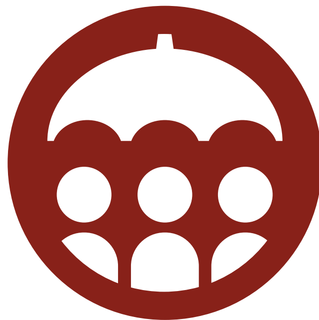
Ministerul Sănătății,
Muncii și Protecției Sociale
al Republicii Moldova

Assessment of the Healthcare System Development Strategy 2008–2017 of the Republic of Moldova

Final report



Assessment of the Healthcare System Development Strategy 2008–2017 of the Republic of Moldova

Final report

Abstract

In 2007 the Government of the Republic of Moldova launched the Healthcare System Development Strategy 2008–2017 to strengthen the overall performance of the health system.

This report gathers evidence to enable progress and performance to be assessed. It brings together contributions from national and local experts, as well as analysis of key indicators used in Health System Performance Assessment and monitoring and evaluation schemes for health system programmes.

The assessment describes and analyses the developments and results achieved in health governance, funding, service delivery and resource management. It also maps areas targeted for future work, to enable sound health policies to be developed, thus enhancing health system performance in the Republic of Moldova.

Keywords

REPUBLIC OF MOLDOVA
HEALTH SYSTEM PERFORMANCE ASSESSMENT
GOVERNANCE
HEALTHCARE FINANCING
HEALTH SERVICES ACCESSIBILITY
HEALTH PERSONNEL
UNIVERSAL COVERAGE
COMMUNITY PARTICIPATION

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List of abbreviations

CEDAW	United Nations Convention on the Elimination of All Forms of Discrimination against Women
CIS	Commonwealth of Independent States
CME	continuing medical education
CNAMUP	National Centre for Pre-hospital Emergency Medical Assistance
COPD	chronic obstructive pulmonary disease
CRPD	United Nations Convention of the Rights of Persons with Disabilities
CSO	civil society organization
CT	computerized tomography
CVD	cardiovascular disease
DRG	diagnosis-related group
EC	European Commission
ECDC	European Centre for Disease Prevention and Control
ECG	electrocardiogram
EDQM	European Directorate for the Quality of Medicines and Healthcare
EU	European Union
GDP	gross domestic product
HBS	Household Budget Survey
HIS	health information system
HIV/AIDS	human immunodeficiency virus/acquired immune deficiency syndrome
HSPA	Health System Performance Assessment
ICF	International Classification of Functioning, Disability and Health
INN	International Nonproprietary Names
IOM	International Organization for Migration
LPA	Local Public Authority
MDL	Moldovan lei (currency)
MDR-TB	multidrug-resistant tuberculosis
MHI	mandatory health insurance
MP(s)	Member(s) of Parliament
MRI	magnetic resonance imaging
NBS	National Bureau of Statistics
NCDs	noncommunicable diseases
NCF	Nurturing Care Framework
NCHM	National Centre of Health Management
NCPH	National Centre of Public Health
NGO	nongovernmental organization
NHIC	National Health Insurance Company
ODA	Official Development Assistance
OMCL	Official Medicines Control Laboratory
OOP	out-of-pocket
P4P	pay-for-performance
PEN	Package of Essential Noncommunicable Disease Interventions
PHC	Primary Health Care
RR/MDR	Rifampicin-resistant/multidrug-resistant
SDC	Swiss Agency for Development and Cooperation
SDR	Standardized Death Rate
SSPHS	State Service on Public Health Surveillance
STIs	sexually transmitted infections
SWOT	strengths, weaknesses, opportunities and threats
TB	Tuberculosis
UNCRC	United Nations Convention on the Rights of the Child
UNFPA	United Nations Population Fund
WHO	World Health Organization

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Executive summary

In 2007 the Government of the Republic of Moldova launched the Healthcare System Development Strategy (hereafter: the Strategy) for 2008–2017 with the overall goal of strengthening the performance of the health system. The Strategy was developed from a health system perspective and its focus was to improve four action areas: (i) management/stewardship of the health care system; (ii) funding of the health care system and payment mechanisms for health care services; (iii) provision of health care services; and (iv) resource management.

The need for large-scale health transformations has been acknowledged, as health care provision and organization have changed substantially over the decades, along with the epidemiological profile of the Republic of Moldova. During 2008–2017, the stated objectives of the Strategy remained constant, despite periods of political instability and international financial crisis. In this context, the 2013 National Development Strategy developed by the Government of the Republic of Moldova did not list health as one of the priority areas in which to invest to foster economic growth and reduce poverty. WHO has strongly encouraged the country to reconsider health as a priority and as such it will be more keenly prioritized in the new National Development Strategy for the Republic "Moldova 2030".

The Republic of Moldova is signatory to various international treaties that have an impact on health, including the United Nations Convention on the Rights of the Child (UNCRC, signed by the Republic of Moldova in 1993), the Convention on Elimination of All Forms of Discrimination against Women (CEDAW, signed in 1994) and the European Convention on Human Rights (signed in 1995). Since 2007, the starting year of the current Healthcare System Development Strategy, the Republic of Moldova ratified the United Nations Convention of the Rights of Persons with Disabilities (CRPD) and embarked on the 2030 Agenda for Sustainable Development. Compliance with the United Nations conventions mentioned above (UNCRC, CEDAW, CRPD) has been positive in terms of ensuring the legislative framework is in place, but a few barriers to their successful realization are still yet to be overcome, by implementing a whole-of-society and whole-of-Government approach.

The Republic of Moldova suffered from the 2009 internal political and global financial crisis, with a peak in the country's unemployment rate in 2010 (7.4%). Strong and persistent labour migration is shrinking the population and affecting its epidemiological profile. There are marked differences across rayons in terms of the old-age dependency ratio. The share of the population with positive perception of their health has grown: roughly half of the population (50.6%) believed their health status was good or very good in 2016, compared to 41.2% in 2008. However, prevalence of chronic diseases is high, with circulatory and respiratory system diseases and diseases of the digestive system as the main causes of morbidity. Prevalence of diabetes and of different forms of cancer has grown significantly over time, and prevalence of communicable diseases (such as tuberculosis (TB) and HIV/AIDS) is high. Particularly worrying is the increasing number of patients with multidrug-resistant TB (MDR-TB). Alcohol and tobacco consumption are major areas of concerns in public health. The under-5 mortality rate has consistently fallen between 2007 and 2015. The Republic of Moldova adopted the international live birth definition in 2008, and the survival rate for low birth-weight and very low birth-weight newborns registered a positive trend.

Strengthening governance for improved health outcomes

Important steps were achieved with the implementation of the European Union (EU)-Moldova Action Plan (2007–2009) and especially with the signing of the EU's Eastern Partnership in 2009 and the entry into force

of the Association Agreement between the EU and the Republic of Moldova in mid-2016. This committed the country to reforming its domestic policies on EU laws and practice, and benefiting from EU support.

The Strategy envisaged the strengthening of capacity of the Ministry of Health to implement policies and strategies. To this end, several capacity-building efforts and initiatives at both national and local levels have been organized since 2008. Most of these initiatives were supported with the technical and financial help of development partners. The implementation of management decisions suffers from limited effectiveness, particularly at local level. Local Public Authorities (LPAs) are confronted with limited financial and human resources that restrict both their ability to invest in the medical infrastructure (resulting in outdated buildings, for example) and their implementation capacity. The Government's goal to decentralize health service delivery responsibility further entails several challenges, as there is currently limited capacity to govern and co-finance health care at local level.

Participation and inclusion are important aspects of governance that serve the purpose of involving stakeholders in health decision-making. Civil society organizations (CSOs) are engaged in identifying problems and promoting policies in health but only participate in a limited capacity during implementation. CSOs face a shortage of knowledge and expertise for advocacy activities and difficulties in terms of financial sustainability. Patient participation in clinical decision-making must be encouraged, rendering patients so-called co-producers of care. Participation should be promoted in the running of health services at various levels; however, for this to happen, the competences of patients' organizations need to be further developed and fostered.

Intersectoral collaboration is well established on paper, as almost all policy documents are developed with the involvement of other sectors. In practice, however, difficulties in intersectoral collaboration lie in the implementation of adequate policies. For intersectoral collaboration to work effectively, it is necessary to increase the capacity of health and social professionals, law enforcement officers, and education officers at national and local levels.

A key element of governance is transparency, allowing people to follow and understand the decision-making process. The absence of a unified health information system (HIS) hinders the monitoring and evaluation of policies and therefore also transparency. The system suffers from fragmentation, with data not used cooperatively, which severely limits capacity to link the general determinants of health to how they contribute to activities, outcomes and results. Limited capacity for analysis and synthesis of health information is a barrier to effective use of the vast amount of available data; it in turn limits the capacity to generate information on causality and to monitor the impact of policy interventions. The National Centre of Health Management (NCHM) and the National Centre of Public Health (NCPH) – which were merged in 2017 among other institutions into the National Public Health Agency – overlapped in some functions. In this context, it would be advisable to carry out an in-depth functional analysis of the newly established National Public Health Agency to determine the most effective distribution of responsibilities.

Sustaining public funding, increasing financial protection, enhancing contracting of health services and developing payment mechanisms

Mandatory health insurance (MHI) was introduced in 2004 with the aim to increase the financial stability of the health system and guarantee access to health services and financial protection for the whole population. In 2017 almost 87% of the population had health insurance coverage. This share has grown over time.

In 2007, the Government of Moldova committed to increase the public funding of the health system. Public spending on health has grown in absolute value from 2.6 million Moldovan lei (MDL) in 2007 to MDL 7.3

million in 2017. Yet, the out-of-pocket (OOP) share of total spending on health is high. The incidence of catastrophic OOP payments was higher in 2015 and 2016 (17.1%) than it had been in all previous years. In all years, catastrophic health spending is heavily concentrated among the poorest quintile of the population. For all years and across all quintiles, outpatient medicines account for the largest share of OOP payments among households with catastrophic spending (74% on average in 2016). Financial protection remains one of the biggest challenges, as the Republic of Moldova has fully committed to remove financial barriers to access health care and to progress towards universal health coverage in line with the Sustainable Development Goals (SDGs; Goal #3).

The benefits package (defined by the Unified Programme) has expanded steadily over the evaluation period but it is still in need of further refinement of its scope to improve financial protection of the population. At present, decisions on inclusion of services in the benefits package are not based on a detailed cost–effectiveness assessment and/or comprehensive budget impact analysis.

The Strategy enabled reforms of payment mechanisms with the introduction of performance indicators (a pay-for-performance (P4P) approach) in primary health care (PHC). An ongoing project at the time of the assessment aims to have P4P indicators fully introduced into inpatient care by the end of 2019. The practical implementation of performance indicators suffers from various drawbacks, such as: the initial high number of performance indicators in PHC (19 indicators that have been reduced to six); the challenges related to the calculation of hospital costs, and of cost-weights in the hospital (diagnosis-related group (DRG)) system; the lack of creation and implementation of standardized national registers; and the absence of an electronic HIS to link PHC and hospital data. The existence of performance indicators in PHC and their absence in specialized ambulatory care does not foster quality of care in specialized ambulatory care settings and inhibits continuity of service provision by PHC and specialized ambulatory care institutions.

The current legal framework allows the National Health Insurance Company (NHIC) to contract selectively with individual public providers. In practice, little selective contracting has taken place so far and only among private providers. One of the main criteria used for contracting has been the accreditation status of providers. Currently, almost all major health care providers are accredited and there are only a few institutions that are not accredited but yet still have contracts with the NHIC. To this end, the role, statute and institutional independency of the National Council for Evaluation and Accreditation in Health (part of the National Public Health Agency since 2017) should improve. The process of accreditation should be based on international practice, using clinical and economic criteria. Providers should also be stimulated to play an active role in terms of the contracting of services. Currently, they are not involved in the preparation of contracts and decisions and the budget is often determined on the basis of historical funding, adjusted for inflation. The current structure of the NHIC allows for an increased level of transparency and accountability of its operations, compared to 2007. It is desirable to further assess the level of accountability and transparency of the NHIC, in terms of both suppliers and the public. This means raising public awareness of the performance of providers, as well as providing feedback to providers on their performance results, as compared with others. Additionally, greater cooperation across the NHIC's departments would be beneficial.

Transforming services and models of care to meet contemporary health challenges

The changing epidemiological situation, the complexity of the organization and structure of health institutions and the evolving business environment are factors that need to be considered in the modernization and upgrading of the models of care. The transformation of health services includes providing training for health managers to strengthen management capacity, particularly at local level. Since 2005 the School of Public Health Management offers continuous training for doctors and managers working in the health system.

This is a welcome development in terms of enhancing skills and capabilities of health managers at all levels; a permanent system to ensure the training of health managers is also required.

Several national programmes were implemented during the period assessed, aiming to improve integration of services, accessibility of them, and achieve better health outcomes. A few examples are the emergency national programme that reorganized emergency services across the whole country; the strengthening of PHC services – in particular the improvement of the physical infrastructure and the training and management of human resources; the introduction of community mental health services by developing legislation, combatting stigma and discrimination of psychiatric patients, and building up community-based mental health care provision; and proposals for the reorganization of hospital services to reduce fragmentation. These are solid steps in the right direction, but there are concerns about the practical implementation of (some of) these programmes, and in particular the quality of health services.

The National Public Health Strategy (2014–2020) takes a focused approach to strengthening public health services. Several national programmes are being implemented in the areas of vaccine-preventable diseases, communicable diseases and noncommunicable diseases (NCDs). Public health and PHC services are increasingly intertwined through the testing and implementation of Package of Essential Noncommunicable Disease Interventions (PEN) protocols, which facilitate a continuum of care that allows for coordination, collaboration and information transfer between different caregivers in different settings. Community nurses play a pivotal role in this; on paper their role should have a significant impact, but the work at community level is challenging so far. There are some additional barriers worth noting in the implementation of public health activities, in particular the sensitivity of surveillance systems appears to be variable and some diseases of public health importance are not yet officially recognized by the health system.

Certain health concerns deserve policy attention to identify their root causes: for example, the increasing prevalence of diabetes (which more than doubled between 2008 and 2017); a growing trend in different types of cancer; and an overall increase in TB and HIV prevalence in the population. These can be attributed to various factors, such as limited prevention services, poor management of diseases, and/or better detection of certain diseases over others.

During the period encompassed by the Strategy, the number of tasks and responsibilities that are being shifted over to the PHC setting has increased, but this is not always accompanied by an accurate estimation of the necessary financial and human resources needed to carry out these additional activities. These developments potentially put a strain on the system, impacting the quality of services.

Between 2008 and 2017, the number of hospital beds remained relatively stable and the number of public hospitals was reduced from 364 to 71. The reduction of the number of hospitals has been partly accompanied by a reorganization of rehabilitation and home services to face the demand for health services. However, the reconfiguration and modernization of hospitals is suffering from a few bottlenecks, such as the need for more comprehensive foresight of health system needs (particularly from health managers); a reform of the continuum of care (that is, the interface between hospitals and all other levels of care); improving the quality of health services; and better governance of hospitals. Except for hospitals in Chișinău, Orhei, and Balti there is generally a lack of advanced medical equipment in the country, and the conditions of the buildings is unsatisfactory, since many hospitals have not had major repairs for many years.

Several clinical standards, guidelines and protocols in PHC, specialized ambulatory care and mental health were adopted during the period assessed. These may be considered a good model, owing to their comprehensiveness and clarity of use in practice, but the multitude of clinical protocols and approved norms and regulations on paper will not by itself guarantee better quality of services. It is important to facilitate their application in practice, monitor it by transposing them into the future electronic medical

records and related health information programmes. In this area there is room for improvement, given that the current electronic HISs in place do not allow for interoperability standards, in terms of quality, security, scalability, reliability and timeliness in data storage and processing terms.

Medicines and medical devices are an important area of health system design and the burden of OOP spending is significant in the Republic of Moldova, in particular for outpatient medicines. The regulation of the pharmaceutical sector is being harmonized with the EU ***acquis communautaire*** as one of the country's strategic objectives. A few areas deserve more focus in the coming years, such as the monitoring of medicine pricing; enhanced physical access to medicines, especially in the most deprived geographical areas; the country's preparation for the enforcement of law adjustments (e.g. TRIPS Agreement on data protection and exclusivity provisions); the strengthening though capacity-building of the assessment of medicines; the establishment of international collaboration to access European medicines databases; the implementation of better mechanisms to fight against counterfeit medicines; and capacity-building in procurement.

Resource generation

The importance of human resources in health is recognized in the Strategy as a key element to ensure a health system that functions well and is responsive to population health needs. The Government of the Republic of Moldova has reflected medium and long-term policies in health human resources in various official programmes. The most prominent issues to tackle are the migration abroad of qualified medical personnel; the irregular geographical distribution of health resources; the low motivation of human resources (resulting from low salaries and poor working conditions); the lack of young specialists, particularly in rural areas; the less attractive remuneration of health staff in the public sector vis-à-vis the private and other sectors; corruption and nepotism; lack of opportunities for professional development; unfriendly attitudes in institutions; and the socio-political situation in the country. Other factors are reflected in the Strategy for the Development of Human Resources in Health (2016–2025), developed in 2015.[1]

Several investments in the modernization of medical facilities and their equipment have been realized over the years, often with financial and technical help from development partners. The physical state of hospitals, however, is mostly characterized by a worn-out infrastructure. The changing demographic and epidemiological profile of the Republic of Moldova implies a reconfiguration of inpatient services is needed. New measures are needed to assist the ageing population and patients suffering from chronic diseases, as well as to differentiate between acute and long-term care.

Between 2008 and 2017, Moldova spent on average about 11% of its gross domestic product (GDP) on health (with about 5% from public sources), which is higher than the average for the WHO European Region (8.3%). Public allocations over the past few years appear to be growing when considered in the national currency (MDL), but when converted into US$, public spending has decreased in 2015 and 2016 owing to exchange rate fluctuations.

The general macroeconomic context remains one of the country's main constraints to raising sufficient (more) resources in health. The need remains for continued assistance through external funds, especially for new capital investments. The Republic of Moldova should continue to increase public spending on health, prioritizing investments in the health sector. Public spending on health could be used more efficiently by embarking on a long-awaited reorganization and rationalization of hospital care and by focusing on PHC.

1 Government of the Republic of Moldova Decision No. 452 of 15 April 2016.

Recommendations and conclusions

The Strategy assessment has evidenced that, over the decade assessed, the stated objectives of the Strategy have remained constant, despite periods of political instability and economic crisis. The Strategy is viewed by stakeholders as an important document that has set the vision, priorities and goals of the Ministry of Health and the Government of the Republic of Moldova more widely. It is a broad document; thus, specific, sectoral action plans represent a valuable additional instrument to better monitor the implementation and the outcomes of activities.

The following recommendations stem from the Strategy assessment.

Governance should be strengthened to enhance health outcomes. The capacity to implement changes is one of the main challenges. Particularly at local level, there is a lack of financial resources, as well as human personnel with the skills to contribute to sound health policy-making. The roles and responsibilities of the different levels of government are confusing and need improving. Vertical and horizontal accountability are weak as not all citizens are aware of their rights and choices, nor are they encouraged to use their voice; patient organizations are not actively involved in defining and implementing polices; CSOs and nongovernmental organizations (NGOs) only participate sporadically in the decision-making process, which leaves the needs of underrepresented and vulnerable groups unaddressed, the public interest not defended and the Government's functions unobserved.

Beyond the formal health system, governance means collaborating with other sectors, including the private sector and civil society, to promote and maintain population health in a participatory and inclusive manner. The implementation of the principles of shared governance is an effective strategy that could be further considered and developed in the Republic of Moldova.

Financial protection and efficient funding and contracting mechanisms should be guaranteed. Financial protection is central to universal health coverage and a core dimension of health system performance assessment (HSPA). OOP spending on health is significant, in particular for outpatient medicines. The Republic of Moldova has a higher incidence of households with catastrophic health spending than many other countries in Europe. Catastrophic health spending has increased over time and is heavily concentrated among the poorest quintile of the population. Financial protection can be enhanced through health system measures – for example, by specifically targeting the groups of people most in need of better protection, and an intersectoral approach.

The limited availability of financial revenue implies that the upgrading of the health system should focus strongly on efficiency and quality improvement. To enlarge the fiscal context and the share of the budget allocated to health, several measures can be explored: expansion of the tax base, ensuring wages are within the official taxation envelope (reducing undeclared income); excise taxes on alcohol and tobacco products; and so on. Revising the formula for transferring funds to health from the State budget can also contribute to increasing health financing. Purchasing mechanisms and contracting services should be redirected towards the objectives of greater accessibility, quality and efficiency. This implies a stronger role for the NHIC and the National Council for Evaluation and Accreditation in Health (since 2017 merged with the National Public Health Agency), to be

selective in the accreditation of institutions and include parameters in the contracts with facilities that reflect the quality of care, performance indicators and a proportional geographic distribution of health services.

Investment in the quality of health services is needed for better outcomes. The situational analysis shows that quality management is fragmented, health system performance is not yet embedded in the learning cycle and there is limited foresight (e.g. from health managers) in terms of the scope of quality interventions. Strategies for quality improvement should focus on: ensuring leadership with a clear and coherent plan for quality improvement; providing information via a transparent information/data system to support decision-makers in informed policy-making; engaging patients and the population to ensure their voice is heard and in preparation and promotion of health policies; ensuring regulation and standards to improve clinical effectiveness that should then be reflected in contracting schemes; improving organizational capacity with the use of audit- and peer-review; developing the workforce with the skills needed to deliver high-quality care and build an organizational culture that values quality; and models of care that reflect the needs of the population and of particular groups, such as people with chronic conditions, children, older people, and so on.

The continuum of care needs to be modernized and upgraded. The health system requires modernization and the reconfiguration of services to provide high-quality patient care, in order to face the changing demographic and epidemiological profile of the Republic of Moldova. Major investments should target the current issues in human resources; an integrated HIS should be established as well as a standard approach of monitoring and evaluation whereby the feedback from all the people involved in the process of care, along with stakeholders, and the general population is taken into consideration; the artificial divide between vertical and horizontal approaches should be bridged; a lack of vision on the part of health professionals and managers in terms of implementing a continuum of care should be overcome by strengthening technical capacities at all levels; and assessment of population needs must be central in the modernization and upgrading of services.

Implementation capacity and institutional strengthening should be invested in and committed to. Investment in implementation capacity and institutional strengthening must become a critical aspect of health policy development. Skilled human resources, efficient health organizations that function well, along with appropriate policies, laws and supportive strategies form the basis to plan, implement and review the national health policy and the Strategy. Investment in implementation capacity goes beyond the training of individuals to involve institutions and society as well.

To enhance the implementation of any strategy or programme and to strengthen institutional capacity, various activities should be further explored and developed, including: on-the-job training, online distance learning, study tours, specialized training sessions in key areas (such as economics, statistics and programme budgeting), implementing HIS for monitoring and evaluation purposes; and improving remuneration and service conditions (where fiscally feasible), among others.

Chapter 1.

Introduction

The Government of the Republic of Moldova launched in 2007 the Health System Development Strategy (the Strategy) for 2008–2017 with the overall goal of strengthening the performance of the health system. The Strategy aimed to: ensure continuous improvement of the population health, guarantee the financial protection of its citizens, and increase the responsiveness of the health system to population expectations.

The Strategy was developed in collaboration with national authorities and several international organizations, under the guidance of WHO, the European Commission (EC), the World Bank, the United Nations Children's Fund (UNICEF) and other international entities. It highlights four action areas for improvement: (i) management/stewardship of the health care system; (ii) funding of the health care system and payment mechanisms for health care services; (iii) provision of health care services; and (iv) resource management.

The Strategy sets goals and expected results in all the four action areas and puts forward a set of impact indicators that help with monitoring the general objectives and the attainment of broader goals. It was conceived in parallel and in harmony with the National Health Policy (2007–2021), providing a platform for future actions on the consolidation of a modern health care system and ensuring equal access to high-quality medical services for all people through the implementation of international standards.

The interviewed stakeholders value the Strategy as a document that has set the vision, priorities and goals of the Ministry of Health, Labour and Social Protection[2] and the Government of Moldova. It has helped several medical institutions to give directions for future development in different areas, such as quality of services, patient engagement, and accessibility to health services. The Strategy has served as the basis for the development of other strategic documents in the health sector, such as a human resources strategy and the regionalization plan for hospital care. It has spurred several national programmes and supported changes in health system policies.

At the same time, some of the interviewees acknowledge the importance of the Strategy as a steering document in channelling the efforts to improve the health system and maintain a strategic overview, but they suggest narrowing the scope of activities and consequent implementation of specific services within the health system. The Strategy is a very broad document; as such, specific sectoral action plans could be a valuable additional instrument to better monitor the implementation, results and later outcomes of activities.

Context of the Strategy in 2008

At the beginning of the decennium 2008–2017, policy-makers developed the Strategy from a health system perspective. The need for large-scale health transformation was acknowledged, in that health care provision had changed substantially over the past 50 years, as had the epidemiological profile of the Republic of Moldova. Several international organizations, donors, and NGOs supported the country's efforts to strengthen the health system, with financial and technical assistance contributing to better health care system outcomes. Various investment projects, for example from the World Bank and the EU, have been put in place and the implementation of MHI in 2004 was a key milestone in the efforts to increase financial protection and accessibility of health services for the population. During the period 2007–2012 health was considered one of the priority areas in several national development strategies, such as the Economic Growth and Poverty Reduction Strategy 2004–2006 and the National Development Strategy for 2008–2011.[3]

2 In 2017, the Ministry of Health was merged with the Ministry of Labour, Social Protection and Family. Government Decision No. 694 of 30 August 2017 established the Ministry of Health, Labour and Social Protection.

3 These were enshrined in law through Parliament of the Republic of Moldova Law No. 398 of 2 December 2004, Government Decision No. 1433 of 19 December 2006 and Parliament Law No. 295 of 21 December 2007.

It is important to note, however, that the Government of the Republic of Moldova's 2013 National Development Strategy did not list health as one of the priority areas in which to invest to foster economic growth and reduce poverty in the country (State Chancellery of the Republic of Moldova, 2012). WHO has strongly encouraged the country to reconsider health as a priority, which will be reflected in the new National Development Strategy document, entitled Moldova 2030.

Notwithstanding the significant progress registered in Moldova before 2008, such as the decrease of infant mortality rates, increased life expectancy at birth, and a decrease in the TB mortality and incidence, the development of the Strategy identified existing priority challenges, taking a health system perspective for the first time, as well as subsequent actions to improve the overall performance of the health system. Compared to the average for the EU countries, in 2008, population health was characterized by lower life expectancy; relatively high mortality of the active population (mostly) caused by circulatory system diseases, traumas and poisonings, and malignant neoplasms; a high degree of alcohol and tobacco consumption; and the presence of both communicable diseases, such as TB and HIV/AIDS, and NCDs including cancer and diseases of the circulatory system.

A comparison of the Republic of Moldova with its neighbouring countries and Commonwealth of Independent States (CIS) countries shows different patterns of population health indicators. For example, on average males in the Republic of Moldova live five years less than males in Romania, but three years more than males in Ukraine and the Russian Federation. For women, the difference is less visible, as the longest life expectancy is registered for females in Romania, at four years more than for females from the Republic of Moldova, Ukraine, and the Russian Federation. Mortality rates for all causes are lower in the Republic of Moldova than the average of the CIS countries. The rates are consistently lower than in Ukraine but much higher than in Romania. Mortality rates for malignant neoplasms in the population aged 60–64 years were lower until 2005 than in Ukraine and the Russian Federation (European Health Information Gateway, 2019). From 2005 to 2011, Ukraine and the Russian Federation both surpassed the Republic of Moldova with lower mortality rates. In the early 1990s, the Republic of Moldova had higher mortality rates for malignant neoplasms (for the population aged 0–64 years) than in Romania, but the rates have been comparable since 2010. Statistics on pure alcohol consumption (in litres, for the population aged 15 years and over) reveal higher averages for the Republic of Moldova than CIS countries.

Within the WHO European Region, the Republic of Moldova belongs to the group of countries with the highest TB burden. In 2008 TB incidence was at 125 per 100 000 population. Over time, the incidence of TB per 100 000 population fell to 95 in 2017 (compared to 30 in the WHO European Region) (WHO, 2018b). Additionally, the share of Rifampicin-resistant (RR)/MDR-TB among new TB cases grew from 23.7% in 2007 to 31.8% in 2015. In the same period, the overall share of RR/MDR-TB cases increased from 62.6% to 69.1%. The Republic of Moldova is one of the WHO European Region's 18 high-priority countries for TB control and is among the top 27 countries with the highest burden of MDR-TB worldwide (WHO, 2014).

The rate of new HIV diagnosis per 100 000 population grew from 22.2 in 2008 to 23.4 in 2016. This rate is much higher than the average for the WHO European Region countries (13.6 in 2016) but lower than the average for the CIS countries (31.9 in 2016) (European Health Information Gateway, 2019).

PHC (also called family medicine) became a separate specialty by law. Hospitals had witnessed a decrease in the number of beds, reaching the EU averages, but with a low bed occupancy rate that pinpointed the need to encourage more efficient use of services. Overall, medical infrastructure and equipment are in poor condition and outdated in many parts of the Republic of Moldova, particularly in rural areas, where accessibility of health services is problematic. Human resources in health had been decreasing before 2008 and the unequal geographical distribution of doctors and nurses added to the difficulties of the population

living in remote areas in accessing health services. The constant outwards migration of the labour force from the health care sector to other sectors (and abroad) was a prominent issue that threatened the sustainability of the whole system.

In 2004, the establishment of the MHI scheme had a beneficial impact on the health system, as it facilitated more accessible health services and ensured financial protection for the population (Turcanu et al., 2012). In 2008, the accumulated MHI funds grew significantly, but total spending on health per person was lower in the Republic of Moldova than the average for EU Member States.

Following the strengths, weaknesses, opportunities and threats (SWOT) analysis laid out in the Strategy – the results of which evidenced that the decennium 2008–2017 would focus on the mobilization of resources to increase the efficiency and the quality of the health care system – four areas were addressed according to the framework of WHO's 2000 World health report. These were management/stewardship, health system funding, health services delivery, and resource generation, and the approach included an action plan containing objectives and indicators to be monitored and evaluated.

Current situation in the Republic of Moldova

- Between 2008 and 2017, unemployment fluctuated around the average of 5.2%. In 2010 the unemployment rate hit its maximum (7.4% of the population). During the period 2008–2017 the activity rate and the employment rate decreased, each by 2%, from 44.3% to 42.2% and from 42.5% to 40.5%, respectively.
- Between 2008 and 2017 the share of the population living below the income poverty line of US$ 1.90 (purchasing power parity (PPP)) a day slightly increased from 0.67% to 0.70%. The gap between absolute urban and rural poverty is significant: 19% of the population live at poverty line in rural areas versus 5% in urban areas.
- Strong and persistent labour migration shrinks the population and affects the epidemiological profile of the population.
- The share of the population having a positive perception of their health has increased. Roughly half of the population (50.6%) believed their health status was good or very good in 2016, compared to 41.2% in 2008.
- Life expectancy estimates are 2–5 years higher than similar estimates for CIS countries.
- Differences across rayons in terms of the old-age dependency ratio are marked. Health services provided in these regions should take the population structure into consideration when assessing the population's health needs.
- The prevalence of chronic diseases in the Republic of Moldova is high. The main causes of morbidity are circulatory and respiratory system diseases, along with diseases of the digestive system.
- In the past 10 years, prevalence of type II diabetes increased in both the adult and child populations. Similar trends have been witnessed for cancer incidence (including cancer of the breast, colon, rectum, skin, and trachea/lung/bronchi).
- The incidence of TB fell over time from 125 cases per 100 000 population in 2008 to 95 cases per 100 000 in 2017. The Republic of Moldova is one of the WHO European Region's 18 high-priority countries for TB control. In 2017, the incidence of RR/MDR-TB was almost three times above the average for the WHO European Region.
- Over time, the rate of new HIV diagnosis per 100 000 population grew from 22.2 in 2008 to 23.4 in 2016. The rate is much higher than the average for WHO European Region countries (13.6 in 2016) but lower than the average of CIS countries (31.9 in 2016).
- Recorded tobacco and alcohol consumption were high during the period assessed. Recorded alcohol and tobacco consumption have fallen slightly over time, but their burden is still one of the major areas of concern in public health in the country.
- The under-5 and under-1 mortality rates steadily fell during the period 2008–2017. The survival rate of children born with (very) low birth-weight, and that of premature children, are increasing.

Socioeconomic characteristics

Like most of the countries in the WHO European Region, the Republic of Moldova's economy suffered from the global financial crisis in 2009 and the economic recession in 2015. In 2017, the economy recovered and grew by 4.5% (NBS, 2018a).

The annual average unemployment rate in the Republic of Moldova fluctuated throughout the period being assessed, from 4.0% of the population being unemployed in 2008 to 7.4% in 2010 (following the global financial crisis of 2009), and fluctuating back to 4.1% of the population affected in 2017 (NBS, 2018).

Between 2008 and 2017, the share of the population living below the income poverty line of (PPP) US$ 1.90 a day slightly increased from 0.67% to 0.70% (UNDP, 2018). The gap between absolute urban and rural poverty is significant: 19% of population lives at the poverty line in rural areas versus 5% in urban areas (UNDP Moldova, 2017a).

Labour migration is one of the key challenges. The number of people working or looking for a job abroad is estimated at 429 000, representing 16.5% of the working-age population (those aged between 15 and 64 years) (ILO, 2017). The shrinking population affects the epidemiological profile in the Republic of Moldova and impacts the opportunities and challenges involved in strengthening the health system.

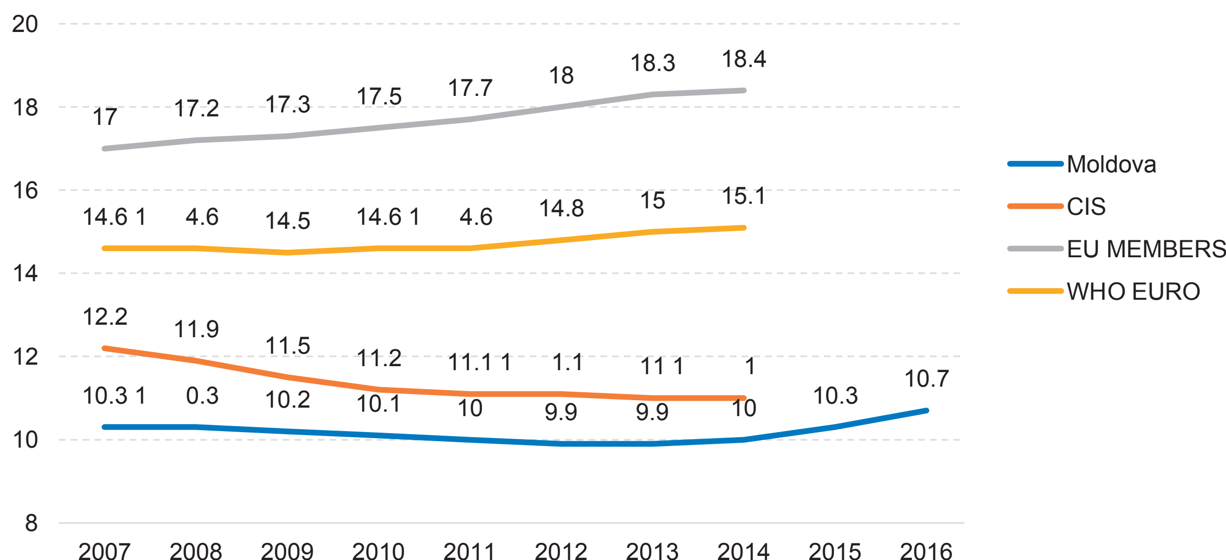
Population health and determinants of health

According to the Household Budget Survey (HBS) set out by the National Bureau of Statistics (NBS) (NBS, 2017a, b), the share of the population with positive perception of their health has grown over time. Roughly half of the population (50.6%) believed their health status was good or very good in 2016, compared to 41.2% in 2008. At the same time, the share of the population that declared their health status to be bad or very bad fell by 4.8% (from 17.2% in 2008 to 12.4% in 2016). Differences in the perceived health status of the population also exist between rural and urban areas. People living in urban areas declare more frequently their health status to be good or very good than people in rural areas (52.1% versus 49.5%, respectively).

Life expectancy estimates at birth were 76.3 years for females and 68.2 years for males in 2016 (European Health Information Gateway, 2019). There is a significant difference (4 years in 2016) in life expectancy between urban and rural areas. For the whole population (females and males), life expectancy at birth was 74.1 years in urban areas and 69.9 years in rural areas in 2015. Life expectancy at age 65 years shows a similar pattern, with females having 16.5 years of life remaining and males 13.3 years (estimates in 2016) (European Health Information Gateway, 2019).

People at older ages generally have a less positive perception of their health compared to younger people. The NBS reported in 2017 that the share of people who assessed their health status as good or very good fell from 78% of those aged between 18 and 24 years, to 5% of those aged over 65 years (NBS, 2017a, b). Although the Republic of Moldova has a younger population than most CIS countries, the EU Member States and countries of the WHO European Region, it is worth noting that the share of the population aged over 65 years has grown since 2007 (Fig. 1.1).

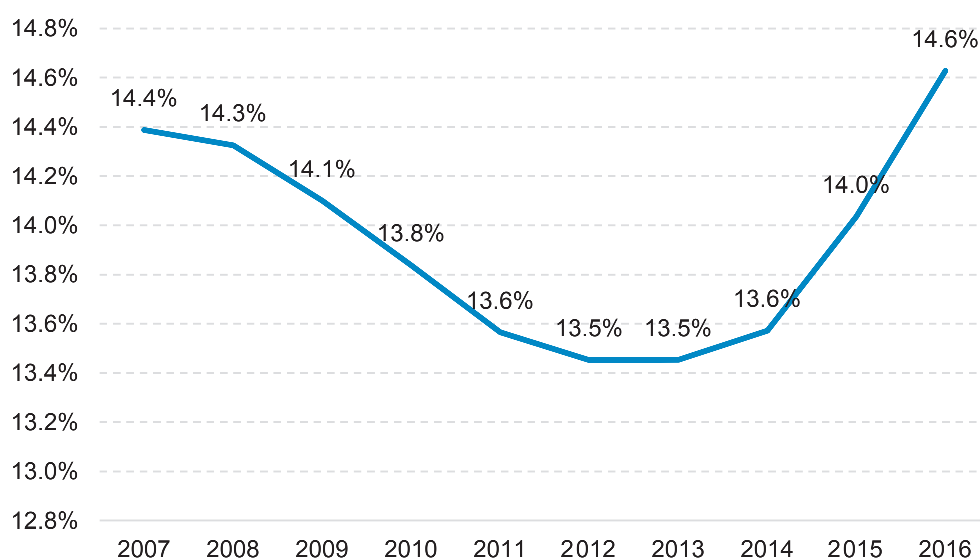
Fig. 1.1. Percentage of the population aged over 65 years, Republic of Moldova and various other country groups, 2007–2016 (or latest available year)



Source: data from the European Health for All database (HFA-DB) (European Health Information Gateway, 2019).

The old-age dependency rate[4] fell between 2008 and 2012 but grew again after 2013 (Fig. 1.2 and Fig. 1.3).

Fig. 1.2. Old-age dependency rate, 2007–2016

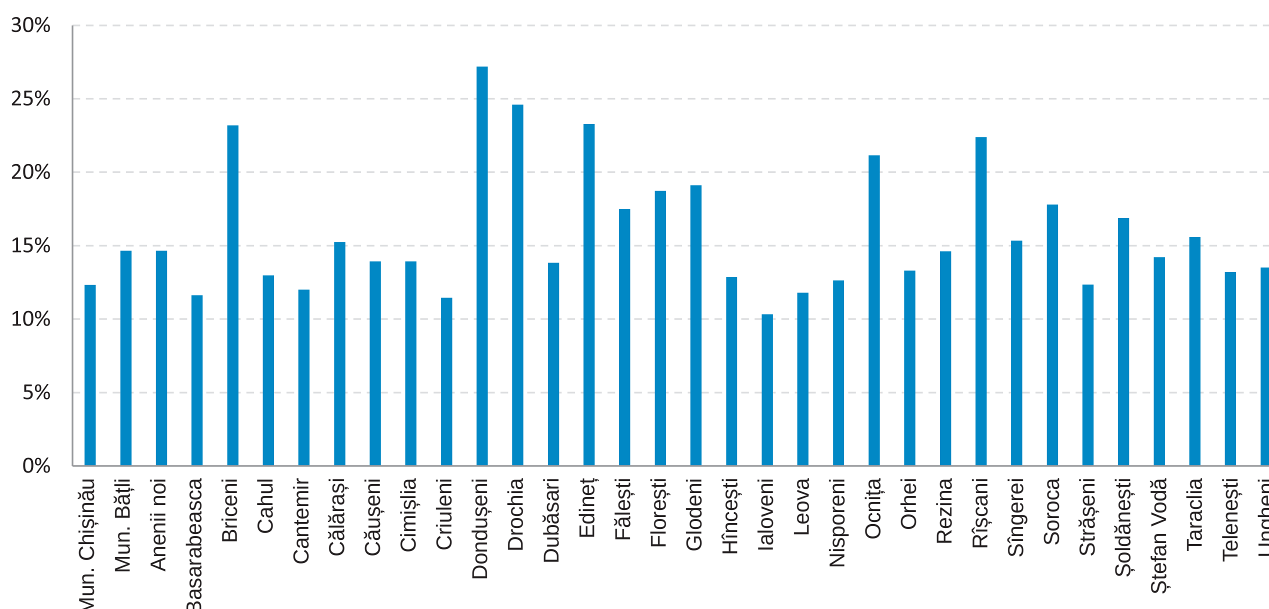


Source: data from the NBS databank (NBS, 2017c).

Differences across rayons in terms of the old-age dependency ratio are marked. Rayons in the north of the Republic of Moldova have an older population than in the rest of the country. In Donduşeni, for example, the old-age dependency ratio is 27.2%, while in Ialoveni it is 10.3%. This means a difference of 2.6 times between rayons with the highest and the lowest old-age dependency ratios, respectively. Health services provided in these regions should take the population structure into consideration when assessing health needs.

4 The old-age dependency rate is calculated as: [population aged 65+ / (population aged between 15 and 64 years)].

Fig. 1.3. Old-age dependency rate across municipalities and rayons, 2016



Note. Mun: municipality.
Source: data from the NBS databank (NBS, 2017c).

An older population generally suffers from chronic diseases and multi-morbidity, requiring an approach based on integrated health services delivery in order to achieve good health outcomes (van der Heide et al., 2015). The prevalence of chronic diseases remains high: 797 cases per 1000 people were registered in 2015, compared to 753 cases per 1000 people in 2012 and 685 cases per 1000 people in 2008.[5] In 2017, most cases of death and disability were caused by ischaemic heart disease, stroke and cirrhosis (IHME, 2018). The HBS (NBS, 2017a, b) relates that in 2016, 35.5% of the population reported having at least one chronic disease, while nearly 50% reported having at least two. Across the decade in question, the prevalence of type II diabetes in both the adult and child populations has grown. The incidence of type II diabetes in the population aged over 18 years almost doubled, from 178 cases per 100 000 population in 2007 to over 363 cases per 100 000 in 2017 (National Public Health Agency, 2017). Similar trends have been witnessed for cancer incidence: there is an increasing trend towards incidence of cancer of the breast, colon, rectum, skin, and trachea/lung/bronchi.

TB incidence fell from 125 cases per 100 000 inhabitants in 2008 to 95 cases per 100 000 in 2017, but remains high compared to the average for CIS and EU countries. The incidence of RR/MDR-TB was 35 per 100 000 population, putting Moldova above the average of the WHO European Region (12 per 100 000 population) (WHO, 2018b).

The incidence of chronic hepatitis per 100 000 population has fallen from 242.5 in 2007 to 202.5 per 100 000 in 2017 (National Public Health Agency, 2017). The rate of new HIV diagnosis per 100 000 population grew from 22.2 in 2008 to 23.4 in 2016. The rate is much higher than the average for the WHO European Region countries (13.6 per 100 000 in 2016) but lower than the average for CIS countries (31.9 per 100 000 in 2016) (European Health Information Gateway, 2019).

The survival rate of children born with (very) low birth-weight and premature children is increasing. In 2008, the Republic of Moldova met the required WHO standards by lowering the ceiling for recording live births from 1000 g to 500 g. The survival of newborns during the period 2005–2010 registered

5 Data extracted from NCHM reporting (National Public Health Agency, 2017).

an increase by 31.5% (from 5.4% to 36.9%) for children with birth-weight of 500–999 g, by 24.9% (from 60.1% to 85%) for children with birth-weight of 1000–1500 g, and by 10.4% (from 84.1% to 94.5%) for children with birth-weight 1500–1999 g (European Health Information Gateway, 2019). The implications of being born too soon extend beyond the neonatal period and throughout the life-cycle, potentially leading to developmental delays, disabilities and greater risk of developing NCDs such as hypertension and diabetes later in life. A service for diagnosis and surveillance of newborns was set up in 2010 in order to reduce mortality and disability risk for premature newborns with low birth-weight.

Between 2008 and 2017, the under-5 mortality rate fell from 14.4 to 11.4 per 1000 live births. The number of adolescents giving birth fell from 6.2 per 1000 population in 2008 to 4.5 per 1000 in 2017 (National Public Health Agency, 2017).

Tobacco use is widespread all over the country. In 2017, tobacco was the third risk factor for death and disability combined, after high blood pressure and dietary risks (IHME, 2018). A total of 10.4% of the youth population (aged between 13 and 15 years) used tobacco in 2014. There are significant differences between male (14.9%) and female (5.8%) tobacco consumption (CDC, Ministry of Health (Moldova) & WHO, 2013). Adult tobacco smoking (among those aged between 18 and 69 years) fluctuates over the years but is set at roughly 25% (in 2015) (Government of the Republic of Moldova, 2015; WHO Regional Office for Europe, 2014; Ministry of Health, Labour and Social Protection, 2018a). Of this share, 43.6% and 5.6% were male and female smokers, respectively (in 2013) (WHO Regional Office for Europe, 2016). The Republic of Moldova strengthened tobacco control by focusing on the existing tobacco control legislation and implemented a full ban on smoking in enclosed public places on 31 May 2016.

Recorded and unrecorded alcohol consumption levels are high, with on average 15.2 litres of pure alcohol consumption per capita in 2016 among the population aged over 15 years (WHO, 2018a).[6] The country ranks first in the WHO European Region (with 9.8 litres per capita in 2016), followed by Lithuania (15.0 litres) and Belarus (11.2 litres). In 2016, the population of neighbouring countries Romania (12.6 litres) and Ukraine (8.6 litres) consumed less alcohol per capita than in the Republic of Moldova.

6 WHO data for the period 2008–2010 records 16.8 litres of pure alcohol consumption per capita (WHO, 2018a). The recorded per-capita alcohol consumption is defined as the recorded amount of alcohol consumed per capita (by people aged over 15 years) during a calendar year in a country, measured in litres of pure alcohol. The indicator only takes into account the consumption recorded from production, import, export, and sales data, often via taxation analysis.

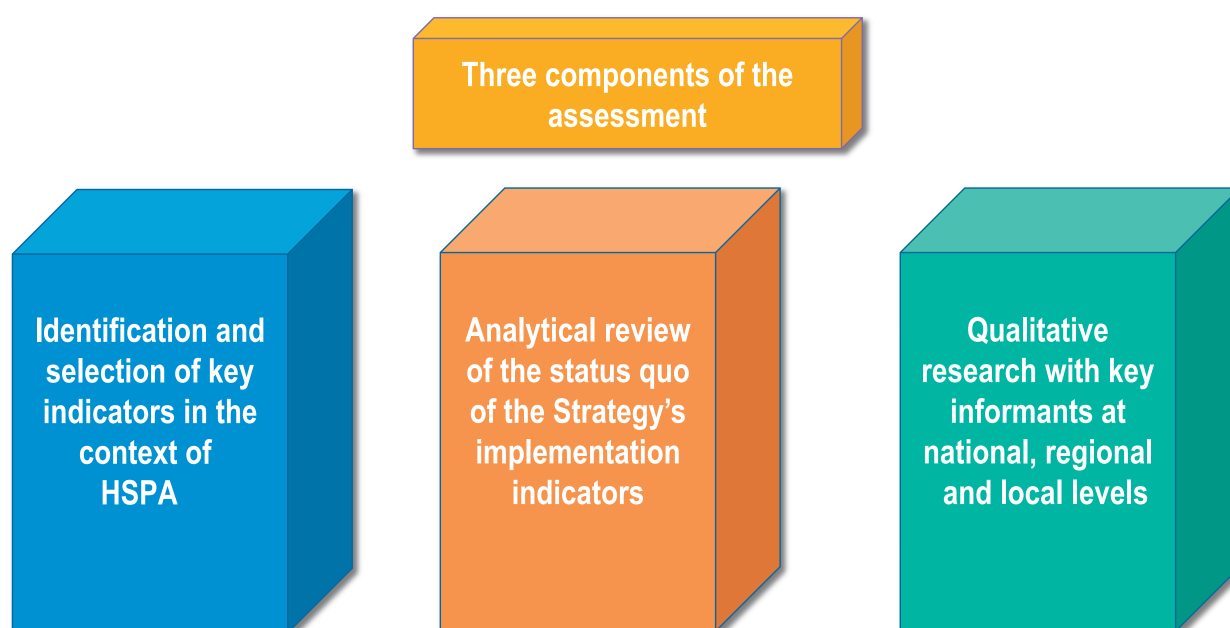
Chapter 2.

Assessment methodology

The assessment of the Strategy envisaged three components, spanning between March and June 2017. It was undertaken by a team of WHO staff and external experts (with a consistent team over the course of the project), in collaboration with the Ministry of Health, Labour and Social Protection of Moldova. A Working Group was set up, to which intermediate results were presented, which were then discussed and agreed. The team benefited greatly from the input provided by the Working Group, including NBS, NCHM, NCPH, NHIC, the National Public Health Agency and the Medicines and Medical Devices Agency. The assessment built on information collection, data analysis, consultations and discussions with both national and local stakeholders.

The methodology for the Strategy assessment consisted of three components, presented in Fig. 2.1.

Fig. 2.1. The three components of the assessment



The first component was quantitative and consisted of the identification and selection of key indicators that are frequently used in HSPA and monitoring and evaluation schemes for health system programmes. The list of indicators was selected based on standard criteria (such as relevance, importance, validity, comprehensiveness, coverage of all performance areas, reliability and feasibility) and agreed upon with the Working Group. The list of indicators was further contextualized to the situation in the Republic of Moldova. The analysis of indicators covered the period from 2007 and/or 2008 to 2017 (or latest possible year, depending on data availability). The indicators list covers nine domains: health determinants and healthy lifestyles, good health/ health status, financial risk protection, access to health services, efficiency and improved services provision, quality/responsiveness of health services, resource generation, leadership and governance, and fiscal sustainability of the health system.

The second component was an analytical review of the assessment of the current situation with respect to the achievement of the predetermined implementation indicators listed in the annex of the Strategy. Most of these are process indicators. This component also considered the key developments of policy changes and good policy practice examples within (and to some limited extent outside) the health sector in the Republic of Moldova for the period 2008–2017. The results of this second component were presented to and discussed with the Working Group in the form of brief analytical narratives.

The third component was qualitative research comprising semi-standardized interviews with key informants at national, regional and local levels. The interviews were conducted by the WHO project team and some were undertaken with the participation of the Ministry of Health. All records and summary reports have been kept anonymous. Interviews were held with the State Secretary of the Ministry of Health, representatives of three of the ministerial departments (Department of Budget, Finances and Insurance; Department of Public Health; and Department of Primary, Emergency and Community Care), the NHIC, the Medicines and Medical Devices Agency, the NCPH, the NCHM, rayon hospitals from different regions, public health centres, a mental health centre, the health department of the municipality of Chișinău, two hospitals in the Chișinău municipality, a national-level hospital, and a rural health centre. In total, 22 interviews took place.

The specific objectives of the interviews were to understand whether the Strategy is known about, how it is perceived, whether it impacts on daily operations, whether it tackled the issues at hand, and what challenges still remain to be tackled or have emerged since 2008. In this context, the interviews aimed to highlight the perceived impact, strengths and weaknesses of the Strategy by key stakeholders and to identify useful conclusions for determining the way ahead. Selection criteria for the interviews were: (i) the inclusion of institutions from different rayons, such as Rîşcani (north), Orhei (centre), Cahul (south), and Chișinău municipality; (ii) the representativeness of all relevant actors involved in the Strategy and its implementation; and (iii) the participation of representatives from PHC, hospital care, mental health and public health, to assess collaboration of services at rayon and national levels.

Prior to the finalization of the draft assessment report, the preliminary findings of each component of the assessment were discussed and agreed upon with the Working Group. A draft of this report was reviewed by four national experts. The assessment was concluded with a national meeting in July 2019, involving selected (international) participants, at which the results were presented and discussed.

Chapter 3.

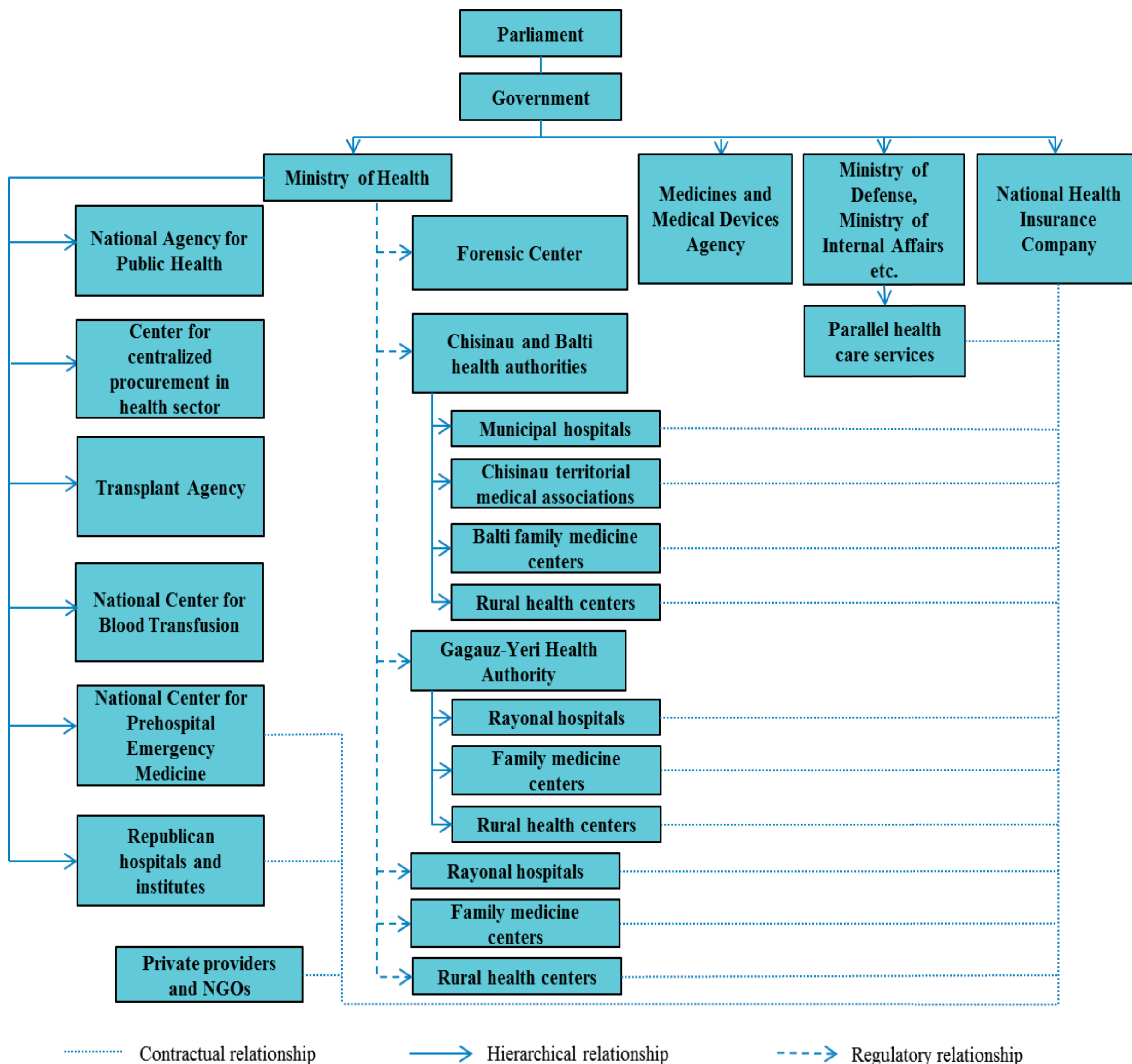
Strengthening governance for improved health outcomes

- The Strategy set out the vision of the Government of the Republic of Moldova regarding the reorganization of the health sector. The interviewees generally agreed with having one strategy instead of several strategies and/or action plans that would lead to fragmentation. The Strategy was intended as a steering document in channelling the efforts to improve the health system. The need to narrow the scope of activities and their consequent implementation regarding specific services within the health system has also been expressed.
- The relationship between the Republic of Moldova and the EU has deepened. The country joined the EU's Eastern Partnership in 2009 and since 1 July 2016 the EU-Moldova Association Agreement is in force. The Association Agreement sets out a reform plan in areas vital for good governance and economic development, and strengthens cooperation in several sectors. By signing the Agreement, the Republic of Moldova committed to reforming its domestic policies on EU laws and practices, and benefits by receiving EU support.
- Several capacity-building efforts and initiatives at both national and local levels have been organized. Most of these benefited from technical and financial support from development partners. The capacity to implement effective management decisions, particularly at the local level, deserves attention.
- LPAs are responsible for the development and maintenance of the medical infrastructure. Most LPAs have limited financial and human resources, which restricts their ability to invest in medical infrastructure, resulting in outdated buildings, for example.
- A key element of HSPA is having operational monitoring and evaluation systems. To date, the HIS in the Republic of Moldova suffers from fragmentation.
- Data are collected by several institutions and are not used cooperatively, which severely limits capacity to link the general determinants of health to how they contribute to activities, outcomes and results. It also limits capacity to generate information on causality and to monitor the impact of policy interventions. Consequently, data on health status, quality and, particularly, the performance of health services providers do not correspond to the needs of decision-makers for informed policy-making.
- Participation and inclusion are important aspects of governance that serve the purpose of involving stakeholders in health decision-making. CSOs are engaged in identifying problems and promoting policies in health. However, their limited participation in the implementation phase represents a bottleneck. Additionally, CSOs are confronted with a shortage of knowledge and expertise for advocacy activities, along with limited finances.
- Patient participation in clinical decision-making must be encouraged, rendering patients so-called co-producers of care. Participation should be promoted in the running of health services at various levels; however, for this to happen, competences need to be further developed and fostered.
- The intersectoral collaboration is well established on paper, as almost all policy documents are developed with the involvement of other sectors. In reality, difficulties in intersectoral collaboration lie in the implementation of adequate policies. A Coordination Council was established with members representing different ministries. Since 2012 a National Health Forum is organized with the active participation at national level of all sectors. For intersectoral collaboration to work effectively, however, it is necessary to increase the capacity of health and social professionals, law enforcement officers, and education officers at national and local levels.

Introduction

The health system is composed of both public and private medical facilities, as well as public authorities and agencies involved in the provision, financing, regulation, and administration of health services. Medical facilities are categorized into primary, secondary, and tertiary levels depending on their level of services specialization (Fig. 3.1). Several national programmes address the control of specific diseases, such as TB, diabetes, HIV/AIDS and sexually transmitted infections (STIs), and vaccine-preventable diseases. There are about 40 national programmes tackling a specific disease as well as health system-wide strategies and programmes. Some programmes (or plans) also exist that were developed by municipalities and rayon authorities, financed from local sources (see, for example, Orhei District Council (2016) and Edineţ District Council (2015)).

Fig. 3.1. Organization of the health system in the Republic of Moldova



Source: adapted from Turcanu et al. (2012).

Most people interviewed for the assessment recognize and highlight the importance of having one overall strategy for the development of the health system, rather than dealing with several different strategies and/or action plans that would lead to fragmentation. The Strategy set out the vision of the Government regarding the reorganization of the health sector. Many interviewees have confirmed the importance of the Strategy in the planning of their annual activities.

Some of the interviewees acknowledged the importance of the Strategy as a steering document in channelling the efforts to improve the health system, but also emphasized the need to narrow the scope of activities of specific services within the health system and their consequent implementation. The Strategy is a very broad document that sets out the whole vision, but sector-specific action plans could be a good instrument to enable better monitoring of the Strategy's implementation, as well as results and outcomes of activities.

The Strategy set out indicators for governance, covering the following aspects: strengthening capacities at national and local levels; definition of roles and responsibilities across levels; development of monitoring and evaluation systems; involvement of stakeholders in health decision-making; and addressing intersectoral collaboration. This chapter describes the developments in these areas.

Strengthening capacities at national and local levels

One of the main objectives of the Strategy was to strengthen capacity through capacity-building efforts and initiatives at both national and local levels. The capacity to implement changes is one of the critical areas of concern in the health system of the Republic of Moldova. Over the 10-year period assessed, training has been provided to strengthen policy-making and technical capacity. Most training measures were supported with the technical and financial help of development partners. A few examples (not an exhaustive list) of strengthening capacities are: seminars to enhance the legal framework within the pharmaceutical sector (2016); a training-of-trainers workshop on screening programmes for early detection of alcohol abuse (2016); a workshop aimed at creating new strategies to improve retention of health professionals in remote and rural areas (2015); a seminar on capacity-building in global health diplomacy (2013); and a flagship course on health system strengthening and sustainable financing (2012). The School of Public Health Management has trained more than 300 professionals working in the public health system, as well as the private sector, and in Government, the Ministry of Health, specialized central and local public administration bodies, international bodies, NGOs, and so on. So far, 300 people have graduated from or are enrolled in the Master's programme in public health management. The staff of the Medicines and Medical Devices Agency, the Ministry of Health, Labour and Social Protection, the Centre for Centralized Procurement in Health and the NHIC were trained through the Twinning project "Strengthening of the Medicines and Medical Devices Agency of the Republic of Moldova as regulatory agency in the field of medicines, medical devices and pharmaceutical activity", funded by the EU (EU4Moldova, 2017). The staff of the Transplant Agency had been trained with the support of another, earlier Twinning project, funded by the EU (Twinning project on strengthening the Transplant Agency of the Republic of Moldova and support in legal approximation in the area of quality and safety of substances of human origin).

Another objective of the Strategy was to restructure the subordinated institutions and create new ones. Subordinated institutions are subject to decisions from the Ministry of Health, Labour and Social Protection. They also need to coordinate and approve their annual plan and budget with the Ministry. A few institutions have been newly established, such as the Centre for Centralized Procurement in Health,[7] and the National Public Health Agency[8].

7 Government of the Republic of Moldova Decision No. 1128 of 10 October 2016.
8 Government of the Republic of Moldova Order No. 705 of 6 September 2017.

Role definition for authorities and collaboration between levels of governance

The Strategy envisaged the need to restructure the role of LPAs to make them financially responsible for their activities relating to medical institutions. The development and maintenance of the medical infrastructure is a key responsibility of LPAs, which are owners of medical facilities, such as hospitals and PHC facilities. The decentralization of PHC resulted in 60 PHC facilities directly contracted by the NHIC in 2008; 247 health centres were contracted by the NHIC (in 2014 – including 214 health centres from rural areas); and in 2016 the NHIC contracted 256 health centres.

Most LPAs face limited financial resources that restrict their ability to invest in the medical infrastructure, resulting in outdated buildings, for example. Chișinău is the exception, as the municipality has more financial resources available and is currently investing, for example, in the renovation of municipal hospitals and procurement of equipment. An additional barrier to proper governance at local level is the availability of competent human resources to contribute to health policy-making.

Overall, the process of role definition across government levels is complicated and not always clearly defined. LPAs have undergone multiple reforms since 1991 and the restructuring of the competences of LPAs involves a change in legislation.[9] The decentralization process has moved forward, albeit facing many challenges, with the support of the United Nations (United Nations Moldova, 2016).

The goal of the Government is to decentralize responsibilities for health service delivery. The system is still highly centralized, although cooperation across levels of government and sectors has improved in recent years. The introduction in 2004 of MHI has given more autonomy to health facilities, as they are directly contracted by the NHIC. However, the NHIC only buys services and is not in charge of maintaining buildings and the infrastructure. In 2010 the NHIC was given the competences to finance infrastructure projects (in coordination with the Ministry of Health) from a newly established fund for the development and modernization of health care providers. Financial decisions are mostly made through discussions involving the Ministry of Health, Labour and Social Protection, the NHIC and LPAs. The Ministry takes strategic decisions, such as which services to develop, and organizes the number of hospital beds and doctors needed, as well as the specialization of doctors. Investment projects are selected for funding on a competitive basis, regulated by law.[10] Health care institutions are financially autonomous but the Ministry of Health, Labour and Social Protection can recommend the maximum ceiling for funds earmarked for salaries. The chief of the individual medical facility at local level distributes funds for other expenditures, such as food and medicines. Managers of public hospitals are appointed through a competitive process overseen by the Ministry of Health, Labour and Social Protection and then approved by the LPA.

To strengthen the cooperation between local, regional, and national authorities, a series of policy dialogues was organized with the support of WHO, SDC, the United Nations Population Fund (UNFPA), the World Bank and other development partners, with the goal to improve communication and cooperation across the three levels of governance (Ministry of Health of the Republic of Moldova, 2013).

9 Government of the Republic of Moldova Law No. 436 of 28 December 2006.
10 Ministry of Health of the Republic of Moldova Order No. 192 of 1 March 2012.

Development of monitoring and evaluation systems

An important goal of the Strategy was to develop monitoring and evaluation systems to assess the performance of the health system. Turcanu et al. reported that "ensuring accountability in the health system is also a key concern for the Ministry of Health, which is in the process of developing a performance monitoring framework" (Turcanu et al., 2012:139). The improvement of health system performance starts with the regular collection of key indicators that are periodically monitored and evaluated. In this respect, it is important to systematize and potentially institutionalize HSPA as a regular and ongoing activity. This process will also feed into ongoing efforts to strengthen the national HIS, as acquiring reliable data is a prerequisite for carrying out effective HSPA.

To date, the HIS suffers from fragmentation and a lack of qualified human resources; that is, data analysts and researchers. Between 2008 and 2017, the main institution in charge of collecting health data was the NCHM,[11] which received data from both private and public medical facilities that periodically submit their reports (mostly in Excel format).[12] Data collected by the NCHM include figures on: mortality; birth rate; incidence and prevalence of certain diseases; health resources, such as medical facilities, number of beds and number of staff; and provided services, such as number of visits and treated cases. The NCHM also collected financial data from the financial reports of health care institutions. The NCPH is responsible for collecting and publishing the data concerning public health. Finally, the NBS collects data on the population and some other indicators; for example, information previously related to the Millennium Development Goals, data about the average salary in the health care system and data on health protection. Some of the indicators are collected through the HBS,[13] particularly those reporting on accessibility of health services. A separate information system is managed by the NHIC and includes information on individuals covered by MHI, oversight of contributions as well as economic aspects of health services provision. The Medicines and Medical Devices Agency and the NBS collect data on prices of medicines, and the Ministry of Health and the Ministry of Finance collect data on financial resources in health. All these sources of information are different and not connected to each other in one cohesive HIS. Moreover, some medical institutions report their data on paper first, and only at a later stage are these inputted into the system electronically.

Data collected by these institutions are not used cooperatively, which severely limits capacity to link the general determinants of health to how they contribute to activities and results. It also limits capacity to generate information on causality and to monitor the impact of policy interventions. Consequently, data on health status, quality and, in particular, the performance of health services providers do not correspond to the needs of decision-makers for informed policy-making. These problems are magnified because the HIS at the national level does not yet have a specific software solution for the collection, transmission, storage and automatic processing of data. Moreover, there is no adequate information and communications technology infrastructure at all levels, particularly at subnational level.

The NCHM and the NHIC overlapped in some functions, such as collection of statistical information, development of methodological aspects of the payment system (including the DRGs for inpatient care), and so on. The merging of the NCHM and the NCPH in 2017 under the National Public Health Agency has accumulated these functions together, alongside many others.

11 In 2017 the NCHM became part of the National Public Health Agency (Government Decision No. 705 of 6 September 2017). The Agency is an administrative authority subordinated to the Ministry of Health, Labour and Social Protection. The National Council for Evaluation and Accreditation in Health, the NCHM, the NCPH, and all district and rayon public health centres were merged under the National Public Health Agency.

12 It is worth noting that data presented by private institutions are usually found to be underestimates.

13 The Moldovan HBS has been conducted four times (most recently in 2016 (NBS, 2017a, b)) by the NBS, in partnership with the Ministry of Health and supported by World Bank technical assistance under the Health Sector Modernization Project. The first survey was conducted in 2008.

Since 2004 many attempts have been undertaken and legal tasks attributed to the Ministry of Health, the Ministry of Economics and the Ministry of Finance to try to develop an integrated medical information system,[14] but lack of consistency and continuity following various governmental and ministerial changes have meant that these attempts have failed.

During the interviews with national and local stakeholders, the strong need was repeatedly highlighted for a system of data collection and data disaggregation that functions well. The main barriers are: first, a lack of funds to implement a monitoring and evaluation system;[15] and second, a lack of qualified data analysts and researchers to check the reliability and feasibility of data. It is difficult to recruit professionals in this field because of the low salary levels compared to other (health) system areas. Third, there is a lack of continuous education and training schemes for staff that work with data at all levels (central and local). Fourth, the relevant institutions do not have the capacity to meet political demand and carry out already established legal tasks; an integrated HIS would feed into the policy- and decision-making processes at both strategic and operational levels.

Not all data can be disaggregated. For example, data are not always collected by gender (only for some specific diseases). In addition, discrepancies can exist in terms of the information available on the number of the population implicated. For example, the last national census, conducted in 2014 by the NBS, estimated the total population at 2.8 million inhabitants, which is less (by 0.7 million) than the number reported by previous national censuses. The administrative statistics report an average total population of 3.5 million people for the period 2008–2017 (NBS, 2014). This impacts upon the statistics of the NCHM, as they use rayon data and divide by the population numbers provided by the NBS.

To date, no health system performance monitoring framework is systematically applied in the Republic of Moldova. Within the Ministry of Health, Labour and Social Protection the Department of Analysis, Monitoring and Evaluation Policies annually monitors and reports on the implementation of the action plan of the Ministry and the action plan for the implementation of the Association Agreement. These reports are mostly focused on inputs and process indicators and legislation (e.g. laws, government decisions, orders, regulations). They are not correlated with outcome and impact indicators related to population health. The reports published by the Department of Analysis, Monitoring and Evaluation Policies are archived online at the website of the Ministry of Health, Labour and Social Protection (Ministry of Health of the Republic of Moldova, 2016).

Involvement of stakeholders in health decision-making and patient empowerment

To achieve greater involvement of stakeholders in health decision-making, several training sessions, supported by WHO, were organized to improve the communication skills of the Ministry of Health. The Ministry issued an order[16] on the organization of a capacity-building course in communication and media relations. The programme was held in 2013 by WHO, addressing basic principles of modern communication and concentrating on selected topics relevant to the Republic of Moldova, including: universal coverage and access to health services; health insurance and financing; NCDs, with a focus on tobacco control and mitigating the harmful effects from alcohol; vaccine-preventable diseases and immunization; health professionals' migration and mobility; and outbreak and crisis communication.

In 2012, a communication strategy had been developed. Professionals from the health sector were also trained on media communication. One training session involved over 40 health professionals,

14 Government of the Republic of Moldova Decision No. 1128 of 14 October 2004.
15 According to an interviewee, to set up an HIS would cost roughly 4–5% of the total budget received by a medical institution.
16 Order No. 792 of 8 July 2013 on facilitating communication with mass media representatives.

who learned how to communicate with the media on information relating to children, such as children who are victims of abuse (Ministry of Health of the Republic of Moldova, 2014).

Participation is another important aspect of governance to involve stakeholders in health decision-making. The role of NGOs and CSOs is pivotal in global good health governance. NGOs and CSOs collect, disseminate, and analyse information; they provide input to agenda-setting and health policy development processes; perform operational functions; assess and monitor compliance with health agreements; and advocate health justice. The EU-Moldova Civil Society Platform is one of the bodies set up within the Association Agreement between the EU and the Republic of Moldova to enable CSOs to monitor the implementation of policies and make recommendations to the relevant authorities. In 2008 the Republic of Moldova passed the first civil society development strategy for 2009–2011 followed by a second strategy for 2012–2015 and a third one for 2018–2020, approved by the Parliament. By publishing the drafts of normative acts and strategies on the Ministry of Health, Labour and Social Protection website, the State's authorities allow CSOs to engage in the identification of problems and in formulating and promoting public health policies. However, the main bottleneck is the limited participation of CSOs during the implementation stage. For instance, only one third of the civil society development strategy (for 2012–2015) was partially implemented, thus hampering the minimum conditions required for developing the role of civil society (UNDP Moldova, 2019). Notwithstanding, some good examples exist of participation and good practice among CSOs and state institutions – for instance, the Centre for Health Policies and Studies advocated for the promotion of national legislation at the Framework Convention on Tobacco Control and created the National Coordinating Council for Tobacco Control. CSOs have also underlined a number of constraints, such as limited access to public information to conduct appropriate analysis and elaborate recommendations; a shortage of knowledge and expertise for advocacy activities; and a lack of clear regulations on lobbying (Chiriac & Tugui, 2014).

Additionally, the financial sustainability of CSOs is recognized as a key problem. Foreign donors are the main source of income for these organizations and some fiscal benefits were provided by the State by means of an amendment to the Tax Code in July 2012. An important step towards financial sustainability of the civil society is the implementation of a percentage designation mechanism, approved in 2016, which allows taxpayers to designate 2% of their paid income tax to CSOs from 2017 onwards.[17] Another important measure regarding CSO funding is the 2017 approval by the Ministry of Health, Labour and Social Protection and the NHIC of the regulation of financing health prevention activities, which triggered the financing of CSO projects from health insurance sources.[18]

The Strategy considered the involvement of civil society and patient organizations as an important step to reinforce governance of the health system. Patient organizations are involved in policy-making and the organization of health services, but their role is quite limited. A total of 76 patient organizations are listed on the website of the Ministry of Health, Labour and Social Protection, although not all of them are active (Ministry of Health, Labour and Social Protection, 2019). Research shows that increased patient participation in health care is associated with improved treatment outcomes.

The Ministry of Health, Labour and Social Protection works with several public associations, including: the Alliance of Organizations for People with Disabilities (within the alliance, there are 23 organizations active in the field of promoting and respecting the rights of people with disabilities), KEYSTONE Moldova, the Association of the Deaf of the Republic of Moldova, the Association of Blind People of Moldova, the Centre for Legal Assistance for People with Disabilities, among others. Draft policy,

17 See Government Decision No. 1286 of 30 November 2016; Art. 15^2 of Tax Code of the Parliament of the Republic of Moldova No.1163-XIII of 24 April 1997; and Art. 33^3 of Law No. 837-XIII of 17 May 1996.
18 See Ministry of Health of the Republic of Moldova Order No. 286/154 of 11 April 2017.

along with normative and legislative acts aimed at people with disabilities are submitted to these associations for examination and endorsement.

To create indispensable conditions for the implementation of the United Nations CRPD, including the concluding observations of the Committee on the Rights of Persons with Disabilities, the National Programme for Social Inclusion of Persons with Disabilities 2017–2022 and the action plan on its implementation were elaborated and approved by the Government.[19] The Programme provides a cross-sectoral approach to the social inclusion of people with disabilities, ensuring respect for their fundamental rights equally with other citizens in all areas of life and society. One of the specific objectives of the Programme concerns increasing access of people with disabilities to medical and high-quality rehabilitation services.

Patient participation – expressed as a person's participation in treatment decisions – deserves more attention to foster good governance in health. According to NBS (2016), while the situation regarding the information of patients about the treatment methods improved up to 2012, it then worsened in the years that followed. A total of 64.5% of patients receiving hospital care reported that the doctor explained their treatment methods well; however, this is 8.6% less than the figure reported in 2012 (73.1%). The share of patients who reported that they received no explanation from the doctor about treatment methods increased from 7.3% in 2010 to 11.3% in 2016 (NBS, 2017a, b).

In this context, although around 57% of the patient population in hospitals signed documents that confirmed their consent to the proposed treatment and diagnosis methods, almost 51% actually signed because the health professional insisted on it. Moreover, 17% of those patients who signed the document found that the health professional did not explain in an understandable way, and almost 7% declared that the doctor did not explain anything (NBS, 2017a, b).

According to the legislation, freedom of choice of providers is not limited for any kind of care. Service users can choose which polyclinic to attend for treatment. They can also choose the hospital from the similar category/level (according to the Ministry of Health-determined reference mechanism) to which they would like to be referred for inpatient care. However, in practice this choice is limited (especially in more remote and/or underdeveloped areas) and is strongly correlated with geographical and physical access to health services.

The Law on Patients' Rights and Responsibilities[20] establishes that patients must have access to their medical records. An NBS study (NBS, 2017a) reports improved access to medical records since 2008, but almost 25% of patients still did not have access to their records and 27.3% showed no interest in looking at them.

HBS data confirm that the extent to which the population are informed about the possibility to receive reimbursed or free-of-charge medicines increased significantly between 2008 and 2016, reaching a share of 78.9% in 2016. The key information sources are health professionals (38.2%) and the mass media (30.3%). Compared to 2008, third parties (e.g. family and friends) are less involved in raising the awareness of the population about reimbursed medicines (NBS, 2016).

The role of professional associations is also important, as they represent an important stakeholder, taking on a variety of roles. One of the responsibilities is to influence national and local health policy development to improve health care standards and ensure equitable access to high-quality, cost-effective services. In the Republic of Moldova, members of each association participate in the

19 Government of the Republic of Moldova Decision No. 723 of 8 September 2017.
20 Parliament of the Republic of Moldova Law No. 263-XVI of 27 October 2005.

development of protocols and standards, policies and action plans. In 2013, the College of Physicians was approved by Parliament decision[21] but it was declared unconstitutional in 2015 and abrogated in 2017.

In summary, there is room for improvement in patients' participation in health decision-making. Ensuring that patients have appropriate information regarding their diagnosis and treatment is essential for providing safe health services of appropriately high quality. Surveying patients' experiences and measuring results of the services provided from the viewpoints of patients provides valuable information through which performance of service providers can be compared (Vahdat et al., 2014). Not only could patient participation in clinical decision-making be encouraged, thus rendering patients co-producers of care, but participation should also be promoted in the running of health services at various levels. For this to happen, however, competences need to be further developed and fostered, starting with the improvement of health literacy among the population.

Communication across stakeholders

Communication strategies have been developed with the support of international donors in various areas, such as a national campaign on mother and child health supported by UNICEF and the Swiss Agency for Development and Cooperation (SDC); a national campaign on the health risks of migration in collaboration, with the International Organization for Migration (IOM); a communication strategy on promoting vaccination, with the support of UNICEF; a national campaign against smoking in collaboration with WHO; and a national communication campaign to prevent home accidents for children aged 0–5 years in collaboration with the Ministry of Health, the Ministry of Education, the Ministry of Labour and Social Protection, and the Ministry of Internal Affairs. The Ministry of Health press service has also been strengthened over the years.

All these communication activities are welcome and important. It is worth noticing that high staff turnover can be an obstacle to the effective implementation of a communication strategy because people who receive training often leave the job. High staff turnover is a problem for the governance of the entire health sector in the Republic of Moldova as it undermines the performance and productivity of the health system. Implementing shared-government principles is an effective means to enhance work satisfaction and staff retention rates. This area would benefit from further consideration and development.

Intersectoral collaboration

Some multisectoral health policies and practices are in place in the Republic of Moldova. For example, in March 2017 an agreement was established for visually impaired people. The agreement was signed between the Ministry of Health and the Ministry of Labour, Social Protection and Family, the Ministry of Education, the charity organization Help Moldova and LOW VISION – the Centre for Medical and Social Rehabilitation. The institutions agreed to cooperate effectively in the process of diagnosing, rehabilitating and (re)integrating people with visual impairments. Another example is an agreement to protect children that was signed between the Ministry of Health, the Ministry of Labour, Social Protection and Family, the Ministry of Education, and the Ministry of Internal Affairs.

The training of teachers to provide medical first aid has been developed by the Ministry of Health in collaboration with the Ministry of Education. An additional example of intersectoral partnership and cooperation for health is the establishment and activity in the Parliament of the Republic of Moldova of the national parliamentary group (comprising 35 Moldovan members of parliament

21 Parliament of the Republic of Moldova Law No. 261 of 1 November 2013.

(MPs)) of Global TB Caucus (a unique parliamentary network of around 2500 MPs from 140 countries committed to fighting TB). The Moldovan national parliamentary branch of Global TB Caucus was launched in 2016 and is currently one of the biggest in the Eastern Europe and Central Asia Region; its membership comprises MPs from different parliamentary committees (sectors) (including six chairs of parliamentary committees and one deputy speaker of the Moldovan Parliament) and all political parties, which are involved collectively in the fight to end the TB epidemic. The network serves as an intersectoral platform, working with different TB stakeholders, including representatives of both governmental and nongovernmental spheres, the TB community, media and international institutions.

The Ministry of Health, Labour and Social Protection is co-signatory to the Cross-sectoral Strategy for the Development of Parental Skills and Competences for the years 2016–2022.[22] Most cases of young children's deaths at home are closely related to insufficient family knowledge of child care, as well as family practices, including alcohol abuse, neglect, domestic violence, and poverty. The implementation of a regulation on the mechanism of intersectoral collaboration aimed at preventing child mortality[23] contributed to the development of cross-sectoral partnerships within public institutions and CSOs to address the problems of children and families in at-risk situations and reduce infant mortality at home from 19.5% in 2010 to 14.2% in 2013.

There are several examples of intersectoral collaboration that work well on paper, as almost every policy document is developed with the involvement of other sectors. Since 2012, a National Health Forum has been organized at national level, with the active participation of all sectors. Programmes for alcohol control and tobacco control, as well as the national nutrition programme were developed with the participation of the Ministry of Finance, the Ministry of Economy, the Ministry of Agriculture and Food Industry, and the Ministry of Education. For each of these programmes, a Coordination Council is established, with members representing all the different ministries.

In practice, the difficulty with intersectoral collaboration lies in the implementation of adequate policies. Sometimes obstacles to better health outcomes are not only experienced within the health system but, for example, in the social sector as well. It is well known that socioeconomic factors, such as income, education, food security and housing are very good predictors of health status. The new position of community nurses, for example, had been established on paper but – at the time of the interviews – it was not yet operational. For intersectoral collaboration to work effectively, it is necessary to increase capacity (at national and local levels) of health and social professionals, law enforcement officers and education professionals, and to create mechanisms for effective communication.

The Strategy envisaged an increased role for public–private partnerships in the provision of ancillary health services (for example laundry, nutrition/catering, security services). If public–private partnerships are well designed and implemented in a balanced and well-developed regulatory environment, they can bring greater efficiency and sustainability to the provision of a public good such as health care. The definition of public–private partnerships is "a risk-sharing relationship based upon a shared aspiration between the public sector and one or more partners from the private and/or voluntary sectors to deliver a publicly agreed outcome and/or service" (Geddes, 2005).

22 Government of the Republic of Moldova Decision No. 1106 of 3 October 2016.
23 Government of the Republic of Moldova Decision No. 1182 of 22 December 2010.

During the period being assessed, three public–private partnership projects were developed, consisting of a radiotherapy unit at the Chişinău Oncological Institute, a radiological diagnostic unit at the Republican Clinical Hospital (2010) and a haemodialysis facility in Chişinău (2013). The latter two public–private partnerships became operational, but the first failed. The two public–private partnership projects that went ahead experienced several difficulties and were perceived as merely a duplication of the diagnostic facilities for radiology available at existing state-run units, suffering from reduced referral (particularly for more lucrative diagnostic tests) to the new facility from the national institutes. In the case of the haemodialysis unit, the issues were that turnover was higher than expected (and therefore overall costs to the commissioners/payers), together with the fact that the option was made available to use existing public facilities for the same treatment.

From the above examples, it can be concluded that some essential preconditions for the implementation of public–private partnerships are needed. First, some preparation would be required in the Republic of Moldova before significant public–private partnerships of any kind are a plausible public policy option. Second, there is currently an insufficient number of professionals equipped with the necessary expertise and knowledge in the regulation of this difficult area. It is thus important to acquire new skills. Third, the public–private partnership legislation in place was appropriate, but the legal framework for it was inefficient. Such partnerships are not sufficiently developed to mobilize resources for the implementation of public policies and priorities (UNDP Moldova, 2019).

A significant level of suspicion also seems to exist in the Republic of Moldova about the involvement of the private profit-making sector in health. This creates difficulties in terms of the willingness of the medical professionals to collaborate, refer patients and work positively together.

Chapter 4.

Sustaining public funding, increasing financial protection, enhancing contracting of health services and developing payment mechanisms

- MHI was introduced in 2004 with the aim of increasing the financial stability of the system and guaranteeing access to health services and financial protection for the whole population. In 2017, 86.9% of the population had health insurance coverage. About 13% of the population is not included in the MHI system and therefore does not benefit from all facilities or full financial protection when accessing health services. Age is an important determinant for the purchasing of health insurance. Additionally, people who do not permanently reside in the Republic of Moldova are not motivated to take out health insurance.
- Public spending on health increased in terms of absolute value from MDL 2.6 million in 2007 to MDL 7.3 million in 2017. The Government committed at the inception of the Strategy to increasing the State participation in the funding of the health system via national programmes in different health system areas. The Republic of Moldova relies strongly on financial help from international donors and the role of development partners is also important. External resources for health (as a share of total public spending on health) fluctuated from 4.2% in 2007, to 9.6% in 2010 and 2011, to 4.9% in 2016. Donor support is mostly channelled through technical assistance and expert advice. A few resources provide limited support to infrastructural projects and procurement. Help from donors is not used to pay for services delivery, except for assistance from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and GAVI, the Vaccine Alliance (for vaccines only).
- The benefits package is defined by the Unified Programme and to date it is quite wide but in need of further refinement of its scope in order to improve access of the population to certain services and to ensure that people avoid financial hardship. At present, decisions about what to include in the benefits package are not based on a detailed cost–effectiveness assessment and/or comprehensive budget impact analysis.
- Implementation of the Strategy enabled reforms of payment mechanisms within the health system. The need to transform payment mechanisms – in particular the importance of linking payments with the quality of services provided through performance indicators (P4P) – is recognized by key stakeholders. The practical implementation of performance indicators suffers from various drawbacks, such as: the initial high number of performance indicators in PHC (19 indicators that have been reduced to six); the challenges related to the calculation of hospital costs and of cost-weights in the hospital DRG system; the lack of the creation and implementation of standardized national registers; and the absence of an electronic HIS to link PHC and hospital data.
- The existence of double standards in terms of the existence of performance indicators only in PHC (and their absence in specialized ambulatory care) does not foster quality of care or the improvement of continuity of service provision in the various health care settings.
- The legal framework allows the NHIC to contract selectively with individual public providers. In practice, little selective contracting has taken place so far, and then only among private providers. One of the main criteria used for contracting has been the accreditation status of providers. Currently, almost all major health care providers are accredited and there are only a few institutions (mostly in the public sector) that are not accredited but yet still have contracts with the NHIC.
- The National Council for Evaluation and Accreditation in Health (since 2017 merged with the National Public Health Agency) can potentially play a significant role in selecting health services providers for the subsequent conclusion of contracts with the NHIC. The current process of accreditation is carried out as somewhat of a formality, without the use of real instruments and clinical and economic criteria for accreditation, based on international practice. The result is that almost all health providers are accredited.
- The role of health providers is passive during the contracting of services with the NHIC. Although health providers send their contract proposals (a business plan with an annual estimate of expenditure and revenue) to the NHIC, their involvement in the preparation of contracts and decisions is limited. They receive contracts from the NHIC containing the total amount of funding and the number of patients treated. The budget is usually determined through historical funding, adjusted for inflation.
- The activities of the NHIC are very important for the provision of MHI and the current structure of the company allows for greater transparency and accountability of its operations. It is desirable to further enhance the level of accountability and transparency of the NHIC regarding suppliers and the public. This applies to public awareness of the performance of providers, as well as to provision of feedback to providers on their performance results as compared with others.
- The share of people that declared having faced unmet medical need (that is, not visiting a doctor in the past 12 months because of lack of financial resources) fell according to the HBS from 29.2% of the surveyed population in 2008 to 14.3% in 2016. Between 2008 and 2016, OOP payments grew steadily. The average annual amount spent out of pocket per person rose from MDL 822 in 2008 to MDL 1616 in 2016. OOP payments grew in all household quintiles, with the steepest increase in the poorest quintile. In 2016, the poorest quintile spent nearly three times more out of pocket per person than in 2008. Outpatient medicines are the single largest OOP spending item.
- OOP payments as a share of total spending on health fluctuated over time. The incidence of catastrophic OOP payments is higher in 2015 and 2016 (17.1%) than it had been in all previous years.

Introduction

Funding and financial protection are some of the core elements for a properly functioning health system. In 2004 MHI was introduced with the aim of increasing the financial stability of the system, and guaranteeing both access to health services and financial protection to the population. The share of people covered by health insurance grew between 2008 and 2017 (NHIC, 2018a). In 2017, about 13% of the population did not take out health insurance (NHIC, 2018b). Several payment mechanisms have been developed, with the introduction of DRGs in hospitals, P4P schemes in the PHC setting and the piloting of hospital P4P indicators.

This chapter reviews the different aspects related to the funding of the health system and reports on the developments, achievements and challenges in the years relevant to the implementation of the Strategy.

Public funding of the health care system: central Government and international donors

Around 50% of revenue allocated to health comes from public sources, mainly from MHI, which includes: earmarked payroll health insurance contributions paid by the working population (9% of salary equally shared by employees and employers and a fixed contribution paid by self-employed people) and a fixed share of the state budget (earmarked state expenditure) that is annually approved by law and covers insurance for 16 categories of the non-working population (de facto around 11% of total government expenditure). Between 2008 and 2017 the MHI premiums as a percentage contribution from salaries have been gradually raised from 6% to 9%.

All health insurance revenues are pooled into one autonomous budget managed by the NHIC, which is the sole agency for prepaid health care funding and purchaser of health services. Separate from the Government's financial contribution to insure non-working categories of the population, state budget funding is provided separately for several national health programmes and for the entire national public health service (the State Service on Public Health Surveillance (SSPHS)).

Total public spending on health has grown in absolute value from MDL 2.6 million in 2007 to MDL 7.3 million in 2017. Total spending as a share of the consolidated budget witnessed a decrease by 1.2% between 2008 and 2017 (from 13.0% to 11.8%). Public spending on health as a share of GDP grew by 0.7% between 2008 and 2009, before fluctuating continually over the next several years. It fell steadily from 2014, reaching 4.6% in 2017. OOP payments as a share of total spending on health also fluctuated over time (see Table 4.1). The incidence of catastrophic OOP payments rose between 2008 and 2010, fluctuated between 2011 and 2012, and then increased again from 2013. It was higher in 2015 and 2016 (17.1%) than it had been in all previous years (Garam et al., 2019).

Table 4.1. Financing of the health system in the Republic of Moldova, 2008–2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
GDP growth	7.8	-6.0	7.1	6.4	-0.8	8.9	4.6	4.3	2.2	4.7
Total health expenditure (% of GDP)	11.4	12.5	11.7	11.4	11.7	9.9	10.3	10.1	9.8	9.0
GDP per capita (current US$)	1 696.0	1 525.5	1 631.5	1 970.6	2 037.6	2 229.1	2 238.9	1822.6	1815.2	2292.4
Health expenditure per capita (US$)	193.4	190.4	190.4	223.8	238.9	220.2	228.8	184.9	186.0	206.0
Private health expenditure (% of GDP)	6.0	6.4	6.3	6.2	6.4	4.1	5.0	4.8	4.5	3.9
Public health expenditure (% of GDP)	5.4	6.1	5.3	5.2	5.3	4.3	5.3	4.9	4.8	4.6
Public health expenditure (% of total health expenditure)	47.2	48.5	45.8	45.5	45.5	49.8	51.4	48.6	49.1	51.4
OOP spending (% of total health expenditure)	45.1	43.7	44.9	45.1	45.3	41.0	38.4	46.6	44.6	42.3
External resources for health (% of total health expenditure)	4.3	7.0	9.6	9.6	7.3	8.2	5.7	3.7	4.9	4.9
Public health expenditure (% of government spending)	13.0	13.4	13.1	13.3	13.3	12.7	13.3	13.6	11.3	11.8

Sources: 2016 data from the Ministry of Finance (National Health Accounts) and the European Health for all Database (HFA-DB) (European Health Information Gateway, 2019).

According to the legislation in force until 1 December 2017,[24] the Government's financial contribution to the health insurance of non-working categories of the population constituted a share of the total approved expenditures of the state budget, with the exception of the expenditures financed from the special-destination revenues provided by the legislation (not less than 12.1%). In reality, this legal provision has often not been respected by the Ministry of Finance and has always been the subject of controversial debates between the Ministry of Health and the Ministry of Finance, mainly in Parliament during the annual budgetary process. However, these legal provisions have helped the health system to maintain its financial stability, even in the most difficult times during the financial crises.

After the recent amendment in 2017 of the above-mentioned legal provisions, the Government's funding for health insurance of non-working categories of the population is equivalent to the approved amount of the transfers from the state budget to the MHI funds for the previous year, adjusted with the consumer price index for the previous year.

The Government committed at the outset of the Strategy to increasing the State's contribution to the funding of the health system. One way to achieve this goal has been through the implementation of several national programmes in the health sector. There are currently about 40 national programmes and usually they are defined for a period of five years. The Ministry of Health, Labour and Social Protection funds some programmes; for example, in diabetes, cardiovascular diseases (CVDs) and cancer. Some limited funding is also available for programmes to reduce alcohol and tobacco

24 Parliament of the Republic of Moldova Law No. 1593 of 26 December 2002 on the size, mode and terms of payment of compulsory health insurance premiums.

consumption. International donors (e.g. GAVI, the GFATM, UNICEF, UNFPA, the SDC and WHO)[25] also play an important role in the national programmes. Donor support is mostly channelled into technical assistance and expert advice, and a few resources provide limited support to infrastructural projects and procurement. Donors' help is not used to pay for services delivery, except for funding from GFATM and GAVI (which is used for vaccines only). LPAs allocate very limited financial resources to public health programmes, representing around 3% of the consolidated public health care budget. A standardized approach to interim and final monitoring and evaluation of the national programmes is yet to be developed.

The funding of the health system relies strongly on help from international donors and the role of development partners is important. A Development Partnership Framework with key donors was created in 2006 and donor coordination councils were established in different sectors, including health. The Health Sector External Assistance Coordination Council is responsible for the planning and monitoring of external assistance projects and programmes relating to the health sector. The Ministry of Health chairs the Council and a WHO representative acts as co-chair. The Council meets as often as necessary, but at least once every three months. At the meetings, priorities for assistance to the sector (including project proposals) are formulated, ensuring complementarity and avoiding duplication. Civil society representatives participate in the meetings and the minutes are published on the Ministry of Health website.[26]

The Ministry of Health has conducted regular surveys since 2008 on Official Development Assistance (ODA) to assess the level and type of external development funding received. ODA as a share of health spending usually varies between 4% and 9%. In 2016, the financial support of development partners represented an equivalent of US$ 30.6 million, which is 8.6% in addition to the overall public spending on health, estimated at US$ 327.4 million.[27]

Role and participation of LPAs

LPAs are responsible for certain regulatory aspects and are owners of the medical facilities. According to Law No. 411,[28] LPAs must ensure population health and invest in infrastructure and equipment. They are not responsible for procurement of health care services. Investment varies across LPAs, owing to the differing economic development of the rayons.[29] In poorer rayons, LPAs do not fund health services because of the limited financial availability. Funding of services thus comes mainly from the NHIC, the state budget and OOP payments. However, this money is not invested in the infrastructure of medical facilities (except for a limited number of local investment projects, funded from the NHIC modernization fund and from part of the official OOP spending by patients for the use of medical services), which means that buildings are generally outdated and not well maintained.

The role of LPAs and the central Government puts providers in a position of dual subordination. On the one hand, the owners of municipal and district providers are local authorities that appoint managers (selected through the Ministry of Health-organized competition process) and should invest in health infrastructure. On the other hand, the NHIC and the Ministry of Health, with its subordinate units, carry out the operational management, financing, coordination and regulation of the system. Such situations often lead to a conflict of incentives, whereby the interests of the overall health system may be incompatible with the interests of municipalities.

25 It should be noted that UNICEF, UNFPA, the SDC, and WHO are not involved in covering costs of service delivery.
26 See, for example, Ministry of Health of the Republic of Moldova (2017a, b).
27 According to an unpublished report in 2016 by the Ministry of Health of the Republic of Moldova on monitoring ODA to the health sector.
28 Parliament of the Republic of Moldova Law No. 411 of 28 March 1995.
29 For example, in 2018, in Chișinău the Municipal Council approved a budget for municipal health care institutions of about MDL 70 million (€ 3.5 million) that is usually used for repairing buildings or other infrastructure and for procurement of equipment.

Overall, the definition of the responsibilities and competences of local health authorities is an area that needs to be revisited in a future policy cycle, to ensure clarity.

MHI and benefits package

The NHIC is a public non-profit-making body with financial autonomy, created by the Government of the Republic of Moldova in 2001. It has four main areas of responsibility: (i) to provide MHI for the population; (ii) to contract health providers for the provision of services to the insured population; (iii) to verify that the provisions of contracts correspond with the volume, terms, quality and cost of health services provided, as well as managing MHI resources within the limits of contracted services; and (iv) to protect the interests of insured people, carry out case validation, and conclude re-insurance contracts.

The NHIC pools payroll and budgetary contributions for reimbursement of health services. The 2014–2018 Institutional Development Strategy of the NHIC is the main document outlining the institution's managerial and strategic planning activities in the medium term; it sets out the development objectives of the NHIC as administrator of the MHI system, and identifies priority measures and activities. The NHIC is composed of both central (national) and territorial structural subdivisions. The activity of the central structural subdivisions is burdened with operational duties irrelevant to their status, and decentralization is needed to strengthen the planning, monitoring, assessment and internal auditing functions. The territorial structural subdivisions, which are responsible for technical services within the insurance system, need unified methodological support from the central subdivisions to sustain everyday operations. Coordination of activities among the structures is underdeveloped and reassessment of the responsibilities and organization of interstructural activities is indispensable.[30] Moreover, the overall process of coordination needs to be improved, along with interdepartmental relationships.

The activities of the NHIC are very important for the provision of MHI and the current structure of the institution allows for greater transparency and accountability of its operations. It would be desirable to further enhance the level of accountability and transparency of the NHIC regarding suppliers and the public. This applies to public awareness of the performance of providers, as well as provision of feedback to providers on their performance results as compared with peers.

MHI was introduced in 2004. Since then, the share of the population with health insurance has grown.[31] It is important to note that there is a discrepancy between data sources in the share of the population with health insurance. According to the HBS, during 2010–2016 the share of the population covered by MHI was around 74–76% (NBS, 2017a, b), while according to NHIC estimations, 86.9% of the population was insured in 2017. The discrepancy results from a difference in the calculation methodology. The NBS takes as the denominator the current population according to current populations statistics, while the NHIC takes the number of the current population subject to the Law on Compulsory Health Insurance[32] (excluding people who are in the country for fewer than 183 days of the calendar year and military employees who receive state-guaranteed health services through departmental medical facilities affiliated to the ministries and forces structures). Table 4.2 reports the share of the population with health insurance according to the NHIC.

30 According to findings by Katsaga and Marušič in a 2015 internal report by WHO detailing a situational analysis of strategic purchasing of health care services in the Republic of Moldova.

31 In order to increase the number of people covered by MHI and to improve the contribution payment methods to depending on actual income, the 50% and 75% discounts for the purchase of MHI policies were maintained during 2010–2011.

32 Parliament of the Republic of Moldova Law No. 1585 of 27 February 1998 (art. 4).

Table 4.2. Percentage of the population with MHI coverage, 2008–2017

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
75.0	71.6	80.8	80.6	82.1	83.2	85.0	85.6	85.8	86.9

Source: NHIC activity reports 2009–2017 (NHIC, 2018a).

The Republic of Moldova has achieved improvements in health insurance coverage and is one of the few examples of CIS countries (except for Kyrgyzstan and the Baltic States) that have managed to create a split between providers and purchaser of health services in the health system design. MHI is compulsory and aims to provide complete coverage. In practice, individuals may choose not to purchase any health insurance. Certain population categories, such as students, children, pensioners, and disabled people receive insurance coverage without payment of contributions, covered by the Government.[72] HBS data show that in 2016, 76% of the population had health insurance: 25.7% paid monthly fees, 47.3% were insured by the State, while 2.5% purchased health insurance by themselves (e.g. self-employed people) (NBS, 2017a). The share of people buying voluntary health insurance increased from 1.7% in 2008 to 2.5% in 2016. Most of those who purchased voluntary health insurance are from the richest quintile of the population (NBS, 2017a). Table 4.3 shows that there were more uninsured people in rural areas (31.2%) than in urban areas (15.8%) in 2016. It is noteworthy that according to the HBS, the share of uninsured people in rural areas has increased from 2008 by 5.8%. An important aspect of MHI is that children under 18 years of age are automatically insured by the Government, representing roughly 27.4% of the insured population. Most of the uninsured people belong to the population group aged between 24 and 54 years (NBS, 2017a).

Table 4.3. MHI coverage by area and income quintile, 2016

	Area		***Income quintile***					**Total**
	Urban	**Rural**	***Poorest***	***II***	***III***	***IV***	***Richest***	
Do you have compulsory medical insurance?								
• Yes, through monthly contributions	38.4	15.9	13.8	17.6	22.1	32.9	42.2	25.7
• Yes, on my own (e.g. self-employed)	2.9	2.1	2.0	2.5	1.4	2.8	3.7	2.5
• Yes, provided by the State (for free)	42.9	50.7	55.7	54.3	50.9	43.1	32.9	47.3
• No	15.8	31.2	28.5	25.6	25.7	21.2	21.2	24.5
Total	100	100	100	100	100	100	100	100

Source: data from the 2016 HBS (NBS, 2017a).

Reasons why people do not take out health insurance vary. One of the recorded reasons is that those people who receive financial assistance because they are on low incomes are insured by the Government (since 2009). One of the eligibility criteria to receive these benefits is to be registered with the employment office as a person seeking employment. The cost of buying health insurance is also very often mentioned as a barrier, even though the fixed amount of the contribution paid by self-employed people has not increased for several years and the 50% and 75% discounts (depending on the category) for the purchase of MHI policies were maintained during the period 2009–2017.

A culture of informal payments exists in the Republic of Moldova, so many people do not see any added value to buying insurance because they have to pay anyway for the services provided by doctors, including for medicines. Another important factor is that people who do not permanently reside in the country are not motivated to take out health insurance. Other reasons often mentioned are informal employment or unofficial unemployment status and the belief that if you are healthy, health insurance is not necessary. The current set-up for providing health services is probably also a disincentive to buying health insurance. Generally, there is not a culture of prevention because PHC and emergency care is covered, regardless of insurance status. People generally believe they will not be treated in an inpatient setting (that is, they will not be hospitalized), so they do not see the need to take out health insurance. The current legislation allows insurance to be purchased at any time during the year, although the premium is much higher if patients buy health insurance after 31 March (the insurance takes into force after 7 days).

A study published in 2016 used a multivariate logistic regression to assess the determinants of having health insurance (Hone et al., 2016). Age was an important factor in being uninsured, with those aged 25–43 and 35–49 years, respectively, being 2.9 and 2.3 times more likely to be uninsured than those aged 18–24 or 50–60 years. Females were less likely to be uninsured than men, as were people with chronic health conditions. The self-employed and unpaid family workers were all more than 20 times likely to be uninsured. The unemployed were five times more likely to be uninsured. Over time, there was no evidence of a trend towards a change in the likelihood of being uninsured.

The benefits package offered under MHI is defined by the Unified Programme, which is developed by the Ministry of Health and approved by the Government. The current benefits package is quite wide but still in need of further refinement of its scope in order to improve access of the population to certain services and to ensure that people avoid financial hardship. The positive list of diseases and conditions – covered from MHI funds – includes a wide range of health services. This causes a financial strain on the benefits package and in 2018–2020 it is foreseen that there will be a down-selection of those most important strategic services to be covered by MHI. However, it is not yet clear how the strategic services will be selected because there is no institution responsible for health technology assessment and/or cost–effectiveness analysis. At present, decisions about what to include in the benefits package are made by the Ministry of Health, Labour and Social Protection and the NHIC, and approved by the Government, without being based on a detailed cost–effectiveness and/or comprehensive budget impact analysis.

Payment mechanisms and contracting services

Since 2004, PHC services are purchased on a per-capita basis. Initially, these services were funded prospectively according to a simple unweighted capitation estimate, using the size of the resident local population as the denominator. In 2005 the per-capita funding was combined with retrospective extra payments (a P4P approach) for achieving certain quality indicators, and since 2009 the capitation formula has been risk-adjusted by age and estimated based on the number of patients registered at a given practice. It is worth highlighting that the per-capita financing model in PHC – that is adjusted to age risk only, without considering any adjustments for geographic and economic deprivation – maintains the inequities in financing and distribution of PHC services for urban and rural populations. PHC facilities from deprived localities are placed in unequal conditions as compared to other facilities, resulting in reduced access of the population from deprived localities to high-quality health services. Currently, PHC providers are paid 85% with per-capita payments and 15% with P4P payments.

P4P payments are mostly related to providing care for specific diseases such as CVD, cancer and TB, as well as improvement of children's and women's health. The list of P4P payments is published and

updated each year after being developed with the support of the NHIC. In 2011 the NHIC restored the scheme whereby additional payments to PHC providers and outpatient specialist providers are made according to a variety of performance indicators. It is important to highlight that there are certain problems in the practical implementation of P4P, which prevent full achievement of the desired result. According to international experience, the inclusion of the registration of chronic patients and maintenance of electronic registers as indicators in the P4P incentive payments gives rapid results in expanding the coverage/diagnosing of patients and creates a strong incentive for the development of information systems at the PHC facility level. This requires the creation and implementation of standardized national registers, the creation of links between PHC and hospital data, and so on. To date, this approach has not yet been implemented in the Republic of Moldova. At the PHC provider level, electronic hospital records and chronic patient registers have not yet been implemented; all basic information on the indicators is collected by hand at the facility level and on a monthly basis in an aggregate form; the data is entered into the NHIC electronic module. Such a process does not preclude duplication of information and will require additional administrative costs for obtaining the data and its verification on the part of primary care and by the NHIC.

Most of the people interviewed recognize the importance of linking payment mechanisms with the quality of services. The amount of P4P indicators in PHC has grown rapidly over time. Nine indicators related to quality performance in 2009 grew to 26 indicators in 2013 and to 38 in 2017. In 2018, P4P indicators in PHC were then reduced to six.[33] Some interviewees report that the percentage value that must be reached to obtain the payments is arguable. For some indicators, a provider should reach 95% of coverage. If the provider only reaches 90%, they are not entitled to any payments. This is considered too strict, particularly by providers operating in rural areas. Additionally, some PHC physicians do not see the P4P system in a positive light because the amount of funding remained the same (15% co-payment has not been added to the PHC budget but rather carved out of the budget available), while the volume of paperwork has grown substantially.

It is also important to stress that the existence of performance indicators in PHC and their absence in specialized ambulatory care does not foster quality of care in specialized ambulatory care. The existence of these double standards regarding performance indicators does not allow improvements in the quality and continuity of service provision by primary care and specialized ambulatory care institutions. Although the system of performance indicators has been implemented in PHC for more than 10 years, no studies have been performed until now to assess the impact of the system on the accountability and individual performance of GPs, on the situation in the public health areas in which the indicators are applied, on motivating the GPs to remain in the system, and so on.[34] The lack of communication between academia and practice and the absence of mechanisms for technology transfer need policy attention.

At the hospital level, payment mechanisms changed between 2008 and 2017. Hospitals used to be paid per treated case. In 2012 the Republic of Moldova introduced DRGs that were piloted in nine hospitals in the country. The DRGs used are from the Australian system (695 DRGs in total). The rationale behind introducing DRGs is that they help to categorize hospitalization costs and determine payment for a patient's hospital stay prospectively. Rather than paying the hospital on a fee-for-service basis, the hospital is paid a fixed amount based on the patient's DRG. The underlying idea is that DRGs will stimulate more efficient use of resources and decrease length of stay. The World Bank's Health Transformation Project has strongly supported the development of P4P indicators in hospital care in the Republic of Moldova. Before country-wide implementation, P4P indicators will be piloted and adjusted to reflect the peculiarities of monoprofile, multiprofile, and secondary/tertiary health

33 Ministry of Health, Labour and Social Protection of the Republic of Moldova Order No. 515/130-A of 13 April 2018.
34 Discussed in an internal WHO Country Office report in 2017 by Silviu Domente and Ghenadie Turcanu on primary care and specialized ambulatory care in the Republic of Moldova across the period 2012–2017.

care institutions. The simulation is expected to be completed by the end of 2019 to facilitate the new contracting cycle for 2020 and to make the necessary arrangements for allocating the budget with P4P funding.

The DRG-based payment system complies with international standards of efficiency; however, there are significant issues concerning its practical operation. First, the calculation of the hospital costs and of cost-weights to fund the hospitals needs refining. The Ministry of Health and the NHIC revised in 2016 the methodology for calculating the cost of medical services and an international team of experts currently provides technical assistance to the NHIC and the Ministry. Another practical issue is that the DRG system has been implemented in a way intended to ensure the neutralization of risks for health providers as well as the correspondence of the hospital budget volume to the level of the previous year. This was done through the establishment in 2014 of a specific base rate for each hospital, which has led to the difference in payment for the same services in some cases reaching 2 to 3 times. Finally, an additional element of complexity in calculating the costs of DRGs is the indirect costs, such as those associated with energy and sewage. The prices of these utilities vary by rayon, and differences across regions – particularly between north and south – can be as much as threefold. All the stakeholders interviewed supported the introduction of DRGs in the hospital sector and believe this is the right way forward. One idea that was often mentioned was to better link payments provided to hospitals with outcomes, as well as considering the patient case-mix of a hospital. For example, some hospitals have more difficult cases than other hospitals (and/or have them referred from other hospitals) and this should be reflected in the NHIC payments.

Other categories of health services, such as home-based care and palliative care, are contracted by the NHIC. The contracting of these services usually takes places at PHC facilities. These services are free for patients at the point of use, provided by public medical facilities, private providers and NGOs and paid for on a fee-for-service basis since 2010.

The NHIC contracts services providers for the provision of health services to the insured population. In theory, the NHIC can contract selectively with individual public providers and the legal framework allows for this. However, in practice little selective contracting has taken place so far. One of the main criteria used for contracting has been the accreditation status of providers. Currently, almost all major health care providers are accredited and there are only a few institutions that are not accredited but yet still have contracts with NHIC. The selectivity principle is better applied in the case of private providers. The medical facilities are requested to send their offers to the NHIC, which then contracts them. A certain level of real competition, however, is observed only among private providers, as all public providers are contracted and prices for services are standardized according to the level of care. There is one single sample (standard) contract, which is approved by the Government.

Although the NHIC is a key player in the strategic purchasing and contracting system, the National Council for Evaluation and Accreditation in Health (part of the National Public Health Agency since 2017) can potentially play a significant role as well in the selection of health services providers for the subsequent conclusion of contracts with the NHIC. The current process of accreditation is a formality, without the use of real instruments and clinical and economic criteria for accreditation, based on international practice. This is an area in which further investment in competencies is needed.

Officially, a contracting process starts with the development of proposals by providers. The proposals are submitted to a special commission created by the NHIC. Following a preliminary examination of proposals, providers are invited to the NHIC for negotiations on the volume and cost of services to be contracted. In theory, three rounds of negotiations should take place – initial, intermediate and final – with adjustments at each stage. In practice, only one round generally takes place, with hardly

any negotiation. For public institutions, draft contracts are also coordinated with providers' founders/ owners (except for tertiary facilities, which come under the Ministry of Health). According to the contract, providers are obliged to provide health care services to insured people as per the volumes and time frames stipulated in the Unified Programme, and the NHIC is obliged to cover the respective costs. According to the legislation, the NHIC is obliged to monitor the implementation of contracts and it has a special unit for this at central level, as well as monitoring personnel working within the territorial branches. The actual process of discussion and contracting is rather informal. The role of health providers can be described as passive during the contracting process. They are not involved in the preparation of contracts and decisions, and they receive contracts from the NHIC containing the total amount of funding and the number of patients to be treated. Most often, the parameters of the contract are determined by historical data, with adjustments to a medical organization's general budget according to the rate of inflation, taking into account the expected level of change of the NHIC overall budget based on indicators provided by the Ministry of Finance.

In 2011–2012 the contracting mechanism was revised. The Ministry of Health and the NHIC developed the criteria for contracting medical facilities. These criteria are revised and published each year. For 2017, for instance, a Government Order lists the criteria for contracting medical sanitary institutions under the compulsory health insurance system.[35] The NHIC has organized various training sessions, attended by contracted health services providers, to increase the capacity of providers to estimate the amount of adequate services that will serve as a basis for contracting.

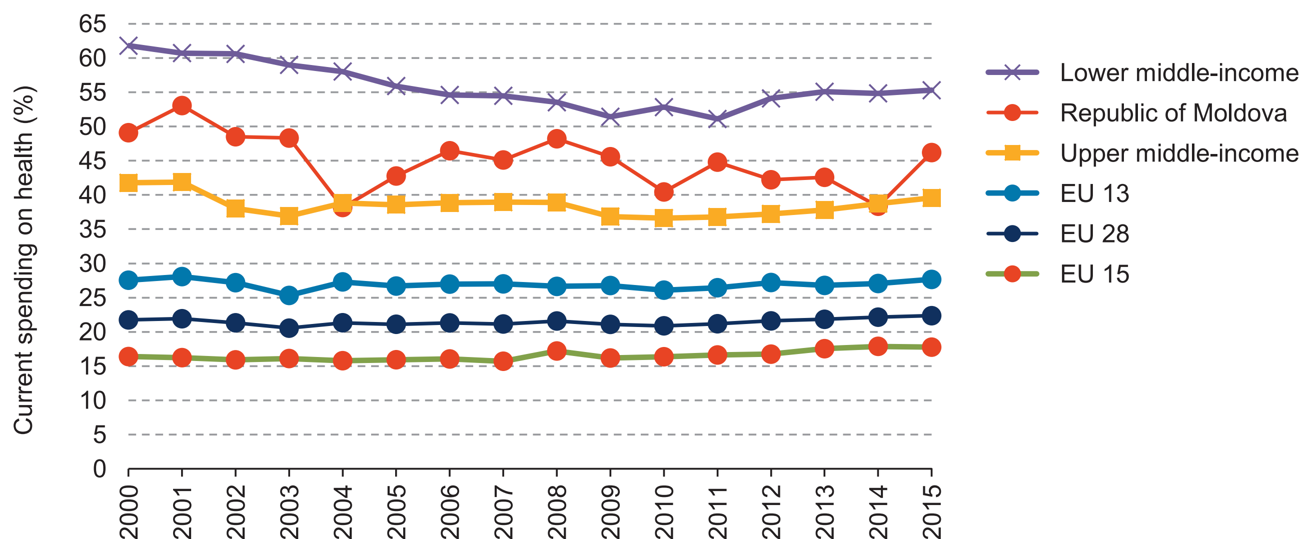
Financial protection of the population

Financial protection is central to universal health coverage and a core dimension of HSPA. It is defined as the absence of financial hardship when using health services. Financial hardship occurs when OOP payments for health are large in relation to a household's ability to pay. Where a health system provides weak financial protection, people may not have enough money to pay for health care or to meet other basic needs, such as food and shelter. Weak financial protection can therefore undermine access to health care, lead to ill health and deprivation, and exacerbate inequalities.

OOP payments – also referred to as household expenditures on health – are formal and informal payments made by people at the time of using any health service provided by any type of provider. They exclude pre-payment (for example, taxes, contributions or premiums) and reimbursement by a third party, such as the Government, a health insurance fund or a private insurance company. OOP payments as a share of total spending on health have fluctuated over time. National Health Accounts data show that OOP payments grew from 2008 to 2009, fluctuated between 2010 and 2014, grew in 2015 and then fell again in 2016 (Fig. 4.1) (WHO, 2019). The OOP share of total spending on health is much higher in public of Moldova than in various EU country groupings.

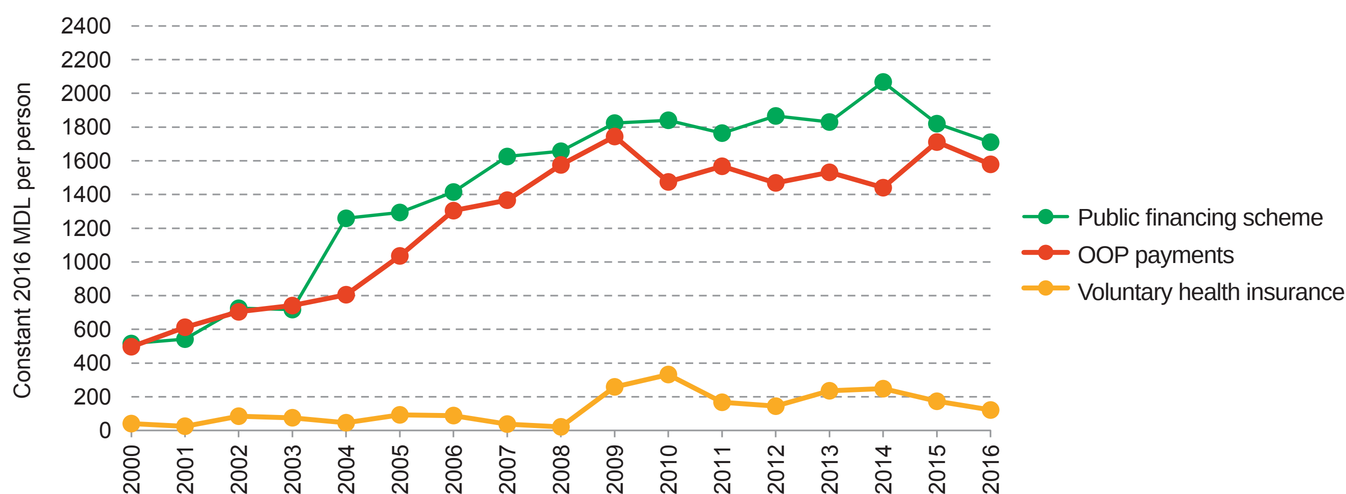
35 Government of the Republic of Moldova Order No. 1076/720A of 30 December 2016.

Fig. 4.1. OOP payments as a percentage of total spending on health, Republic of Moldova and EU country groups, 2000–2015



Notes. EU13: countries that have joined the EU since 1 May 2004. EU15: EU Member States before 1 May 2004. EU28: all EU Member States.
Source: Global Health Expenditure Database (WHO, 2019).

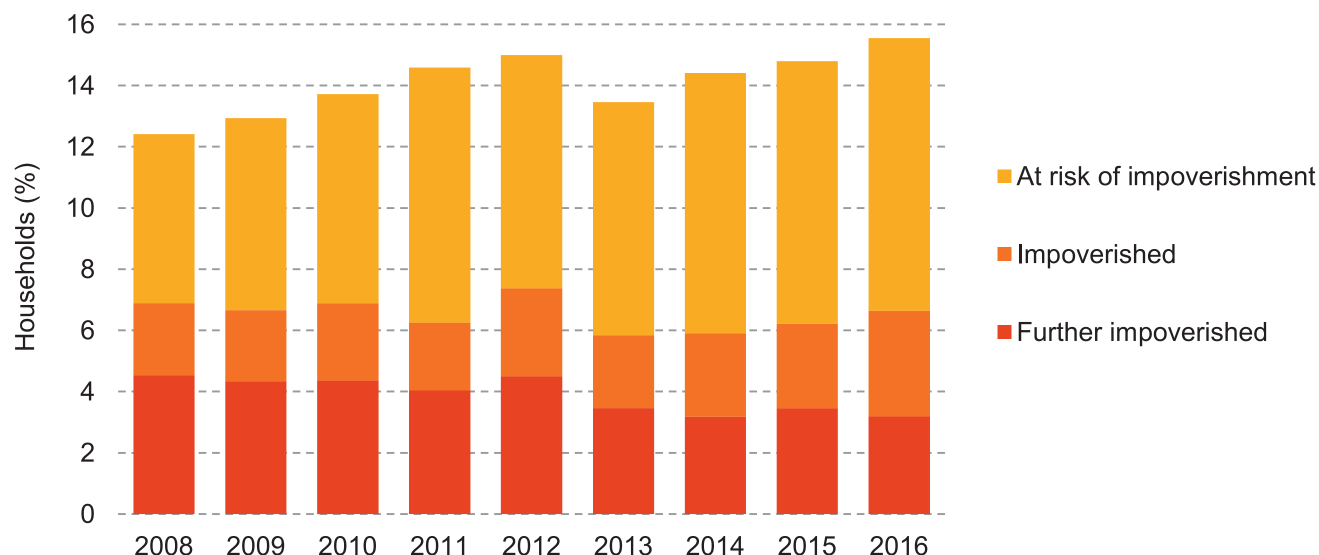
Fig. 4.2. Spending on health per person by financing scheme, 2008–2016



Notes. Private health expenditure includes direct household (OOP) spending, private insurance (voluntary health insurance), charitable donations, and direct service payments by private corporations.
Source: Global Health Expenditure Database (WHO, 2019).

Public spending on health grew from 2008 to 2014 and then fell in 2015 and 2016. It also kept growing during the financial crisis of 2008–2009 (Fig. 4.2).

Fig. 4.3. Percentage of households at risk of impoverishment after OOP payments, 2008–2016

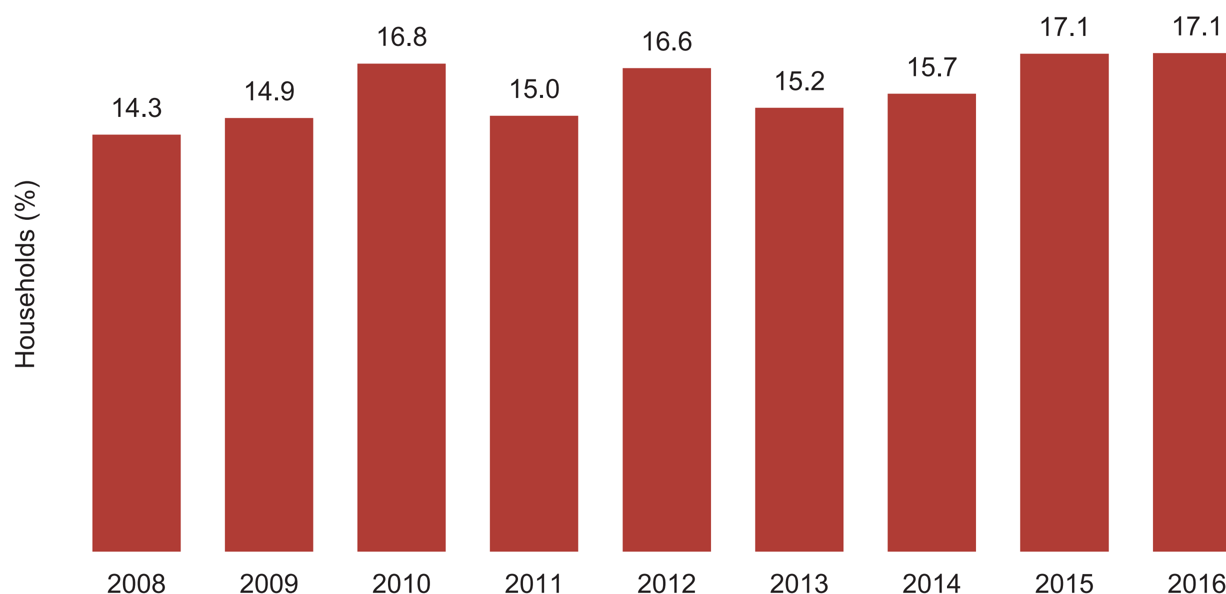


Source: Garam et al. (2019).

The share of households impoverished, further impoverished or at risk of impoverishment after OOP payments is high in the Republic of Moldova compared to many other countries in Europe (Thomson, Cylus & Evetovits, 2019). This figure has grown over time, and was higher in 2016 than it had been in 2012 (Fig. 4.3).

Households with catastrophic health spending are defined as those who spend more than 40% of their capacity to pay. The incidence of catastrophic health spending is high in the Republic of Moldova compared to many other countries in Europe (Thomson, Cylus & Evetovits, 2019). It has grown over time, and was higher in 2015 and 2016 (17.1%) than in previous years (Fig. 4.4). In all years, catastrophic health spending is heavily concentrated in the poorest quintile of the population.

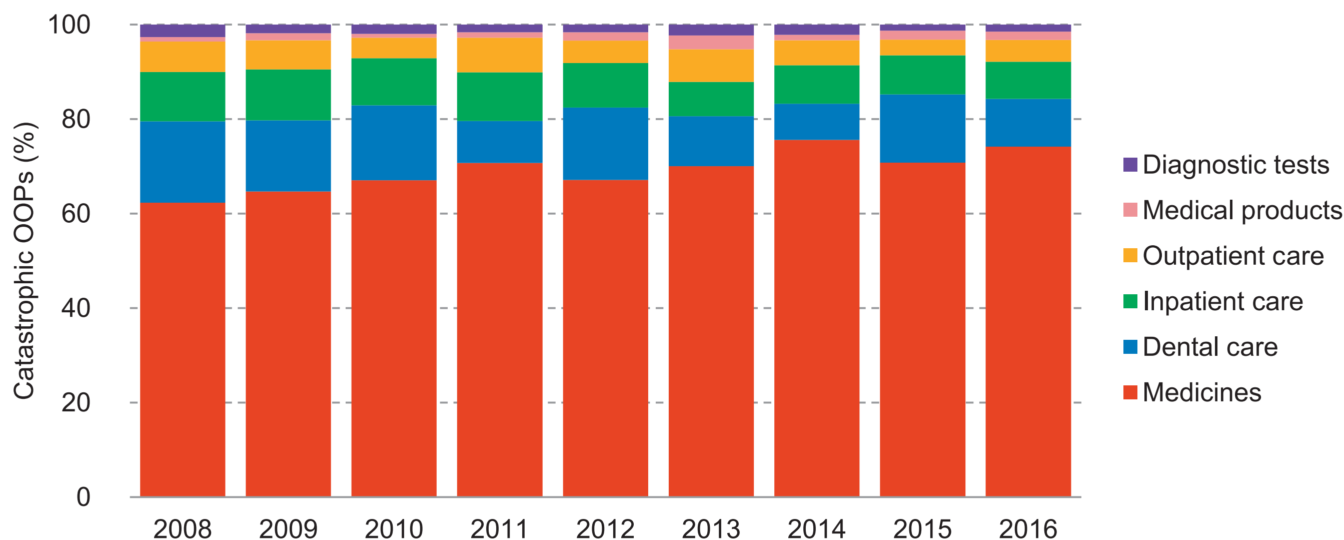
Fig. 4.4. Percentage of households with catastrophic OOP payments, 2008–2016



Source: Garam et al. (2019).

For all years and across all quintiles, outpatient medicines account for the largest share of OOP payments in households with catastrophic spending (74% on average in 2016) (Fig. 4.5). Among the poorest quintile, the share spent on outpatient medicines has grown over time from about 78% in 2008 to 92% in 2016.

Fig. 4.5. Breakdown of OOP payments among households with catastrophic spending by type of health care, 2008–2016



Source: Garam et al. (2019).

The share of people that declared facing unmet medical need due to cost decreased across the period assessed, according to the HBS. It fell from 29.2% of the surveyed population in 2008 to 14.3% in 2016.

Efficiency, transparency and equity in the use of financial resources

Efficiency is the concept indicating the benefits obtained from the rational use of material, human and financial resources. In health, efficiency is assessed in relation to health system expenditure and end goals. Goals exceeded for the same level of expenditure, or achieved at lower levels of expenditure, mean that a health system has become more efficient. Both expenditure and outcomes must be assessed to determine the overall efficiency of the health system. Indicators for individual health system goals are available, but it is challenging to obtain a system-wide measure of the degree to which the health system end goals have been achieved. It is even more problematic to link the changes in achieving health system goals with the corresponding resources spent. However, these are important considerations for policy-makers when investing in health system strengthening.

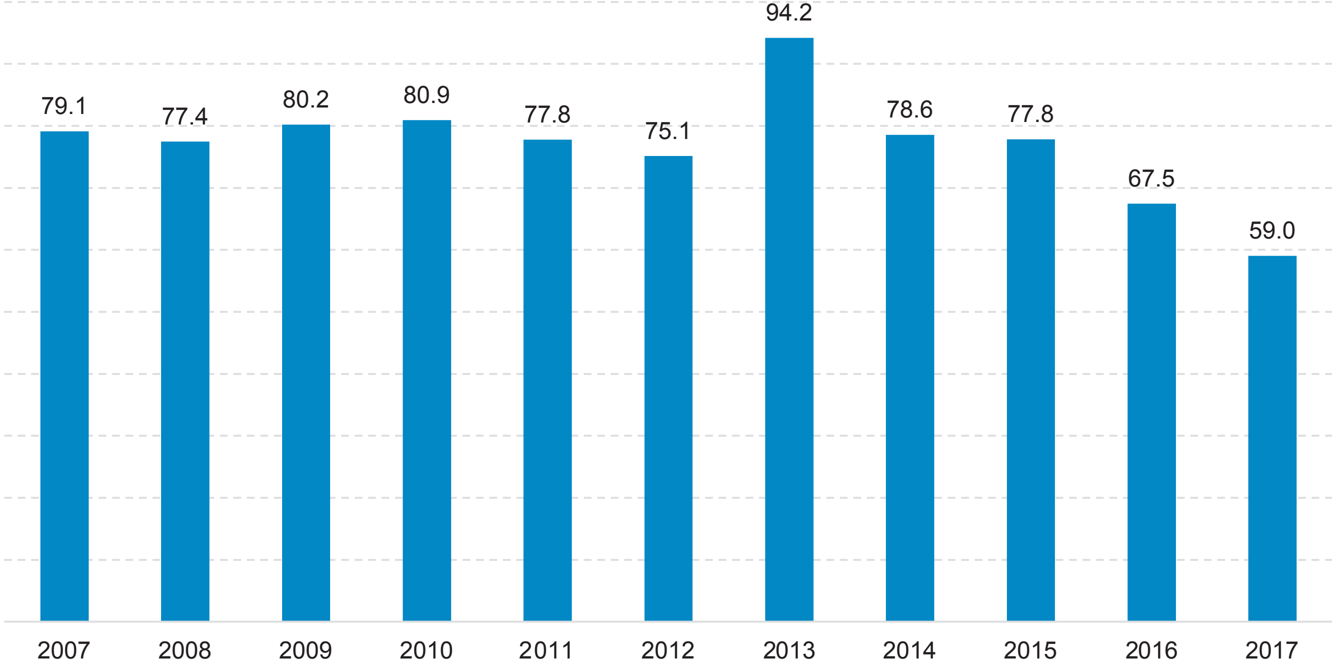
Good hospital management includes effective allocative planning for hospital beds. The number of beds, bed-occupancy rates and length of stay are measures that reflect the functional ability of a hospital. The number of hospital beds per 100 000 population fluctuated over time. From 2007 to 2012, this number grew from 612 to 623 in the Republic of Moldova. From 2013 the number of beds fell, reaching 519 hospital beds per 100 000 population in 2017. The interviews with national and local stakeholders confirmed the objective to reduce the overall number of hospital beds. This measure has been accompanied by a reorganization of other health services, such as rehabilitation and home services.

Data provided on bed-occupancy rate for university hospitals, general hospitals, rehabilitation beds and intensive care beds were stable in the period between 2007 and 2015, except for a peak in 2013 (Fig. 4.6).

To further increase the efficiency of the health system, training sessions have been provided, supported by international donors and the School of Public Health Management, to enhance the managerial capacity of chief physicians in medical institutions.

Indicators for the evaluation and monitoring of the financial resources used are not yet in place, although these were listed in the Strategy as objectives. Health accounts have been developed, but never implemented.

Fig. 4.6. Bed-occupancy rate, 2007–2017



Notes. The NCHM's definition of bed occupancy rate has changed over time. From 2007 to 2015, it was defined as "average use of beds *100/320" (inpatient days divided by 320). From 2016 onwards, the definition is "average use of beds *100/365" (inpatient days calculated on the basis of a year).
Source: NCHM annual reports (National Public Health Agency, 2017).

No models have been implemented in the period 2008–2017 of differentiated calculation and payment of insurance amounts, correlated with the poverty line or other similar criteria. A social allowance provides people with free medical insurance, but it is not correlated with the poverty line. The funding for PHC services has increased but there is little to no information on how the money is spent and the results that have been achieved. Data analysis and reporting are strongly encouraged in order to monitor progress in PHC. The Ministry of Health increased the financial resources for reimbursed medicines; from 2015 to 2016, there was an increase of 52% of financial resources allocated to compensated medicines. Between 2016 and 2017, financial resources increased by 23%. Data from the NHIC show that the allocations for compensated medicines under MHI increased from MDL 55 291.2 thousand in 2008 to MDL 522 431.3 thousand in 2017 (NHIC, 2018a).

To enhance transparency in the use of financial resources, the NHIC usually conducts audits but, according to the law, medical facilities should be informed about when the audit will take place. A list with the name of the facilities to be monitored (and in which trimester of the year) is published on the NHIC's website. This undermines the whole objective of conducing audits, which is to officially inspect an organization's accounts without their knowledge too far in advance. Other measures to enhance transparency in the allocation and use of financial resources are NHIC publications on financial activities at an aggregated level (that is, how (and how much) money is spent). Also, the HBS includes questions about both formal and informal payments.

According to law, civil society is consulted every time a new draft law is placed on the website of the Ministry of Health, Labour and Social Protection and on a dedicated website for civil society participation.[36] The instruments to increase transparency are in place but they are not yet widely used.

No transparent system has been developed that can be applied to monitor procurement contracts for medicines and medical devices by the Centre for Centralized Procurement in Health. The results of tenders should be (but are not) systematically published on the official website of the responsible public authority in a standardized format (international name, dose, pharmaceutical form, unit price, package price with and without VAT, producer/country, supplier, delivery conditions encoded incoterms, etc.) for all auctions, irrespective of the applicant and the source of funding. Public information on the authorization procedure for medicines is very modest and unstructured. There is no public information about meetings and decisions of the Medicines Committee (e.g. agenda and minutes), and statements of conflicts of interests of members of the Medicines Committee are not published.

The Ministry of Health, Labour and Social Protection consults with partners on the budgeting, allocation and spending of financial resources. On the Ministry's website there is a list of partners (development and institutional). Among the institutional partners there is a wide array of stakeholders, such as CSOs and NGOs, but also pharmaceutical companies. A consultation methodology has been developed, not specifically for the Ministry of Health, Labour and Social Protection but for the whole administration (as the Ministry is not in charge of this action).

36 www.particip.gov.md

Chapter 5.

Transforming services and models of care to meet contemporary health challenges

- Contemporary health challenges include the prevalence of diabetes, which more than doubled from 2008 to 2017; an increasing trend towards different forms of cancer; and an overall increase of HIV prevalence in the population, which indicate limited prevention services. According to health pundits, the official statistics underrepresent the prevalence of diseases such as HIV/AIDS, TB and hepatitis B because of data gaps.
- The changing epidemiological situation, the complex organization and structure of health institutions and the evolving business environment are factors that need to be considered, and modernization and upgrading of the training delivered to health managers are required. Traditionally, directors of health facilities must attend a general management course before assuming official duties. The School of Public Health Management offers continuous training for doctors and managers in the health system. These are welcome efforts to enhance the capabilities and specific skills of health managers at all levels.
- Several national programmes were implemented to provide integrated services to the population. A few examples are the national emergency programme that reorganized emergency services in the whole country; the strengthening of PHC services – in particular the improvement of the physical infrastructure and the training and management of human resources; the reform of mental health services, in particular developing legislation, combatting stigma and discrimination against psychiatric patients, and building up community-based mental health services; and proposals for the reorganization of hospital services to reduce fragmentation. These are steps in the right direction for the provision of integrated services but there are concerns about the practical implementation of (some of) these programmes, in particular regarding the quality of health services.
- The current National Public Health Strategy 2014–2020 takes a focused approach to strengthening public health services. Several national programmes have been implemented in the areas of vaccine-preventable diseases and (non)communicable diseases. The implementation of public health strategies for disease prevention are increasingly intertwined with PHC services through the testing and implementation of PEN protocols, which facilitate a continuum of care that allows for coordination, collaboration and information transfer between different caregivers in various settings. It is worth noting that some barriers exist in the implementation of public health activities; in particular, the sensitivity of surveillance systems appears to be variable, and some diseases of public health importance are not yet recognized by the health system.
- Clinical standards, guidelines and protocols have been developed. The standardized clinical protocols adopted for PHC, specialized ambulatory care and mental health can be considered a good model, owing to their comprehensiveness and clarity of use in practice. Nevertheless, the multitude of clinical protocols and approved norms and regulations will not guarantee by themselves better quality services. It is important to facilitate their application in practice, including by transposing them into the future electronic medical records system and related health information programmes.
- The Medicines and Medical Devices Agency is responsible for medicines authorization and advertisement, medicines pricing, quality control, import/export of medicines, monitoring and vigilance of medical devices, pharmacovigilance and laboratories control. The pharmaceutical sector is being harmonized with the EU *acquis communautaire* as one of the Republic of Moldova's strategic objectives. A few areas deserve more focus in the coming years, such as the monitoring of medicines pricing; ensuring enhanced physical access to medicines, especially in the most deprived geographical areas; the country's preparation for the enforcement of law adjustments on the basis of the TRIPS Agreement on data protection and exclusivity provisions; strengthening though capacity-building the assessment of medicines; establishing international collaboration to access the European databases on medicines; implementing better mechanisms to fight against counterfeit medicines; and capacity-building in procurement.
- Between 2008 and 2017, efforts were concentrated on ensuring fairer distribution of primary care and specialized ambulatory care services, especially for the rural population; increasing population access to compensated/reimbursed medicines; introducing new payment mechanisms for providers based on performance indicators; developing a single HIS, and so on. The number of tasks and responsibilities shifting over to the PHC setting has increased over time but is not accompanied by an estimation of the necessary financial resources for carrying out these additional activities, which potentially places a strain on the quality of services.
- There are significant challenges ahead in the reconfiguration and modernization of hospital services. Human resources play a significant role, and lack of motivation, low salaries, and low interest in working outside of Chișinău are often mentioned as barriers to ensuring an efficient hospital system delivering high-quality health services. Except for hospitals in Chișinău, Orhei and Balti there is generally a lack of advanced medical equipment and the condition of the buildings is unsatisfactory, since many hospitals have not carried out major repairs for years. The effective improvement of hospital performance and the shift of boundaries between PHC and hospitals is an additional challenge to upgrading the inpatient sector. It is necessary to set priorities in rationalizing investment decisions.

Introduction

Over time, ongoing transformations in the Republic of Moldova have reconfigured services provision. A reform of public health services was carried out with the creation of the National Public Health Agency in 2017. The reorganization of hospitals is ongoing and, in 2018, PHC was also reorganized.[37]

This chapter describes the key health challenges the country is facing and the changes in the reconfiguration of services delivery that took place between 2008 and 2017.

Overview of health challenges

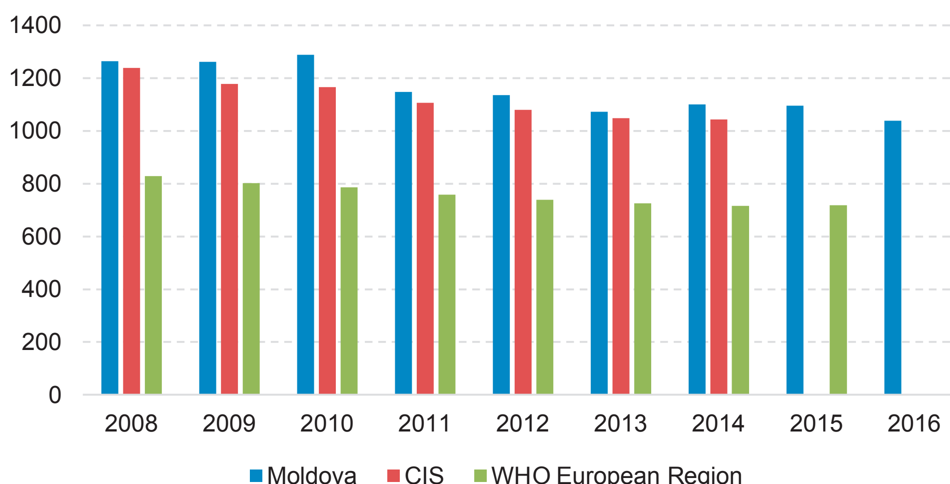
The Republic of Moldova has undergone a strong demographic transition that has led to major changes in the country's epidemiological profile. It experiences the double burden of disease: an emerging epidemic of NCDs, such as diabetes, which are prevalent in industrialized and developing countries alike, and some major infectious diseases, such as TB and HIV/AIDS that can be partly attributed to an unfinished health agenda.

The country has improved the standardized death rate (SDR) across the whole period assessed. Between 2008 and 2016 the SDR for all causes per 100 000 population fell from 1264 to 1038 (Fig. 5.1). In 2017, most deaths are caused by ischaemic heart disease, stroke, cirrhosis, hypertensive heart disease, Alzheimer's disease, lung cancer, lower respiratory infections, colorectal cancer, chronic obstructive pulmonary disease (COPD) and self-harm (IHME, 2018).

The increasing prevalence of diabetes is an area of concern (Fig. 5.2). For example, in the south of the Republic of Moldova the prevalence of diabetes among adults more than doubled across the 10-year period, from 170 per 100 000 inhabitants in 2007 to over 366 per 100 000 inhabitants in 2017. Part of this increase is owed to better diagnosis (diabetes detection has considerably improved). This could also be due to early detection of diabetes being a performance indicator for GPs. Generally, the importance of having early detection and early intervention in type II diabetes to prevent future complications is very well acknowledged. Statistics on type II diabetes do not record any complications, such as cataracts and glaucoma (Farrington & Raposo, 2016). Tracer indicators are needed in this area. The PEN protocol in PHC for an integrated approach to diabetes and hypertension is implemented in some rayons. Intersectoral actions are needed to slow down this epidemic, including educational programmes, access to better food choices, availability of better food, pricing policies that favour healthier diets, and so on.

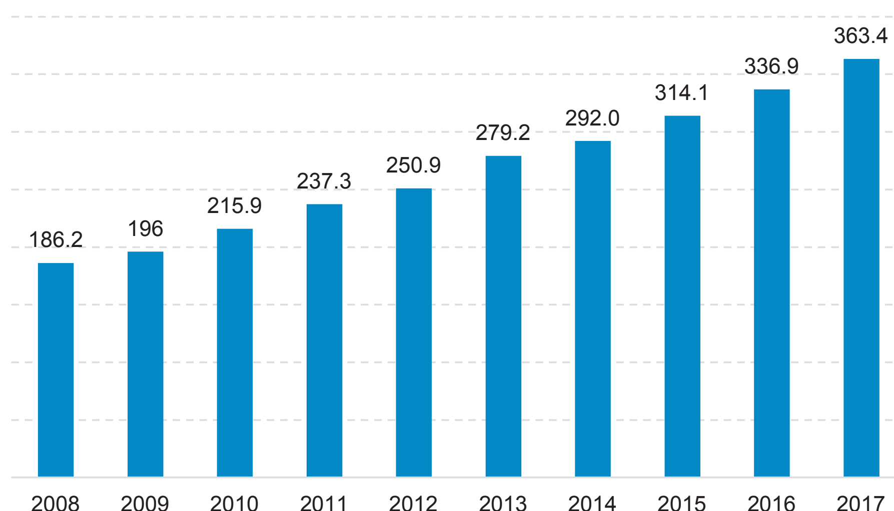
37 Republic of Moldova Government Decision No. 988 of 10 October 2018.

Fig. 5.1. SDR per 100 000 population, all causes, 2008–2016 (or latest available year)



Notes. Data for CIS countries are not available for 2015 and 2016; data for the WHO European Region are not available for 2016.
Source: European Health Information Gateway (2019).

Fig. 5.2. Prevalence of diabetes in the population aged over 18 years, per 100 000 population, 2008–2017

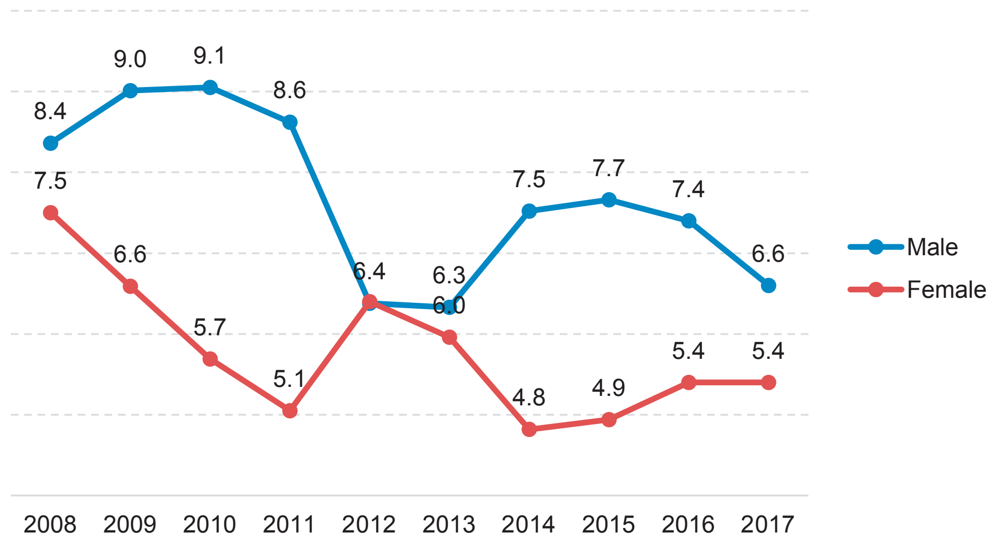


Source: NCHM annual reports (National Public Health Agency, 2017).

Between 2008 and 2017, the neonatal mortality rate per 1000 live births fluctuated. It fell for females from 2008 to 2011, peaked in 2012, fell again until 2014, and has increased again since then. The male neonatal mortality rate grew from 2008 to 2010, fell in 2011–2013, grew again until 2015 and started to fall again from 2016 (Fig. 5.3).

Neonatal mortality rates in the Republic of Moldova are higher than in neighbouring Romania, with 6.3 versus 4.3 recorded neonatal deaths per 1000 live births in 2015. The European Health for All database does not report data for the average of CSI countries, but for the WHO European Region the number of deaths per 1000 live births in 2014 was 4.6 (data for 2015 not available), which is below the numbers for the Republic of Moldova (6.2 in 2014) (European Health Information Gateway, 2019).

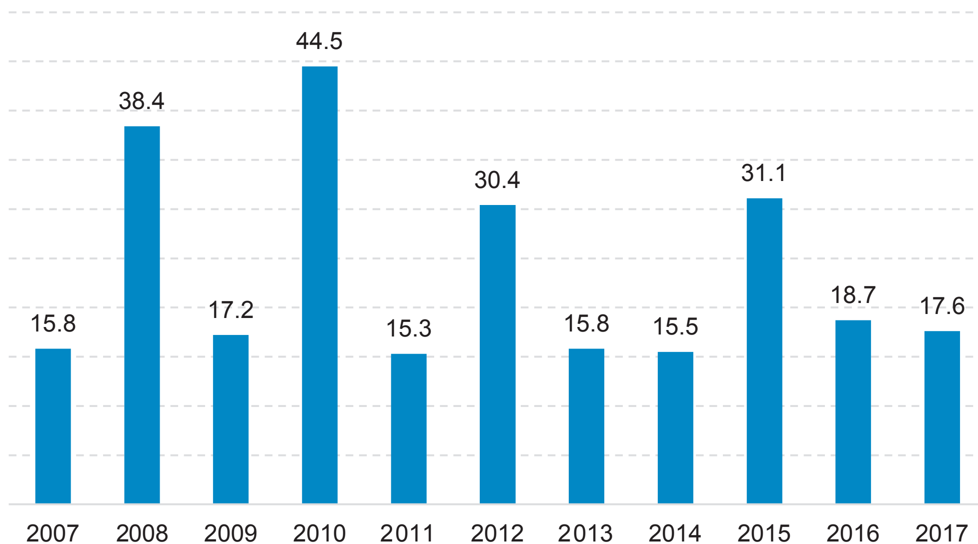
Fig. 5.3. Neonatal mortality rate per 1000 live births, 2008–2017



Source: NCHM annual reports (National Public Health Agency, 2017).

For maternal mortality, data gaps exist both in terms of years (for example, no data are available for Chișinău for 2011, 2013 and 2017, and a peak was recorded in 2010 owing to the high incidence of flu in that year) and in terms of rayons delivering data. According to experts, most rayons do not have any records due to the small number of deaths (for the whole country, from 5 to 16 deaths per year) (Fig. 5.4). The estimates of WHO/UNICEFF/UNFPA for maternal mortality in 2015 report the following statistics per 100 000 live births: Republic of Moldova 23, CIS countries 28, WHO European Region 17. It is worth noting that the estimates for the Republic of Moldova are lower than neighbouring countries Romania (31) and Ukraine (24) (WHO et al., 2015).

Fig. 5.4. Maternal mortality rate per 100 000 live births, 2007–2017

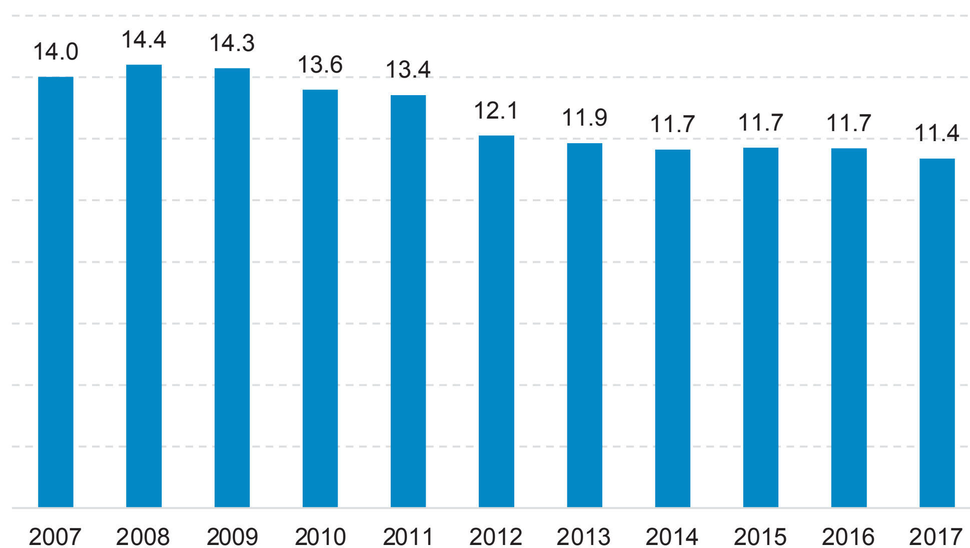


Source: NCHM annual reports (National Public Health Agency, 2017).

The under-5 mortality rate fell between 2007 and 2017 (Fig. 5.5). There has been a decreasing trend in adolescent births in the same period (Fig. 5.6). UNICEF reports a slight growth in the number of newborns with body mass index under 1500 g between 2007 and 2017 (UNICEF Moldova, 2016).

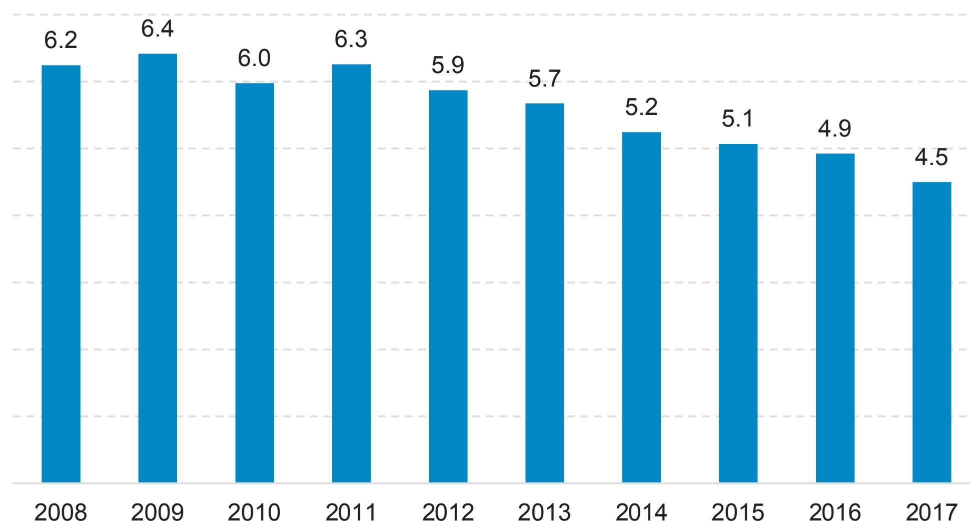
The survival rate of children born with (very) low birth-weight and that of premature children is increasing. The implications of being born too soon extend beyond the neonatal period and throughout the life-cycle, potentially leading to developmental delays, disabilities and greater risk of developing NCDs such as hypertension and diabetes later in life. Medical care and the subsequent follow-up of newborns require investment in developmental monitoring in all children – to identify risks for development and the onset of developmental delays or disabilities in a timely manner – along with provision of accessible and family-centred early intervention services to families with children with developmental delays and disabilities.

Fig. 5.5. Under-5 mortality rate per 1000 live births, 2007–2017



Source: NCHM annual reports (National Public Health Agency, 2017).

Fig. 5.6. Adolescent births (ages 10–14 and 15–19 years) per 1000 women, 2008–2017



Source: NCHM annual reports (National Public Health Agency, 2017).

WHO data for the core Health 2020 indicators (WHO Regional Office for Europe, 2016b) show that the Republic of Moldova has a strong commitment to children's health, with relatively high levels of vaccination, although differences exist between diseases and the overall vaccination rate fell over the time period assessed (Table 5.1). Vaccination coverage for TB remains high at 97% (2017), but lower vaccination coverage for other diseases needs policy attention. Outbreaks of mumps (2008) and tetanus (2010) indicate a need to enhance the immunization programmes. The country also faces

considerable challenges in terms of the social determinants of health. With recent advances in tackling child mortality, the Republic of Moldova is well positioned to advance early childhood development for all young children, including for those most at risk, as well as children with developmental delays and disabilities.

Table 5.1. Percentage of vaccinated children in their first year of life under the National Immunization Programme, 2008–2017 (or latest available year)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
BCG*	98.8	98.6	98.7	97.9	98.3	97.6	97.8	98.5	98.2	97.0
Hepatitis B	97.6	97.1	96.5	95.8	94.4	92.6	91.7	91.3	90.5	–
Poliomyelitis	96.9	95.9	95	95.5	94.1	93.0	91.9	90.9	90.9	–
Diphtheria of Tetanus Pertussis	95.4	93.9	92.2	92.6	92.4	91.8	90.3	89.7	89.2	–

*BCG is a vaccine primarily used against TB.
Source: NHIC activity reports 2009–2017 (NHIC, 2018a).

The WHO/UNICEF/World Bank Nurturing Care Framework (NCF)[38] provides an evidence-based roadmap for action and outlines how policies and services can support parents, families, other caregivers and communities in providing nurturing care for young children. The Framework builds on the foundation of universal health coverage, with primary care at its core, as being essential for all sustainable growth and development. It articulates the important role that all sectors, including health, must play to support the healthy, optimal development of all children to reap maximum benefit from preschool and formal education. The NCF envisages a health sector that collaborates with other sectors to ensure a continuum of nurturing care and increased outreach/home visits to families and children with the greatest risk of suboptimal development.

Regarding equitable access to health services, there are concerns about health status – particularly of Roma women and children – in Roma communities. Concerns were expressed in the 2017 CRPD Committee's concluding observations "...about the human rights situation of Roma persons with disabilities, including children with disabilities" (United Nations CRPD Committee, 2017).

While all countries in the WHO European Region are making progress on achieving SDG target 3.1 to reduce the global maternal mortality ratio to less than 70 per 100 000 live births, particular groups of women remain at higher risk of adverse outcomes during pregnancy and birth (WHO Regional Office for Europe, 2017b).

The 2011 UNDP/World Bank/EC Regional Survey on Roma Population (Lawton, Bari & Gilchrist, 2018) provided insight into the health issues of Roma women: 1 in 4 (24%) suffers from pulmonary diseases; one in six (17%) has anxiety or chronic depression; only 42% had health insurance at the time of the survey; 42% suffer from hypertension; and 21% had experienced at least one miscarriage. Over one third (37%) of Roma women assess their health condition as bad or very bad, and eight out of ten Roma women do not visit the doctor because of the high costs for health services, including medicines, and the subsequent impossibility of covering such costs.

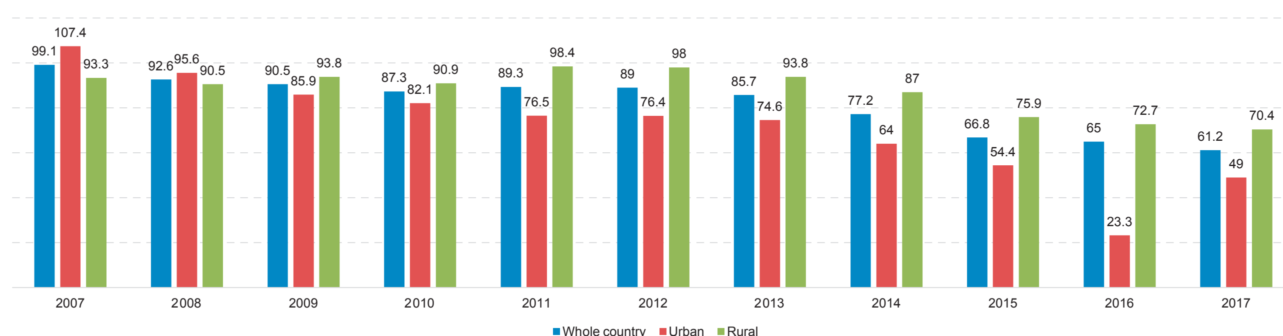
With respect to cancer incidence, there is an increasing trend towards incidence of cancer of the breast, colon, rectum, skin, and trachea/lung/bronchi. The increasing trend in breast cancer is partly owing to better monitoring and data registration, as this is one of the performance indicators

38 WHO, UNICEF and the World Bank, in collaboration with the Partnership for Maternal, Newborn & Child Health, and the Early Childhood Development Action Network, launched the NCF for early childhood development at the Seventy-first World Health Assembly in 2018 (WHO, UNICEF & World Bank, 2018)).

for GPs. The incidence of stomach cancer has fluctuated over time and is slightly decreasing. For cervical cancer, data from the Moldovan National Cancer Registry show that both the incidence and prevalence have remained high throughout the period being assessed, without any statistically significant improvement. In addition, the proportion of late-stage diagnoses (International Federation of Obstetrics and Gynecology (FIGO) stages III & IV) has also remained high and stable at roughly 50% across this period. The quality of these services is questionable, as cervical cancer can often be successfully treated if it is discovered at an early stage, which usually is through a Papanicolaou test.

TB incidence in the Republic of Moldova is still high compared to the average of CIS and EU countries, with more cases in rural than urban areas (Fig. 5.7). The country is one of the 18 with the highest TB burdens in the WHO European Region (WHO Regional Office for Europe, 2019). Additionally, the share of RR/MDR-TB among new TB cases grew from 23.7% in 2007 to 28% in 2017. In the same period, the overall proportion of RR/MDR-TB cases grew. The implementation of the people-centred model of TB care implies a number of changes in organizing TB care across the different care settings, financing mechanisms applied to provider payment and financial incentives and shifts of tasks and responsibilities across the health workforce involved in TB service delivery. All these aspects require a regulatory framework conducive to the introduction of a more people-centred model of TB care in the Republic of Moldova.

Fig. 5.7. Incidence of TB per 100 000 population, 2007–2017



Source: NCHM annual reports (National Public Health Agency, 2017).

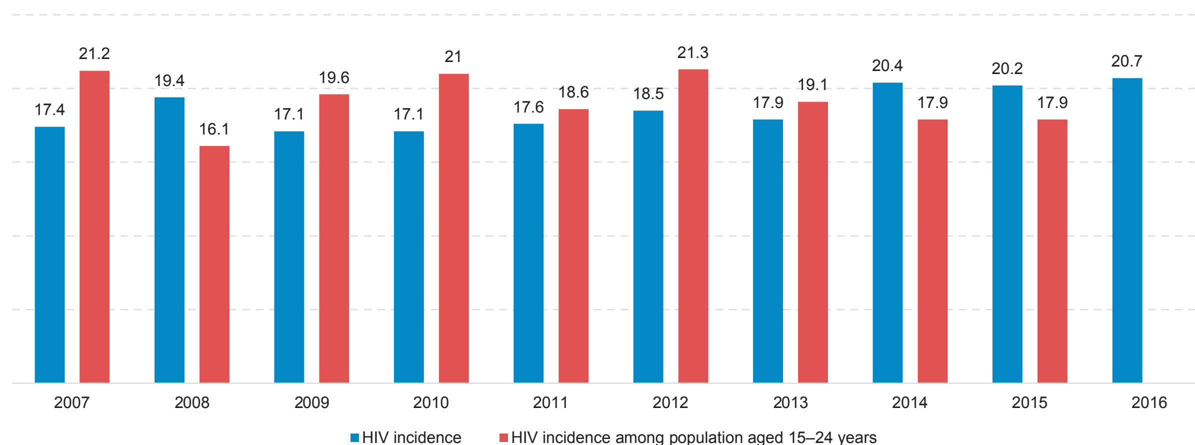
For viral hepatitis A and B, the incidences have steadily fallen since 2000. The incidence rate for viral hepatitis A in 2010 (0.8 per 100 000 population) was substantially lower than the averages for the WHO European Region (10.2/100 000) and the CIS (26.8/100 000). For viral hepatitis B, the incidence rate in the Republic of Moldova in 2016 was 0.7 per 100 000.[39]

HIV incidence per 100 000 population has diminished among the population aged 15–24 years but has grown overall (Fig. 5.8). Which (age) groups are most affected is not possible to say from the data available. The overall HIV prevalence increased by 66.5%, from 118 in 2010 to 197 in 2017. According to the experts consulted, in the area of HIV/AIDS prevention considerable work is being implemented that is funded by NGOs. The GFATM and other development partners usually fund HIV/AIDS prevention activities. National programmes on HIV/AIDS were developed for the general population with a strong health promotion component; this likely explains why HIV incidence among the younger population (aged 15–24 years) has fallen overall. Scope for improvement was seen in increasing the focus on specific target groups (e.g. drug users, men who have sex with men, sex workers). Therefore, the approach was changed and since 2014 the Republic of Moldova has a national programme mostly focused on these three target groups. Nevertheless, the country reports 19.8 per 100 000 population

39 Data from reports of the NCHM, now part of the National Public Health Agency (National Public Health Agency, 2017).

of new HIV cases, compared to 6.7 per 100 000 in the WHO European Region and 10.1 per 100 000 in CIS countries. AIDS incidence is also higher in the Republic of Moldova (6.6/100 000) than in the WHO European Region (1.8/100 000) and CIS countries (4/100 000). TB/HIV co-infection has also increased considerably during the period being assessed. Between 2007 and 2016, the estimated TB/HIV co-infection rate rose from 3.2 to 9.2 per 100 000 population. In the same period the share of TB/HIV co-infection among all TB cases rose from 2.4% to 9.1%.[40]

Fig. 5.8. HIV incidence per 100 000 population, 2007–2016



Source: NCHM annual reports (National Public Health Agency, 2017).

A general comment from the Working Group was that the official statistics likely underrepresent the prevalence of diseases such as HIV/AIDS, TB and hepatitis B because of data gaps. The several electronic HISs in place do not allow for interoperability standards, quality, security, scalability, reliability and timeliness in data storage and processing terms.

Continuity of care: organization of services delivery

The changing demographic and epidemiological profile of the Republic of Moldova, with its double burden of disease, has called for a reconfiguration and modernization of health services. Several health services (emergency, primary care and public health) were reorganized through the development of national programmes. Nevertheless, the practical implementation of the reforms is difficult, due to a chronic lack of human resources, financial funds, lack of foresight on the part of health professionals regarding the continuum of care for patients, limited technical capacities at all levels and inadequate needs assessment of the population. Today, the health system lacks resources and is a fragmented collection of services providers. Concepts of comprehensiveness and continuity of care need to be part of the upgrading of services to ensure high-quality care. Efforts should be focused on the basic integrating mechanisms of inter-entity planning and management, care coordination and integrated information systems (Evashwick, 1989).

Several national programmes were developed for emergency health services (2006–2010, 2011–2015 and 2016–2020). They pushed for each hospital to have an emergency department, as not all hospitals previously had one. A National Centre for Pre-hospital Emergency Medical Assistance (CNAMUP) was established and the previous regional emergency centres (in the north, centre, south, Gagauzia, and Chișinău areas) were merged. The CNAMUP intervenes in all urgent cases, including acute and surgical emergencies, disasters, and under other conditions. Since 2016, the Centre is funded with a global budget, mostly paid by the NHIC. Expenditure on emergency services represent roughly 9–11% of the total health spending. Some concerns have been expressed regarding the

40 Data from reports of the NCHM, now part of the National Public Health Agency (National Public Health Agency, 2017).

quality of the emergency services in some parts of the country. For instance, a significant share of patients with acute myocardial infarction reached district hospitals by ambulance without having undergone an electrocardiogram (ECG).

The activity of the 112 service is mainly regulated by legal provisions, through a 2014 law on the organization and functioning of the Single National Emergency Calls Service (112).[41] In 2016 several normative acts were developed and approved.[42] The use of the single European emergency number 112 aims to increase the speed of response to emergency calls through the efficient use of modern infrastructure capacity of electronic communications and by providing specialized emergency services with the information needed for a timely and appropriate response (Ministry of Information Technology and Communications of the Republic of Moldova, 2016).

An additional important development to highlight is the increase by 93% of patients who self-referred to the accident and emergency departments of hospitals between 2007 and 2016. According to the experts consulted, there are two explanations for this trend. First, since 2004 it is possible to directly access emergency care regardless of insurance status, as the NHIC pays for these services. The current legislation allows direct access to emergency care. This explains the strong increase in people self-referring to the hospital accident and emergency departments. Second, to avoid the long waiting times for outpatient services, patients prefer directly accessing emergency care. This highlights the importance of developing good criteria to triage patients according to their symptoms.

PHC services can be delivered by public and private providers and they are contracted by the NHIC. The key actors in the provision of PHC services are GPs (or family doctors) and family medicine nurses. The specialty of family medicine was implemented in the Republic of Moldova for the first time in 1998 and the role of PHC has been strengthened over the period 2008–2017. All protocols have been developed with the support of various donors (Millennium Challenge Corporation, the World Bank and the EU).

To enhance efficiency in primary care, the Ministry of Health, Labour and Social Protection recently reviewed the standardized clinical protocols for primary care and approved new criteria for referrals by family doctors to profile specialists, for laboratory tests and investigations (e.g. scans) for 94 diseases.[43] These revised criteria offer more autonomy to the GP in establishing diagnoses and making referrals for lab testing and scans, which previously could be performed only after the GP issued the patient with a referral to the appropriate specialist.[44] The adopted standardized clinical protocols represent a good model and an important step forward in the provision of high-quality services, owing to their comprehensiveness and clarity of use in practice. Nevertheless, the multitude of clinical protocols and approved norms and regulations will not guarantee by themselves better quality of services. It is important to facilitate their application in practice, including by transposing them into the future electronic medical records and related health information programmes, to facilitate the continuum of care.

PHC institutions are responsible for organizing health promotion measures, identifying risk groups, determining the risk factors for CVDs, cancer, TB, and so on, and for early detection of diseases. They are also responsible for prevention services, curative medical services, emergency medical services,

41 Law no. 174 of 25 July 2014.

42 Government Decision No. 241 of 3 March 2016 on the approval of the National Programme for the implementation of the Single National Emergency Calls Service 112; Government Decision No. 242 of 3 March 2016 on the approval of the Regulation on the organization and functioning of the Interdepartmental Committee to ensure the interaction between the Single National Emergency Calls Service 112 and specialized emergency services; Government Decision No. 243 of 3 March 2016 on the creation of the Single National Emergency Calls Service 112; Government Decision 244 of 3 March 2016 on the approval of the Technical Concept of the Automated Information System of the Single National Emergency Calls Service 112.

43 Ministry of Health of the Republic of Moldova Order No. 284 of 11 April 2017 on the updating of standardized clinical protocols for family doctors.

44 Discussed in an internal WHO Country Office report in 2017 by Silviu Domente and Ghenadie Turcanu on primary care and specialized ambulatory care in the Republic of Moldova across the period 2012–2017.

as well as the prescription of medicines and medical devices compensated/reimbursed from the MHI funds. Ambulatory care provides specialized care (medical consultation/check-up) upon request by the GPs. Services provided in PHC have been widened with, for instance, new standards for monitoring children (0–18 years) in ambulatory settings that involves, alongside the GP, the orthopaedist, neurologist, ophthalmologist, otorhinolaryngologist, surgeon and orthopaedist.[44]

PHC services have been attributed a greater role in the control of NCDs and related risk factors.[105] As part of the implementation process of the legislative framework for tobacco control, the Ministry of Health initiated in 2016 the setup of counselling and treatment services for smoking cessation within PHC, as part of the specialized ambulatory care provided by district hospitals and in Balti municipal hospital, as well as in the Republican Narcological Dispensary.[45]

Special attention was paid to secondary prevention, with a central role attributed to PHC. In 2014, the organization of cervical screening was initiated, with the approval of a detailed plan for 2014–2015, including the development of the necessary normative framework, the establishment of a Cervical Screening Centre and a Cervical Screening Registry, as well as increasing capacity in this area and promoting screening among the population. Also, for the early detection of colorectal cancer, the Ministry of Health established in 2016 a set of high-risk criteria for the inclusion of people with such risks in the screening list.[46] In total 2500 colonoscopies were planned for that year. Cervical screening fell within the remit of the Ministry of Health and the NHIC, as specific actions were planned with the support of WHO and UNFPA to increase capacities in this area.[47]

Emphasis has also been put on the infrastructure, training and management of human resources. Ministerial orders were developed to define the roles of GPs and nurses, as well as to establish the position of community nurses. An important challenge in PHC is the average age of GPs (53 years of age across the whole country). Another aspect to consider is to create more attractive working conditions for GPs, starting with better salaries. During the interviews, another pattern in PHC emerged that deserves attention; namely, a better balance of the workload of GPs and specialists. GPs often refer patients to specialists, even for conditions that can be easily treated at the ambulatory level.[48] Patients prefer specialists because there are not long waiting lists and they get their drugs reimbursed if they visit a hospital. Additionally, there are no disincentives for GPs to refer patients to hospitals.

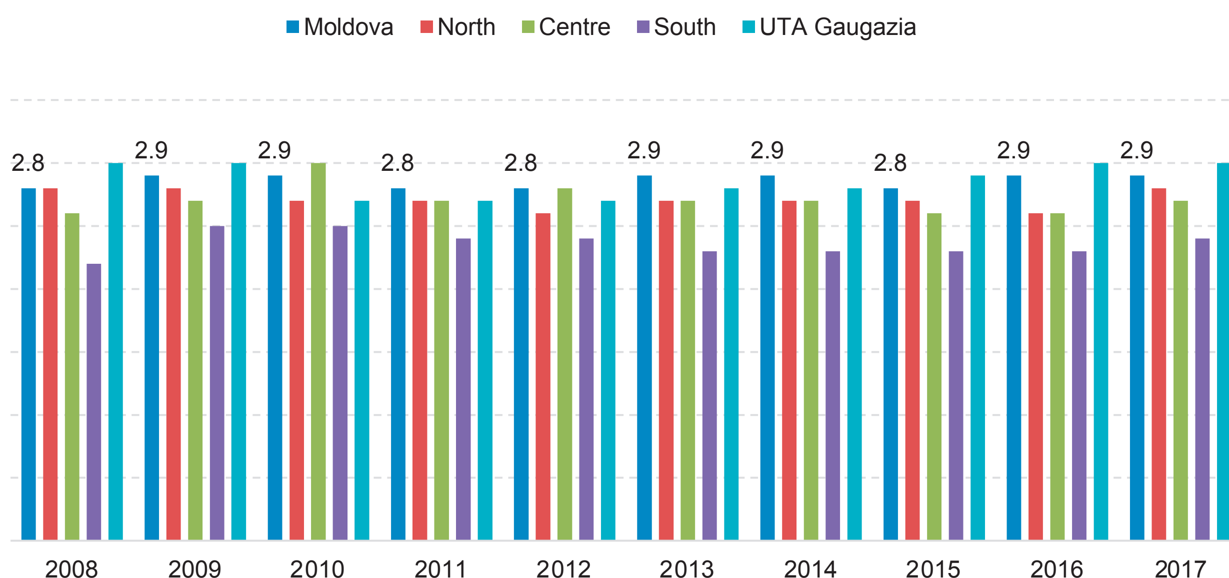
In terms of accessibility to PHC, official statistics report an annual average number of visits to the GP of 2.9 in 2017, both for insured and uninsured people (Fig. 5.9). GPs carry out 6104 consultations annually. Those working in municipalities have a lower workload (5617 consultations) than those in rural areas (6457). For comparison, specialists have a lower consultation workload than GPs: 1169 consultations annually, which is nearly 3 times fewer than GPs. Among specialists, those working full time in specialist ambulatory care units carry out 4514 consultations annually, while those working in hospitals see far fewer patients. The workload of GPs and PHC teams (nurses) is very intense as they make up 50% of contacts with patients, although GPs only represent 16% of the health workforce. Overall, the dwindling headcount of GPs and their significant workload are causes for concern, all the more since – as in other countries – demand for GPs is growing.[49]

The experts consulted for the Strategy assessment stress that it is important to correlate the annual average number of visits to the GP with their geographical distribution. In the south, for example, there

45 Ministry of Health of the Republic of Moldova Order No. 139 of 4 March 2016 on the creation of the counselling and treatment service for smoking cessation.
46 Ministry of Health of the Republic of Moldova Order No. 188 of 28 March 2016 on the organization of early detection of colorectal cancer.
47 Ministry of Health of the Republic of Moldova and NHIC Order No. 229/140-A of 30 March 2016 on actions to increase capacities for the implementation of cervical screening.
48 For details refer, for example, to the 2015 publication on ambulatory care sensitive conditions in the Republic of Moldova (WHO Regional Office for Europe, 2015).
49 According to an internal WHO report in 2017 by Willem Van Lerberghe on benchmarks for family medicine in the Republic of Moldova.

is a shortage of family doctors. For this reason, the number of unnecessary admissions to hospitals is higher than in the rest of the country. In the south there is also a higher rate of the population with health problems than in the rest of the Republic of Moldova. It has been unofficially estimated that 1000 extra family doctors are needed in the rural areas of the country to cover demand of health services. Incentives exist to help family doctors and nurses/assistants relocate to rural areas; these are both financial (MDL 45 000 extra for the first three years for family doctors and MDL 36 000 extra for nurses/assistants) and non-financial (e.g. accommodation is facilitated).

Fig. 5.9. Annual average number of visits to a GP, 2008–2017



Source: NCHM annual reports (National Public Health Agency, 2017).

The HBS registers an increase in patients accessing PHC services, partially secured by the availability of MHI coverage. According to the NBS survey (2016), during 2008–2016 the share of visits to GPs grew continuously. In 2016 about 65% of all people that had consulted a doctor over the last four weeks visited the family doctor, which represents an increase by 14% compared to 2008 and by 3% compared to 2012. The infrastructure and geographical distribution of health services determine how often people visit the doctor. The rural population goes more often to see the GP (69% compared to 61% in urban areas), while the urban population goes more often to specialists (30.8% compared to 24.3% in rural areas).

Almost two thirds of PHC services are provided by (rural) health centres and one third by GPs. Home visits by family doctors account for only 4% of the total number of registered visits.[50] A regulation regarding the organization of home care services was approved in 2013;[51] this normative act allows for such services to be provided by public organizations licensed in this field, as well as by facilities with different types of ownership. The regulation also attributes a central role to nurses in providing home care, with a doctor's involvement only in exceptional cases.

To tackle waiting times at PHC facilities, a 2010 order of the Ministry of Health on PHC states that "the purpose of making appointments with the doctor in PHC facilities is to make outpatient care more efficient to increase the quality of health services in the framework of the MHI system".[52] An analysis performed by the Ministry of Health, Labour and Social Protection identified as one of the causes the fact that people paying for specialized ambulatory care services out of pocket (usually uninsured

50 According to NHCM and Ministry of Health reporting (National Agency of Public Health, 2017).
51 Ministry of Health of the Republic of Moldova Order No. 855 of 29 July 2013.
52 Ministry of Health of the Republic of Moldova Decree No. 695.

people) are seen with less waiting time, to the detriment of insured people, who have to wait for longer periods to access care services. A 2017 order of the Ministry of Health established that an appointment with patients is made regardless of their insurance status or the modality of payment for services, as well as by not scheduling appointments for fee-paying patients during the hours envisaged for insured patients or those with medical emergencies. According to the NBS survey data (2016), about 40% of people who had been provided any health care services during the last four weeks had made appointments with the doctor beforehand (NBS, 2017a).

Patients can freely choose their GP, who acts as a gatekeeper to the health system. The list of available PHC facilities is published on the website of the NHIC, where every citizen can register. Before 2017, patients could change their GP only in September and October. Since January 2017, patients can change their registration with a GP at any time. The NHIC checks every three months the database of registered patients and pays the PHC facilities accordingly.

During some of the interviews, two challenges emerged: first, the need to provide PHC facilities with equipment such as magnetic resonance imaging (MRI) scanners was mentioned, in order to prevent patients going to private medical facilities and paying out of pocket to access such tests. Second, (rural) GPs cannot (and must not) receive OOP payments for services provided to uninsured patients while the private sector asks uninsured people to pay for the services.[53] The consequence of this is an unequal level playing field between public and private providers of PHC services.

The number of rural PHC providers obtaining legal and financial autonomy has increased since 2011, reaching its maximum in 2016 with 254 autonomous operational health centres. Offering autonomy to the PHC institutions in rural areas has increased the responsibility of the health workers from the territory, and as such they have become more willing to contribute to the improvement of the technical/material basis of the facility, as well as to the quality of provided services. The direct financing of autonomous rural health centres has also contributed to a fairer distribution of resources for the population. An important aspect mentioned during the interviews is that rural PHC centres would like to have even greater autonomy, specifically when it comes to determining salaries paid to the employees of rural centres. Nevertheless, it is important to note that at the end of 2016, certain obstacles appeared in the process of granting autonomy to health centres. The District Council of Rezina took the decision to liquidate the autonomy of four rural PHC centres, transferring the funds management and administration of the four centres to the district-level GP centre. A similar decision was taken by the District Council of Străşeni, which liquidated the autonomy of two rural health centres. It appears that these decisions in turn influence other district authorities, as some are manifesting similar intentions to stop granting autonomy to rural health centres.

A unified HIS for PHC is not yet in place. In 2014, a HIS was developed with state budget funding for PHC only. The system is in theory operational, but in practice it is used in very few centres. Doctors seem not to use this system for different reasons (lack of skills to use computers, lack of availability of computers, and so on).

Some centres collect information relating to P4P indicators on paper first, inputting them only at a later stage into an Excel file that is then sent to the NCHM (now the National Public Health Agency) and the NHIC. The performance indicators used in PHC are described in detail, having annual and quarterly targets and sub-targets, and the allocation of a specific number of points for fulfilling indicators. In 2018, P4P indicators were reduced to six, focusing on prevention and management of NCDs. Indicators cover the areas of CVD, diabetes, cancer, TB, the proportion of monitored pregnancies and the proportion of children with full vaccination coverage.

53 According to the legislation, GPs cannot receive OOP payments because all people, regardless of their insurance status, are granted PHC services.

The value of one point for fulfilling each of the performance indicators is established annually based on a joint normative act of the Ministry of Health, Labour and Social Protection and the NHIC. The calculation and payment of the salary top-up for the performance indicators is stipulated in the regulation approved by order of the Ministry of Health.[54] The planned financial means of at least 15% of the total wages calculated for PHC institutions is used to pay for the fulfilled indicators.

In the summer of 2018 a reform of PHC was initiated.[55] The reform envisages the transfer of GP practice to private practice. The PHC reform was promoted in a short period of time with broad discussions among the main stakeholders, but with little involvement of civil society.

The WHO global disability action plan 2014–2021 emphasizes the need to strengthen collection of relevant and internationally comparable data on disability, including through HISs, based on the International Classification of Functioning, Disability and Health (ICF). The opportunity to implement ICF has been introduced by the ratification of the United Nations CRPD by the Republic of Moldova in 2010, and the development of the national Strategy for Social Inclusion of Persons with Disabilities (2010–2013). Specifically, this strategy mentioned the development and approval of a new methodology for determining disabilities in children and adults, according to the provisions of ICF.

Mental health services are part of PHC, although in 2018 they shifted to community services in the budget line, while remaining physically provided by primary care institutions. Mental health services were typically delivered at the three psychiatric hospitals. In 2014, a project (MENSANA) was developed and implemented by the Trimbos Institute (Netherlands Institute of Mental Health and Addiction), with funding from the SDC to reform mental health services in the Republic of Moldova. The first phase of this project ran for four years (2014–2018) and comprised three different stages: developing legislation, combatting stigma and discrimination of psychiatric patients, and developing community-based mental health services in four pilot districts (rayons).[56] There are currently 40 operational mental health centres (located at PHC level) in the country.

The four pilots ran in different rayons, with the aims of improving community mental services, creating a link with the PHC infrastructure, and training and building capacity. Challenges to the reform of mental health services include the low numbers of available human resources. There is a shortage of psychiatrists (five psychiatrists per 100 000 population), social assistants, psychologists and psychiatric nurses. Competences, skills and knowledge are limited in this area, resulting in lack of capacity (and in some cases capability) for early detection and intervention in mild and moderate cases. Medical and social services are separate and there is a lack of integrated mental health services, along with an absence of rehabilitation, psycho-social and integration activities in the community. There is also a lack of quality management systems and of tools for funding integrated mental health services. Some rural health centres try to involve family and close relatives to help patients with mild mental health symptoms, as there are no psychologists in rural centres (they are only available at rayon hospitals).

Important steps were made with the development and approval by the Ministry of Health, Labour and Social Protection of the national clinical protocols (and their dissemination among the care professions) on schizophrenia, depression, anxiety, bipolar disorder, autism and dementia (in 2019); a reviewed academic curriculum for medical and nonmedical professionals working in the field of mental health; the involvement in training of all mental health specialists at national level and all GPs at the level of the pilot regions; and the approval of an order of the Ministry of Health that regulates the creation of acute psychiatric units in general hospitals.

54 Ministry of Health, Labour and Social Protection of the Republic of Moldova Order No. 515/130-A of 13 April 2018
55 Republic of Moldova Government Decision No. 988 of 10 October 2018.
56 The four rayons involved are Soroca, Cimișlia, Orhei, and Cahul.

Notwithstanding the increased budgets allocated by the NHIC for two years in a row, the methodology for determining the amount of financial resources per centre is not transparent as it is not described in any legal document. Moreover, there is no HIS that records the amount of employed professionals per centre. These are important issues that need to be tackled imminently.

Regarding the modernization and reconfiguration of inpatient health services (hospitals), a plan was developed in 2010 (Programme for the Development of Hospital Health Care 2010–2012)[57] with the aim of increasing the efficiency and quality of hospital services through their development and modernization. A new plan is envisaged to cover the period 2017–2024 but has not yet been approved at the time of writing.

The hospital sector in the Republic of Moldova is characterized by a high degree of fragmentation. There are three different public hospital levels in the country. Municipal and district (rayon) hospitals are funded by LPAs; for tertiary hospitals – dealing more complex cases – the funder is the Ministry of Health, Labour and Social Protection. Employees and retirees of several other ministries (such as the State Chancellery, Ministry of Defence, Ministry of Internal Affairs, Security Services) receive health care from medical institutions that are owned by the various ministries and bodies concerned.

Following the drastic reduction of hospitals during the 1990s (335 in 1995), between 2008 and 2017 the number of hospital beds remained mostly stable (21 892 in 2007; 18 803 in 2015; 18 436 in 2016; 17 990 in 2017).[58] The number of public hospitals has also been drastically reduced from 364 in 2008 to 71 in 2017 (45 municipal/rayon-level hospitals, 16 national hospitals, and 10 hospitals owned by ministries other than the Ministry of Health). According to an interviewee, the number of hospitals should be reduced further in the Republic of Moldova. Rayon hospitals provide similar/homogeneous services, without assessment of the population's needs. Both financial and human resources are limited and not always efficiently used. The reduction of hospital beds has been accompanied by a reorganization and development of other health services, such as rehabilitation and home services, that are not yet fully meeting the demand for health services.

Plans to reorganize hospital services under the Ministry of Health, Labour and Social Protection have been strongly supported by international donors and partners. Interviews with local stakeholders also confirm the need to decrease the number of hospitals. The creation of so-called centres of excellence is, according to many interviewees, a good way to stimulate efficient use of resources and reach better quality outcomes.

The proposal for the location of hospitals is based on factors such as demography, coverage and infrastructure (e.g. roads). A precondition is that most of the population must live up to 70 km (or one hour of travel by car) to the nearest acute hospital. To achieve a satisfactory quality level, different types of hospitals should be designated, with areas of responsibility of different sizes to suit the hospital level. A needs assessment of the geographical areas is important to develop appropriate hospital services.

There are significant challenges ahead in the reconfiguration and modernization of hospital services. Human resources play a significant role. Lack of motivation, low salaries, and low interest in working outside of Chișinău are often mentioned as obstacles that need to be addressed to ensure an efficient hospital system delivering high-quality health services. Except for hospitals in Chișinău, Orhei and Balti there is generally a lack of advanced medical equipment and the condition of the buildings is unsatisfactory, since many hospitals have not undergone major repairs for 10, or even 20 or more years.

57 Government of the Republic of Moldova Decision No. 379 of 7 May 2010.
58 See the annual reports of the NCHM (National Public Health Agency, 2017).

The effective improvement of hospital performance and the shift of boundaries between primary care and hospitals is an additional challenge in terms of upgrading the inpatient sector. It is necessary to set priorities in rationalizing investment decisions. This process needs to be supported by creating clear and transparent procedures for the application and approval of projects. Health managers need to have clearer vision of health system and patient care requirements, as well as developing better governance of hospitals. The process of hospital reform is challenging. For example, the roadmap "Accelerating reforms: addressing the needs of the health field through investment policies", which envisaged a concise plan for the regionalization of specialized care, approved by ministerial decision and signed by the Minister of Health in March 2012,[59] was stopped by the Parliament in 2013. The Parliament found this plan too general, as well has having been approved under insufficiently transparent conditions. Thus, by means of a Parliament decision[60] the ministerial order was cancelled until the submission and presentation to the Parliament of a clear and comprehensive strategy for the reorganization, development and modernization of the hospital system. The Ministry of Health later developed the strategy (2016–2017), but it has not yet been officially presented to the Parliament. In 2017, the ruling political party forced the Government to stop any public discussions on hospital system reorganization strategy, calling for better preparation of this process.

The HBS evidences that the share of hospitalizations is greater among the urban population (11%) than among the rural population (9.9%). The average length of stay in hospitals has fallen over time from 10.2 days in 2008 to 8.2 in 2017. The length of stay is greater in rural areas (9.3 days) than in urban areas (8.6 days). Insured people stay longer in hospital than uninsured people (9.3 days compared to 6.5 days). The geographic location and the type of health care services determine the referral of patients to a district or national hospital. Therefore, most of the population of the country is treated in district hospitals (49.8%). Every fourth person stayed in a national hospital (25.4%), while every fifth person was admitted to a municipal hospital (20.3%). The rural population was prevailingly treated in district hospitals (65.1%) and national hospitals (23.5%), while the urban population was almost equally treated in district hospitals (32.4%), municipal hospitals (31.1%) and national hospitals (27.6%). The share of people taken to hospital by ambulance has increased (23.9% in 2016 compared to 17.5% in 2012 and 19.8% in 2008) (NBS, 2017a). One of the reasons for this is the guarantee of receiving free emergency services, as the NHIC pays for this.

There is no common HIS for hospitals. Information is recorded on paper first, and then later inputted into an Excel file. The development of an HIS is a necessary condition for informed policy-making and such a system must fulfil interoperability standards, as well as ensuring quality, security, scalability, reliability and timeliness in data storage and processing terms. Such an HIS will boost the quality and efficiency of health services delivery.

Community and home-based services have recently started to be developed in the Republic of Moldova. These services are mostly provided by NGOs. The Ministry of Health, Labour and Social Protection should take responsibility for the framework and join forces with NGOs. In particular, the role of the community nurse will be pivotal in achieving an integrated approach between public health services and community and home-based services. The NHIC contracts and pays for these services. Community and home-based services need to be further developed, including standards, protocols and training of personnel.

In 2015, the Ministry of Health issued an order on the organization of palliative care services. In line with this normative act, palliative care services should be provided by GPs, nurses and community nurses. Mobile teams are to be created in the primary care facilities at district level. These teams will collaborate with local authorities and social assistance services, involving them in the work of

59 Ministry of Health of the Republic of Moldova Order No. 192 of 1 March 2012.
60 Parliament of the Republic of Moldova Decision No. 27 of 1 March 2013.

the multidisciplinary teams (doctor, nurse, priest, volunteers, family). The legislation also served as a starting point for the accreditation of palliative care services and development of performance indicators in palliative care. On paper, palliative care services are established but the reality of implementation has been challenging. In 2017 the National Palliative Care Network (developed by Hospices of Hope Moldova in partnership with the Ministry of Health, Labour and Social Protection), which provides home care for seriously ill patients, expanded to include the creation of mobile teams in Ocniţa, Orhei, Soroca, Taraclia and Cahul (Hospices of Hope Moldova, 2019). In 2018, the National Palliative Care Network had achieved five multidisciplinary teams (one integrated in a state hospital), over 45 professionals, three training sessions in palliative care and over 10 000 home visits.

The role of public–private partnerships was limited during the Strategy assessment period. If these partnerships are well designed and implemented in a transparent, balanced and well-developed regulatory environment, they can bring greater efficiency and sustainability to the provision of a public good such as health care. Two public–private partnerships were developed with the purpose of delivering medical services: dialysis services[61] and radiology and imaging diagnostic services.[62] Both public–private partnership projects had several difficulties and were perceived as merely a duplication of diagnostic facilities for radiology available at existing state units, suffering from reduced referral rates (particularly for the more lucrative diagnostic tests) to the new facility from the national institutes. In the case of the dialysis unit, the issues were that turnover was higher than expected (and therefore overall costs to the commissioners/payers), together with the fact that the option existed to use public facilities for the same treatment. Since 2010, some hospital services are outsourced (e.g. laundry services, cleaning services, waste processing, patient feeding services).

It is unlikely that other public–private partnerships will be established in the short term as the Republic of Moldova first needs to ensure some essential preconditions for their successful implementation (including better preparation at the start of the PPPs; development of expertise and knowledge needed for the regulation of this difficult area; and an efficient legal framework). Additionally, there seems to exist a significant level of suspicion in the country about the involvement of the private profit-making sector in health, owing to lack of transparency. This in turn creates difficulties in terms of the willingness of medical professionals to collaborate, refer patients and work together for positive outcomes.

Since 2008, telemedicine has been developed in several medical institutions. In 2014, a Centre of Medicine for ECG was created for telemedicine. In 2015, almost 20 000 records were sent to this centre for clarification on diagnosis and treatment. Telemedicine is also in place for neurology, neonatology and perinatology.

Strengthening public health services

Public health services have undergone several reforms over the years. After 1991, the State Sanitary-Epidemiological Service was transformed into the Hygiene and Epidemiology Service, which subsequently became the Preventive Medicine Service, and finally in 2009 it became the SSPHS, similar to the public health structures of European countries and in line with the WHO recommendations. All reforms in public health services have resulted in a shift away from focusing solely on communicable diseases control to placing more emphasis on NCDs control, health promotion and disease prevention. Public health services were reorganized with the regionalization of services, first by concentrating laboratory and other technical resources at rayon level and then by separating service provision from the control functions.

61 Government of the Republic of Moldova Decision No. 574 of 7 August 2013.
62 Government of the Republic of Moldova Decision No. 1116 of 6 December 2010.

In 2011 the Ministry of Health and the Civil Protection and Emergency Situations Service developed an Exceptional Situation Service that coordinates measures for preparing adequate response and tackling the medical consequences caused by exceptional situations and public health emergencies, as part of the implementation of the International Health Regulations (IHR). In 2017 this service was abolished.

The responsibility for regulating, coordinating, and controlling the functioning of the public health system lies with the Ministry of Health, Labour and Social Protection. The 2009 Law on State Surveillance of Public Health defines public health as a "set of scientific-practical, legislative, organizational, administrative and other measures designed to promote health, prevent disease and prolong life through the efforts and informed choices of society, public and private entities, and individuals".[63] The law outlines the principles, areas of work and core functions, including cooperation with different authorities, the structure and management of the public health service, as well as provisions such as disease prevention, health promotion and health protection, and the management of public health emergencies and human resources. The Ministry of Health, Labour and Social Protection is responsible for organizing operational surveillance through national public health services (that is, the SSPHS) and has the right to arrange interventions and evaluations of activities as needed (Ciobanu et al., 2018).

The National Public Health Strategy was developed in 2013 and covers the period 2014–2020, limiting the influence of the Healthcare System Development Strategy, as the National Public Health Strategy takes a focused approach to strengthening public health services. Nevertheless, the National Public Health Strategy envisaged stronger collaboration and a reconfiguration of services to strengthen public health services with PHC. This is visible, for instance, in TB prevention, where the role of the primary care, specialized ambulatory care and community services in detecting and managing TB cases was enlarged. The National Public Health Strategy describes the current situation in the health field, defines the general and specific objectives, reveals the necessary actions and measures, and sets clear responsibilities and implementation deadlines for all the stakeholders involved in activities related to public health.

Disease prevention services both for communicable diseases and for NCDs have been strengthened with the National Immunization Programme. An electronic surveillance system allows the early detection of outbreaks, as well as damage and needs assessment to enable prevention of the spread and control of the outbreak by ensuring an adequate preparedness level (e.g. stocks of medicines, standard protocols for treatment and protocols for personnel training) and rapid reaction (e.g. confirmation, investigation, including through laboratory testing and application of control measures). This electronic surveillance system reports to the European Centre for Disease Prevention and Control (ECDC). In terms of practical implementation, however, the sensitivity of the electronic surveillance system appears quite variable, as there are some diseases of public health importance that are essentially unrecognized by the system (TB, salmonellosis, syphilis) and other diseases are mostly grossly underreported or not detected at all (e.g. campylobacteriosis, legionellosis, listeriosis, chlamydia, West Nile Fever, and invasive bacterial diseases). The surveillance of these diseases may suffer from limited diagnostic laboratory capacities, although other health system factors may play a role as well (ECDC, 2014). GPs play a fundamental role in providing vaccination. The rate of vaccination is low in rural areas, where there are fewer GPs. Public health services should be reinforced in these rural areas.

Laboratories exist at national and regional levels and have benefited from World Bank and EU investment; facilities and equipment are generally modern and adequate, with a reasonable range of bacteriology and serology services and well-established patterns of referral to national reference laboratories for selected pathogens. National reference laboratories carry out all the core functions expected in a European

63 Law No. 10-XVI of 3 February 2009.

context. The primary diagnostic laboratories have been upgraded, and basic primary services and referrals appear to work well. However, there are significant challenges to the ongoing provision and development of national reference laboratory services, including appropriate modern equipment and diagnostic technologies, consistent procurement (e.g. of test reagents), and adequate buildings. Recruitment and retention of microbiology specialists is an increasing problem. There is no national system of biosafety and biosecurity regulation, as well as insufficient liaison with laboratories in other sectors (veterinary, food, and environment, for example). The role of laboratories in supporting communicable disease outbreak identification and management is unspecified (ECDC, 2014).

National programmes are in place for contagious diseases (such as TB, HIV/AIDS). Technical assistance is mostly provided by international partners, such as WHO, the GFATM, UNICEF, UNFPA, GAVI, the World Bank, the International Atomic Energy Agency, the Food and Agriculture Organization of the United Nations, Codex Alimentarius, the North Atlantic Treaty Organization, and so on. For example, in 2013 there was a review of the National Tuberculosis Programme, where emphasis was put onto improved prevention and control interventions. The Republic of Moldova is eligible for further funding under the GFATM's new funding model, and WHO has been providing support to start drafting a new national TB programme for the period 2016–2020.

In 2016 a new national programme was adopted on prevention and control of HIV/AIDS and STIs for 2016–2020. The new programme aims at mitigating the impacts of the epidemic by reducing the spread of HIV and STIs (particularly among the target populations) as well as limiting HIV/AIDS-related deaths. It was developed through inclusive cross-sectoral dialogue involving stakeholders from the Government, NGOs and communities of people living with HIV/AIDS, and with the support of donors, WHO and other United Nations representatives, as well as the GFATM. Notwithstanding the steps taken to prevent and control HIV/AIDS, the epidemics remain a major public health concern and the incidence of HIV/AIDS has increased over time (Fig. 5.8).

This national HIV/AIDS programme is funded by the state budget, the NHIC, and the support of the grant funding provided by the GFATM. In addition, the Republic of Moldova is currently in the process of developing transition plans to shift its HIV and TB prevention and treatment programmes from donor funding to domestic funding, which is critical for sustainable programme implementation (Government of the Republic of Moldova, 2016).

Mother and child health significantly improved during the assessment period, and aimed (among other objectives) to reduce mortality and morbidity caused by malformation. Additionally, national programmes for tobacco and alcohol control were developed and approved by the Government in 2012. Nationwide communication campaigns targeting current and potential tobacco/alcohol users were launched with WHO and EU support.

There is an increasing interface between public health and PHC services. Primary health services play an important role in the implementation of public health strategies for disease prevention. Several early detection programmes are in place for recurrent diseases (cancer, COPD, diabetes and CVD). Regarding diabetes, for example, a lot of emphasis is put on the importance of correct nutrition and physical activity. The PEN protocol in PHC is used in some rayons and a feasibility study is under way. The PEN disease interventions will form the minimum standard in the Republic of Moldova to strengthen national capacity to integrate and scale up care, in particular for CVD and diabetes. Additionally, the involvement of LPAs is at the core of NCPH activities. I

In 2013, the position of community nurse was introduced; it is not yet fully in practice, partly due to a lack of regulation specifying what should be the main duties. Community nurses should be afforded responsibility

for community public health interventions to improve collaboration between PHC and public health; as such, they could play a pivotal role in the reduction of the burden of NCDs, in an area in which there is a lack of specialists. The community nurse will work with the family doctor (as a team member), supported by NHIC funding, and also operating in rural areas. There are also financial benefits to the position (15% extra on the annual income, based on performance indicators). The experts interviewed recognize the need and importance of community nurses but, in order for this to work, there should be a better alignment of salaries and responsibilities. Interviews with local stakeholders highlighted, however, that the role of community nurses is not yet clear and there is no generalized awareness of the introduction of the position in the health care system. According to the interviewees, nurses currently have too many tasks and are not paid properly for their responsibilities. Furthermore, the financial incentives introduced to stimulate health care workers to take up positions as community nurses are too limited. The regulation on staffing for primary care reviewed in 2013[64] established one GP nurse position and 0.25 of a community nurse position in the rural localities with less than 500 inhabitants. The law was reviewed again in 2016[65] and since then provides for: a position of GP nurse per 750 inhabitants; a position of community nurse per 2000 inhabitants; a position of GP nurse along with 0.25% of a community nurse position in rural localities with less than 650 inhabitants; and a position of GP nurse for perinatal care for 3500 females among the population aged over 15 years.

During the Strategy period, there was no HIS in place for public health. Reporting of data and statistics management were operated manually. According to one of the interviewees, data reporting should be simplified because too many institutions were involved with data collection and analysis in public health. Between 2008 and 2017, the institutions involved in data collection and analysis included the NBS, the NCHM, the NHIC, and the NPHC. In 2017, the NCHM and the NPHC merged into the National Public Health Agency. The NBS is the central statistical authority subordinated to the Government and is responsible for collecting, verifying and analysing demographic, economic, social, and other types of data, maintaining the statistical database, carrying out periodic population censuses and other surveys, as well as developing and publishing reports. Health protection indicators are submitted to the NBS by the Ministry of Health, and since 2017 the National Public Health Agency collects data on population health status. The NHIC collects data and creates statistical reports on services provided to the insured population.

Databases and HISs of these institutions are not yet integrated, and the data are exchanged (mostly) in hardcopy format. The existing data are not standardized and classified according to the same criteria, and their quality is arguable.

Looking ahead, a big challenge for public health services is within the current pool of human resources, and projecting the expected human resources needs in order to care for the population. There is no methodology for evaluating the needs and subsequent planning of human resources for the public health system in the medium and long term, involving factors such as population health status, economic trends, and demographic changes, among other considerations. It is hard to attract young specialists to work in public health because salaries are not competitive within the health system and vis-à-vis other sectors and work conditions. In addition, possibilities for professional promotion are limited. Some interviewees also mentioned that they believe the NHIC should play a bigger role in public health services by extending the collaboration and funding for the implementation of national programmes.

Quality of health services and patient satisfaction

The Republic of Moldova has initiated over the years several policies, structures and methods for improving the quality of health services. Many of these have not been fully implemented, supported, integrated or their impact systematically evaluated (Shaw, 2015).

64 Ministry of Health of the Republic of Moldova Order No. 1582 of 30 December 2013 on the revision and completion of Order No. 695 of 13 November 2010.
65 Ministry of Health of the Republic of Moldova Order No. 46 of 10 February 2016 on the revision and completion of Order No. 695 of 13 November 2010.

The Strategy had a clear proposal to develop and implement a system aimed at improving quality of health services and ensuring respect for patients' rights. Access to health services has been tackled with the introduction of MHI, but other dimensions of quality have had little to no implementation. Many normative acts prescribe technical solutions to improve clinical effectiveness (such as national clinical protocols, indicators and internal clinical audit) and place responsibility for implementation on local committees; however, little practical assistance or incentive is available at institutional level to fulfil those responsibilities. Barriers to effective implementation of improved quality include resistance to transparency; unwillingness to share performance data between competing institutions; and a perceived risk of being criticized and punished. Data on overall quality and patient satisfaction in the delivery of health services are not routinely collected and available. Indicators measuring, for example, hospitalizations due to conditions that could be treated by ambulatory care services or hospital readmission rates for the same diagnosis within 30 days of discharge are not collected. Patient-reported outcome measurements are not used nationwide, although some rayon hospitals have introduced voluntary questionnaires at discharge to monitor quality and responsiveness of hospital services.

The National Council for Evaluation and Accreditation in Health falls under the National Public Health Agency and is responsible for the evaluation and accreditation process of health institutions. Its goal is to improve the quality of services provided by public and private medical institutions and pharmaceutical companies. These entities undergo mandatory evaluation for accreditation once every five years. The list of experts to evaluate medical institutions and pharmaceutical companies is approved by order of the Ministry of Health. Before 2010 the accreditation was valid for the whole institution but since 2012 the accreditation is given only to specific services; for example, blood transfusion services within a hospital, not all hospital activities. In practice, the current process of accreditation is carried out as a formality, without the use of real instruments and clinical and economic criteria for accreditation, based on international practice. The result is that almost all health providers are accredited and subsequently contracted by the NHIC, without consideration of quality information. This area should be prioritized in terms of further investment in skills and capabilities.

The Ministry of Health's Anticorruption Plan reports findings that deserve attention; for example, when comparing evaluation processes, assessments carried out by international quality management agencies last for up to a month, whereas those performed by the National Accreditation Council take 2–3 days. Cases have also been reported by various physicians that when the institution needs to be subject to the accreditation procedure the manager asks each employee for a certain amount of money, to collect the amount needed per institution to pay for accreditation unofficially. At the same time, there are cases whereby the NHIC has financed medical institutions without the accreditation certificate (Ministry of Health, Labour and Social Protection, 2018b).

Organizations such as the National Council for Evaluation and Accreditation in Health could consider volume of care provided in their accreditation criteria for hospitals and other health facilities. High hospital volume and adherence to quality metrics are generally associated with better outcomes. Currently, most advanced technologies (such as computerized tomography (CT) and MRI) are located in Chișinău and are not used efficiently. For instance, at the time of the interviews, on average only 10 procedures per working day per CT were performed. Focusing the assistance in fewer acute care hospitals would also facilitate investments required for medical devices. The relative low volume of surgeries in Moldovan hospitals strongly suggests the existence of a large unaddressed disease burden. Besides, there is a close relationship between the number of the services (surgeries) provided and the professional skills of the doctors, which in its turn affects treatment outcome and quality. One of the best examples of a large unaddressed disease burden is ischaemic heart disease. The Republic of Moldova has witnessed a general increase in deaths from ischaemic heart disease and has one of the highest SDRs for this type of heart disease in Europe. Despite this, the number of cardiac surgeries

performed is very low. A similar situation can be observed with all other surgical procedures, whereby the number of surgeries per 100 000 population is much lower than in other countries.[66]

Several clinical standards, guidelines and protocols have been adopted. The standardized clinical protocols – for example in primary, specialized ambulatory and mental health care settings – may be considered a good model, owing to their comprehensiveness and clarity of use in practice. Clinical standards, guidelines and protocols are all published on the website of the Ministry of Health, Labour and Social Protection, and are regularly revised and updated. Most projects are run with funding and technical assistance from development partners and the priorities for the development of guidelines and standards are normally set by those development partners. Nevertheless, the multitude of clinical protocols and approved norms and regulations cannot itself guarantee better quality of services. It is important to facilitate their application in practice, including by transposing them into the future electronic medical records and related health information programmes, in order to ensure the continuum of care. To assess the practical implementation of clinical protocols, monitoring should be priority and effective clinical audits are necessary; however, these are currently scarce in many health facilities. When external clinical audits are performed, some interesting results come to light. In 2015, for example, an external medical audit of the management of patients with acute myocardial infarction (Barba, Buzdugan & Plesca, 2016) conducted within 45 health care facilities identified several nonconformities with the recommendations of the National Clinical Protocol on Acute Myocardial Infarction.[67]

Quality of vaccination coverage has fallen over time (see Table 5.1). Vaccination coverage under the National Immunization Programme is relatively strong, but weak for some diseases (for example, measles, mumps and rubella (MMR)). The variation across rayons in vaccination coverage deserves attention; some rayons reach a vaccination coverage level of only about 70%.

Information campaigns on vaccination and re-vaccination have been very useful in stressing the importance of vaccine prevention. In 2016, for example, WHO and UNICEF supported an information campaign that promoted vaccination. The decreasing coverage rate is the result of misinformation spread by the media on side effects of vaccines.

According to the official data gathered for the assessment, hospital acquired infections increased by 171% between 2007 and 2016. This striking growth in the rate of nosocomial infections is also associated with better reporting, according to the experts consulted. In 2016, reporting of nosocomial infections began to be actively encouraged as a performance indicator, and it was seen as a means not to punish health services providers but rather to strengthen reporting.

Concerning early cervical cancer detection, after a dip in 2013 (35.3% of target population screened), there is an upward trend in cervical cancer screening (64.3% in 2016). The proportion of Caesarean (C-) sections has steadily grown over time (from 12% to 18% across the period assessed). UNICEF/WHO/ UNFPA recommend a C-section rate of between 5% and 15% of all births. Rates above 15% suggest overuse of the procedure for non-emergency reasons.

Quality of care for chronic conditions is difficult to assess. For diabetes management, for example, at the time of the assessment, nine indicators were recorded: four process indicators and five outcome indicators. The review of the national TB programme was unable to assess the programme's quality

66 According to an internal technical WHO report in 2016 by Tihomir Strizrep on the hospital sector reform strategy in the Republic of Moldova.

67 Some of the nonconformities consisted of: incomplete medical records for inpatient care; poor quality of medical records; medicines not prescribed according to the correspondent Order of the Ministry of Health (No. 960); electrocardiograms that were chaotic (without date and time, or the data were indicated incorrectly); qualified staff were not present in the hospitals; AMI patients were not transferred to qualified institutions; and 90% of patients were admitted to general profile wards, contrary to the recommendations of the National Clinical Protocol.

because of the poor data reliability provided by the information system for monitoring and evaluation relating to TB (WHO, 2014).

Data from the 2016 HBS show that roughly 20% of patients noticed an improvement in the quality of health services compared to previous years (NBS, 2017a). At the same time, 13.7% of people believed that the quality of health care services has worsened, while 25% had nothing to say in this regard. The rural population was more optimistic about the quality of health care services – 20.7% mentioned that quality had improved, while only 15.2% of the urban population thought so. About 23% of the population mentioned that access to health care services had improved during the last 12 months before the interview, while 38.2% did not think anything had changed. About 10% of the surveyed population said access to health services was reduced, which seems not to have changed at all during the period 2010–2016. Still, in 2016, fewer people have a negative perception about access to health care services (10.6% compared to 13.3% in 2008) (NBS, 2017a).

Quality of hospital health services is an important issue that deserves greater attention. The piloting of P4P indicators in inpatient care is an initial, positive step. Overall, the introduction of P4P mechanisms at PHC level and the design of P4P schemes at the hospital level (initiated in 2017 under a World Bank project with piloting in 2018 and final rollout expected in 2019) is likely to enhance data collection and reporting on quality indicators in the coming years. The need for a unified HIS is likely to increase, as well as increased requirement for technical support by data analysts. Nevertheless, quality is still seen as a separate domain and is not regarded as an integral part of the provision of health services. The prevalent culture is one of top-down control by central Government, reinforced by the perceived superiority of tertiary centres over secondary and primary care. The Moldovan health system is rich in data, but weak in policy-relevant information (Shaw, 2015).

Patients can submit complaints in writing to the NHIC. Some rayon hospitals also provide this possibility through questionnaires that can be voluntarily filled in at discharge. At national level, the NHIC has opened a call centre in 2014 with the goal of informing people on their rights and obligations in health care. The Strategy envisaged setting up institutions dedicated to resolving conflicts/disputes through extrajudicial methods involving patients' representatives. The Mediation Institution is regulated by law, which states that mediation is a way of resolving amicable litigation in a structured, flexible and confidential process with the assistance of more mediators.[68] This law determines the status of the mediator; the forms of organization of the mediator's activity; the registration requirements of mediation organizations; the principles of the mediation process and its effects; the particularities of mediation in specific fields; as well as the competences of the state authorities and institutions. The Ministry of Justice has established a Mediation Council that has the status of a legal person, established to implement mediation policies and advance the work in this field. Everything related to the training, certification, suspension, registration, maintenance of the register and regulation of the activity of mediators (individual offices and/or organization) fall within the competences of the Ministry of Justice. Formally, consent agreements are in place but implementation in reality, including how well patients are informed, are issues that should be further explored.

The rights and responsibilities of patients are set out in official legislation on patients' rights and responsibilities.[69] The right to health is one of the fundamental human rights. The lack of a comprehensive system that is viable and fair in practice (as well as in theory/on paper) for filing and reviewing patients' complaints within the health care system in the Republic of Moldova inhibits the free defence of the rights of the patient in the context of the defence of human rights (established by the Universal Declaration of Human Rights) (Plotnic & Ciochina, 2017).

68 Parliament of the Republic of Moldova Law No. 137 of 3 July 2015.
69 Parliament of the Republic of Moldova Law No. 263-XVI of 27 October 2005.

Accessibility and rational management of medicines

The Government of the Republic of Moldova is taking relevant steps to harmonize its national legislation with the principles and standards of EU legislation (***acquis communautaires***) in the pharmaceutical sector. WHO provided technical expertise during 2016, at the request of the Ministry of Health. In 2017 WHO set up a framework for strategic advice and guidance to health authorities when implementing policies and strategies to strengthen the pharmaceutical sector. The initiative is financially supported by WHO and the SDC (WHO Regional Office for Europe, 2017a).

Access to new antiviral medicines for patients with hepatitis C has improved over time. In 2016 WHO updated its hepatitis C treatment and care guidelines, which strongly recommend direct-acting antivirals (WHO, 2016). Following this update, the Centre for Centralized Procurement in Health worked with WHO to identify ways to make hepatitis C medicines more affordable, resulting in a procurement procedure for the introduction of generic medicines. Prior to the introduction of this procedure, around 7000 people were registered and waiting for treatment, and approximately 300–400 people were treated every year. Since 2016, 3000 people have been treated with the new direct-acting antivirals and a second wave of patients were expected to soon begin treatment (WHO Regional Office for Europe, 2017c).

UNDP has assisted the Republic of Moldova on request of the Ministry of Health at the beginning of 2015 in the field of procurement and supply chain management of essential medicines (UNDP Moldova, 2017a). During the period 2017–2019, the following results were expected: to procure medicines and health products included in the list of the national and special health programmes, such as those intended for diagnosis and treatment of patients with HIV/AIDS and STIs, oncological diseases, haematological, TB, rare diseases, diabetes and so on; to strengthen the capacity of the Ministry of Health to ensure transparency, accountability and effectiveness of the public procurement of medicines and to create a coherent pharmaceutical policy; and to modernize public facilities for the storage of medicinal products in accordance with international standards of good distribution practices.

The procurement by UNDP of these essential medicines will allow the population of the Republic of Moldova to have ongoing access to quality medicines at a reasonable price and in required quantities. Previous procurement experiences had led to fraud in the public procurement arena, a risk of discontinuity in the supply of medicines, long lead times and high costs associated with delivery of medicines, and questionable quality of certain procured medicines.

Challenges exist in the Republic of Moldova in terms of human resource capacity to conduct medicines procurement, as almost no staff have experience of direct price negotiations with manufacturers. The country also suffers from insufficient monitoring and evaluation of procurement bodies (in terms of governance aspects, and the public availability of national and international prices for benchmarking) and supplier performance that does not lead to informed procurement decision-making. The lack of transparency regarding the public availability of procurement prices is a gap that needs to be addressed in order to secure competitive pricing and therefore better access to medicines for patients (WHO Regional Office for Europe, 2016a).

According to the HBS data (2016), medicine intake is highest among the Moldovan population aged over 75 years (NBS, 2017a). This is usually a population group that suffers from multi-morbidity and chronic diseases. The survey results show that the share of the urban population taking medicines is higher than among the rural population, even though people aged 65–74 years from rural areas take more medicines than the same age group among the urban population. Women – regardless of their age – take 1.5 times more medicines than men and insured people take medicines more often than the

uninsured population. The share of people taking medicines on their own initiative is almost one third, and this figure has remained stable since 2012 (NBS, 2017a).

An Essential Medicines List (EML) is used in the outpatient sector. The list of compensated outpatient medicines is revised and updated annually. In 2016, the list of compensated medicines was extended from 47 International Nonproprietary Names (INN) to 134 INN (NHIC, 2016). The Ministry of Health, Labour and Social Protection decides which medicines are included in the EML after carrying out expert consultations. In 2016 the age limit for children to receive free compensated medicines was increased from 5 to 18 years old. Children incur no OOP payments. For some diseases, the share of reimbursement of medicines was extended in 2016. For example, people diagnosed with hepatitis B and liver cirrhosis benefit from the compensated preparation INN Acidum Ursodeoxycholicum. For patients with epilepsy, the INN Diazepamum is compensated 100%. For the treatment of digestive diseases, the rate of compensation of three INNs (Omeprazolum, Famotidinum, Clarithromycinum) was increased from 50% to 70% reimbursement. Access to insulin analogues has been improved, too. For 400 children, glucose meters and blood glucose tests were purchased. In 2016, MDL 424.9 million was allocated for compensated medicines (NHIC, 2016) from the PHC budget. Although the list of compensated medicines has been extended over the years to improve accessibility to medicines, an average of 74% of OOP payments paid by the population between 2008 and 2016 were associated with the purchase of medicines (Vian, Feeley & Domente, 2014). Access to (compensated) outpatient medicines is problematic, particularly in pharmacies in rural areas.

In addition to the EML for outpatient medicines, a hospital medicines list is in place, which is longer than the EML. All medicines on this list are de facto 100% reimbursed by the NHIC, since inpatient medicines are funded through the DRG system. This list is called the "pharmacotherapeutic formulary" and is developed by a specific council. Hospitals can only dispense medicines that are either on this list or mentioned in national protocols.

Inpatient medicines and medicines under the vertical (stand-alone, not integrated) programmes are purchased through a centralized procedure. A major crisis of availability of vital medicines at the end of 2015 made the situation on the pharmaceutical market insecure. This prompted the Ministry of Health to request assistance from UNDP for the procurement of vital medicines. In 2017, UNDP procured medicines and other medical products for the period 2017–2019 for the treatment and diagnosis of diseases included in nine national and special health programmes, in accordance with its corporate standards (UNDP Moldova, 2017a).

Since May 2017, the Medicines and Medical Devices Agency is responsible for medicines authorization and advertisement, medicines pricing, quality control, import/export, monitoring and vigilance of medical devices, pharmacovigilance, and laboratories control. Over time, several policy measures have been implemented regarding medicines prices that have been subject to regulation in a stepwise manner. In 2010 a national catalogue of producer prices for medicines and the reference price mechanism – based on a basket of 11 countries – was introduced; in 2015–2016 a regressive mark-up scheme for medicines based on five price segments – starting from 15% to 5% for wholesale mark-ups and from 25% to 11% for retail (instead of only 15% and 25% for all categories of prices) – was introduced. These changes were introduced in the summer of 2015, with gradual implementation from October 2015 for wholesalers and April 2016 for retailers (Bezverhni et al., 2016).

To stimulate the development of the domestic pharmaceutical industry, local manufacturers are exempt from payment for medicinal products authorization. According to the data from the Medicines and Medical Devices Agency, in 2015, 10 companies were producing medicines in the Republic of Moldova. Based on the data provided by manufacturers, the number of employees decreased from 944 in 2014 to 776 in 2015 (NBS, 2015). The number of domestic medicines producers fell by almost half, from 28

in 2012 to 16 companies in 2013. In 2015, according to the State Nomenclature of Medicines, 12.6% of the registered medicines in the Republic of Moldova were of native origin.

The Law on Medical Devices[70] adopted in June 2017 and an order of the Ministry of Health, Labour and Social Protection on the surveillance system for medical devices[71] regulate the quality and safety of medical equipment. The normative framework for the purchase of medical equipment based on quality performance has been tackled through the implementation and the coordination of the registration of medical devices with the State Register, ensuring the marketing of medical devices is evaluated according to the requirements provided for in the European directives on medical devices, and thus confirming their safety, efficiency and quality. The area of medical devices is new in the Republic of Moldova. There has been strong support from WHO and the Ministry of Health, Labour and Social Protection in this area.

To enhance the good management of medicines, a Ministry of Health order approving the rules of good **distribution** practices for medicines for human use was brought into force,[72] along with an order approving the rules of good **manufacturing** practices for medicines for human use,[73] and an order approving the **guidelines** of good manufacturing practices for medicines for human use.[74] The State Nomenclature of Medicines is undergoing development and unification.

The medicines quality control system has been enhanced through four actions. First, the Republic of Moldova accessed the Convention on the Elaboration of a European Pharmacopoeia. Second, a project for reconstructing the microbiological analyses laboratory was approved according to WHO and the international standard on testing and calibration laboratories (ISO 17025). Third, implementation and harmonization of the European Directorate for the Quality of Medicines and Healthcare (EDQM) quality requirements have been carried out in terms of the laboratory quality management system procedures. Finally, the EDQM also approved the Republic of Moldova's Official Medicines Control Laboratory (OCML) request to become a member of the General European OMCL Network and obtain the status of an EDQM OCML.

A few areas deserve deeper analysis in the field of medicines and medical devices. In the short-term medicines pricing must be monitored; the assessment of medicines needs to be strengthened through capacity-building of experts; international collaboration needs to be established to enable access to the European databases relating to medicines; and better mechanisms must be put in place to fight against counterfeit medicines. The Republic of Moldova also needs to develop the field of clinical trials. The country adopted in July 2016 a regulation on clinical trials, bringing it in line with EU standards. Clinical trials are strongly regulated and each institution that performs them should conform to the latest regulations. An inspectorate to monitor good pharmacy practices has also been established, dedicated to the monitoring of prescription medicines and the control of medicines given without prescription. Selection and rational use of medicines are important aspects of a properly considered and executed pharmaceutical policy. The use of medicines should be based on scientific evidence. Rational use of medicines can be enhanced through prescription of generics that lead to good outcomes and are cheaper. OOP spending on outpatient medicines represents a high share of household spending (69% in 2008, 71% in 2009, 73% in 2010, 75% in 2011, and 79% in 2016) and strongly undermines people's financial protection, particularly that of the poorest quintile, who spent 92% out of pocket on medicines in 2016. Finally, the country's preparations to enforce the recently approved legal commitments to the implementation of the TRIPS Agreement provisions on data protection and exclusivity for original medicines deserves more focus, to avoid potential negative effects on prices and access to medicines (generics).

70 Parliament of the Republic of Moldova Law No. 102 of 9 June 2017.
71 Ministry of Health, Labour and Social Protection of the Republic of Moldova Order No. 211 of 21 March 2018.
72 Ministry of Health of the Republic of Moldova Order No. 1400 of 9 December 2014.
73 Ministry of Health of the Republic of Moldova Order No. 309 of 26 March 2013.
74 Agency of Medicine and Medical Devices Order No. 24 of 4 April 2013.

Chapter 6.

Resource generation

- The importance of human resources in health is recognized in the Strategy as a key element to ensure a health system that functions well and is responsive to population health needs. The Government of the Republic of Moldova has reflected medium and long-term policies in health human resources in various official programmes. The most prominent issues to tackle are the migration abroad of qualified medical personnel; the irregular geographical distribution of health resources; the low motivation of human resources; the lack of young specialists, particularly in rural areas; and the less attractive remuneration of the health staff in the public sector vis-à-vis the private and other sectors.
- Several investments in the modernization of medical facilities and their equipment have been carried out in recent years, often with financial and technical help from development partners. The physical condition of hospitals, however, is still quite poor and much of the equipment is out of date. The number and the structure of hospitals needs to be optimized: they are too large with a low average bed occupancy level and unused or underutilized space, while the ward departments are overloaded.
- The changing demographic and epidemiological profile of the Republic of Moldova implies a reconfiguration of inpatient services, necessitating new approaches to assist the older population and patients suffering from chronic diseases. There is a strong need to differentiate between acute and long-term care.
- Between 2008 and 2017, the country spent on average about 11% of its GDP on health (with about 5% from public sources), which is higher than the average for the WHO European Region (8.3%). Over time, public spending on health per person fluctuated. Public allocations over the past few years appear to be growing, when considered in the national currency (MDL), but when converted into US$, public spending has decreased in 2015 and 2016 owing to exchange rate fluctuations.
- The general macroeconomic context remains one of the country's main constraints to raising sufficient (more) resources in health. The need remains for continued assistance through external funds, especially for new capital investments.
- The Republic of Moldova should continue to increase public spending on health, prioritizing investments in the health sector. Public spending on health should be used efficiently by embarking on a long-awaited reorganization and rationalization of hospital care and focusing efforts on PHC.

Scaling up human resources

The importance of human resources has been stressed in the Strategy as a key element for ensuring a functioning and responsive health system. All interviews conducted for the Strategy assessment underlined human resources as one of the most important priorities to tackle in the coming years. The most prominent issues with respect to human resources are the migration abroad of qualified personnel (both doctors and nurses);[75] the irregular geographical distribution of health personnel (rural versus urban areas); the low motivation of human resources; the lack of young specialists, particularly in rural areas; and the inappropriate remuneration of health staff in the public sector.

In 2016 the Government of the Republic of Moldova approved the Strategy for the Development of Human Resources in Health (2016–2025).[76] According to the related government decision, the Strategy on human resources is monitored every year. The Ministry of Health, Labour and Social Protection must develop and present to the State Chancellery the annual report on the implementation of the action plan. A mid-term evaluation will be conducted in 2020 and the final evaluation will take place in 2025.

The medium and long-term policies in human resources in health are reflected in the Republic of Moldova's government programme (2016–2018), the Programme for the Development of Medical and Pharmaceutical Education in the Republic of Moldova for 2011–2020, and the Development Strategy of the State University of Medicine and Pharmacy "Nicolae Testemiţanu" in 2011–2020. In this context, it is worth highlighting that the university medical degrees from Nicolae Testemiţanu State University of Medicine and Pharmacy are recognized in all EU countries.[77] This university is also

75 Moldova is among the top 30 emigration countries worldwide (World Bank, 2016).
76 Republic of Moldova Government Decision No. 452 of 15 April 2016.
77 However, postgraduate studies (residency positions after university) are not recognized and different countries ask for the residency

listed in the World Directory of Medical Schools, published by WHO, and has been accredited by the Moldovan National Council for Academic Evaluation and Accreditation of the Educational Institutions.

The collection and processing of statistical data in human resources did not allow for a genuine assessment of the situation. For example, in the past data could not be disaggregated by age and gender. The lack of key data on medical staff (such as age and gender) did not allow for well-developed human resources planning, and no data are available on the number of active health professionals in the public system. To improve the data recording, in 2009 the Ministry of Health initiated a project with the support of the IOM to set up a system for managing human resources. Subsequently, in collaboration with WHO and with EU support, the system was further developed but had not yet been implemented in medical institutions at the time of writing.

The number of family doctors per 10 000 population has decreased from 5.5 in 2008 to 4.6 per 10 000in 2017. In 2017 in some rayons the number of family doctors per 10 000 people is considerably lower than the national average, for example in Cantemir (2.1), Şoldăneşti (2.2) Vulcăneşti (2.8), Orhei (3.1), and Făleşti (3.4). Over time, the total number of family doctors fell from 2136 in 2002 – when the largest number of family doctors was registered – to 1630 in 2017.[78]

Between 2010 and 2015 there was a slight increase in the density of medical specialists per 10 000 inhabitants: 15.7 and 16.2 in 2010 and 2015, respectively. The decrease of medical specialists in some specialties is worthy of attention. Between 2013 and 2017, the number of specialists fell in phthisiopneumology (from 219 to 189); emergency care/ambulances (from 496 to 394); ophthalmology (from 223 to 142); therapeutics (from 2417 to 1844); and neurology (from 401 to 281) (National Public Health Agency, 2017).

During 2008–2015 there was an important decline in the density of nurses and medical assistants in the Republic of Moldova: from 76.7 per 10 000 inhabitants in 2008 to 69.2 per 10 000 in 2015 (Fig. 6.1).

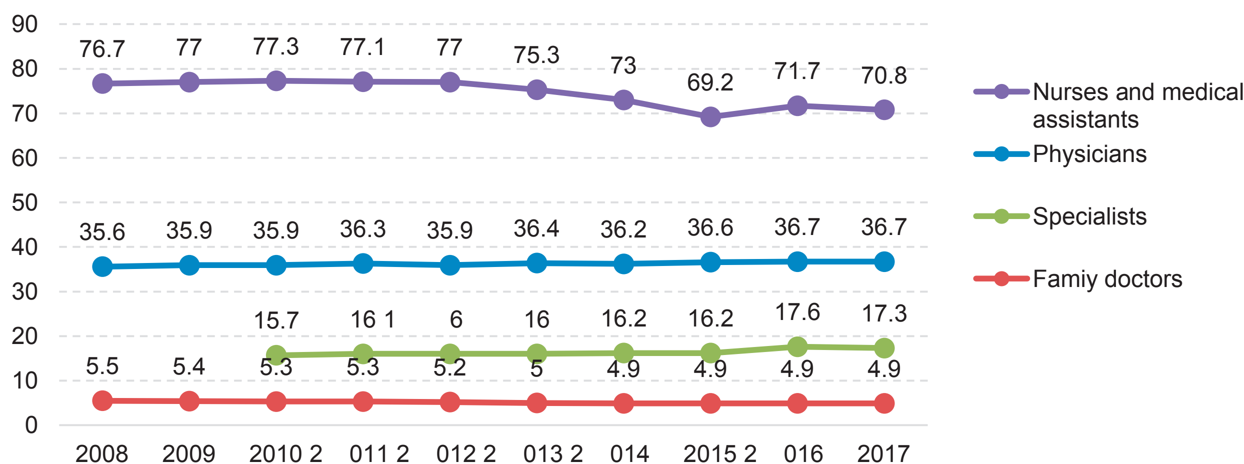
Persistent geographical imbalances exist in the distribution of physicians and medical personnel. The highest concentration is in urban areas, at the expense of rural areas that report a shortage of family doctors and of certain categories of specialists in rayon health facilities. The number of physicians in some regions ranges from 2.2 from 3.5 per 10 000 population. An additional difficulty on top of the already scarce human resources is the demographics of family doctors, with more than 40% of GPs aged older than 55 years. Consequently, the system is challenged to respond adequately to the specific needs of the population in these areas.

Medical and pharmaceutical education is carried out at the "Nicolae Testemiţanu" State University of Medicine and Pharmacy, at five colleges of medicine, and at the Centre for Continuing Medical Education (CME). The classifier of medical specializations is obsolete, containing over 100 specializations as compared to the average of 70 in the EU; this narrows and fragments the medical specialties and generates additional costs for training the specialists. Medical education was modernized in recent years but largely remains theoretical with declarative practices, and after six years of university studies and 3–5 years of post-university training, young specialists in the Republic of Moldova have difficulties integrating into individual practice. There is a gap between the theoretical knowledge and the practical skills of the medical workers, which needs adjusting to modern diagnostic requirements, including in treatment and prevention, to improve the quality of medical services and patient safety. The number of doctors and medical staff that participated in CME programmes has fluctuated over time (Table 6.1). No reliable data are available on doctors that follow CME abroad.

programme to be repeated.

78 NCHM annual reports (National Public Health Agency, 2017).

Fig. 6.1. Density of family doctors, specialists, physicians, nurses and assistants per 10 000 population, 2008 (or latest available year) to 2017



Source: NCHM annual reports (National Public Health Agency, 2017).

Table 6.1. CME participants, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Physicians	4786	5667	5625	5996	5057	5605	5683	5840	6156	5727
Medical staff	7989	8064	7700	7245	6642	5783	5833	5764	6076	5416

Source: unpublished Ministry of Health data from the Nicolae Testemiţanu State University of Medicine and Pharmacy.

A 2016 government regulation established the salaries of employees of public medical facilities that are contracted by the NHIC. In 2018, legislation entered into force defining the level of salaries in public health institutions, and as a result they increased. The payroll system for medical workers is based on sophisticated mechanisms, implying categories, coefficients, percentages, incentives, allowances, and other top-ups, which complicate the calculation of the salary and its transparency.

Despite regulations aiming to improve remuneration in the public health system, the salary of medical workers in the Republic of Moldova is still inadequate. Within the public health system, the lowest salaries are those of public health specialists. Average hourly salaries for medical personnel are at a much lower level than in other areas of the economy and, in some specialties, even lower than the average for the economy or below the established minimum consumption needs.

The interviews showed a strong desire from health managers to have more autonomy to set salaries for their personnel. Low levels of remuneration do not pay off the long and costly education and training of medical professionals. Five years of undergraduate medical training costs taxpayers about US$ 13 500 for a sponsored student; contract-based training for the same health personnel profile costs US$ 9300 (gross of fees). Similarly, three years of residency training for a therapeutic profile costs US$ 9400 for sponsored students and US$ 5400 for fee-paying students, bringing the total cost of training to US$ 22 900 and US$ 14 700, respectively. For nurses and other professionals with specialized secondary medical education, three years of training are estimated to cost US$ 3000 for sponsored students and US$ 2000 (gross of fees) for contract-based students (WHO Regional Office for Europe, 2014d). Other major costs to the health system are the result of people abandoning the medical profession and migrating abroad. Funding of medical education comes from two sources: the state budget and the study fees paid by natural (people) or legal entities.[79]

79 See the Education Code of the Parliament of the Republic of Moldova (Code No. 152 of 17 July 2014).

The interviews also highlighted that the level of motivation of health workers is low. Approximately two thirds of young specialists after an education of 9–10 years do not wish to continue working in the public health system, due to several push factors: poor working conditions; insufficient remuneration; corruption and nepotism; lack of professional development; unfriendly attitudes in institutions; and the socio-political situation (WHO Regional Office for Europe, 2014). Most Moldovan health workers migrate primarily to the Russian Federation, Romania and Italy (NBS, 2018b). The push factors for emigration to Romania, for example, have changed over time. The first wave of migration (1991–1996) was characterized by the influence of a national renaissance and new possibilities to train and live in Romania. The second wave (1997–2006) comprised reasons related to family needs, financial problems and the socio-political situation in the Republic of Moldova. The third wave (2007 onwards) has been motivated mainly by push factors, including salary differences, working conditions and the possibility of working in an EU Member State (WHO Regional Office for Europe, 2014a). Following legislative amendments in Romanian law in 2017, the net salary of a young doctor in Romania has grown by 162% (from about € 344 to € 902), and the net salary of a senior physician by 131% (from € 913 to € 2112) (Government of Romania, 2018; cited in Scîntee & Vlădescu, 2018). According to NHIC data for 2017, the gross average salary of physicians in the public sector of the Republic of Moldova is around MDL 7540 (about € 390), which is more than five time less than in Romania (NHIC, 2018b). These major salary differences – accompanied by other recent Romanian legal amendments to facilitate the equivalence of diploma and qualifications of Moldovan health professionals – risk further destabilizing the situation of medical workers in the Republic of Moldova, unless more determined action is taken in order to disincentivize professional migration.

Some young specialists in the Republic of Moldova move from the public to the private sectors (where remuneration can be up to 20% higher), migrate abroad, or leave the medical profession altogether. Staff satisfaction is not systematically monitored. So far no steps have been taken towards the creation of a civil responsibility insurance for doctors.

The recruitment of health managers in the public health system is organized through a competitive contest that is regulated by a 2007 government decision (that was later revised, in 2016).[80] Managers of national, rayon and municipal hospitals are selected by the Ministry of Health through this contest. Subsequently, the medical institution makes a contract with the selected person. The recruitment of other medical personnel is based on an order of the Ministry of Health,[81] taking place on the basis of competition.

To counterbalance the geographical uneven distribution of doctors, both financial and non-financial incentives have been introduced to attract young physicians and nurses into rural areas. The financial incentives were introduced in 2008 and corresponded to an extra MDL 30 000 for doctors and MDL 24 000 for nurses/assistants/feldshers/midwives for the first three years, paid in three instalments after each year of work completed. In 2017 the amounts were increased to an extra MDL 45 000 for doctors and MDL 36 000 for nurses/assistants/feldshers/midwives for the first three years, also paid in three instalments that represent for doctors MDL 15 000 per year (about € 750), which is unlikely to serve as strong motivation. The non-financial incentives consisted of help for accommodation in rural areas. Interviews with local stakeholders show that even with these incentives, it is hard to attract doctors and nurses to rural areas because salaries are still unattractive. No other schemes aimed at attracting young specialists trained through state sponsorship have been developed.

Planning of human resources in health is not based on the needs of the population, or on estimations for future years that take into account demographic changes as well as the increasing burden of NCDs.

80 Government of the Republic of Moldova Decision No. 1079 of 2 October 2007.
81 Ministry of Health of the Republic of Moldova Order No. 139 of 15 October 2015.

Strengthening technical and material resources

To modernize medical facilities and their equipment, several investments have been realized over the years. The World Bank, for example, supported a project in rural areas that ran from 2008 to 2014 to renovate and construct 79 PHC facilities (World Bank, 2017). Also, with the support of the NHIC and other development funds, more than 100 other medical institutions – including health centres, and national and rayon hospitals – were renovated and furnished with medical devices. Other medical facilities (including PHC centres) were modernized with the help of the German Society for International Cooperation, the Government of Romania, the Government of Japan, and the SDC. Cars were procured for PHC centres and community mental health centres. The Municipal Council of Chișinău put considerable investment into the development and modernization of its hospitals.

Nevertheless, the network of hospitals is still characterized by a worn-out infrastructure. Many hospitals have not had capital repairs for many years. Hospital expenses are dominated by fixed costs, leaving very little space for actual service provision and running costs – that is, treating patients, buying medical supplies and consumables, renewing technological endowment, and so on.[82]

The total number of beds has been downsized in the past years, rendering service production capacity extremely low, as they are located in small facilities (municipal and rayon hospitals, single-disease hospitals/clinics, such as for TB and STIs). Because of lack of investment and other constraints, very few hospitals can provide complex care (e.g. modern cardiac interventions or cancer treatment). As the range of service providers is very broad, hospitals have not been sufficiently occupied and resources have not been rationally spent. Hospitals partially carry out social care functions, and as such have an excessively long average length of stay.

The changing demographic and epidemiological profile of the Republic of Moldova implies a reconfiguration of inpatient services, necessitating new approaches to assist older people and patients suffering from chronic diseases. There is a strong need to differentiate between acute and long-term care. In terms of acute care, hospitals should have modern equipment that allows for new methods of diagnosis (such as CT and MRI). Geographical redistribution of treatment technologies is an additional step that enhances access to hospital services outside the capital of Chișinău. It is also important to note that hospitals should perform (using the new technologies) a number of procedures per year to increase volume of care and enhance quality. With respect to long-term care, nurses and other health practitioners, such as physiotherapists, are needed both in community services and in institutions. These health professionals will play a pivotal role in the provision of health and social services.

The Strategy foresaw the provision of medical facilities with vehicles. The Fund for the Development and Modernization of Public Health Providers, established in 2010, provided investments amounting to MDL 655 million in 2010–2016, including the provision of 118 motor vehicles to the medical facilities.

Since 2016 the procurement of medical equipment is a responsibility of the Public Centre for Centralized Procurement in Health (created by government decision). The Centre is responsible for planning, organizing, and conducting all procedures for procuring medical devices for public medical institutions.[83]

Data on the number of devices (such as CT, MRI, coronary angio units and chemotherapy/radiotherapy units) were not provided. Instead, the number of examinations with these medical devices was given

82 In addition to this, the inefficient system design has allowed employees and retirees of ministries other than the Ministry of Health to receive health services from institutions owned by those ministries. This creates redundancies and duplication, inefficient use of resources resulting from the existence of parallel networks serving the same needs. These hospitals should be integrated into the public health network as there is no good reason to keep them apart.

83 Government of the Republic of Moldova Decision No. 1128 of 10 October 2016.

and is presented in Table 6.2. Between 2007 and 2016 there was an increase by 464% and 254% on the number of examinations with MRI and CT, respectively. It is not certain if the decline in the number of patients treated with ionizing therapy (-51% between 2007 and 2016) is the result of fewer devices for this therapy – reduced from 14 devices in 2007 to 5 devices in 2016 (although not shown in Table 6.2).

Table 6.2. Number of examinations involving CT, MRI and treatment with ionizing therapy, 2007–2016

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Number of MRI examinations	4726	9039	4240	4552	19 166	22 434	35 907	36 959	37 256	21 910
Number of CT examinations	32 114	32 983	23 136	28 479	59 493	56 492	85 904	71 393	685 86	81 658
Number of people treated with ionizing therapy	5094	4301	4717	5915	4103	3389	3367	3208	2709	2618

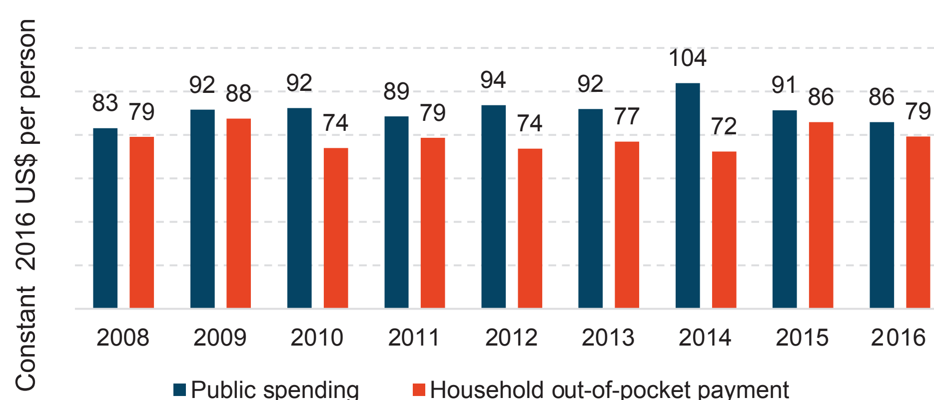
Source: NHIC activity reports 2009–2017 (NHIC, 2018).

Financial resources

Public spending on health in PPP US$ per person fluctuated over time. It increased between 2008 and 2010, fell in 2011, grew again between 2012 and 2014, and then fell again in 2015 and 2016 (Fig. 6.2). Public allocations over the past few years appear to be growing when considered in the national currency (MDL), but when converted into US$, public spending decreased in 2015 and 2016 as the result of exchange rate fluctuations.

The amount of private spending on health per person in PPP US$ was the same in 2016 (US$ 79) as it had been in 2008 (Fig. 6.2). The OOP share of total spending on health is much higher in the Republic of Moldova than in EU countries.

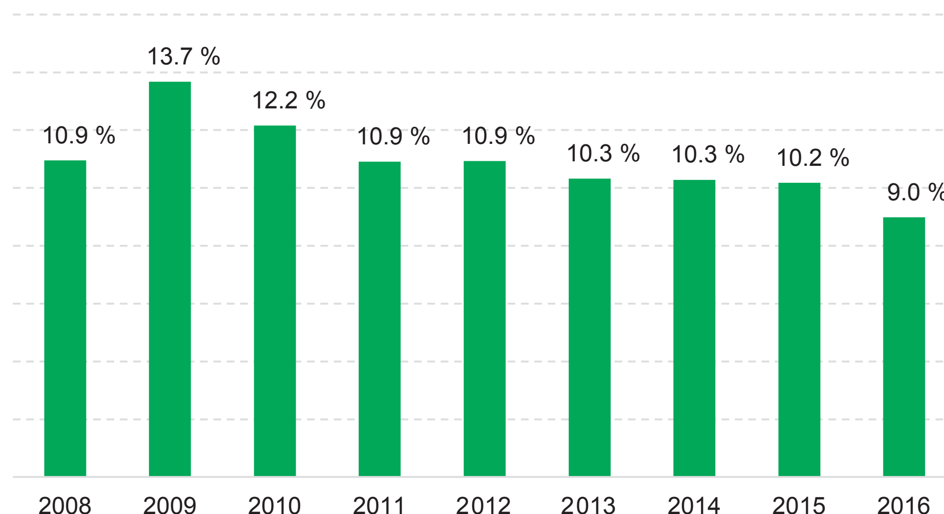
Fig. 6.2. Public and private spending on health, US$ (PPP) per person, 2008–2016



Source: Global Health Expenditure Database (WHO, 2019).

Total health spending as a share of GDP grew from 2008 to 2009; it then steadily fell to a minimum of 9% in 2016 (Fig. 6.3).

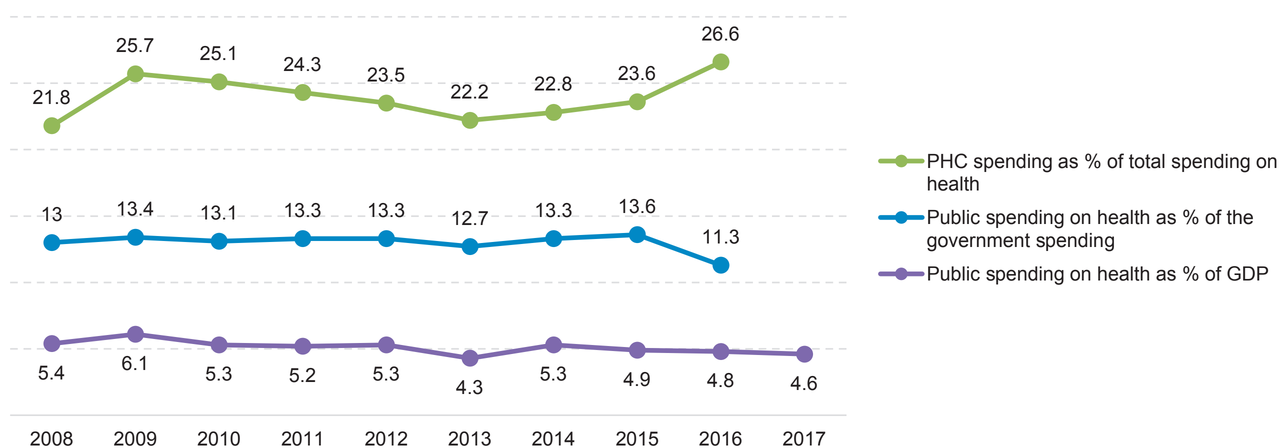
Fig. 6.3. Total spending on health as a percentage of GDP, 2008–2016



Source: Global Health Expenditure Database (WHO, 2019).

National data show that PHC spending as a share of total spending grew by 4.8% between 2007 and 2016 (Fig. 6.4). In 2016, spending on PHC was 26.6% of total health spending. Between 2015 and 2016, the growth was 3%. PHC spending data include spending on compensated medicines. Public spending on health as a share of GDP fell over time from 5.4% in 2008 to 4.6% in 2017 (Fig. 6.4).

Fig. 6.4 Spending on health, 2008–2017 (or latest available year)



Source: data from the Ministry of Finance relating to the Medium-term Budget Framework (Ministry of Finance of the Republic of Moldova, 2019).

Chapter 7.

Recommendations and conclusions

The assessment of the Strategy has evidenced that across the decade analysed the stated objectives of the Strategy have remained constant, despite periods of political instability and economic crisis.

Several reforms have been introduced with the goal of increasing the health system's responsiveness to population needs; for example, the reforms of community mental health services, the public health system, and PHC. Nevertheless, some areas of work are challenging in terms of implementation, such as transparency and participation, intersectoral collaboration, quality of health services, financial protection of the population, and so on.

The Strategy is perceived by stakeholders as an important document that has set out the vision, priorities and goals of the Ministry of Health, Labour and Social Protection and the Government of the Republic of Moldova. It facilitated the understanding of those areas of work for future development, in terms of quality of services, patient engagement, and accessibility to health services, among others. It has spurred several national programmes and supported changes in health system policies.

As such, the Strategy is a steering document to assist in channelling the efforts to improve the health system and maintain a strategic overview. Nevertheless, some stakeholders suggested narrowing the scope of activities and their consequent implementation in terms of specific services within the health system. The Strategy is as such a very broad document that sets out the whole vision, but specific sectoral action plans would also be useful instruments to better monitor the implementation, results and the outcomes of activities.

For the assessment of the Strategy several research methods were used, including a review of the relevant documentation, the collection and analysis of statistical data, and interviews with national and local stakeholders. All these elements have contributed to the identification of policy issues and implementation challenges that deserve policy attention – as they have clear implications for the new Strategy cycle – in order to improve health system outcomes in the Republic of Moldova.

The following recommendations are conclusions stemming from the assessment of the Strategy.

Recommendation 1.
Strengthen governance to enhance health outcomes

Governance in health refers to a wide range of functions relating to steering and rule-making carried out by governments and decision-makers as they seek to achieve national health policy objectives. Achieving the Sustainable Development Goals (SDGs) requires working in a transformative way to implement a set of coherent, evidence-informed policies that address health, well-being and all their determinants throughout the life-course and across all sectors of government and society (WHO Regional Office for Europe, 2017b). The lack of a common, agreed strategical view of development with strong civil society and political support is one of the most important barriers to address.

The implementation of the 2030 Agenda provides an opportunity to advance the principle of leaving no one behind: special attention by all actors is required to promote social inclusion, gender equality and human rights. Specifically, further investment in children and adolescents, promoting their health, preventing disease and protecting children from environmental risks, is required by ensuring quality conditions for early childhood development, starting in places where children and their families live, learn, play and work. Similarly, marginalized groups, such as ethnic minorities and people with disabilities, must be protected from exclusion and inferior health outcomes.

The capacity to implement changes is one of the challenges in the Republic of Moldova. Particularly at local level, there is a lack of financial resources and human personnel with the skills to contribute to sound health policy formation. The role and responsibilities of the different levels of government are confusing and need improvement. Responsibilities of managing health facilities are placed at local level, which often lacks financial capacity and managerial skills to adequately coordinate activities and medical facilities that are, de facto, managed directly by the Ministry of Health, Labour and Social Protection.

Better working across government levels is increasingly recognized as bringing about greater accountability and responsiveness. Vertical accountability is weak, as not all citizens are aware of their rights and choices, nor are they encouraged to use their voice. Patient organizations are not actively involved in defining and implementing policies. The sporadic, often formal and limited participation of civil society in the decision-making process leaves the needs of underrepresented and vulnerable groups unaddressed, the public interest not defended and the Government's functions unobserved. Policy-making suffers from a lack of reliable evidence and the ability to use evidence for the measurement of the social impact on those most in need among the population.

Horizontal accountability mechanisms – involving state entities monitoring and demanding answers from other state entities – are not yet sufficiently developed. The role of NGOs and CSOs is pivotal in global good health governance, but their limited participation in the implementation phase of health polices is an area of concern that needs to be addressed.

Beyond the formal health system, governance means collaborating with other sectors, including the private sector and civil society, to promote and maintain population health in a participatory and inclusive manner. High staff turnover hinders good governance of the entire health sector, as it undermines its performance and productivity. Implementing shared-government principles is an effective strategy that has been proven to enhance work satisfaction and staff retention rates. This area should be further researched and developed in the Republic of Moldova.

Recommendation 2.
Guarantee financial protection and efficient funding and contracting mechanisms

Financial protection is central to universal health coverage and a core dimension of HSPA. The introduction of MHI in 2004 has ensured more equal access to health services. This has been an important and successful step towards universal coverage. Yet, OOP spending on health is significant, in particular for the purchase of outpatient medicines. OOP payments are a significant barrier to use health services and an important reason why people postpone seeking medical assistance.

Financial protection can be enhanced through a wide range of health system measures, including:

- ensuring adequate resources in the health system (funding, medical workers, facilities and relevant materials);
- eliminating financial and other barriers to accessing efficient services – for example, by carefully targeting the groups of people most in need of better protection;
- encouraging investment in efficient services, including preventive measures to reduce the need for further treatment at a later stage;
- strengthening capacity and creating incentives to deliver efficient, fair and high-quality services.

The intersectoral approach to enhancing financial protection is very important and should be further developed.

Social protection policies can improve health payment capacity and attention should be given to:

- developing and implementing policies to eradicate poverty and reduce income inequalities;
- strengthening employment policies;
- improving the level of social security benefits by indexing, compensating and raising pensions.

The high burden of OOP spending on medicines focuses a spotlight on accessibility and the rational management of medicines. Procurement capacity in the Republic of Moldova must be further strengthened and this involves capacity-building and training in human resources that currently have limited experience of direct price negotiations with manufacturers. The country suffers from insufficient monitoring and evaluation of procurement bodies (e.g. governance aspects, and public availability of national and international prices for benchmarking) and supplier performance, which does not lead to informed decision-making for future procurement choices.

The rational use of medicines must be further enhanced with a focus on generic prescribing and based on international scientific evidence, as general international estimations show that around half of medicines are incorrectly prescribed, dispensed or sold, or not administered as per guidelines across both the private and public sectors (Holloway & van Dijk, 2011). In the case of the Republic of Moldova, for example, this is particularly evident in TB patients, where the overall proportion of RR/MDR-TB cases has increased dramatically.

The limited availability of financial revenue implies that the upgrading of the health system should focus strongly on efficiency and quality improvement. To enlarge the fiscal context and the share of the budget allocated to health, several measures can be explored: expansion of the tax base by reducing undeclared income, excise taxes on alcohol and tobacco products, and so on. Revising the formula for transferring funds to health from the State budget can also contribute to increasing health financing. Purchasing mechanisms and contracting services should be redirected towards the objectives of greater accessibility, quality and efficiency. This implies a stronger role for the NHIC and the National Council for Evaluation and Accreditation in Health (since 2017 merged with the National Public Health Agency), to be selective in the accreditation of institutions and include parameters in the contracts with facilities that reflect the quality of care, performance indicators and a proportional geographic distribution of health services. In the long term, this can lead to selective contracting with facilities that are so-called centres of excellence. To do this, both the NHIC and the National Council for Evaluation and Accreditation in Health need to strengthen their capacity and invest in their skills.

The current funding of the health system is not based on needs assessment and funding comes mostly from historical budgets. The introduction of performance indicators in PHC (although not in specialized ambulatory care) and of DRGs in hospitals shows a strong commitment to and motivation for building an effective health system in accordance with European standards.

The role of providers is important as well, in that they should have an active role in the negotiations of contracts with the NHIC. The role of health managers is extremely important in terms of taking responsibility for quality and efficiency. Both concepts need prioritization on the board agendas of health institutions. Several activities need to be developed to create the necessary culture of quality and efficiency in the Republic of Moldova. These include: a focus on cultivating a culture of clinical excellence; a data information system that is also centred around quality and safety data (for example, reviewing quality information; using measures such as incident reports and infection rates to forge

changes; using patient satisfaction surveys; taking corrective actions based on adverse incidents or trends emphasized at board meetings; and providing feedback); an open mind towards publishing measures of efficiency and quality; and enabling learning by peers to stimulate improvement – just a few actions that can ultimately lead to better outcomes and efficiency.

Recommendation 3.
Invest in the quality of health services for better outcomes

There are many definitions of quality, both in relation to health care and health systems. From a whole-system perspective, quality comprises six areas: effectiveness, efficiency, accessibility, acceptability/ patient-centredness, equity, and safety (WHO, 2006). Policy-makers, health services providers and service users should all be part of the process to improve quality.

The situational analysis in the Republic of Moldova shows that quality management is fragmented, health system performance is not yet embedded in the learning cycle and there is limited foresight (e.g. from health managers) in terms of the scope of quality interventions.

Strategies for quality improvement that have been applied in many health systems over many decades focus on six key domains of care.

1. *Leadership*. There should be a clear and coherent strategy for quality improvement. National and local stakeholders need to come together to set clear goals. It is important to identify the institution(s) responsible for the change process, the provision of technical expertise and accountability. In the Republic of Moldova, a culture for quality monitoring is yet to be developed. Quality is still seen as a separate domain and is not regarded as an integral part of the provision of health services. The prevalent culture is one of top-down control by central Government, reinforced by the perceived superiority of tertiary centres over secondary and primary care.
2. *Information*. To be fully effective, information systems for quality improvement need to apply consistently across the whole system. Transparency is a prerequisite, so all stakeholders have access to the same information. Deeply connected to quality of care is the strengthening of electronic information systems to support disease and risk factor surveillance and health system performance monitoring. The Republic of Moldova will greatly benefit from a stronger HIS and improved human capacity to collect and analyse data. To reach this goal, increased engagement of the Government is needed to develop an integrated HIS. The country currently collects a lot of data that are not all used for policy-making. It might be helpful to consider defining and approving a (limited) set of key indicators to regularly assess the performance of the health system in different domains; for example, financial protection, quality and responsiveness of the health system, efficiency, resource generation, and so on. Data are currently collected by several institutions and are not used cooperatively, which severely limits capacity to link the general determinants of health to how they contribute to activities, results and outcomes. This also limits capacity to generate information on causality and to monitor the impact of policy interventions. Consequently, data on health status, quality and, in particular the performance of health service providers do not correspond to the needs of decision-makers for informed policy-making. Moreover, no adequate information and communications technology infrastructure is available at all levels, particularly at subnational level. The health system is rich in data but weak in policy-relevant information; a situation which ought to be improved and strengthened.
3. *Patient and population engagement*. Participation and inclusion are important aspects of governance that involve stakeholders in health decision-making. Engagement with patients and the community is critical to quality improvement. Communities and service users must be involved in the governance arrangements of the health system to enhance patient-centredness.

CSOs and NGOs must be engaged in the identification of problems and the preparation of promoting policies in health. This area is underdeveloped in the Republic of Moldova. Strategies to enhance participation include improving health literacy, enhancing self-care, stimulating patients' experience with the health system, facilitating the creation and development of user organizations through targeted investments in knowledge and expertise for advocacy activities, and secure financial sustainability of these organizations.

4. ***Regulation and standards***. There are many normative acts that prescribe technical solutions to improve clinical effectiveness (e.g. national clinical protocols, indicators and internal clinical auditing) and place responsibility for implementation on local committees. In practice, there is little practical assistance or incentive at institutional level to fulfil those responsibilities. The current process of accreditation does not use clinical and economic criteria that are based on international practice. The result is that almost all health providers are accredited and subsequently contracted by the NHIC without considering quality information. This area should be prioritized in terms of further investment in skills and capabilities.
5. ***Organizational capacity***. Service providers must develop systems to support quality improvement, such as audit- and peer-review; develop their workforces and equip them with the skills needed to deliver high-quality services; build an organizational culture that values quality; and use rewards and incentives to promote that culture. The adopted standardized clinical protocols, for example in primary care and mental health, may be considered a good model, due to their comprehensiveness and clarity of use in practice. Nevertheless, it is important to facilitate their application in practice, by transposing them into the future electronic medical records and related health information programmes in order to enhance the continuum of care. To assess the practical implementation of clinical protocols, effective clinical audits are necessary but are currently scarce in many health facilities. Additionally, volume of services and adherence to quality metrics are generally associated with better outcomes. The relatively low volume of surgeries in hospitals strongly suggests the existence of a large unaddressed disease burden. There is also a close relationship between the number of services provided and the professional skills of doctors, which in turn affects treatment outcomes and quality.
6. ***Models of care***. Models of care must consider population needs and reflect best practices for the delivery of care, both generally and to particular population groups (e.g. people with chronic conditions, children, older people). Contributions from primary and specialized care as well as the interaction across different levels of care improve quality outcomes by creating a continuum of care. Intersectoral collaboration with social care organizations and schools should be further stimulated. In the Republic of Moldova, this type of collaboration is well established on paper, as almost all policy documents are developed with the involvement of other sectors. In practice, difficulties relating to intersectoral collaboration lie in the implementation of adequate policies. For such collaboration to work effectively, it is necessary to increase the capacity of health and social professionals, law enforcement officers, and education professionals at national and local levels.

Recommendation 4.
Modernize and upgrade the continuum of care

The changing demographic and epidemiological profile of the Republic of Moldova, with its double burden of disease, calls for a reconfiguration and modernization of health services. The practical implementation of reforms is difficult, owing to a chronic lack of human resources, financial funds, a lack of vision on the part of health professionals and managers in terms of implementing a continuum of care for patients, limited technical capacities at all levels, and inadequate needs assessment of the population.

The health system needs modernization and reconfiguration of services in order to provide high-quality patient care. Today the system lacks resources and comprises a fragmented collection of service providers. Concepts of comprehensiveness and continuity of care need to be part of the upgrading of services to ensure high-quality care. Efforts should be focused on integrating mechanisms of inter-entity planning and management, care coordination and integrated information systems. Collection of relevant and internationally comparable data on disability should be strengthened, including through HISs based on the ICF.

To improve access to and outcomes of health services, adequate human resources are needed. Major investments should target the current issues in human resources, including: migration abroad; irregular geographical distribution (rural versus urban areas); low motivation of health professionals; lack of young specialists particularly in rural areas; and the low remuneration of health care professionals working in the public sector. It should be noted, however, that the availability of human resources is a necessary but not sufficient condition to improve health system outcomes.

Another important step is to create an integrated HIS and a standard approach to monitoring and evaluation, whereby the feedback from all the people involved in the process of care – including stakeholders and the general population – is taken into consideration. A standard approach for the interim and final monitoring and evaluation of the national programmes and action plans is yet to be developed. A yearly or end-term cost assessment of national programmes would be beneficial, to improve performance.

The artificial divide between vertical approaches (which focus on specific disease priorities and interventions) and horizontal approaches (which aim to strengthen the overall structure and functions of the health system) can be bridged. Some promising examples are available in the PHC setting. The Ministry of Health, Labour and Social Protection efforts focused on ensuring fairer distribution of primary care and specialized ambulatory care services, especially for the rural population; expanding population access to health services; introducing new payment mechanisms for providers based on performance indicators; and so on. Additionally, attempts have been made over the decade being assessed to widen the range of primary care services provided within the MHI system, by attributing new responsibilities to GPs and nurses. This is important for ensuring comprehensiveness of primary care services. However, this process was not accompanied by an estimation of the necessary financial resources for carrying out the additional activities. Some specialized ambulatory care services were transferred to primary care, and specialists were also included in the primary care staffing. Although it might seem that this would also contribute to fulfilling the above-mentioned objective of comprehensiveness, the process may also lead to some risks for primary care. The GP teams cannot ensure a comprehensive approach for the covered population without the support of the specialized services and that of institutions and organizations from outside the served communities. Hence there is the need for additional efforts in improving exchange of information and coordination between primary care and specialized ambulatory care (the implementation of electronic medical records would significantly contribute to this), along with better integration of services at the community level, person-centredness, better staffing with health workers in deprived areas, and so on.

The reform of the central public administration, with the transfer of health and social policies under the responsibility of one single ministry, is an opportunity for integrating services and making them more people centred. In many countries this is performed by case managers at the community level, who may be doctors, nurses, pharmacist or social workers. The interface between public health and PHC, for example, has been reinforced through the introduction of community nurses. However, this approach has lacked effectiveness so far.

Hospital services need to be reorganized and upgraded. The number of hospitals is to be further reduced and the focus of the reorganization should be on specialization of services, which improves overall quality. The creation of centres of excellence would help reshaping hospital services and this will likely better tailor services to population health needs. The following actions should be considered: using needs assessment in different geographical areas to develop appropriate hospital services that consider the diverse epidemiological context; harmonizing HISs across hospitals to facilitate learning by peers and stimulate improvement; increasing the availability of advanced medical equipment and investing in improving the condition of buildings; investing in human resources to increase people's motivation and willingness to work in health care in rural areas; and a strong leadership and management role with capacity to implement change.

The role of managers in implementing change is pivotal for the creation of a continuum of care. Effective communication plays a significant role, as well as the skills to manage resistance. Managers need the necessary skills and qualifications to engage in and effectively implement the process of change.

Recommendation 5: Commit to investing in implementation capacity and institutional strengthening

Investment in capacity implementation and institutional strengthening must become a critical aspect of health policy development. Skilled human resources, efficient health organizations that function well, along with policies, laws and supportive strategies form the basis to plan, implement and review the national health policy and strategy. Investing in implementation capacity goes beyond the training of individuals to involve institutions and society as well.

Plans for investing in implementation capacity and institutional strengthening must include elements that address the capacity deficits determined by an assessment and other factors for sustaining the new policy cycle. On-the-job training, online distance learning, study tours, specialized training in key areas (such as economics, statistics, and programme budgeting), the implementation of an HIS for monitoring and evaluation purposes, improved remuneration and service conditions where fiscally feasible are just a few activities to be further developed.

The implementation of the global and regional health and human rights commitments – endorsed by the United Nations General Assembly, the World Health Assembly and the Regional Committee resolutions – will benefit from the development of the monitoring and accountability framework for the health-related SDG targets, and seeking further improvements once targets are achieved, and from promoting the systematic and transparent use of health information and research evidence when formulating and implementing national policies in support of achieving the SDGs.

Strengthening national HISs is envisaged as key element of informing and evaluating policies for health and well-being, and it supports reporting on the SDGs. Both the 2030 Agenda and Health 2020 place the generation and use of equity-sensitive evidence at the core of the countries' ability to make policies and measure their impacts. Intersectoral engagement in their implementation demands new ways of generating, measuring, analysing, coordinating and promoting the use of data and information for policies to improve health and well-being and reduce inequalities.

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