with NCDs and patients with TB and other infectious diseases; it also includes preventing infectious diseases and provision of immunizations. Effective prevention of NCDs requires the involvement of all of society: schools of health at the PHC level, help centres (centres of trust), those involved in tobacco-free programmes, NGOs (e.g. the Women’s Union and the Youth Union) and the private sector.

The Ministry of Health has taken actions to increase outpatient care and reduce the number of patients being treated in hospitals. Special attention is paid to promoting healthy lifestyles and preventing diseases, as well as to modernizing the health infrastructure. Portable diagnostic tools and devices designed to diagnose diseases at a patient’s home have been provided for medical staff. A mandatory requirement for the development of the infrastructure of Ashgabat and the five velayats is the construction of the so-called health houses (see section 3.4.2).

Much attention is paid to ensuring continuity of assistance. Patients have the right to choose or change their family doctor; they can also change their health house if they are in an area with several options. When a patient is discharged from the hospital, information about their health is transmitted to their health house.

5.1.2 Universal health coverage

The Government of Turkmenistan prioritizes access to health services for all segments of the population, based on the principles of equity, economic, cultural and geographical access in even the most remote areas of the country.
Funds in the Health Development Fund of Turkmenistan (see section 3.4.1) were used to provide 90% of the cost of medicines under medical insurance prescriptions until 2017. In 2017 this was changed to the current system where 50% of the cost is met; this also covers medical devices as well as the provision of preferential services for insured citizens and their dependants (children under 18 years of age) when registered on their medical insurance passport.

The Health Development Fund is also used to finance capital investments for the construction, reconstruction and modernization of health-care facilities and the pharmaceutical industry, repayment of foreign loans for projects and the purchase of medicines and medical equipment.

5.1.3 Communicable diseases

National legislation, combined with the regulatory documents of the Ministry of Health and the national, velayat and etrap institutions of the State Sanitary and Epidemiological Service, provides a solid basis for a well-functioning indicator-based system of notification of infectious diseases in the country with good vertical reporting mechanisms. The notification of epidemic or high-priority diseases is regulated by notification procedures that ensure that information about infection threats are sent to the highest level of decision-making in a timely manner. There is also a multisectoral mechanism for coordinating the activities of various industries during emergency responses.

Reasonable and practical indicators have been developed for many of the relevant infectious diseases. National surveillance data for many priority infectious diseases are analysed at least once a quarter and annually. Data are collected and analysed by a dedicated team that includes experts in health, epidemiology and data analysis; consultant experts on issues pertaining to animal health are also available. The full annual surveillance report presents data stratified by parameters such as disease, time or geographical area. A national syndrome surveillance system is in place to detect and report cases of acute flaccid paralysis syndrome. Health-care institutions have implemented separate programmes to combat hospital-acquired infections although there is not currently a comprehensive national guidance plan.

The animal health sector of the Ministry of Agriculture also has a vertical reporting system. The national IHR coordinator operates at the central (national) level of the country’s surveillance system, which provides broad coverage and enables timely information on any infectious hazard. Similarly, the national coordinator for the World Organisation for Animal Health operates in the Ministry of Agriculture.

All levels of the health system have been implementing guidelines for managing priority epidemic diseases and related hazards outlined in the IHR.

The Ministry of Health distributes health information materials developed in collaboration with UNICEF and organizes public events and media coverage on the prevention of infectious diseases such as HIV/AIDS, TB and hepatitis. Information hotline telephone services have been introduced.

Within the framework of European Immunization Week, meetings are held among medical professionals and students on the implementation of preventive measures and effective perinatal care for mother-to-child transmission of HIV, including for paediatricians, gynaecologists, specialists in AIDS prevention centres, teachers at the State Medical University and other health professionals. The main purpose of such meetings is to improve the skills of national specialists working in prevention of HIV/AIDS, TB and other infectious diseases. The prevention activities covered include women’s right to access information about protecting themselves and their children from HIV; the role of health professionals in counselling and testing; antiretroviral therapy and treatment of opportunistic infections; safe delivery; child feeding and eliminating discrimination and stigmatization against HIV-positive women.

Since 2019, the national vaccination calendar has introduced additional free vaccines for the immunization of children under-2 years of age; a pneumococcal vaccine for the prevention of pneumonia, vaccination against hepatitis A and rotavirus vaccination for the prevention of rotavirus-linked intestinal diarrhoeal diseases in young children.
Immunization coverage in the population is very high (95–98% in children, regardless of the income of households), and supported by the free national vaccination calendar. There is high public awareness of HIV/AIDS; according to sociomedical surveys, 81% of women aged 15–49 years are aware of AIDS. All three methods of prevention of mother-to-child transmission of HIV are known to 65% of women in this age group (25), and 64% know where to get tested for HIV between January 2019 and January 2020, 10.3% of women were tested, and 74.6% received prenatal care and HIV counselling services during pregnancy.

Improved integration of existing national surveillance systems for different types of threat will enhance the capacity to ensure compliance with the IHR, which considers threats as a whole. Development of standard operating procedures to provide surveillance for all types of infectious disease threats will contribute to strengthening national capacity for early identification and risk assessment.

5.1.4 NCDS and mental health

Although the prevalence of smoking is very low in Turkmenistan (see section 3.3.4), the Government has instituted strong anti-tobacco measures and tobacco control legislation. Use of alcohol has also been decreasing (8.6% had consumed alcohol in the last 30 days in 2013 and 4.8% in 2018). Again the Government has strong measures to reduce the harmful use of alcohol (see section 3.3.4). Measure to improve nutrition and increase levels of physical activity still need to be strengthened and can be based on relevant WHO strategic documents. Within the framework of the National Programme on Healthy Nutrition of the Population of Turkmenistan 2020–2025, all involved ministries and departments are carrying out multifaceted work aimed at preventing diseases, increasing life expectancy and encouraging healthy lifestyles. To prevent morbidity and improve public health, all produced wheat flour of the highest and first grades in Turkmenistan is enriched with a premix that includes iron and folic acid.

Regarding individual services, these are opportunities to improve the control of cardiovascular risk factors and the detection of diabetes, as well as the prevention of complications. A comprehensive and coherent approach to strengthening health systems is needed to improve NCD outcomes, together with increased policy coherence so that health issues are more actively included as priorities in policy documents and improving NCD outcomes becomes a clearer goal of the health and development agenda.

Screening for cancers also needs prioritizing, including for cervical cancer, breast cancer and colon and rectal cancer. This will improve the efficiency and optimization of the referral system for patients, ensure treatment at early stages and save lives.

Well-resourced public health services are the driving force for health promotion and disease prevention programmes, applying the principle of universal proportionality to emphasize equity in public health activities. The health schools for the public at PHC facilities will benefit from approaches to change individual's behaviour based on actual data.

5.1.5 Equity issues and regional disparities

The National Programme of Social and Economic Development of Turkmenistan for 2011–2030 and the Socio-economic Development Programme 2019–2025 are aimed at achieving sustainable development and the SDGs across all regions. The goal is to ensure the well-being of people and further sustainable development of all five regions and the capital of the modern State. The Socio-economic Development Programme implements institutional changes to support an intersectoral approach to sustainable development in social and economic policy, prevention of the impact of climate change and protection of the environment and biodiversity. All (100%) nationally adopted SDG 3 health targets have been integrated into national planning documents.

In the context of the Socio-economic Development Programme 2019–2025, State Programme Health is the main document covering health care; it defines public health as the main goal of socioeconomic development with improvements in the well-being, life expectancy and welfare of the population.
This approach is intended to ensure sustainable and inclusive economic growth, social development and social justice.

Integrated medical and social care at home is innovative and can be further strengthened through the introduction of palliative care. Capacity improvements will also be supported through enhanced workforce analysis and monitoring, as well as by planning and investing in the future workforce in collaboration with stakeholders and the Government. Appropriate and prioritized health funding ensures that coverage of important services and incentives is consistent with service delivery goals.

Universal health coverage requires access to essential health services for all in a population, as well as financial protection from catastrophic and ruinous health-care costs. To achieve adequate protection from financial risks, the health insurance system needs reforming.

According to the RIA of existing national, regional and sectoral programmes on the compliance of key national strategies and programmes with the SDGs and their objectives (9,39), the introduction of voluntary health insurance and the transition to mixed budget–insurance financing of health care to ensure equity in access to public services in general and health in particular are key objectives.

Turkmenistan is one of the Member States of the WHO European Region with high levels of immunization coverage and with equitable regional coverage throughout the country. The National Programme on Immunoprophylaxis for 2003–2020 has led to around 95% coverage with vaccinations and has significantly reduced many vaccine-preventable infections and eliminated some. As a result, Turkmenistan has been awarded WHO international certificates for the elimination of certain diseases, such as polio, malaria, dracunculosis, measles and rubella.

Significant achievements include the universal iodine fortification of salt in 2004 and the successful implementation of strategic national programmes to promote safe motherhood and to control and prevent TB, HIV/AIDS and influenza throughout the country.


The Government of Turkmenistan maintains a high level of investment in rural development to ensure that health-care, education and social support services available to rural residents are comparable to those in urban areas. As a result, birth rates in urban and rural areas are almost equal (3.0–3.3 births per woman); however, the birth rate among adolescents in rural areas is 1.4 times higher than in urban areas. Although qualified specialists, mainly doctors, are provided for all generations, there are a few areas in which additional measures are needed to reduce the gap between urban and rural areas. In Ashgabat there are 185 family doctors per 100 000 children aged 0–17 years, which is twice the number in other regions. Infant mortality rates are twice as high in rural areas than in urban areas and under-5 mortality is 30% higher. This is partly a result of differences in the quality medical care provided and the professional potential of medical personnel. There is a much higher attendance at early childhood development programmes in urban areas (70%) than in rural areas (29%).

There are no differences in consumption of iodized salt by urban and rural areas, and vaccination rates in rural areas are slightly higher than in urban areas.

Regional disparities can become a barrier to achieving the SDGs and national development goals. To ensure the harmonious and balanced development of all the regions of Turkmenistan, a common conceptual framework may be needed that covers identified regional disparities and national and regional aspects, with special emphasis on the implementation of the rights of children and women.
The creation of more reliable disaggregated statistical summaries of differences between and within regions and rural/urban areas would provide an evidence base from which to monitor regional development in areas as diverse as access to health or education and environmental aspects; from this information, decisive factors contributing to such imbalances can be identified and tackled (25).

5.2 Sustainable financing for health (accelerator 2)

Health care in Turkmenistan is one of the main priorities of domestic country policy. It is financed from the State budget, which is used to finance basic services for certain categories of citizens, and the state voluntary medical insurance budget, which is formed from payroll fees, payment under medical insurance and direct consumer payments for medical services. Budget funds are allocated to provide free guaranteed assistance to defined categories of citizens, research projects and social health programmes. PHC financing accounts for a significant share of expenditure.

At the national level, the Ministry of Finance and Economy allocates annual funding to the Ministry of Health for institutions under its jurisdiction. Financing of velayat medical institutions is allocated from the regional multisectoral budget, and the department of health of the velayat is responsible for the interaction between regional institutions and the city of Ashgabat.

PHC institutions are financed from the local (etrap) multisectoral budgets allocated to the central hospitals of the districts. In addition, insurance premiums for voluntary health insurance and funds from payment for services by patients at medical institutions (50% of the amount after tax payments) are credited to a special account of the Ministry of Health. The Special Account of the Ministry of Health plays a significant role in further reforming the health financing system to achieve universal health coverage; the medical industry reimburses medical institutions with a 50% discount for medicines and medical services provided to insured citizens. In addition, the Government of Turkmenistan allocates further budget funds for specific purposes, for example the construction of new
facilities or modernization of existing ones, to cover the costs of medicines for those with low incomes and to provide additional funds for priority health projects. Funding is allowed for the construction of health facilities within the framework of the National Programme of the President of Turkmenistan on the Transformation of Social Conditions of the Population of Villages, Settlements, Towns of Etraps and Etrap Centres to 2020.

5.3 Community and civil society engagement (accelerator 3)

To implement the State Programme Health in the context of Health 2020, the WHO Regional Office for Europe and the Ministry of Health created a multisectoral interagency Commission on Health Care. The Commission develops and implements cross-sectoral comprehensive plans and coordinates the implementation of measures to protect public health.

Within the framework of their powers, country coordination commissions constantly monitor the rational use of land resources, compliance with construction standards, labour protection and safety requirements and provision of water supply and sewerage systems. They also undertake measures to limit the use of tobacco products, to provide the population with clean drinking-water and to keep sources of drinking-water clean and free of pollution. The commissions also act to attract local businesses and institutions to contribute to measures to protect and promote the health of citizens and to improve the social status of people at risk.

In addressing issues related to health, it is envisaged a change to new types of cooperation, such as direct contact with the population, persuasion and the widespread use of communication technologies.

An important element of State policy regarding NCDs is the prevention of risk behaviours and promotion of a healthy lifestyle and nutrition. High-quality and timely treatment and rehabilitation is offered to those with cardiovascular diseases, cancer, diabetes or chronic pulmonary disease, and also to those dependent on psychoactive substances. The mass media contributes with articles and features on healthy lifestyles, proper nutrition, physical culture and sports (e.g. the popular television programme Il saglygy – yurt baylygy! (The health of the nation – the wealth of the homeland!)).

Joint projects of the Government of Turkmenistan and United Nations agencies (UNFPA, UNICEF, UNODC, WHO and others) target NCD risk factors as tobacco, alcohol, stress, irrational and unbalanced nutrition and lack of exercise. Projects offer educational activities and certification of experts engaged in the prevention and treatment of health disorders related to psychoactive substances. For example, international programmes such as Family and School Together and Strong family promote healthy lifestyles and support family skills among teachers, students and parents.
5.4 Determinants of health (accelerator 4)

5.4.1 Gender equity issues in society

The Government of Turkmenistan has a strong political commitment to achieving gender equality, which is a determinant of health and health equity. Turkmenistan has signed the CEDAW and adopted the programme of the Beijing Declaration and Platform for Action’s Fourth World Conference on Women.

Women and girls in Turkmenistan have equal constitutional rights with men and boys. The percentage of women in professions such as education, health, physical culture and social welfare is more than 60%; in financial and credit institutions, insurance, and pension provision more than 50%; and in cultural institutions and the arts about 50% (41).

Strengthening the role of women in society is carried out through the introduction of a gender approach in the socioeconomic development strategy of Turkmenistan and in national programmes. The programmes include measures to create new jobs, improve the professional level of women, stimulate the development of entrepreneurship among women and expand their participation in high-technology industries.

Women make up most of the health workforce; they hold 57% of management positions in health houses, 13% of hospital management positions and 28% of deputy positions as leading employee. Health houses are often the first point of contact of the patient with the health-care system and so are called upon to solve the interrelated medical problems of women, men and adolescents. Although women have a strong role in these health houses, more efforts are needed overall to achieve full gender equality.

5.4.2 Social protection

The Healthy Villages, Etraps, Cities and a Healthy Society Network was created to carry out complex measures in municipal economy and other areas of the economy to improve the social protection of the population; develop health care, education, sports and culture; and ensure environmental protection and road safety. Multisectoral interdepartmental regional health groups have been established in the velayat municipalities. These groups coordinate and monitor the implementation of public health measures and develop and implement cross-sectoral integrated plans at the local level.

Issues of labour protection, compensation and benefits for workers who have suffered injuries or occupational diseases fall within the remit of trade unions, which participate in investigations of industrial accidents and also act to protect the rights and interests of workers when the employer does not provide safe working conditions. There is a practice of social partnership, in which an agreement is concluded between the labour collective and the employer to ensure the rights and obligations of each of the parties and agree compensation mechanisms for those working in dangerous and harmful conditions.

5.4.3 Environment and water

The National Strategy of Turkmenistan on Climate Change has been adopted, which is the main national document for implementing activities in the field of climate change. The strategy reflects the national vision of issues related to climate change and is the basis for the formation and implementation of State policy in the field of climate change and its consequences. National projects are working towards adapting the country’s economy to climate change. The increasing awareness of global climate change has led to the adoption of urgent measures such as the State initiative for greening the country’s cities and settlements. Adaptation measures are aimed at both reducing the impact of climate change and extracting potential benefits. Early action can bring significant economic benefits and minimize threats to ecosystems, human health, economic development, property and infrastructure.

Priority sectors for adaptation to climate change are public health, agriculture and water management, the coastal zone of the Caspian Sea and natural ecosystems (flora, fauna, forests, soil and land resources). The geographical location and natural and climatic conditions of Turkmenistan limit water
resources and efforts are being made to conserve water, improve water quality, increase the productivity of irrigation systems and improve the legal and regulatory framework for the use and protection of water resources.

Priority tasks for adapting water management to climate change include improving water resources management, introducing progressive irrigation and desalination methods, building reservoirs and reconstructing hydraulic structures, developing incentive methods for rational water consumption, strengthening international cooperation in the field of conservation and use of transboundary water bodies, and continuing construction of the Golden Age Lake.

5.4.4 Education

Education is subject to continuing reform to update the material and technical base of educational institutions and teaching methods; create a high-technology educational environment with use of information technology; optimize the network of educational institutions; and provide innovative development and expansion of the educational services market. There are more than 3200 educational institutions in the country, with 99–100% of children attending primary school, 98% attending secondary school and a child literacy rate of 99.9%.

As part of the national policy on early childhood development, the Ministry of Education has further expanded the approved documents on preschool education based on international standards, including high-quality preschool education programmes based on sports and games for development and documents on empowering parents. Quality standards were included in the annual curricula of regional associations that train local specialists in preschool education. An approved early readiness checklist and a child-friendly measurement tool to evaluate child readiness for school are also provided.

To ensure the integration of the vocational education system with economic sectors, work is underway to develop and implement State educational standards. The concept of digital education system development is aimed at improving the quality of educational services based on digital platforms and creating conditions for continuing education for all strata of the population.

5.5 Innovative programming in fragile and vulnerable settings and for disease outbreak responses (accelerator 5)

Guidelines for case management for priority epidemic diseases and related hazards related to the IHR have been implemented at all levels of the health system. There is an annual testing of response capabilities, including event and case management, which is used to adjust plans accordingly. In each public sector, exercises are conducted to assess national-level risks and draw up a resource map that includes all components. The country has effective and well-trained personnel with medical and emergency education, experience in epidemiology and laboratory testing. These employees can be called upon for deploying internationally through international networks such as the Global Outbreak Alert and Response Network or WHO.

5.6 Research and development, innovation and access (accelerator 6)

Research and innovation are seen as priorities to support sustainable and equitable access to the national health service in Turkmenistan. An electronic document management system has been created in medical institutions in Ashgabat and the regions to introduce modern information and communication technologies into the health-care system and the medical industry. A high-performance network has been formed for collecting, storing and using information.

Telemedicine services have been established that allow doctors to remotely monitor the progress of operations, communicate directly with colleagues working in other parts of the country or abroad, conduct diagnostics and emergency consultations, access remote lectures and exchange experience.
Telemedicine can improve the quality of care and treatment by improving the exchange of information and the process of managing patients in the context of leaving no one behind. Provision of distance learning is one of the key aspects for strengthening human resources. Medical seminars, conferences and lectures using video conferencing systems allow specialists to share their knowledge and skills not only theoretically but also practically, for example to broadcast surgical operations online for novice doctors. Other examples are the lectures provided by the Canadian State Research University and training conferences between the I.M. Sechenov First State Medical University in Moscow and the International Training and Research Centre in Ashgabat. As part of the implementation of innovations in education, the Turkmen State Medical University held a remote lecture for students of the Department of Pharmacy and the Saglyk enterprise to produce medicines at the Turkmendermansenagat Association of the Ministry of Health.

Telemedicine technologies are helping to improve the quality and level of specialized medical care, training medical staff using the resources of leading educational domestic and foreign databases, and bringing medical care closer to the population. In 2012 the project Advanced Development of the Telemedicine Training Programme for Turkmenistan was launched as part of the Tempus (Erasmus+) Programme funded by the European Union. The Turkmen participants from five universities took part where new subjects related to the field of telemedicine will be added to the schedule.

5.7 Data and digital health (accelerator 7)

The concept Digital Turkmenistan (2018) is designed to accelerate the transition to innovative branches of the national economy, increase employment in knowledge-intensive industries, introduce advanced technologies to production and fully switch to electronic document management. Digital and computer systems included in the network infrastructure have become an important factor in the development of society and represent a way to improve the efficiency of various sectors of the economy.

The information system for public health protection has become part of the unified information space in the country. In 2015 the Law of Turkmenistan “on protection of citizens’ health” introduced the most important provisions that define the possibilities and directions of development of information support for health care, as well as the concept of telemedicine. Regulatory mechanisms for the exchange of information about health and health protection based on electronic document management are established. Currently, electronic document management is available in medical institutions in Ashgabat and regional centres and there is a countrywide procedure for a document management system using electronic media.

The collection, analysis, dissemination and use of data help to improve the measurement and evaluation of health reforms, identify priority areas for improving public health and develop recommendations. To integrate health information systems, the national strategy for the development of the digital health system for 2019–2025 was developed and approved with the support of UNFPA, UNICEF and WHO. This strategy defines the goal, future tasks and areas of activity for information support for the protection and promotion of public health in order to implement State for building a national digital economy.

Electronic medical records have been initiated in individual medical institutions in Ashgabat. Smart identification cards have been issued to patients for both identification, and storage of personal information and a limited set of medical data.

Standard medical and clinical data collected in a medical facility allows medical professionals to track medical records over time, identify patients who should undergo preventive procedures such as vaccinations or laboratory tests. Data collected in the Emergency Medical Centre could potentially be used for disease surveillance.
6. Recommendations for future consideration

In terms of integrating the global SDGs into national strategies, programmes and action plans, and ensuring healthy lifestyles and promoting well-being for all at all ages, SDG 3 has leading role in achieving progress in the implementation of the 2030 Agenda. Health is an integral part of human capital and a driving force for sustainable development. It is important to strengthen the implementation of interrelated goals to achieve the highest attainable level of health and well-being for the prosperity and future development of Turkmenistan. Relying on the commitments of the GAP and the 2030 Agenda, the following recommendations for further forward-looking steps should be considered:

6.1 Recommendations based on the GAP E4As approach

6.1.1 Engage

- Support and expand the participation of all development partners in the SDG 3 agenda and the achievement of SDG 3 to achieve other SDGs.

- Strengthen international partnerships in the context of implementing the GAP, with a focus on achieving SDG 3 and the health-related targets in other SDGs for all people (e.g. promotion of South–South cooperation and partnership to support progressive changes in maternity protection policies and practices).

6.1.2 Assess

- Provide disaggregated data on the health-care system, health investments, laws on health, policy and strategy documents and levels of alignment with other policies.

- Improve the digital transformation of public health services and public health data and promote e-health initiatives.

- Introduce continuous assessment of consolidated action for health to provide a clearer picture of the progress achieved towards SDG 3.

6.1.3 Align

- Support development of a common understanding of global goals and targets and their indicators to help with aligning national goals, targets and indicators and encourage political will and successful cooperation between United Nations agencies and stakeholders to reach agreement on alignment as soon as possible.

- Continue to integrate the SDGs into national policies and strategies as a central focus for United Nations agencies and international partners in Turkmenistan.

- Ensure efforts to implement relevant SDG goals, indicators and priorities into national plans and programmes related to SDG 3 and the health-related SDGs are made at all levels of government.

- Establish mechanisms of meeting between United Nations and national agencies to continuously review and adjust levels of alignment.
6.1.4 Accelerate

➢ Continue to reform the health-care system in accordance with the SDGs as part of the implementation of the Socio-economic Development Programme 2019–2025.

➢ Identify accelerators to achieve priority goals within the health-care reform initiatives to improve health and well-being (see also section 6.2):

    ➢ improving the national approach to universal health coverage in collaboration with other ministries and agencies outside the health sector as these measures require broad participation of sectors and policies impacting the social determinants of health;

    ➢ developing a roadmap to support multisectoral actions;

    ➢ expanding fiscal space for sustainable health financing with a focus on reducing the financial burden on vulnerable populations;

    ➢ improving access to quality preventive and curative health services, which is of paramount importance in improving the overall health status of the country’s population; and

    ➢ supporting the development of a sustainable health workforce through increased efforts to recruit and retain highly qualified health professionals, while ensuring access to opportunities to improve the skills required for their professional activities.
6.1.5 Account

➢ Strengthen (or establish) regular and transparent review and reporting mechanisms to link achievements with investments.

➢ Provide information to the public, specific population groups and all stakeholders.

➢ Provide information to other sectors to support awareness of the integral role that health has in human capital and sustainable development.

6.2 Recommendations based on the accelerator themes

Within the framework of cooperation agreements between the Government and United Nations agencies in Turkmenistan, recommendations were made in the context of seven accelerator themes. Assessments of the national health system by experts from United Nations agencies indicate that so far, only five of the 13 global indicators of SDG 3 integrated into national documents have seen steady progress; three indicators are slowly moving towards completion and four are very slow or stagnated.

6.2.1 Universal health coverage and PHC

PHC is an effective and sustainable system and the cornerstone for meeting the health-related goals of the SDGs and making progress on other accelerator themes. A good PHC system is a platform for providing affordable, comprehensive and high-quality PHC and public health services within walking distance of homes and workplaces. A satisfactory PHC system should focus on:

➢ strengthening human resources, particularly in remote regions;

➢ expanding reproductive health services for all age groups, including women with disabilities;

➢ providing free access to prenatal services for vulnerable women;

➢ implementing institutional mechanisms, such as perinatal audits, to further reduce maternal mortality;

➢ continuing integration of mental health services into the PHC system;

➢ continuing the National Tuberculosis Control Programme, ensuring access to innovative TB diagnostics and treatment for all patients and addressing issues related to health system mechanisms, accounting and reporting systems; and

➢ strengthening guidelines for comprehensive responses to cancer, including cervical cancer.

6.2.2 Sustainable financing for health

Health financing is fragmented nationally and regionally, with an unregulated health-care payment mechanism leading to economic barriers for accessing medicines for the population. Deciding on a health insurance system (mandatory or voluntary) should be a priority. Provision of sustainable health financing reduces unmet need for services and financial difficulties arising from out-of-pocket expenditure by patients. This is accomplished through the establishment and gradual strengthening of the systems that mobilize adequate resources for health, and rationalizing spending to achieve the maximum return from invested funds on health care, including:

➢ providing access to data needed for health budget analysis;

➢ improving the health-care financing system; and

➢ improving the State medical insurance system.

6.2.3 Community and civil society engagement

Communities and civil society need to receive support for their effective participation, enabling them to bring life experience to develop policies and adopt human rights-based and accountable health measures that ensure that no one is left behind:
➤ developing new ways to interact with the population to encourage cooperation with health targets, such as direct contact; and

➤ increase the widespread use of communication technologies.

6.2.4 Determinants of health

Despite improvements in the implementation of SDG 3 (good health and well-being) and progress in achieving SDG 6 (clean water and sanitation) and SDG 8 (decent work and economic growth), the success of achieving healthy lifestyles and promoting well-being depends directly on SDG 2 (end hunger), SDG 4 (quality education), SDG 5 (gender equality), SDG 10 (reduced inequalities), SDG 11 (sustainable cities and communities), SDG 13 (climate action) and SDG 16 (peace, justice and strong institutions). Progress in these is too slow.

Maximizing investments and action in sectors other than health will support improvements in health and well-being.

Approaches should be human rights based and gender sensitive and include:

➤ monitoring development between and within regions and rural/urban areas for issues such as access to health and education using reliable disaggregated statistical data;

➤ strengthening the role of women in society through gender mainstreaming in Government and national strategies;

➤ strengthening a multilevel system of social services;

➤ strengthening measures to adapt to the impact of climate change on human health; and

➤ strengthening activities related to nutrition and physical activity.
6.2.5 Innovative programming in fragile and vulnerable settings and for disease outbreak responses

Responding to natural and human-caused disasters, including disease outbreaks, requires medical and humanitarian services to be created that can respond effectively and quickly:

- integrating existing national systems for monitoring various types of threat to ensure compliance with the IHR approach, where all types of threat are considered; and
- strengthening national capacity for early detection of infectious disease outbreaks and risk assessment.

6.2.6 Research and development, innovation and access

Sustainable and equitable access to health care for those who need it is supported by research and development initiatives and by innovations to improve access, for example:

- developing a national health strategy and action plan to cover 2021–2030 with an emphasis on improving the quality and level of specialized medical care, bringing it closer to the population using telemedicine;
- using the resources of leading educational bases abroad;
- developing a strategy and action plan to combat NCDs;
- improving access to health services for people with disabilities;
- improving access to rehabilitation services for people with functional limitations;
- strengthening disability policies, including disability assessment and determination systems;
- creating a multilevel system of social services; and
- developing a new national TB control programme for 2021–2025 that includes intersectoral approaches.

6.2.7 Data and digital health

Digital technologies can change the way health data are collected and used, can contribute to more equitable and rights-based health policies and improve patients' access to care at and PHC services. Initiatives include:

- ensuring that health system data are disaggregated; and
- improving the digital transformation of public health services and promoting e-health initiatives.
7. Conclusions

As this report and analysis of trends in health- and health related targets in Turkmenistan shows, there is good progress but also a number of unmet needs and challenges. There is strong political commitment to achieve the national priorities reflected in the State health programme, and successful cooperation between the Government of Turkmenistan, United Nations agencies other health development partners to achieve national health policy priorities. This applies particularly to the fight against NCDs, efforts to reduce the economic burden of ill health and to continuous improvement in reproductive, maternal, child and adolescent health. The legal framework for mobilizing multisectoral national, private sector and civil society health actions for health promotion and disease prevention is in place, as well as for promoting healthy lifestyles; this provides a good basis for future practical measures.

Through these initiatives, consolidated efforts for sustainable health financing and a reliable digital system for health care, research and data analysis, there is significant potential for coming closer to full achievement of the sustainable development targets in health by the year 2030. We hope that this report will provide a useful basis in this endeavour.
References


38. Estimated number of new cases in 2018, worldwide, both sexes, all ages. In: Cancer today [online database]. Lyon: International Agency for Research on Cancer; 2019 [https://gco.iarc.fr/today/online-analysis-table?v=2018&mode=cancer&mode_population=continents&population=900&population=935_908_900_795&key=asr&sex=0&cancer=39&type=0&statistic=5&prevalence=0&population_group=0&ages_group%5B%5D=0&ages_group%5B%5D=17&group_cancer=1&include_nmsc=1&include_nmsc_other=1#collapse-group-0-4, accessed 14 October 2020).


45. Climate change education and awareness project “Climate Box”. New York: United Nations Development Programme in Turkmenistan; 2020 [https://www.tm.undp.org/content/turkmenistan/en/home/projects/climate-box-toolkit.html#:~:text=%E2%80%9CClimate%20Box%E2%80%9D%20project%20aims%20to,version%20of%20the%20Climate%20Box.&text=The%20project%20is%20funded%20by%20the%20Government%20of%20the%20Russian%20Federation, accessed 14 October 2020).


Annex 1. Global SDGs, targets and indicators adopted in national documents

<table>
<thead>
<tr>
<th>SDG</th>
<th>Indicator</th>
<th>Turkmenistan</th>
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<td>Rating and source</td>
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**SDG 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture**

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

- **2.2.1 Prevalence of stunting** (height for age <–2 standard deviation from the median of the WHO Child Growth Standards) among children under-5 years of age
  - Rating: 11.5% (↑)

- **2.2.2 Prevalence of malnutrition** (weight for height >+2 or <–2 standard deviation from the median of the WHO Child Growth Standards) among children under-5 years of age, by type (wasting and overweight)
  - Rating: 4.2% (↑)

**SDG 3. Ensure healthy lives and promote well-being for all at all ages**

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births

- **3.1.1 Maternal mortality ratio**
  - Rating: 42 per 100 000 live births (↑)

- **3.1.2 Proportion of births attended by skilled health personnel**
  - Rating: 100% (↑)
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<th>SDG</th>
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<tr>
<td>3.2 By 2030, end preventable deaths of newborns and children under-5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25 per 1000 live births</td>
<td>3.2.1 Under-5 mortality rate</td>
<td>30.8 per 1000 live births (3)</td>
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<tr>
<td></td>
<td>3.2.2 Neonatal mortality rate</td>
<td>16.3 per 1000 live births (3)</td>
</tr>
<tr>
<td>3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases</td>
<td>3.3.1 Number of new HIV infections per 100 000 uninfected population, by sex, age and key populations</td>
<td>N/A</td>
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<tr>
<td></td>
<td>3.3.2 Tuberculosis incidence per 100 000 population</td>
<td>43.0 (2)</td>
</tr>
<tr>
<td></td>
<td>3.3.3 Malaria incidence per 1000 population</td>
<td>0 (2)</td>
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<tr>
<td></td>
<td>3.3.4 Hepatitis B incidence per 100 000 population</td>
<td>0.22 (2)</td>
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<tr>
<td></td>
<td>3.3.5 Number of people requiring interventions against neglected tropical diseases</td>
<td>N/A</td>
</tr>
<tr>
<td>3.4 By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being</td>
<td>3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease</td>
<td>29.5 per 100 000 (2)</td>
</tr>
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<td>3.4.2 Suicide mortality rate (deaths from self harm)</td>
<td>6.7 deaths per 100 000 (2)</td>
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<tr>
<td><strong>3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol</strong></td>
<td>3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol</td>
<td>4.8 litres per capita (4)</td>
</tr>
<tr>
<td><strong>3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents</strong></td>
<td>3.6.1 Death rate due to road traffic injuries</td>
<td>14.5 per 100 000 (2)</td>
</tr>
<tr>
<td><strong>3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes</strong></td>
<td>3.7.1 Proportion of women of reproductive age (aged 15–49 years) who have their need for family planning satisfied with modern methods</td>
<td>79.6% (1)</td>
</tr>
<tr>
<td></td>
<td>3.7.2 Adolescent birth rate (aged 10–14 years and aged 15–19 years) per 1000 women in that age group</td>
<td>22.0 live births per 1000 women (age 15–19) (1)</td>
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<th>SDG</th>
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<tr>
<td>3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all</td>
<td>3.8.1 Coverage of essential health services (defined as the average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population)</td>
<td>68.2% (5)</td>
</tr>
<tr>
<td></td>
<td>3.8.2 Number of people covered by health insurance or a public health system per 1000 population</td>
<td>N/A</td>
</tr>
<tr>
<td>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</td>
<td>3.9.1 Mortality rate attributed to household and ambient air pollution</td>
<td>79.0 per 100 000 (6)</td>
</tr>
<tr>
<td></td>
<td>3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe water, sanitation and hygiene for all (WASH) services)</td>
<td>4.0 per 100 000 (2)</td>
</tr>
<tr>
<td></td>
<td>3.9.3 Mortality rate attributed to unintentional poisoning</td>
<td>0.7 per 100 000 (2)</td>
</tr>
<tr>
<td>3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate</td>
<td>3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older</td>
<td>3.4% (4)</td>
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<tr>
<td>3.b Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all</td>
<td>3.b.1 Proportion of the population with access to affordable medicines and vaccines on a sustainable basis.</td>
<td>Diphtheria-tetanus-pertussis, 99%; meningococcal conjugate vaccine, 88%; pneumococcal conjugate vaccine, 92% (2)</td>
</tr>
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<td>3.b.2 Total net official development assistance to medical research and basic health sectors</td>
<td>0.88% of gross national income (2018) (2)</td>
</tr>
<tr>
<td>3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States</td>
<td>3.c.1 Health worker density and distribution</td>
<td>22.2 (doctors) and 46.3 (nurses) per 1000 (2)</td>
</tr>
<tr>
<td>3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks</td>
<td>3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness</td>
<td>67% (2018) (7)</td>
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<tr>
<td>SDG 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</td>
<td>4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education</td>
<td>4.2.1 Proportion of children under-5 years of age who are developmentally on track in health, learning and psychosocial well-being, by sex</td>
</tr>
<tr>
<td>SDG 5. Achieve gender equality and empower all women and girls</td>
<td>5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation</td>
<td>5.2.1 Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, by form of violence and by age</td>
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<tr>
<td></td>
<td></td>
<td>5.2.2 Proportion of women and girls aged 15 years and older subjected to sexual violence by persons other than an intimate partner in the previous 12 months, by age and place of occurrence</td>
</tr>
<tr>
<td></td>
<td>5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation</td>
<td>5.3.1 Proportion of women aged 20–24 years who were married or in a union before age 15 and before age 18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.3.2 Proportion of girls and women aged 15–49 years who have undergone female genital mutilation/cutting, by age</td>
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<tr>
<td>SDG 6. Ensure availability and sustainable management of water and sanitation for all</td>
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<td></td>
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<tr>
<td>6.1</td>
<td>By 2030, achieve universal and equitable access to safe and affordable drinking water for all</td>
<td>94.5% (2015) (9)</td>
</tr>
<tr>
<td>6.1.1</td>
<td>Proportion of population using safely managed drinking water services</td>
<td>↑</td>
</tr>
<tr>
<td>6.2</td>
<td>By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations</td>
<td>96.6% (9)</td>
</tr>
<tr>
<td>6.2.1</td>
<td>Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water</td>
<td>↑</td>
</tr>
<tr>
<td>6.3</td>
<td>By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</td>
<td>9.8% (2)</td>
</tr>
<tr>
<td>6.3.1</td>
<td>Proportion of wastewater safely treated</td>
<td></td>
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<tr>
<td>6.3.2</td>
<td>Proportion of bodies of water with good ambient water quality</td>
<td>N/A</td>
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<tr>
<td>SDG 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</td>
<td></td>
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<tr>
<td>8.7</td>
<td>Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms</td>
<td>0.3% (10)</td>
</tr>
<tr>
<td>8.7.1</td>
<td>Proportion and number of children aged 5–17 years engaged in child labour, by sex and age</td>
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<tr>
<td>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</td>
<td>8.8.1 Frequency rates of fatal and non-fatal occupational injuries, by sex and migrant status</td>
<td>1.46 (10)</td>
</tr>
<tr>
<td></td>
<td>8.8.2 Increase in national compliance of labour rights (freedom of association and collective bargaining) based on International Labour Organization (ILO) textual sources and national legislation, by sex and migrant status</td>
<td>N/A</td>
</tr>
<tr>
<td>10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status</td>
<td>10.2.1 Proportion of people living below 50 per cent of median income, by age, sex and persons with disabilities</td>
<td>7.2% (10)</td>
</tr>
<tr>
<td>10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard</td>
<td>10.3.1 Proportion of the population reporting having personally felt discriminated against or harassed within the previous 12 months on the basis of a ground of discrimination prohibited under international human rights law</td>
<td>N/A</td>
</tr>
</tbody>
</table>
### SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable

<table>
<thead>
<tr>
<th>SDG 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improve road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons</th>
<th>11.2.1 Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities</th>
<th>57.5% (2018) (6)</th>
</tr>
</thead>
</table>

| SDG 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations | 11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people | N/A |
| 11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services | N/A |

### SDG 12. Ensure sustainable consumption and production patterns

<p>| SDG 12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment | 12.4.1 Number of parties to international multilateral environmental agreements on hazardous waste, and other chemicals that meet their commitments and obligations in transmitting information as required by each relevant agreement | N/A |
| 12.4.2 Hazardous waste generated per capita and proportion of hazardous waste treated, by type of treatment | N/A |</p>
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<th>SDG</th>
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<tr>
<td>SDG 13. Take urgent action to combat climate change and its impacts</td>
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<tr>
<td>13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries</td>
<td>13.1.1 Number of countries with national and local disaster risk reduction strategies</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>13.1.2 Number of deaths, missing persons and persons affected by disaster per 100 000 people</td>
<td>N/A</td>
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<tr>
<td>SDG 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</td>
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<tr>
<td>16.1 Significantly reduce all forms of violence and related death rates everywhere</td>
<td>16.1.1 Number of victims of intentional homicide per 100 000 population, by sex and age</td>
<td>2.9% (6)</td>
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<td></td>
<td>16.1.2 Conflict-related deaths per 100 000 population, by sex, age and cause</td>
<td>N/A</td>
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<td></td>
<td>16.1.3 Proportion of population subjected to physical, psychological or sexual violence in the previous 12 months</td>
<td>N/A</td>
</tr>
<tr>
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<td>16.1.4 Proportion of population that feel safe walking alone around the area they live</td>
<td>89.9% (6)</td>
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<tr>
<td>16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children</td>
<td>16.2.1 Proportion of children aged 1–17 years who experienced any physical punishment and/or psychological aggression by caregivers in the past month</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>16.2.2 Number of victims of human trafficking per 100 000 population, by sex, age and form of exploitation</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>16.2.3 Proportion of young women and men aged 18–29 years who experienced sexual violence by age 18</td>
<td>N/A</td>
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</tbody>
</table>

*Note: N/A: not available.*

**References**


Annex 2. Strategies, programmes and plans and the level of integration of the adopted SDG goals and indicators identified in the RIA

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<thead>
<tr>
<th>National document</th>
<th>No. integrated SDG targets</th>
<th>No. integrated indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Programme for the Prevention and Control of Tuberculosis in Turkmenistan 2016–2020</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>National Programme to Control the Spread of HIV/Sexually Transmitted Diseases/Parenteral Viral Hepatitis in Turkmenistan 2017–2021</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>The State Programme “Health” of the President of Turkmenistan (No. 14336, adopted 17 July 2015)</td>
<td>29</td>
<td>20</td>
</tr>
<tr>
<td>National Nutrition Programme 2020–2025&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>No indicators, only activities within responsible ministries and timelines.
Annex 3. National laws and regulations related to SDG 3

Laws and regulations on human rights and health

Codex of Turkmenistan “on social protection of the population”

Family Code of Turkmenistan

General Programme Providing Clean Drinking-water to Settlements of Turkmenistan

Goals, targets and indicators of the Sustainable Development Goals adopted by the Government of Turkmenistan, 2016–2030

Law of Turkmenistan “on employment of the population”

Law of Turkmenistan “on preventing human trafficking”

Law of Turkmenistan “on state guarantees of the provision of equal rights and equal opportunities for men and women”

Law of Turkmenistan “on state guarantees of the rights of the child”

Law of Turkmenistan “on the Ombudsman”


National Action Plan of Turkmenistan on Combating Human Trafficking for 2016–2018

National Action Plan of Turkmenistan on Gender Equality for 2015–2020


National Mental Health Strategy for 2018–2022

National Programme for Improving the Sphere of Labour Employment and Creating New Jobs in Turkmenistan for 2015–2020

National Programme for Support and Development of Sports and Physical Education in Turkmenistan for 2011–2020

National Programme of Socio-economic Development of Turkmenistan for 2011–2030
National Programme of the President of Turkmenistan on the Transformation of Social Conditions of the Population of Villages, Settlements, Towns of Etraps and Etrap Centres to 2020

National Programme of Turkmenistan for Early Development and Preparation for the Child’s School for the Period 2011–2015

National Strategy on Early Childhood Development in Turkmenistan 2020–2025

Programme of the President of Turkmenistan on the Socio-economic Development of the country for 2019–2025

Social and Economic Development Programme 2019–2025, based on the principles of the 2030 Agenda and providing for the achievement of the SDGs

State Programme of Youth Policy for 2015–2020

Laws and regulations on health care

Law “on health protection of citizens of Turkmenistan”

Law “on promotion and support of breast feeding”

Law “on provision of psychiatric services”

Law “on psychological services”

Law of Turkmenistan “on provision of medicines”

Action Plan for the Development of the Health Resort System of Turkmenistan

Comprehensive Interagency Action Plan to Prevent the Return Malaria in Turkmenistan for the Period 2016–2020


National Policy to Strengthen the Laboratory Service, with Operational Plan for 2018–2020

National Programme 2018–2022 for the Protection of Mental Health of the Population of Turkmenistan

National Programme and Action Plan for Infant and Child Feeding Early Years in Turkmenistan 2017–2021
National Programme for Prevention of Measles and Congenital Rubella Infections in Turkmenistan

National Programme for Safe Handling and Disposal of Medical Devices Waste in Health Care Institutions


National Programme for the Prevention and Control of Tuberculosis 2016–2020

National Programme for the Prevention of Harmful Effects of Alcohol in Turkmenistan for 2018–2024, and the action plan for its implementation

National Programme of Turkmenistan for the Improvement of Perinatal Medical Care for 2014–2018

National Programme of Turkmenistan to Combat HIV Infection for 2012–2016

National Programme on Healthy Nutrition of the Population of Turkmenistan 2020–2025

National Programme on Immunoprophylaxis for 2003–2020

National Road Safety Programme in the Turkmenistan for 2015–2017


National Strategy for the Fight Against Breast Cancer and Cervical Cancer in Turkmenistan


National Strategy on Reproductive Health 2010–2020

National Strategy to Strengthen Control Measures for Viral Hepatitis in Turkmenistan for 2019–2030

State Programme “Health” of the President of Turkmenistan


State Programme on the Development of the Pharmaceutical Industry of Turkmenistan for 2011–2015
Annex 4. National scores in implementation of the IHR

The following table comes from the 2016 WHO joint external evaluation of the core capacities for the IHR in Turkmenistan (1).

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Indicators</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>National legislation, policy and financing</td>
<td>P.1.1 Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient for implementation of the IHR</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>P.1.2 The state can demonstrate that it has adjusted and aligned its domestic legislation, policies and administrative arrangements to enable compliance with the IHR (2005)</td>
<td>4</td>
</tr>
<tr>
<td>IHR coordination, communication and advocacy</td>
<td>P.2.1 A functional mechanism is established for the coordination and integration of relevant sectors in the implementation of the IHR</td>
<td>3</td>
</tr>
<tr>
<td>Antimicrobial resistance</td>
<td>P.3.1 Antimicrobial resistance detection</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>P.3.2 Surveillance of infections caused by resistant pathogens</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>P.3.3 Health-care associated infection (HCAI) prevention and control programmes</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>P.3.4 Antimicrobial stewardship activities</td>
<td>1</td>
</tr>
<tr>
<td>Zoonotic disease</td>
<td>P.4.1 Surveillance systems in place for priority zoonotic diseases and pathogens</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>P.4.2 Veterinary or animal health workforce: human and animal</td>
<td>2/3</td>
</tr>
<tr>
<td></td>
<td>P.4.3 Mechanisms for responding to zoonoses and potential zoonoses are established and functional</td>
<td>4</td>
</tr>
<tr>
<td>Food safety</td>
<td>P.5.1 Mechanisms are established and functioning for detecting and responding to foodborne disease and food contamination</td>
<td>5</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Biosafety and biosecurity</td>
<td>P.6.1 Whole-of-government biosafety and biosecurity system is in place for human, animal and agricultural facilities</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>P.6.2 Biosafety and biosecurity training and practices</td>
<td>2</td>
</tr>
<tr>
<td>Immunization</td>
<td>P.7.1 Vaccine coverage (measles) as part of national programme</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>P.7.2 National vaccine access and delivery</td>
<td>5</td>
</tr>
<tr>
<td>National laboratory system</td>
<td>D.1.1 Laboratory testing for detection of priority diseases</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>D.1.2 Specimen referral and transport system</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>D.1.3 Effective modern point-of-care and laboratory-based diagnostics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>D.1.4 Laboratory Quality System</td>
<td>4</td>
</tr>
<tr>
<td>Real-time surveillance</td>
<td>D.2.1 Indicator and event-based surveillance systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>D.2.2 Interoperable, interconnected, electronic real-time reporting system</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>D.2.3 Analysis of surveillance data</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>D.2.4 Syndromic surveillance systems</td>
<td>3</td>
</tr>
<tr>
<td>Reporting</td>
<td>D.3.1 System for efficient reporting to WHO, the Food and Agriculture Organization of the United Nations (FAO) and World Organisation for Animal Health</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>D.3.2 Reporting network and protocols in country</td>
<td>2</td>
</tr>
<tr>
<td>Annex 4 Table contd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Workforce development</strong></td>
<td><strong>Preparedness</strong></td>
<td></td>
</tr>
<tr>
<td>D.4.1 Human resources are available to implement IHR core capacity requirements</td>
<td>R.1.1 Multihazard National Public Health Emergency Preparedness and Response Plan is developed and implemented</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.1.2 Priority public health risks and resources are mapped and utilized</td>
<td></td>
</tr>
<tr>
<td>D.4.2 Field epidemiology training programme or other applied epidemiology training programme in place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D.4.3 Workforce strategy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Emergency response operations</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.2.1 Capacity to activate emergency operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.2.2 Emergency operations centre operating procedures and plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.2.3 Emergency operations programme</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.2.4 Case management procedures are implemented for IHR-relevant hazards</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Linking public health and security authorities</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.3.1 Public health and security authorities (such as law enforcement, border control and customs) are linked during a suspected or confirmed biological event</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Medical countermeasures and personnel deployment</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R.4.2 System is in place for sending and receiving health personnel during a public health emergency</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Score</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Risk communication</td>
<td>R.5.1 Risk communication systems (for example, plans and mechanisms)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>R.5.2 Internal and partner communication and coordination</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>R.5.3 Public communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>R.5.4 Communication engagement with affected communities</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>R.5.5 Dynamic listening and rumour management</td>
<td>2</td>
</tr>
<tr>
<td>Points of entry</td>
<td>PoE.1 Routine capacities are established at points of entry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PoE.2 Effective public health response at points of entry</td>
<td>3</td>
</tr>
<tr>
<td>Chemical events</td>
<td>CE.1 Mechanisms are established and functioning for detecting and responding to chemical events or emergencies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CE.2 Enabling environment is in place for the management of chemical events</td>
<td>3</td>
</tr>
<tr>
<td>Radiation emergencies</td>
<td>RE.1 Mechanisms are established and functioning for detecting and responding to radiological and nuclear emergencies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>RE.2 Enabling environment is in place for the management of radiological emergencies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Reference**

The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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WHO/EURO:2020-1802-41553-56703

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