

Ministry of Health of the Republic of Armenia

Technical report on the self-assessment of essential public health operations in the Republic of Armenia

Yerevan 2018



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ABSTRACT

The current stage of health reforms in Armenia is guided by the principles, values and concepts underlying the WHO Regional Office for Europe's flagship policy documents: the European health policy framework Health 2020, and its main pillar the European Action Plan for Strengthening Public Health Capacities and Services (EAP-PHS). The EAP-PHS proposes 10 essential public health operations (EPHOs) as the basis for assessing public health capacities and services and wider policy-making in the WHO European Region.

In Armenia, the self-assessment of public health capacities and services was conducted using the EPHO self-assessment tool provided by the Regional Office. This technical report summarizes the findings of this self-assessment for each of the 10 EPHOs, outlines their main strengths and weaknesses, and identifies areas where further progress can be made. It places special attention on prevalent noncommunicable diseases, which constitute the main burden of disease in the country and which public health services are key to addressing.

The report concludes with recommendations for developing actionable policies, and for initiating steps towards strengthening public health services in the country while maintaining the high level of sanitary-epidemiological safety of the population. From the long list of main recommendations, it identifies the following four as high priorities for further work:

- finalizing the draft law "On public health" to clarify the mandates of public health services and reduce fragmentation, thereby increasing effectiveness in service delivery;
- ensuring adequate financing for public health services, particularly by integrating health promotion and disease prevention services into primary health care;
- strengthening human resources for public health services, and aligning the allocation of human resources with the needs dictated by burdens of disease; and
- mainstreaming public health research for the development and implementation of evidence-based public health policy and action.

KEYWORDS

ESSENTIAL PUBLIC HEALTH OPERATIONS

DISEASE PREVENTION

HEALTH PROMOTION

HEALTH REFORM

HEALTH SYSTEM

PUBLIC HEALTH

PUBLIC HEALTH RESEARCH

PUBLIC HEALTH SERVICES

PUBLIC HEALTH WORKFORCE

SELFASSSESSMENT

Contents

Foreword by the Ministry of Health of the Republic of Armenia	v
Foreword by the WHO Regional Office for Europe	vii
Acknowledgements	viii
List of abbreviations.....	ix
1. Background to the self-assessment process	1
1.1. Self-assessment process	1
1.2. Context of the self-assessment	1
2. Self-assessment findings and conclusions	3
2.1. EPHO 1: Surveillance of population health and well-being	3
2.2. EPHO 2: Monitoring and response to health hazards and emergencies	6
2.3. EPHO 3: Health protection including environmental, occupational, food safety and others	8
2.4. EPHO 4: Health promotion including action to address social determinants and health inequity	13
2.5. EPHO 5: Disease prevention, including early detection of illness	18
2.6. EPHO 6: Assuring governance for health and well-being	21
2.7. EPHO 7: Assuring a sufficient and competent public health workforce	24
2.8. EPHO 8: Assuring sustainable organizational structures and financing	26
2.9. EPHO 9: Advocacy, communication and social mobilization for health	30
2.10. EPHO 10: Advancing public health research to inform policy and practice	32
3. Recommendations for further action	34
3.1. Recommendations for each EPHO	34
3.2. High-priority recommendations.....	36
Annex 1. Organizational arrangements of the EPHO self-assessment.....	37
Annex 2. Minister of Health Order No. 1469–A (11 June 2015).....	39
Annex 3. Extract from Minister of Health Order No. 65 (18 October 2013)	41
Annex 4. Organogram of the Armenian Ministry of Health	42
Annex 5. Brief profile of public health research centres of the Armenian Ministry of Health	43
Annex 6. Actions to scale up cost-effective, population-based interventions for NCD prevention	47



Foreword by the Ministry of Health of the Republic of Armenia

In Armenia, as in other eastern European countries, the socioeconomic downturn of the early 1990s led to significant fragmentation of the country's health care system. Budget allocations to the sector deteriorated, and as a result most essential health care services declined. The first years of independence saw further deterioration of public health services. The country faced a resurgence of several infectious diseases, including vaccine-preventable diseases, sexually transmitted infections and tuberculosis (TB). Furthermore, new challenges emerged in the form of an HIV/AIDS epidemic and the emergence of drug-resistant TB. Previously neglected noncommunicable diseases (NCDs) were only slowly recognized as a major public health challenge.

Beginning in the late 1990s, the country's economy began to recover and conditions were created for rebuilding and reforming the health care system. Largely supported by international organizations and bilateral donors, the Ministry of Health made considerable progress in reforming and strengthening its primary health care network; in establishing comprehensive childhood vaccination programmes and reducing the prevalence of many communicable diseases; in optimizing the health system; and in upgrading inpatient facilities.

However, reforms in the areas of NCDs and occupational and environmental health were less effective. Health promotion and intersectoral action were largely neglected, and public health research continued to decline. Limited funding, shortages of skilled staff and little exposure to modern concepts of public health hampered the implementation of public health policies.

The law "On ensuring sanitary-epidemic safety of the population of the Republic of Armenia", adopted in 1992, had in subsequent years served as the main legislative framework for the State Hygienic and Anti-Epidemic Service, the country's major public health agency with a centralized, hierarchical structure. In 2002, the State Hygienic and Anti-Epidemic Service was reorganized into the State Hygienic and Anti-Epidemic Inspectorate under the Ministry of Health. Although the task of addressing NCDs was added to its responsibilities, its focus remained on the control of communicable diseases. Furthermore, through the adoption of the law "On food safety" (2006), the responsibility for monitoring food and setting standards was assigned to the State Food Safety Service of the Ministry of Agriculture. This impeded the integration of food-related health promotion and health protection activities.

In 2013, more radical reforms of public health services aimed to transform the inherited sanitary-epidemiological service into a broader public health service better equipped to deal with the population's major health challenges. One of the core public health functions – the enforcement and control of activities with health implications to protect public health – was assigned to the newly established State Health Inspectorate, a specialized subdivision of the Ministry of Health tasked with overseeing the quality of curative services, pharmaceuticals, workplace safety, etc.

The majority of public health functions then became the responsibility of the National Centre for Disease Control and Prevention (NCDC), a state nonprofit organization under the Ministry of Health and the country's primary public health institution. The NCDC has retained the essential public health functions of epidemiological surveillance and communicable disease control, but plans to place more emphasis on the control of NCDs, health promotion and disease prevention.

The country further explored the legislative framework for mechanisms to strengthen, among other things, interrelations between the State Health Inspectorate and the NCDC to ensure better data communication, coherence and concerted action. The National Institute of Health, another large public health institution that incorporates the Information Analytic Centre, implements a significant proportion of public health activities. The Information Analytic Centre is responsible for data collection and the transformation of data into relevant information on health trends and provider performance to inform decision-making.

Armenia's Ministry of Health embarked on the self-assessment of its public health capacities and services using the newly revised *Self-assessment tool for the evaluation of essential public health operations in the WHO European Region*. This process yielded priority recommendations for the further development of public health services in Armenia, as well as a baseline assessment of their current status. This will provide avenues for plans and priority actions to promote and support the strategic objectives of health reforms, and for strengthening the Ministry's capacity to develop national health policies aligned with Health 2020's priorities.

Dr Sergey Khachatryan
Deputy Minister of Health
Republic of Armenia

Foreword by the WHO Regional Office for Europe

I wish to sincerely congratulate the Ministry of Health of the Republic of Armenia for having completed this self-assessment. Since the very beginning of my tenure as the Director of Health Systems and Public Health, strengthening public health services has been at the top of my list of priorities. This work takes place within the context of the European Action Plan for Strengthening Public Health Capacities and Services, the European health policy framework Health 2020 and the Sustainable Development Goals.

While life expectancy in the WHO European Region has increased by five years since the 1980s, profound health inequities persist, in particular between its western and eastern parts. The burden of disease has shifted over time to a predominance of NCDs, which is creating immense pressure on health systems. If nothing is done, it is estimated that the cost of health care will double by 2050.

To a certain extent, this cost could be mitigated by investing in public health interventions that address the underlying causes of ill health. World Health Assembly resolution WHA69.1 highlighted public health functions as one of the most cost-effective, comprehensive and sustainable ways of achieving universal health coverage and the Sustainable Development Goals. A number of countries in our Region now understand the importance of strengthening public health services and are willing to invest in reforms. After decades of focus on curative services, it is truly exciting to witness the growing attention that the health policy community is focusing on prevention, protection and promotion services.

I am proud to say that Armenia is among those countries, and that WHO has played a role in supporting the Ministry of Health in assessing its essential public health operations. While the most important work of strengthening public health services in the country still lies ahead, the self-assessment provides a solid foundation on which to base these efforts.

Dr Hans Kluge
Director of Health Systems and Public Health
WHO Regional Office for Europe

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The author's greatest appreciation is reserved for the WHO Regional Office for Europe and the WHO Country Office team, represented by Dr Elke Jakubowski, Head of the Public Health Services Programme, Dr Martin Kraye von Krauss, Technical Officer in the Division of Health Systems and Public Health, and Dr Tatul Hakobyan, Head of the WHO Country Office. Their guidance, expertise and ongoing support to bring the self-assessment to fruition were invaluable, as was the follow-up technical assistance (Dr Kraye von Krauss) for finalizing this report and shaping areas for further action.

List of abbreviations

AMR	Antimicrobial resistance
AUA	American University of Armenia
DHS	Demographic and Health Survey
DM	Deputy of the Minister
DRR	Disaster risk reduction
EAP-PHS	European Action Plan for Strengthening Public Health Capacities and Services
EPHO	Essential public health operation
HFA	Health for All
HIA	Health impact assessment
HTA	Health technology assessment
IAC	Information Analytic Centre of the National Institute of Health of the Ministry of Health
IANPHI	International Association of National Public Health Institutes
ICD-10	International Classification of Diseases, 10 th Revision
ICRC	International Committee of the Red Cross
IEC	Information, education and communication
IHR	International Health Regulations
MCH	Mother and child health
MES	Ministry of Emergency Situations
MoH	Ministry of Health
NCDC	National Centre for Disease Control and Prevention of the Ministry of Health
NCD	Noncommunicable diseases
NGO	Nongovernmental organization
NPHI	National public health institute
NSS	National Statistical Service
NIH	National Institute of Health of the Ministry of Health
NIP	National Immunization Programme
Pap	Papanicolaou
PHC	Primary health care
PHU	Public Health Unit of the Ministry of Health
PRU	Public Relations Unit of the Ministry of Health
SFSS	State Food Safety Service of the Ministry of Agriculture
SHA	State Health Agency of the Ministry of Health
SRI	Scientific research institute
TB	Tuberculosis
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WHO FCTC	WHO Framework Convention on Tobacco Control
YSMU	Yerevan State Medical University



1. Background to the self-assessment process

1.1. SELF-ASSESSMENT PROCESS

The self-assessment of essential public health operations (EPHOs) in the Republic of Armenia was carried out within the framework of the biennial collaborative agreement between the Republic of Armenia and the WHO Regional Office for Europe (2014–2015), in line with and in support of the development of the broad national health policy paper *Concept for development of the health care system of the Republic of Armenia, 2015–2020*. A special focus of the exercise was on providing baseline information to underpin efforts to strengthen the country's public health services and to inform, inter alia, the renewal of its main public health act, the law "On public health".

The self-assessment process began with the WHO Workshop on the EPHO Assessment Process, held in Yerevan on 18–19 February 2015. The Regional Office and WHO Country Office organized the event, represented by Dr Elke Jakubowski, Head of the Public Health Services Programme, Dr Martin Kraye Von Krauss, Technical Officer in the Division of Health Systems and Public Health, and Dr Tatul Hakobyan, Head of the WHO Country Office. Dr Sergey Khachatryan, Deputy Minister of Health of Armenia, chaired the opening ceremony as well as the session in which the WHO experts introduced the *Self-assessment tool for the evaluation of essential public health operations in the WHO European Region*.

Participants then engaged in two rounds of exercises. The first generated advice and input from the WHO experts on the self-assessment of EPHO 6; the second focused on a pilot self-assessment of EPHOs 2, 3 and 5 by three working groups composed of country experts who were also workshop participants. This was followed by a presentation from the coordinator of each group and general discussion.

The closing session, led by WHO staff, focused on the organizational structure and assessment methodology of the EPHO self-assessment. It resulted in proposals for the oversight committee, core secretariat and specialized teams. Minister of Health Order No. 1469-A of 11 June 2015 approved the assignment of coordinators to different EPHOs (see annexes 1 and 2).

The self-assessment was finalized in October 2015, and up-dated in January 2018 to reflect recent developments.

1.2. CONTEXT OF THE SELF-ASSESSMENT

In the early 1990s, the socioeconomic downturn faced by Armenia led to significant fragmentation of the country's health care system. Budget allocations to the sector deteriorated, and as a result most essential health care and public health services declined.

At the end of 1990s, the country's economy began to recover and conditions were created for rebuilding and reforming the health care system. Largely supported by international donors and

technical organizations, the Ministry of Health (MoH) made considerable progress in reforming and strengthening its primary health care network, controlling infectious diseases, optimizing the health system and upgrading health facilities. These areas have remained the primary focus of reforms for the last decade.

In 2012, the 53 Member States of the WHO European Region agreed on a new common policy framework for health and well-being – Health 2020 – which formulates the vision and policy focus for health in the 21st century. Along with Health 2020, the WHO Regional Committee for Europe approved the European Action Plan for Strengthening Public Health Capacities and Services (EAP-PHS). The EAP-PHS reflects the values and principles enshrined in Health 2020 and constitutes one of its main pillars.

The EAP-PHS proposes 10 EPHOs, including the core public health services within each of them, as the unifying and guiding basis for any European health authority to set up, monitor and evaluate policies, strategies and actions for reforms and improvement in public health. It puts forward specific actions and measures for moving towards the objectives of each EPHO, which European Member States, the Regional Office and its international partners intend to follow in order to strengthen public health capacities and services.

Since mid-2014, inspired and guided by Health 2020 and the EAP-PHS, Armenia's MoH has initiated steps to review the main public health challenges in the country and to update the policy paper *Concept for development of the health care system of the Republic of Armenia, 2015–2020*. The new document reflects the MoH's vision and strategies for improving the health of the population, reducing health inequalities, strengthening public health and ensuring a people-centred health system that is universal, equitable, sustainable and of high quality. Priority areas of work include, among others, social determinants of health and quality of care, the high burden of noncommunicable diseases (NCDs), the weaknesses of public health services including gaps in basic information and a lack of intersectoral cooperation, and insufficient assessment and evaluation.

The MoH acknowledges WHO's support throughout the process of Armenia's EPHO self-assessment, both in advancing knowledge and skills for implementing the tool itself and in sharing information to underpin further reforms in the sector.

2. Self-assessment findings and conclusions

2.1. EPHO 1: SURVEILLANCE OF POPULATION HEALTH AND WELL-BEING

EPHO 1 covers the establishment and operation of health surveillance, monitoring and information systems to monitor and map the incidence and prevalence of diseases, risk factors, health determinants, population health status, and health system use and performance. Other elements of this operation comprise community health diagnosis, data trend analysis, identification of gaps and inequalities in the health status of specific populations, identification of needs and planning of data-oriented interventions.

2.1.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- In Armenia, the legal framework for civil registration and vital statistics is provided by the law “On acts of civil status” (2004). It covers vital records of life events kept under governmental authority (birth, marriage, divorce, adoption, paternity, name change, death) through city and regional units of the Civil Registry of the Ministry of Justice. The Ministry of Justice provides these data to the National Statistical Service (NSS), which in turn provides them to the Information Analytic Centre (IAC) of the National Institute of Health (NIH) of the MoH. The NSS performs collection and analysis of vital statistics.
- Health facilities fill in certificates of birth or medical certificates of death, and then submit them to city and regional units of the Civil Registry. All health facilities submit data on births and deaths to the IAC. Annual data on births, deaths and causes of deaths (disaggregated by gender and age) are generated at national and subnational levels; completeness ranges within 90–95%. Data are stored at the Ministry of Justice, duplicates are kept at the NSS and data are transmitted to the IAC.
- Armenia has used the International Classification of Diseases, 10th revision (ICD-10) since 2004. It adopted WHO definitions of live birth, stillbirth and perinatal period with Government Decree No. 949 (16 June 2005). In 2013, upon WHO recommendations, it also adopted ICD-10 as a normative document.
- The IAC collects morbidity and mortality data and develops annual reports on NCDs and risk factors. Armenia’s Strategic Programme for the Prevention and Control of NCDs, 2016–2020 was approved by Government Protocol Decree No. 4 (4 February 2016).
- The health sector does not have an information system for the social determinants of health, and does not track relevant target-based indicators (income inequality, quality of education, access to healthy environments, employment opportunities, etc.) to inform relevant intersectoral work and address health inequities. In order to fill this serious gap,

the MoH cooperates with United Nations organizations and international nongovernmental organizations (NGOs) to undertake ad hoc surveys that address health, nutrition and socioeconomic conditions.

- Armenia's health-related household surveys include:
 - the Demographic and Health Survey (DHS), undertaken with the support of ICF International, the United Nations Children's Fund (UNICEF) and the United States Agency for International Development (USAID) in 2000, 2005, 2010 and 2015 (underway);
 - the health system performance assessment National Health Account, undertaken in 2007, 2009, 2012 and 2015 (underway);
 - the WHO STEPwise approach to surveillance for NCD morbidity and relevant environmental and behavioural risk factors, undertaken with donor support (not yet institutionalized at the MoH); and
 - prevalence of echinococcosis and toxocarasis in cattle breeding areas, through cross-sectional surveys plus enzyme-linked immunoabsorbent assays for serum positivity, as well as leishmaniasis.
- In parallel, Armenia assesses knowledge and needs for public health education and for the promotion of healthy lifestyles. Institution-based surveys include studies of health behaviour in school-age children (2010) and large-scale investigations of various types of helminthiasis (2015). Health workforce studies address emotional distress in several health facilities; workforce resources of public health laboratories; and evaluation of knowledge and needs of health workers for the provision of health education and the promotion of healthy lifestyles among the population.
- National health-related studies also include the evaluation of health policies for school-age children (2015); and a survey of causes of drug abuse among school-age children (2014). Data from NIH and National Centre for Disease Control and Prevention (NCDC) surveys are used, to a certain extent, for public health activities in relation to health protection, health promotion and disease prevention, as well as for the development of national health policies and strategies (including the *Concept for development of the health care system of the Republic of Armenia, 2015–2020*).
- Surveillance data is compliant with ICD-10. Mortality is disaggregated by gender, age and region; morbidity for selected diseases is disaggregated by gender, age and rural/urban population; and public health surveillance of behavioural and biological risk factors is disaggregated by education and well-being.
- Surveillance methodology in the areas of child health and nutrition, and maternal and reproductive health is appropriate. Environmental health is ensured with relevant standards for air, water and soil quality, noise, electromagnetic fields and lightning, as well as with inventories for pollutants. Environmental monitoring covers pollutants in the above-listed chains; however, completeness and quality of data are not assessed.
- The MoH implements surveillance of health system performance by monitoring health system financing (through national health accounts analysis), the health workforce (through numbers and distribution of public health workers, etc.), health-care utilization, and access to essential medicines.
- The NCDC provides systematic reports on implementation of the International Health Regulations (IHR) (2005) to the Government of Armenia (quarterly), and reports data to WHO. These reports are used in adjusting or formulating plans for subsequent steps in the implementation process. As of July 2016, no public health events of international concern were registered in the country.

- Infectious disease surveillance is compliant with ICD-10 (population coverage on selected morbidity is 95–100%). NCD surveillance is based on the WHO STEPwise approach to surveillance and covers NCD risk factors such as tobacco use, excessive alcohol consumption, low physical activity, unhealthy diets, hypertension, high levels of glucose and cholesterol in blood, and high body mass index. Indicators of biological and chemical pollution of soil, water and ambient air are monitored as well with more-or-less satisfactory coverage.
- The self-assessment shows that infectious disease surveillance in Armenia is particularly effective; no significant problems need correction. However, the surveillance of hospital-acquired (nosocomial) infections lags significantly behind, and the surveillance of antimicrobial resistance (AMR) is only in its initial phase. The National AMR Prevention and Control Strategy and Action Plan, 2015–2020 (Government Decree No. 32 of 8 July 2015) expresses the will to further develop AMR surveillance, but no practical developments have yet been carried out.

2.1.2. Conclusions

Armenia's main strengths in the areas of EPHO 1 include the following.

- Adequate legal frameworks for civil registration and vital statistics, as well as appropriate registration infrastructure, are in place. Birth and death certification is compliant with ICD-10.
- The major public health institutions of the MoH implement various health-related surveys based on modern methodologies (some with donor support).
- Armenia's infectious disease surveillance system is effective. Its disease recording and reporting system is adequate.
- The IAC collects morbidity and mortality data and develops annual reports on NCDs and risk factors.
- The Strategic Programme for the Prevention and Control of NCDs, 2016–2020 was approved in 2016.

Its main weaknesses in the areas of EPHO 1 include the following.

- Curricula for medical students do not contain training courses on ICD-10 or medical verification of deaths.
- The country lacks a comprehensive strategy for data quality assurance.
- Monitoring of environmental health indicators (for food, the workplace, soil and housing) is inadequate, and the country lacks an information system for social determinants of health to track relevant target-based indicators, including income inequality, educational quality, access to healthy environments, employment opportunities, etc.
- Data collection and surveillance of behavioural and biological risk factors are dependent on external funding (they are not yet institutionalized by the MoH).
- Qualified human resources to carry out data assessments for the development of reports are inadequate and further training is required.
- Surveillance on nosocomial infections and AMR is inadequate.

2.2. EPHO 2: MONITORING AND RESPONSE TO HEALTH HAZARDS AND EMERGENCIES

EPHO 2 covers monitoring, identifying and predicting priorities in biological, chemical and physical health risks in the workplace and the environment; risk assessment procedures and tools to measure environmental health risks; release of accessible information and issuance of public warnings; and planning and activation of interventions aimed at minimizing health risks. It also comprises preparedness for management of emergency events, including formulation of suitable action plans; development of systems for data collection and prevention and control of morbidity; and application of an integrated and cooperative approach with various authorities involved in management.

2.2.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- Armenia has a hierarchy of organizational structures and facilities designated for ensuring disaster and emergency preparedness and response. At the national level, the Ministry of Emergency Situations (MES) with its National Centre for Crisis Management fills this role. At the regional level (10 regions in total), it is carried out by regional rescue departments and regional disaster risk reduction (DRR) teams, composed of heads of key departments (education, social protection, health, agriculture, etc.). The structure of the MoH also includes an emergency preparedness and response unit.
- Armenia's country structures receive support from United Nations organizations and NGOs, including the International Committee of the Red Cross (ICRC), Oxfam, Save the Children, the United Nations Development Programme (UNDP), UNICEF, the United Nations Office for the Coordination of Humanitarian Affairs, WHO and World Vision. The Inter-Agency Standing Committee, functioning in collaboration with the MES, coordinates this support.
- Armenia established the National Platform for DRR in 2010 as a multisectoral forum for all stakeholders to discuss and coordinate emergency preparedness and response methodologies and plans.
- The country also established the comprehensive National DRR Strategy with Government Decree No. 281 (7 March 2012), as well as disaster preparedness plans for chemical, biological, geological and meteorological disasters. In addition, numerous government decrees regulate public awareness activities in emergency situations. However, performance gaps exist in the implementation of some of these national action plans, specifically for geological and meteorological disasters such as landslides, hail and floods.
- Responsibilities for the protection, maintenance and restoration of key systems and services in the event of a public health emergency are assigned as follows: the State Food Safety Service (SFSS) of the Ministry of Agriculture oversees food safety; the NCDC oversees water safety and outbreaks of different communicable diseases including unusual and unexpected cases; and the MoH oversees health care services. For these purposes, the NCDC developed standard operating procedures in line with the IHR (2005) to ensure coordinated activities.

- The MES's National Centre for Crisis Management undertakes data collection, analysis and reporting on the public health implications of emergencies, as well as the communication of data to relevant stakeholders.
- Armenia has emergency plans and more than 200 regulations on the health sector's response to various disasters, including Government Decree No. 2328 (2005) for nuclear power plant accidents; No. 861 (2010) for chemical disasters; and No. 961 (2011) for major earthquakes. Within the Civic Protection Annual Plans, regular drills and simulation exercises are organized both at national and local level (in schools).
- In 2010–2012, Armenia developed the Local Level Risk Management tool, including the Risk and Vulnerability Assessment tool and hazard maps, and introduced them in 40 pilot communities and DRR projects and activities. These activities received support from the ICRC, Oxfam, UNDP, UNICEF, Save the Children and World Vision as well as other partners and donors. Since then, the country has undertaken assessments and initiated limited donor-specific activities in 220 more communities; some of these are in very early stages, and others are well underway.
- Development partners have made further efforts to unify the full package of DRR tools and to hand it over to the MES. The MES is finalizing a draft government decree (to roll out by the end of 2017) on the adoption of the package for countrywide institutionalization and follow-up. This is expected to facilitate donor involvement in relevant activities and provide a solid policy framework for the sustainable development of communities. However, the Government's limited financial resources are thus far allocated to local communities to foster their leadership and resilience in emergencies (for example, funds are provided for training activities to strengthen capacity for disease prevention, surveillance, and risk assessment and response).
- In 2012, aiming to improve awareness among certain population groups, the Government approved an order and action programme developed by the NCDC for raising awareness, disseminating health information and advocating for healthy lifestyles during outbreaks (epidemics) and chemical and radiation emergencies, as well as in normal daily circumstances (Government Protocol Decree No. 15).
- The MoH provides laboratory support for investigating health threats and pays due attention to public awareness programmes on general risks and emergencies. The NCDC implements epidemiological investigations of foci of communicable diseases and laboratory examinations in line with international approaches; reviews risk factors; reveals source of infection; undertakes preventive and anti-epidemic measures to prevent the spread of infection; ensures advocacy for healthy lifestyles; and disseminates medical and hygienic knowledge.
- There are communication protocols among laboratories, health services and decision-makers pertaining to emergencies (such as pandemic influenza). The NCDC implements awareness programmes on communicable diseases and toxic exposures. The MES and the National Platform for DRR develop and introduce numerous educational materials on general risks and hazards in schools.
- In 2009, Armenia adopted the IHR Implementation Strategy (Government Decree No. 44). This was followed by the development of 200 normative acts and the establishment of several commissions for regulating infection control issues, including nosocomial infections.

2.2.3. Conclusions

Armenia's main strengths in the areas of EPHO 2 include the following.

- Organizational and intersectoral collaboration structures are in place, as is an institutional framework for the coordination and organization of emergency preparedness and response.
- The country has an adequate national regulatory framework and plans, partnerships with a country-based international donor community; and capacities to assess vulnerabilities and risks and to provide prompt rescue and recovery work.
- It also has capacity for providing actionable information to the population throughout all stages of an emergency.

Its main weaknesses in the areas of EPHO 2 include the following.

- Resources for conducting mitigation actions across the majority of communities to reduce long-term vulnerability to public health emergencies are inadequate.
- Public health capacities on emergency surveillance and risk analysis are insufficient.
- The country has performance gaps for the implementation of numerous national action plans on prevention and response.
- Community involvement and leadership in carrying out resilience programmes are weak. The performance of programmes to foster community leadership and improve resilience in the event of an emergency is largely donor-dependent.

2.3. EPHO 3: HEALTH PROTECTION INCLUDING ENVIRONMENTAL, OCCUPATIONAL, FOOD SAFETY AND OTHERS

EPHO 3 covers risk assessments and actions for environmental, occupational and food safety and others. It focuses on the ability of public health authorities to supervise enforcement and control of activities with health implications. It includes the institutional capacity to develop regulatory and enforcement mechanisms to protect public health and monitor compliance with accepted norms, as well as the capacity to generate new laws and regulations aimed at improving public health and promoting healthy environments.

2.3.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- Armenia's Constitution, its laws on health care and on the provision of sanitary-epidemiological safety of the population, the annual programmes of the Government and the MoH, the Strategic Programme of Prospective Development, 2014–2025, and a large number of government decrees on regulations and guidelines provide a legislative framework for improving the health of the population and promoting healthy environments.
- Guideline values are established for 389 outdoor air contaminants in Government Decree No. 160-N (2 February 2006). Countrywide regular monitoring covers five key pollutants: carbon monoxide, nitric oxide, nitrogen dioxide, sulfur dioxide and dust. However, these do not include particulate matter with a diameter of 2.5 micrometres or less (PM_{2.5}) or 10 micrometres or less (PM₁₀), or pollen. An air pollution charge for mobile and stationary

sources exists. Indoor air quality guidelines are available for workplaces only; Government Decree No. 522-N (19 April 2012) defines risk-based audits once every one, three and five years.

- Regulations or bans on the production, import, export and use of certain chemicals are in line with United Nations standards. The MoH sets guideline values for persistent organic pollutants (POPs) in pesticides, soil and drinking-water, but POPs are not regularly monitored. Numerous government decrees, including No. 293-N (17 March 2005), monitor the international trade of dangerous substances and pesticides. Health safety standards for mercury in drinking water, soil, workplace air and products are set, but are not regularly monitored. Emission limit norms for each stationary source are established (these were developed in accordance with provisions of Government Decree No. 1673-N of 27 December 2012); their monitoring is the obligation of enterprises, though this is undertaken by large enterprises only. Only a handful of wastewater treatment plant operators monitor water pollutants amenable to treatment. Combustion and fuel evaporation standards are set by Government Decree No. 965-N (22 June 2006), but not monitored regularly.
- The MoH provides drinking-water guideline values for chemical, biological and radiological contaminants and the NCDC ensures their regular monitoring. The main water operators monitor water quality as well. However, many water contaminants are not periodically reviewed.
- The Ministry of Nature Protection oversees industrial wastewater treatment and release.
- Protection of groundwater quality is regulated by standards on the sanitary protection zones of drinking water sources and constructions (by construction norms and MoH orders). Guideline values are established for 110 industrial chemicals and 380 pesticides in the soil (hygiene requirements for soil quality and sanitary norms are approved by Minister of Health Order No. 1 (25 January 2010).
- The MoH provides safety standards for physical factors, such as noise, ionizing and non-ionizing radiation, electromagnetic fields, lightening and microclimates in public areas such as schools and hospitals.
- Technical capacity for risk assessment in the area of environmental health is limited: human resources to carry out audits are adequate but regular staff training is required; equipment, information technology and laboratory capacity do not fully match international standards; financial resources are inadequate; and coordination with other government agencies is weak. Access to scientific research to develop the knowledge base is limited, as is the use of risk assessments for policy recommendations.
- The MoH is part of the Government's Ministerial Committee on Social Affairs, which is assigned to review all draft regulations relevant to social areas, including environmental protection. The Executive Social Department, part of the Government's Office, oversees follow-up with agencies. Collaboration mechanisms include: interagency coordination committees to develop relevant regulations; joint orders of the MoH and other ministries on establishing task forces, if required; intersectoral meetings with participation and support of United Nations agencies; and a procedure of impact assessment for new relevant regulations. Interim interagency meetings lack periodicity.
- Mechanisms for communication and collaboration with other key stakeholders in the area of environmental protection are not formally established. However, upon request of local communities, civil society organizations and citizens, the MoH and its major institutions undertake case-by-case correspondence and meetings with civil service providers to address environmental protection issues. The MoH and its major institutions (the NCDC and the NIH) communicate with the general population through websites, periodicals, news

- conferences, round-table meetings, television and radio broadcasts, press releases and articles in newspapers and other print media and social networks.
- Regulations for sanctions and measures to prevent environmental harm exist; however, their effectiveness is questionable and institutional capacity to respond to hazards is low.
 - Armenia has general and sector-specific regulations that set standards for worker health and safety. These include maximum allowable concentrations of chemicals in workplace air (Minister of Health Order No. 2.2.5-004-10 of 6 December 2010), and the Classification of Occupations based on harmful and hazardous factors as well as mental, sensory and emotional workload (Minister of Health Order No. 756-N of 15 August 2005 and its sanitary rules and norms No. 2.2-002-05). The Classification of Occupations envisages interventions for the prevention and control of mechanical, physical, chemical, biological, ergonomic and psychosocial risks in work environments. However, capacities for health promotion and protection in the workplace and for primary prevention of occupational hazards are low. Occupational health services to all workers (for example, programmes targeting workers in the informal economy, in the agricultural sector and in small enterprises) do not exist. Collaboration and communication with key stakeholders for management and mitigation of risks related to occupational health is not adequate.
 - The Ministry of Agriculture's SFSS is Armenia's food agency, which has legal mandate and authority under the law "On food safety" (2006) to act at all stages of food production. National food safety regulations are only partially in line with current standards of the Codex Alimentarius. The SFSS is provided with adequate resources, but has low capacity to implement risk assessment exercises and to formulate relevant policy recommendations. More active participation of the SFSS is required to ensure the regulation of salt and trans fats, and the fortification of food products.
 - Patient safety in the country is underpinned by a regulatory and institutional framework. Sanitary legislation and MoH orders provide safety standards for: health-care facilities, including hygiene, ventilation and equipment repair; safe collection, transport, storage and use of blood, tissue and organs; and pharmaceutical products.
 - Consumer protection mechanisms with regard to health services are not yet fully operational. Medical malpractice is not clearly defined, though clinicians' accountability in cases of grievous offence/negligence is regulated by Article 130 of the Criminal Code. A system to report complaints in clinical settings exists, though is not universal. Capacity for risk assessment in the area of patient and provider safety is not adequate. Quality assurance committees at primary health care (PHC) facilities and hospitals are established in Minister of Health Order No. 1661-A (18 November 2008), and No. 1116-A (29 November 2014). Throughout 2009 and 2010, quality-control tools were introduced in 139 PHC facilities (through the USAID-funded PHC Reform Project). These included a self-assessment tool, a chart review, monitoring indicators, and a patient satisfaction survey tool. The MoH State Health Agency (SHA) and State Health Inspectorate perform external quality assessment.
 - In parallel, an Infection Control Commission is established in all health facilities by Minister of Health Order No. 3210-A (10 December 2013) to implement relevant infection control programmes. There is also a surveillance system on nosocomial infections according to Minister of Health Order No. 3023-A (20 December 2014). Recording and reporting forms and regulations exist, but an adequate tracking system is not yet established. Collaboration and communication with key stakeholders in this area is not adequate.
 - Armenia's legislative framework for road safety includes the law "On transport" (1998) and Government Decree No. 574-N "On the transport area development strategy and performance plan of the Ministry of Transport and Communication" (7 September 2006).

The safety of road infrastructure and of broader transport networks is underpinned by the laws “On road infrastructure” (2006) and “On road safety” (2005). The law “On mandatory insurance” (2010) regulates insurance requirements for drivers. The Code of Administrative Violations and Government Decree No. 924-N “On traffic rules” (23 May 2002) address key risk factors and safety measures, including speed limits, regulations on drinking and driving, motorcycle helmets, seatbelts and child restraints, etc.

- The MoH’s policy on injury prevention including road safety is reflected in the Injury Prevention Strategy adopted by Government Decree No. 50 (22 January 2015) and its Activity Plan for 2015–2020. Human, physical, financial and administrative resources and capacities for risk assessment in the area of road safety are not adequate, and data on risk factors from existing data flows are not accessible.
- A legislative framework for products is provided by the law “On consumer rights” (2001), by Resolution of the Customs Union No. 526 (28 January 2011) and by Minister of Health orders for hygienic and sanitary-epidemiological requirements and relevant health standards. Armenia has sanitary regulations and norms for 17 groups of consumer products, including: pesticides and agrochemicals; disinfectants, insecticides and rodenticides; books and other print products; cigarettes and tobacco raw materials; personal hygiene products; products for children; human skin-contact products, clothes and shoes; perfumery, cosmetics and oral hygiene products; personal protection products; medical products and equipment; water purification and preparation materials, reagents and equipment; polymers, construction materials and furniture; equipment and substances for air preparation; household chemicals, paints and varnishes; ionizing materials and products containing radioactive substances; machinery, tools and electrical equipment; industrial chemicals and petrochemicals. The Market Supervision State Inspectorate of the Ministry of Economy ensures oversight. A reporting system for unsafe products does not exist. Capacity for risk assessment in the area of consumer safety is not adequate. Enforcement and risk mitigation related to consumer safety norms are beyond MoH control, and the capacity to respond to hazards is low.

2.3.2. Conclusions

Armenia’s main strengths in the areas of EPHO 3 include the following.

- The country has a solid and comprehensive legislative framework for health protection.
- Intersectoral collaboration mechanisms at the government level exist.
- Guideline values and targets on the main environmental contaminants comply with international agreements.

Its main weaknesses in the areas of EPHO 3 include the following.

- Audits in several areas do not give regulators an adequate picture of environmental health.
- The country does not regularly monitor POPs.
- Intersectoral capacities and effectiveness in the areas of risk management and mitigation are low.
- The country does not adequately apply research to develop the knowledge base.
- Risk assessments do not yet inform policy recommendations.
- Communication and collaboration mechanisms with key nongovernmental stakeholders in the area of environmental protection are poorly established.
- Capacities for health promotion and protection in the workplace and for primary prevention of occupational hazards are inadequate.

- The country lacks periodical reviews of many contaminants in drinking-water.
- Irregular monitoring of pollutants in wastewater is conducted by an inadequate number of water treatment plant operators.
- Sanitary regulations in the area of housing do not cover housing conditions and harmful agents (their monitoring is not envisaged).
- Food safety regulations are only partially in line with current standards of the Codex Alimentarius, and standards on table salt and trans fats are not established.
- Consumer protection mechanisms with regard to health are inadequately established.
- The capacity for risk assessment in the area of patient and provider safety is insufficient.
- The health sector has limited access to data on risk factors for traffic accidents and inadequate capacity for risk assessment in the area of road safety.
- Data reporting for unsafe consumer products is nonexistent and capacities for risk assessment in the area of consumer safety are inadequate (the enforcement of safety norms and risk mitigation are beyond MoH control, and hence institutional capacity for response to hazards from unsafe consumer products is low).

Box 1. Explanatory note on intersectorality

Intersectoral decision-making and action in public health (reflected in the majority of EPHOs) is recognized as essential for improving population health. Yet, as is the case elsewhere, putting it in place in Armenia has proven challenging.

Within the Government, structures and mechanisms are mandated to support intersectoral planning and policy development (for example, the Ministerial Committee on Social Affairs, the Executive Social Department, interagency coordination committees and task forces, etc.). A number of public health policy documents reflect a commitment to a comprehensive intersectoral approach, and relevant action plans are being implemented. However, in many public health areas, the collaboration mechanisms (interim committees and/or working groups), though formally applied, are still largely neglected (for example, in the areas of road safety, micronutrient deficiency, social determinants and health inequity).

Hence, the challenge in this area is mainly one of implementation. Intersectoral action is hampered by a prevailing view of health as the responsibility of the health sector. Strict demarcations between sectors – residual adherence to an outdated Soviet paradigm – hamper the view of health as a collective goal of high priority.

Another reason for low intersectoral capacity is weak adherence to the secondary legislation (governmental protocol decrees or ministerial orders) that composes the legal framework for multisectoral interim bodies. Contrary to this, there is a heavy reliance on the law.

2.4. EPHO 4: HEALTH PROMOTION INCLUDING ACTION TO ADDRESS SOCIAL DETERMINANTS AND HEALTH INEQUITY

EPHO 4 covers health promotion, which is the process of enabling people to increase control over their health and its determinants and thereby to improve it. It addresses determinants of both communicable diseases and NCDs. It also includes the promotion of changes in lifestyle, practices and environmental and social conditions to facilitate societal development among individuals and the community to promote public health and reduce societal inequalities in health across the social gradient in order to create a “culture of health” among individuals and the community.

2.4.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- The Government of Armenia incorporates structures and mechanisms to enable intersectoral decision-making and action. The MoH is part of the Government’s Ministerial Committee on Social Affairs, which normally holds weekly sessions to review all regulations relevant to social areas. The Executive Social Department circulates the Government’s requests and recommendations among ministries. The Government endeavours to support intersectoral working by establishing interagency coordination committees (approved by a decision of the Prime Minister) for cross-cutting policies and programmes. The MoH initiates joint orders with relevant government sectors when required, establishing task forces as well as intersectoral meetings with the participation and support of United Nations agencies. The MoH’s health promotion strategy documents as well as specific programmes and their action plans include governmental coauthors; however, interim interagency meetings lack periodicity.
- In a number of areas, intersectoral work is in the early stages of planning and coordination. Examples include the Traffic Police providing health promotion activities for traffic safety through mass media and children’s programmes; the MoH developing a surveillance system on injuries and risk factors through its injury prevention strategy (of 2015) and in cooperation with the Traffic Police and the MES; and the MoH’s development of school programmes (for example, “Safe to School – Safe to Home”) in cooperation with the Traffic Police and the Ministry of Education and Science. The MoH also worked with the Ministry of Urban Planning to create built environments conducive to physical activity, and with the Ministry of Agriculture on healthy food and universal salt iodization.
- Practically speaking, the Government does not provide mixed financing for nationwide health promotion activities (see also Box 1 on intersectorality).
- Within the MoH, health promotion programmes and activities are most commonly conducted by technical (structural) divisions: the Medical Care Policy Department, the Mother and Child Health (MCH) Department, the Public Health Unit (PHU) the Public Relations Unit (PRU) (which works with the media), the largest public health institutions (the NCDC and the NIH), and several research centres. PHC facilities participate in counselling and the distribution of health promotion materials (though within limited timeframes and with low motivation). However, no single MoH body or overarching health promotion action plan integrates/consolidates and scales up existing actions and population-based health promotion interventions in the country. In this sense, health promotion in terms of lifestyle issues remains piecemeal. This leads to a lack of clarity regarding roles and responsibilities

- of various actors, for example, MoH departments and agencies vis-à-vis NGOs and other stakeholders. Their activities are often underdeveloped, fragmented and sometimes overlap.
- The law “On legal acts” (2002) (see also Chapter 2.6) requires that health impact assessments (HIAs) are conducted in relation to the full range of national policies. The MoH is authorized to receive policies formulated beyond the health sector (including legislation, etc.) and to ensure that HIAs are carried out. Through this mandatory procedure, the MoH attempts to influence the policies and actions of other sectors to address the social, environmental and economic determinants of health. However, this work lacks a comprehensive, modern methodology and trained staff (relevant specific guidelines are not yet developed).
 - Engagement and involvement of local communities and civil society in the area of health promotion takes place within programmes run by international donors, particularly within the context of projects funded by the European Commission, the UNDP, USAID and others. These partnerships, however, are not sustainable. Specific community outreach programmes targeting vulnerable populations or communities are also donor-dependent.
 - Public participation in setting priorities and allocating resources for health promotion is limited. There are only a few examples of public-private partnerships to promote health, and these take place on an ad hoc basis. They involve country-based internet providers and large supermarkets that support healthy lifestyle promotion through the dissemination of health-related messages. Such sporadic and short-term activities, which lack assessments based on indicators and targets, offer little evidence of progress.
 - Summary measures in tobacco control policy developed under the leadership of the MoH’s NIH and implemented in line with the requirements of the WHO Framework Convention on Tobacco Control (FCTC) are as follows:
 - the National Tobacco Control Programme and Implementation Plan for 2010–2015 (Government Decree No. 475 of 29 April 2010), a stand-alone national strategy for tobacco control;
 - the law “On restriction of the realization, consumption and usage of tobacco” (2004);
 - measures for reducing demand for and supply of tobacco, including price and tax measures and full bans on tobacco smoke in indoor workplaces, on public transport and in other indoor public spaces, as well as bans on advertising, promotion and sales to minors;
 - education, communication, training and public awareness initiatives, including a specific educational programme for PHC providers based on MoH guidelines; television, radio and media programmes; and intersectoral activities undertaken with the participation of NGOs; and
 - provision of direct support within the health care system to smokers wishing to quit (established as a national guideline in 2008 and approved by ministerial order in 2013).
 - Armenia has no national strategy for alcohol control, but the following parameters are in place: limitations on the availability of alcohol; prohibition of sales to minors; a legal minimum age of 18 for sales of alcoholic beverages; regulatory frameworks limiting or prohibiting the marketing, sponsorship and advertising of alcoholic beverages; minimum pricing policies based on strength of alcoholic drinks in the law “On excise” (2000); and legal and enforcement measures to deter the use of alcohol among drivers (the maximum legal blood alcohol concentration when driving a vehicle is 0.4 g/L, and exhale air concentration is 0.2 g/L). The prevention of harmful alcohol use and alcohol-related disorders is a component of the Strategic Programme for the Prevention and Control of NCDs, 2016–2020.
 - The National Healthy Lifestyle Strategy includes limitations on unhealthy eating, including limitations or bans on the marketing of unhealthy food to children. The Food Safety Strategy

and Action Plan according to Government Decree No. 1522-N (13 October 2011) provides a more comprehensive approach to nutrition. Some fiscal or legislative measures supporting nutrition are set by the law “On food safety” (2006).

- The SSFS provides oversight on food safety. The MoH’s Public Health Department, MCH Department, and NCDC are responsible for the development of policies, strategies and guidelines.
- Nutrition standards for food served in community settings (day-care centres, kindergartens and schools) are set by the hygiene norms for food provision in educational institutions of Minister of Health Order No. 32-N (6 June 2014) and the hygiene norms for food provision in preschool educational institutions of Minister of Health Order No. 42-N (12 August 2013). The country introduced the Sustainable Food Project, a food programme for vulnerable populations, in five regions representing 60 000 schoolchildren.
- There is no stand-alone strategy on physical activity, though several components are incorporated into the National Healthy Lifestyle Strategy. Guidelines on physical activity do not exist, but there are standards for sports schools. In addition, young parliamentarians and youth-focused NGOs have launched multisectoral initiatives and ad hoc community actions to promote physical activity. Practically speaking, the MoH does not play a leadership role in multisectoral initiatives promoting physical activity.
- The major behavioural determinants of health – tobacco use, alcohol abuse, dietary risks and physical inactivity – account for the highest burden of disease in Armenia. Available information and statistics show the following.
 - **Tobacco use:** Data on tobacco smoking are collected as part of a survey funded by the World Bank, and information on smoking trends among youth is available in the Health Behaviour in School-aged Children survey and the Global Youth Tobacco Survey. These surveys show that in 2007–2012 the prevalence of smoking among adults aged 20 years and older was 55.7% for males and 2.9% for females (the number of daily smokers among men did not change significantly during this time). In principle, tobacco control measures are in line with the WHO FCTC, but are not implemented in a consistent manner and need to be scaled up. Full enforcement of current measures in tobacco control remains a challenge.
 - **Alcohol consumption:** According to the *WHO Global status report on alcohol and health, 2014*, average adult alcohol consumption in Armenia in 2008–2010 was 5.3 litres of pure alcohol. This shows a slight increase (8%) from 2003–2005 rates. In 2010, the average prevalence of heavy alcohol consumption in Armenia was 37.9% among men and 2.3% among women. The proportion of habitual alcohol abusers among men aged 15 years and over was 11.2%; among women aged 15 years and older it was 0.5%.
 - **Nutrition and physical activity:** According to a 2008 survey, 55.5% of the adult population aged 20 years and older was overweight and 24.0% was obese. The prevalence of overweight was lower among men (48.6%) than women (60.9%). The proportion of obese men and women was 14.3% and 31.7%, respectively. Among 15- to 19-year-olds, 1 in 10 individuals was overweight or obese. Further, more than 25% of 20- to 29-year-olds, 50% of 30- to 39-year-olds, 70% of 40- to 49-year-olds and 75% of 50- to 59-year-olds had excess body weight. Little action has yet been taken to reduce the marketing of food and beverages to children. According to a 2012 survey, a lack of physical exercise is more common among women than men, and the prevalence of low physical activity is relatively lower in rural areas. Low physical activity is high among people aged 15–19, decreases to the lowest point in people aged 30 to 39 years, and starts growing thereafter; it reaches its peak level in persons aged 70 years and over. Lack of exercise is more common in people

with the highest level of education. Ongoing surveys to better assess trends in physical activity, nutrition and obesity are lacking as most data collected to date have focused on youth. No regular, ongoing surveys on NCD risk factors exist at the national level.

- The country has antidiscrimination legislation, and adopted the Gender Policy Concept (2010) and Intersectoral Strategic Plan, 2011–2015 by Government Decree No. 5 (11 February 2010) and No. 19 (5 May 2011).
- Prevention of substance abuse is regulated by the law “On drugs and psychotropic substances” (2002) and the National Drug Control Strategy, 2009–2012. Since 2001 the country has had an Intersectoral Drug Control Commission. Policy reports, such as the NIH’s National Annual Report on Substance Abuse, have been developed to obtain a comprehensive picture of substance abuse patterns in the country, including both illegal substances and pharmaceuticals. The Republican Narcological Centre, the major institution of the MoH specializing in this area, deals mainly with clinical aspects of substance abuse (medical care and services), but is not called upon to develop relevant public health interventions (the statute does not envisage this). Neither does it have a leadership role in multisectoral initiatives in this area.
- The law “On psychiatric care” (2004) and the Mental Health Improvement Strategy and Implementation Plan, 2014–2019 (Government Decree No. 15 of 7 April 2014) regulate psychiatric care in the country.
- Armenia has legislation supporting injury prevention, composed of the law “On road safety” (2005), the Labour Code (2004) and Government Decree No. 1327-N “On provision of medical services to victims of road accidents” (18 October 2012). The National Road Safety Council was established by Prime Minister Decision No. 211-A (30 March 2010) to act as a collaborative network for the exchange of information at national and international levels. Recently, the Government adopted a comprehensive Injury Prevention Strategy for 2015–2020 developed by Minister of Health Order No. 2 (22 January 2015); the Government’s Executive Social Department is discussing the Strategy’s action plan for implementation. Key actors in injury prevention include the MoH and its Emergency Medical Service, the MES and the police.
- The prevention of violence, including violence against women, is reflected in the Gender Policy Concept (2010) and Intersectoral Strategic Plan, 2011–2015. The prevention of violence against children is included in the National Child and Adolescent Health and Development Strategy, 2010–2015 (Government Decree No. 37 of 10 September 2009). Associated curricula for physicians, nurses and ambulance drivers were updated and approved by a ministerial order in 2010, and refresher trainings have been organized for medical staff of emergency services in the city of Yerevan and all 10 of Armenia’s regions. The MoH recognizes the need to offer trainings for PHC providers using the WHO Training, Educating and Advancing Collaboration in Health on Violence and Injury Prevention (TEACH-VIP) curricula.
- Social determinants and health equity are addressed in the *Concept for development of the health care system of the Republic of Armenia, 2015–2020* and various ongoing programmes. The above-mentioned concept paper declares the MoH’s renewed commitment to develop a socially oriented health system; however, it does not define specific strategies, programmes or targets for reducing health inequalities across the country’s social gradient in health. The document envisages action to clearly define categories of individuals who qualify for free-of-charge services through a state-guaranteed basic benefit package that “must reflect available state budget”. Since 2000, the basic benefit package covers PHC services, paediatric care and obstetric-gynaecology services, health care to socially disadvantaged

groups (defined on the basis of the poverty index), disability, control of communicable diseases and several NCDs, urgent care, and several specialized services (see Annex 3).

- In Armenia, a stand-alone written strategy to address social determinants of health does not exist. Some social determinants of health (for example, income and education) are addressed through household surveys (the DHS addresses micronutrient deficiencies and child growth indicators; an Oxfam survey addresses nutrition; a World Food Programme survey addresses food security and school meals). Representative statistics from these surveys are used to develop and promote relevant public health strategies. Information systems to track target-based indicators, including income and education inequality, access to healthy environments and employment opportunities, are not in place.
- The MoH does not practically implement systematic work to advocate on social determinants of health at the decision-making level (inside or outside the health sector). Thus it has not yet developed effective action plans with clear and measurable outcomes that build accountability for social determinants of health and related health inequities.

2.4.2. Conclusions

Armenia's main strengths in the areas of EPHO 4 include the following.

- The country has a regulatory framework (government decrees on a number of health promotion programmes) and structures (MoH units and agencies) to develop and implement health promotion activities within and outside the health sector (based on interim collaboration mechanisms).
- It promotes the WHO FCTC through the implementation of a stand-alone national strategy for tobacco control. It covers, among other things, regulatory measures for reduction of consumption; protection from tobacco smoke; bans on advertising; bans on sales to minors; and information, education and communication (IEC) activities.
- Armenia has a commitment to and clearly defined plans for developing a stand-alone national strategy (by the end of 2016) to scale up ongoing interventions on the prevention of harmful alcohol use and alcohol-related disorders.
- The MoH is committed to addressing social determinants of health and health inequity, and has established health programmes to address the needs of vulnerable and disadvantaged groups of the population.

Its main weaknesses in the areas of EPHO 4 include the following.

- Intersectoral decision-making and action in the area of health promotion are limited: interim interagency meetings lack periodicity; there is no practice of joint financing for nationwide health promotion activities; and the MoH lacks a comprehensive and modern methodology and trained staff to conduct HIAs of policies developed both inside and outside the health sector.
- No single MoH body or overriding health promotion action plan is focused on integrating/consolidating and scaling up existing actions and population-based health promotion interventions.
- Public participation in setting priorities and allocating resources for health promotion is limited to the donor-dependent participation of local communities and civil society in health promotion programmes. Public-private partnerships to promote health are weak, and the MoH lacks leadership in this area.

- Tobacco control measures, though in line with the WHO FCTC, are not implemented in a consistent manner and need to be scaled up (especially given the high prevalence of tobacco smoking among males); full enforcement of current measures in tobacco control remains a challenge.
- Data on trends in physical activity, nutrition and obesity in adult populations is insufficient to inform policy and action development in relevant areas of health promotion. In principle, no regular ongoing surveys on NCD risk factors exist at the national level (see also Chapter 2.1).
- Little action has been taken to reduce the marketing of food and beverages to children.
- The absence of a written, stand-alone strategy to address social determinants of health and health inequity reflects a lack of effective intersectoral and multistakeholder collaboration in this area. Weak advocacy on social determinants of health at the decision-making level, a lack of research activities, an inadequate budget, and the lack of an information system to track relevant target-based indicators (including income and education inequalities, access to healthy environments, employment opportunities, etc.) all impede progress.

2.5. EPHO 5: DISEASE PREVENTION, INCLUDING EARLY DETECTION OF ILLNESS

EPHO 5 focuses on disease prevention aimed at both communicable diseases and NCDs. This entails action in the following four areas.

Primary prevention services include vaccination of children, adults and the elderly, as well as vaccination or post-exposure prophylaxis for people exposed to a communicable disease. They also include the provision of information on behavioural and medical health risks, as well as consultation and measures to decrease them at the individual and community level; the maintenance of systems and procedures for involving primary health care and specialized care in disease prevention programmes; the production and purchasing of childhood and adult vaccines; the storage of stocks of vaccines where appropriate; and the production and purchasing of nutrition and food supplements.

Secondary prevention includes activities such as evidence-based screening programmes for early detection of diseases; MCH programmes, including screening and prevention of congenital malformations; the production and purchasing of chemoprophylactic agents; the production and purchasing of screening tests for the early detection of diseases; and capacity to meet current or potential needs.

Tertiary prevention includes rehabilitation of patients with an established disease to minimize residual disabilities and complications and maximize potential years of enjoyable life, thereby improving quality of life even if the disease itself cannot be cured.

Quaternary prevention has to do with avoiding overmedicalization of patients, protecting them from unnecessary interventions and suggesting ethical alternatives.

2.5.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points

- Armenia's National Immunization Programme (NIP) enjoys continuous political commitment. This is reflected, inter alia, in the MoH's growing financial support for its implementation. Regulatory documents of the NIP emanate from WHO guidelines and are accessible for health providers at all levels. The draft law "On public health" contains a special chapter on vaccination; it formulates several mandatory provisions, as well as restrictions on activities for those who are not vaccinated (for example, enrolment in kindergarten). Immunization policy is renewed every five years and approved by the Government (most recently by Government Decree No. 46-N of 14 January 2010). It reflects the NIP objectives, strategies and plan of activities with its general financial estimate. In addition, the multi-year plan contains a scrupulous financial component. Within the NIP, all vaccines and vaccination services are provided free of charge. Armenia's vaccination calendar follows WHO recommendations for routine immunization. Convenient and free access to vaccination services is provided to all target groups; coverage is equal to or above 95%. Vaccination services are accessible to all.
- MoH units promote collaboration among public health institutions and health facilities on population-based information campaigns. The NCDC implements regular IEC work through surveillance activities in outbreak foci (Government Decree No. 15 of 19 April 2012). Health care facilities take part in the distribution of printed materials. The NIH develops IEC guidelines for health facilities, which are implemented routinely or through the support of international organizations (for example, a World Bank project, a WHO grant on AMR). Materials for public awareness campaigns on healthy lifestyles include booklets and posters, radio and television broadcasts, etc. In 2015, policy-makers developed guidelines for health providers on NCDs and on IEC work with patients. PHC providers received training through a one-week course.
- PHC facilities provide counselling related to smoking cessation; nutrition and diet; oral, reproductive and cardiovascular health; and hygiene and sanitation. The Republican Narcological Centre provides counselling on alcohol dependence for high-risk groups in Yerevan, as well as through outreach work with outpatient departments. Preventive examination is performed among various age and gender groups (for example, dental examinations among 6- and 12-year-old children, Papanicolaou (Pap) tests among women, and tests for early detection of prostate cancer among men). The screening programme covers 35- to 68-year-olds and includes blood pressure readings, blood tests, Pap tests, and body mass index measurements. Since 1 January 2015, the social package for civil servants includes mandatory annual health check-ups. Counselling is provided to all, and free medicines are provided to vulnerable social groups (Government Decree No. 1717).
- Pre- and postnatal care are among Armenia's priorities and available and accessible to all pregnant women. A screening programme for congenital malformations exists, but its implementation at the subnational level should be improved. Women and children receive care through regular check-ups, preventive services and healthy child development services. Coordination with the main actors in this area (international donors and the educational system) is in place. The information system at the PHC level covers registration of women and children, maternal and neonatal health data, and management of data on check-ups (via an electronic system). Currently, an electronic health system is being tested.
- A solid legal framework protects the right to universal health coverage for migrants, homeless people, ethnic minorities, refugees and asylum seekers. This framework

includes the Armenian Constitution, the law “On health” (1998), state target programmes incorporated into the state budget, and Government Decree No. 318 (4 March 2004) on state-guaranteed free or privileged health services, and No. 420 (30 March 2006) on open enrolment with PHC physicians. Health facilities under the jurisdiction of the Ministry of Justice provide services to detainees.

- PHC facilities implemented a World Bank-supported, countrywide three-year screening programme on hypertension, diabetes and cervical cancer with an annual coverage indicator of 20% of the target population. The responsibilities for programme coordination and service provision are defined, and incorporate a large awareness-raising component. However, this is not integrated into a broader disease-control programme, and lacks explicit MoH commitment on takeover after external funding has ended.
- Rehabilitation is included within personalized patient care plans. State-supported survivorship and chronic pain management programmes do not exist, and the national strategy on palliative care is not yet finalized. The MoH has not established explicit links or partnerships with patient associations, and with just a few NGOs dealing with patients’ health and rights.
- The MoH collaborates with more than 50 NGOs. Some collaborations involve fairly regular meetings on programmes of public health importance. These NGOs are not part of the process of programme development, but have the opportunity to comment on draft documents posted on the MoH website (for example, on wheat flour fortification, smoking cessation, autism mitigation, etc.). Yerevan city authorities implement most healthy-lifestyle promotion activities (for example, the installation of playgrounds with stretching rods, or the incorporation of bicycles and other devices into public yards).

2.5.2. Conclusions

Armenia’s main strengths in the areas of EPHO 5 include the following.

- Armenia has a comprehensive and well-functioning NIP that enjoys strong political commitment and financial support, follows WHO guidelines and is provided with appropriate country regulations. Vaccines and vaccination services are provided free of charge to the population.
- Primary prevention in the country is largely supported by IEC work and campaigns.
- Modern MCH programmes as well as healthy child development services are in place.

Its main weaknesses in the areas of EPHO 5 include the following.

- Screening programmes are rather opportunistic and not integrated into broader disease-control programmes.
- Several areas lack comprehensive public health strategies (including oral health, substance abuse, micronutrient deficiencies and workplace health). Survivorship and chronic pain management programmes do not exist.
- The MoH does not have a patient empowerment strategy; resources and capacities to establish patient support groups or develop partnerships with them are insufficient.
- Community groups and NGOs are not involved in the programme development process itself; therefore, any public health intervention is subject to increased public concern about potential adverse consequences.

2.6. EPHO 6: ASSURING GOVERNANCE FOR HEALTH AND WELL-BEING

EPHO 6 focuses on policy development and quality assurance. Policy development is a strategic planning process that informs decision-making on issues related to public health, involves all internal and external stakeholders, and defines the vision, mission, measurable health goals and public health activities at national, regional and local levels. In the past decade, policy development has become more important to assess the repercussions of international health developments on national health status.

Quality assurance deals with developing standards for ensuring the quality of personal and community health services regarding disease prevention and health promotion, and evaluation of the services based on these standards. Evaluations should identify weaknesses in governance and operation, resource provision and service delivery. The conclusions of evaluations should feed back into policy and management, organization, and the provision of resources to improve service delivery.

2.6.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- The Armenian Constitution and the Election Programme of the President of Armenia both reflect explicit political commitment to population health. The Annual Programme of the Government identifies priority objectives and activities, among others, in the country's Strategic Programme of Prospective Development, 2014–2025. Priority programmes are aimed at health promotion and protection through the creation of healthy environments and conditions. The Government has 20 programmes in progress, including MoH programmes for 2015 on health care system management; the introduction of evidence-based technologies; the continuous development of human resources; and the early detection and prevention of NCDs (including screening programmes at the PHC level).
- Armenia's Sustainable Development Programme defines MCH as a priority area. Government strategies on MCH, adolescent health and reproductive health define goals and strategies aimed at improving women's and children's health and nutrition while reducing infant and maternal mortality. Free outpatient services are provided to all, including women and children, ethnic groups and migrants. Free hospital care is provided to children under seven years of age, as well as to disabled children, orphans, children from large and military families, and some other groups. Groups of lower socioeconomic status are provided for through the social support system: certain of these groups qualify for free inpatient services.
- The Government guarantees free-of-charge inpatient urgent care for certain diseases and conditions; lists of these diseases and conditions are endorsed through Minister of Health Order No. 65 (18 October 2013) (see Annex 3).
- In 1997, Armenia undertook the development of a PHC system based on family medicine. In 2003, its Poverty Reduction Strategy put forward, inter alia, the priority to improve the accessibility of PHC, including for the most vulnerable populations. The MoH proceeded to implement the national programme on the introduction of family medicine at the PHC level.

Since 2006, the Government has ensured free-of-charge care to all citizens at the PHC level, as well as free enrolment to PHC doctors and facilities. It provided training on family medicine to more than 1700 physicians and nurses, and introduced guidelines on case management at the PHC level. In 2010–2012, the Government adopted decrees on the development of urban outpatient services, on early detection, prevention and treatment of prevalent NCDs, and on national strategic programmes and action plans on the three types of diseases responsible for the country's highest mortality rates: circulatory diseases, cancer and diabetes. It developed guidelines and provided in-service trainings for a total of 2700 PHC doctors, general practitioners and gynaecologists. Since 2015, screenings have been conducted at the PHC level for the early detection of NCDs. Universal access to primary care continues to be the main focus of MoH policy.

- Health and well-being are typically acknowledged in the form of general statements within cross-cutting strategy documents developed outside the MoH (for example, strategies on climate change, food security, sustainable agricultural development, etc.). Nature protection, social protection, agriculture, transport, education and science, and urban development sectors normally cooperate with the MoH on the implementation of relevant elements of its public health initiatives (for example, driver licensing, prevention of AMR in cattle breeding, etc.). However, the sectors themselves do not consider health perspectives to be among their own large-scale strategic plans and programmes; hence, measurable health outcomes are not among their objectives.
- The health-in-all-policies approach is incorporated into the MoH's vision, but not explicitly formulated in the *Concept for development of the health care system of the Republic of Armenia, 2015–2020*; thus, it is not largely advocated and promoted by the MoH beyond the health sector.
- MoH public health programmes attempt to address public health threats through a systems approach, that is, to advocate within the community and engage other sectors in the pursuit of health. Examples include the National Programme on Prevention and Control of Iodine Deficiency Disorders (2004), and strategies on the promotion of healthy lifestyles (2014), NCD prevention and control (2014) and AMR prevention and control (2015). Multidisciplinary and intersectoral committees, steering groups or task forces are normally part of these strategies. However, consistent work with governmental and other partners remains a challenge (see also chapters 2.3 and 2.4, and Box 1 on intersectorality). For example, activities under the jointly developed intersectoral concept note on wheat flour fortification (2011) are not progressing well (particularly the pending draft law); this is due to insufficient engagement and support on the side of numerous stakeholders, including the governmental sectors of agriculture, education, finance and economics, as well as NGOs, the media, academics, industry, citizens and others.
- The national health strategy that sets out long-term public health priorities, including health equity, is elaborated in the *Concept for development of the health care system of the Republic of Armenia, 2015–2020* (launched at the end of 2015). These priorities are also reflected in the long-term Armenia Development Strategy, 2014–2025 and in the United Nations Development Assistance Framework, 2016–2020.
- The Government incorporates cross-sectoral structures, including a ministerial social committee and a department (see also chapters 2.3 and 2.4), to review and promote policies and programmes on cross-cutting issues. It is also entitled to establish mechanisms (interim committees and task forces, normally upon request of ministries) aiming to support the drafting of legal acts, policies, strategies and programmes. The MoH normally includes the establishment of an interim committee as a first output of a public health action plan

(for example, the implementation of the Strategic Programme for the Prevention and Control of NCDs, 2016–2020, or the process of drafting legislation to combat micronutrient deficiencies). However, sectors beyond the MoH as well as NGOs and other stakeholders were not involved in the development of the *Concept for development of the health care system of the Republic of Armenia, 2015–2020*. Within the MoH, policy development is only partially informed by the principles and approaches of WHO’s 2006 publication *Quality of care: a process for making strategic choices in health systems*.

- Situation analyses are conducted prior to formulating plans or strategies using data from the WHO Health for All (HFA) and IAC databases, as well as publications and other reliable sources.
- Oversight of the implementation of policies and plans is provided by multidisciplinary task forces within the MoH, and through the provision of MoH reports to the Government on each public health programme. Intersectoral interim committees do not provide joint oversight (every sector deals with its own component). National-level policies and plans include monitoring and evaluation activities based on the use of existing information systems. Data are accessible at MoH and NIH sites and are published annually. Data from national surveys are used as well.
- In Armenia, the development of legally binding arrangements to protect population health emanates from the Government’s Annual Work Programme, which articulates overall policy goals for all sectors, including health. It is also reflected in the Priority Objectives and Plan of Activities for the year. The MoH’s legislative initiative for public health is reflected in the above-mentioned 2015–2020 concept paper. Every draft law (for example, “On public health” and “On wheat flour fortification”) is accompanied by a justification paper reflecting on how it will contribute to achieving broader policy goals. The legislative process follows provisions of the framework law “On legal acts” (2002), which applies universally to the development of legislation in all areas. Specific requirements, such as reporting and auditing, are regulated through decrees or normative acts of the Government.
- The MoH is part of mechanisms for joint work on cross-cutting legislation (the Ministerial Committee on Social Affairs, the Executive Social Department, interim committees, etc.). It is also the body that receives new legislation formulated beyond the health sector, and that ensures that HIAs are conducted. Inspired by Health 2020, the MoH is increasingly focused on health risk factors in order to influence policies and actions of other sectors to address the social, environmental and economic determinants of health (for example, through the draft law “On wheat flour fortification”). However, the MoH and the majority of its units still lack capacity to work with other ministries in the formulation of cross-cutting legislation and to expedite the discussion, debate and ratification of laws in legislative forums. The MoH’s HIAs also lack a comprehensive and modern methodology and trained staff (relevant specific guidelines are not yet developed). HTAs are only partially used for evidence-informed decision-making, particularly on new medicines and vaccines.

2.6.2. Conclusions

Armenia’s main strengths in the areas of EPHO 6 include the following.

- The political commitment of Armenia’s leadership to protecting and promoting population health is reflected in the Armenian Constitution, and is considered within the country’s development agenda. State-supported, free universal care at the PHC level is guaranteed to all, and at the hospital level to vulnerable and socially disadvantaged groups.

- Armenia has a national health strategy that sets out long-term priorities for public health, including health equity.
- The Government incorporates cross-sectoral structures to review and promote policies and programmes on cross-cutting issues (it establishes interim mechanisms to support the drafting of relevant documents).
- Legally binding arrangements to protect population health are developed within a firm legislative framework, and the MoH itself, in principle, is part of joint work on cross-cutting legislation. It is also the body charged with ensuring HIAs of legal acts.

Its main weaknesses in the areas of EPHO 6 include the following.

- Despite the Government's existing cross-sectoral structures and interim mechanisms, the development of policies to inform intersectoral decision-making and action for public health remains a challenge (the follow-up planning and implementation processes usually do not involve actors outside of government, or NGOs, media and other stakeholders).
- Intersectoral interim committees do not provide joint oversight; every sector deals with its own component of a broad public health programme.
- Policy-makers do not sufficiently use WHO principles and approaches for making strategic choices in health systems.
- The capacity to formulate cross-cutting legislation and to expedite the discussion, debate and ratification of laws in legislative forums is low.
- HIAs lack a comprehensive and modern methodology and trained staff. HTAs are only partially used for evidence-informed decision-making.

2.7. EPHO 7: ASSURING A SUFFICIENT AND COMPETENT PUBLIC HEALTH WORKFORCE

EPHO 7 focuses on investment in and development of a public health workforce, which is an essential prerequisite for adequate delivery and implementation of public health services and activities. Human resources constitute the most important resource in delivering public health services; thus this operation includes education, training, development and evaluation of the public health workforce to efficiently address priority public health problems and adequately evaluate public health activities.

2.7.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- Armenia regulates the education and postgraduate qualification of the public health workforce through the law "On higher and post-diploma education" (2004). Its public health workforce includes public health specialists, health professionals and other professionals who have an impact on health. Yerevan State Medical University (YSMU) and 6 additional private medical institutions provide undergraduate education for health care human resources. Twenty-one secondary institutions (11 public and 10 private) provide vocational education for the secondary medical workforce. Despite a surplus of health-care workers,

Armenia lacks highly qualified public health professionals and nurses in its regions, and especially in remote areas.

- The MoH ensures leadership on workforce planning and its alignment with broader health and development policies. Objectives are set by the Health Workforce Development Strategy according to Government Decree No. 5 (6 February 2014). This is not a specific strategy for human resources in public health, but rather a national strategy for human resources in health. It endeavours to address serious health workforce shortages outside of Yerevan (the capital), specifically for nurses, family doctors, district general practitioners and paediatricians at the PHC level, and for cardiologists, oncologists, endocrinologists, anaesthetists at both outpatient and inpatient levels.
- Armenia has regulations and rules on staffing policies, including for recruitment, hiring and deployment. Mechanisms, structures and processes are also in place for multistakeholder cooperation on workforce management. However, policies pertaining specifically to the development of human resources in public health do not exist.
- Public health is on the list of health-care specialties according to Government Decree No. 952-N (4 November 2014). Public health and preventive medicine, listed as the main areas of specialty, include the following subspecialties: health-care management, environmental health, epidemiology, microbiology, virology, mycology and parasitology. Key aspects of public health are incorporated into curricula for medical/nursing undergraduate and postgraduate studies. A two-year graduate-level training in public health (a Master of Public Health degree) is provided by the School of Public Health of the American University of Armenia (AUA) (with 30 graduates per year) and the Public Health Department of YSMU.
- Core public health components included in the curriculum of both universities comprise health policy, economics, organizational theory and management, and health promotion. Health promotion includes health education, health protection and disease prevention, ethics, biostatistics, epidemiology, environmental health, intersectoral work and teamwork, and leadership in public health.
- The NIH and YSMU implement continuing postgraduate education and training of doctors and nurses. Medical practitioners' licensing was suspended in 2001. The new law "On medical care" (November 2015) sets requirements for medical providers' continuing professional development and relicensing.

2.7.2. Conclusions

Armenia's main strengths in the areas of EPHO 7 include the following.

- The country's Health Workforce Development Strategy addresses relevant health workforce needs in the country with a special focus on nursing and family medicine.
- Its list of health-care specialties includes public health, which is subdivided into health-care management, environmental health, epidemiology, microbiology, virology, mycology and parasitology.
- Accredited universities provide graduate-level training in public health.

Its main weaknesses in the areas of EPHO 7 include the following.

- The Health Workforce Development Strategy does not articulate a public health component.
- Armenia lacks authorized scopes of practice and job descriptions for public health workers.
- It lacks a registry of human resources for public health and a model for projecting demand by type of health worker.

- It lacks incentive packages for public health professionals, and as a result professionals are not motivated to specialize.

2.8. EPHO 8: ASSURING SUSTAINABLE ORGANIZATIONAL STRUCTURES AND FINANCING

EPHO 8 focuses on assuring sustainable organizational structures and financing. Sustainable organizational structures are concerned with developing services that are efficient, integrated, have minimal environmental impact with maximal health gain, and have sufficient funding for long-term planning in order to ensure that health is protected and promoted today and in the future.

Financing is concerned with the mobilization, accumulation and allocation of resources to cover population health needs, individually and collectively. Comprehensive public financing should be the norm for cost-effective population-based services as well as personal services with broad effects beyond the person receiving the intervention. Health financing arrangements for public health should set the right financial incentives for providers to ensure efficient service delivery and access to these services by all individuals. At the same time, incentives for individuals should be put in place to ensure appropriate levels of utilization of public health services.

2.8.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- The MoH has a statute and structure (see Annex 4) approved by Government Decree No. 1300 (15 August 2002) that includes departments, units, a secretariat, as well as separate subdivisions (agencies and inspectorates). MoH orders define the responsibilities of senior officials (including deputies of the Minister (DMs)), unit heads and staff. Accountability procedures at all levels are defined. Performance assessment is implemented through computerized programmes.
- Centrally planned/monitored elements comprise: health financing (through the MoH's SHA), licensing of facilities, health and disease surveillance (by the MoH's NCDC and NIH branches at all levels), and inspection checks (by the MoH's State Health Inspectorate branches). The MoH develops the policy, guidelines and procedures for health care and regional authorities, and their health and social security departments supervise implementation, including assignment of heads of facilities.
- The MoH's Primary Health Care Unit, established in 1999, is integrated into the Medical Care Policy Department. Currently, it consists of outpatient and inpatient care units, which function in a systemized and coordinated manner. The organizational structure for PHC in the area of MCH is composed of the MoH's MCH Department, which consists of children's and maternal/reproductive health care units. The MCH Department coordinates the work of paediatric, gynaecology and obstetrics facilities.
- The MoH's PHU, established in 2011, is designated to develop priority public health policies and programmes to address health determinants and risks, and to advise and assist MoH

departments on programme areas and cost-effective interventions for health promotion and disease prevention (mainly for EPHOs 3–5 and 9–10).

- Coordination of public health services at the national level is provided through MoH departments, and at the local level by local health authorities and family/PHC doctors, chosen through an open enrolment procedure.
- The overall supervision and coordination of the work within the MoH and its public health structures/agencies is entrusted (by an order of the Minister) to five senior officials: four DMs and the MoH Staff Secretary. The parameters, boundaries and settings of services and their functions do not fully align with the 10 EPHOs. They are organized as follows.
 - One of the four DMs supervises/coordinates the work of the Medical Care Policy Department and the Emergency and Mobilization Unit (the former coordinates public health work relevant to health promotion through PHC (EPHO 4), and the latter coordinates NCD, TB and HIV/AIDS prevention and control (EPHO 5)), as well as EPHO 2 in cooperation with the NCDC, the MES and other stakeholders.
 - The second DM supervises/coordinates activities of the MCH Department and the major public health structures (the NCDC, the NIH and the PHU). This DM works towards coordination and implementation of core public health functions (EPHOs 1–5) and aspects of overarching themes (EPHOs 9–10).
 - The third DMs is responsible for the work of the Human Resources Unit (EPHO 7).
 - The fourth DM is responsible for the work of the State Health Inspectorate (EPHOs 3 and 5).
 - The MoH Staff Secretary oversees the work of structures for the Finance and Economics Unit and the SHA (EPHO 8).
- Hospitalization data is provided to the IAC by hospitals on an annual basis. Occupancy rates are then calculated and submitted to the NSS and Ministry of Finance, and to the WHO HFA database. The rate is used for internal and international comparisons to undertake action on optimization and resource allocation. Urgent cases are hospitalized immediately; routine patients are hospitalized within a month (according to Government Decree No. 318). Integration of health care services through the patient referral system is ensured. Other mechanisms include immunization, HIV testing, provision of blood, infection control, disinfection, etc.
- Different types and levels of public health laboratories are established. The roles and responsibilities of laboratories at different levels are defined for environmental public health laboratories only. The NCDC established a universal laboratory network that became operational in June 2016.
- The MoH's major public health institutions – the NCDC and the NIH – are both members of the International Association of National Public Health Institutes (IANPHI). These two centres perform fully or partially almost all of the 11 core functions (as defined by IANPHI) of a national public health institute (NPHI). In addition, two national-level public health institutions – the National Centre for AIDS Prevention and the National TB Control Centre – perform certain NPHI functions, such as the development of regulations, planning and management; training; and undertaking prevention programmes and health promotion activities related to these specific diseases.
- The MoH has within its structure the following agencies responsible for enforcing public health regulations (one of the NPHI core functions):

- the State Health Inspectorate, which enforces regulations through checks and sanctions (relevant to EPHO 3's focus on enforcement and control of activities with health implications);
 - the SHA, which coordinates financial mechanisms on quality assurance (relevant to EPHO 5's focus on disease prevention at primary and specialized care levels, and to the focus of EPHO 6 and 8 on quality of personal and community health services); and
 - the NCDC, which contributes to implementing regulations by participating in their development and providing related instructions, training and advocacy.
- The Ministry of Agriculture's SSFS ensures the enforcement of food safety regulations.
 - Thus, the core public health functions in Armenia are carried out by at least eight agencies. This necessitates efforts to ensure that these agencies work closely together to leverage efforts and avoid fragmentation and/or overlap (for example, in the area of NCD prevention). However, the MoH lacks an overriding unit or mechanism (a committee or a board) to undertake this effort within and beyond the health sector; its PHU is not mandated to do this work, and an overarching action plan for the main public health activities does not exist. Financial, human, and technological resources are insufficient for carrying out research (at least for SRIs) and for performing some other core public health functions such as ensuring greater social participation, promoting better health coverage and access to health services, quality assurance, etc.
 - Units within the overall health care system are established to perform specialized functions (for example, the PHC Unit coordinates and supervises the work of primary health care facilities). However, these partially overlap due to their lack of clear descriptions in relevant statutes (for example, in the case of the MoH's NCDC, PHU and State Health Inspectorate). This results in poor convergence towards common objectives. Instructions, interim task forces and the electronic coordination system prompt inputs from all relevant units, but lack of explicitly defined functions results in weak interaction.
 - In Armenia, the budget of the health sector is disaggregated into specific budget lines for public health in the areas of PHC, specialized/hospital care, emergency services, laboratories and several associated programmes (forensic examination, necropsy, etc.). Resource allocation is based on estimated needs, takes into account the burden of disease and is paired with service delivery and performance indicators. Budget lines are to some degree flexible (see also Box 2 on health financing).
 - Mechanisms are in place for funding public health work outside the health system. Good examples are expenditures in the national budget earmarked for the education, science and agriculture sectors, which include funds for YSMU and several MoH-owned public health research centres (see Annex 5) that flow through the Ministry of Education and Science; and funds for the large and influential SFSS that flow through the Ministry of Agriculture. Their budgeting/funding is not influenced by the MoH, however, and the sectors/agencies beyond the MoH do not have a clear understanding of their important role in the area of public health.
 - The overall health budget for 2018 was reduced 1.8 billion AMD, or 2.15% compared to 2017. At the time of writing, it is uncertain how this will affect the budget allocation to public health services.

2.8.2. Conclusions

Armenia's main strengths in the areas of EPHO 8 include the following.

- Armenia has an organizational structure and statutes for the MoH, as well as its structural units and major public health agencies. The statutes describe their overall responsibilities and accountability procedures. It also has collaborative mechanisms for the integration of health care services, ensured through a patient referral system.
- The NCDC and the NIH, both members of IANPHI, are major public health institutes of the MoH and enjoy national influence and recognition. They serve the whole country as a source of technical public health expertise, and are the facilities called upon to develop public health policies, strategies and legislation.
- The NCDC performs the majority of public health functions, including critical public health functions such as disease surveillance.
- The NIH encompasses the IAC and provides evaluation and integration of information to assess the health status of the population. It also leads the development of regulations on tobacco control and participates in drafting policy documents on the prevention of major NCDs, micronutrient deficiencies, harmful use of alcohol and physical inactivity (however, it has limited funding to implement relevant surveys; see also Chapter 2.4).
- The MoH enjoys adequate enforcement structures to ensure proper public health protection.
- The budget of the health sector is disaggregated into specific budget lines for public health services (the MoH creates budget lines for programmes).

Its main weaknesses in the areas of EPHO 8 include the following.

- Clear descriptions of specialized functions in the statutes of several public health units are lacking (specifically related to EPHOs 3 and 4). This leads to poor convergence towards common objectives.
- An overriding unit/mechanism or an overarching plan to coordinate the work of numerous public health structures within and beyond the health sector and to ensure that these agencies work closely together does not exist.
- Modern quality assurance approaches at the PHC and hospital levels are applied but not properly enforced; quality assurance for population-based health promotion and disease prevention programmes is not applied.
- Human and financial resources are inadequate, and insufficient funding for public health research centres impedes development and long-term planning in this area.
- A defined list of nongovernmental actors delivering EPHOs (for example, NGOs, private health care facilities, international organizations) does not exist and focal points to work with them have not been identified.
- The MoH's influence on budgeting and funding of activities related to public health beyond the health sector is limited.

Box 2. Explanatory note on health financing

Armenia's budgetary resources are centralized in that they all flow from the national budget via the MoH to its SHA, the main purchaser of health services (through contracts with health facilities). The SHA manages general budget revenues only. Since 2004, the country's fiscal policy has been implemented according to the Medium-term Expenditure Framework, which follows key strategic government priorities. The health priorities in the Framework are: PHC services, the sanitary-epidemiological security of the population, MCH services, the prevention of diseases of special importance (for example, diabetes), medical care for vulnerable groups, and prevention of infectious diseases, including TB and HIV/AIDS.

The PHC services under the basic benefit package are purchased by the SHA according to a simple capitation formula: the PHC integrates the majority of preventive services (including immunization, check-ups and screening programmes), and participates in health promotion activities. Funding for Armenia's major public health institutions (the NCDC and the NIH) and for several other centres (for AIDS, TB, disinfection, and blood transfusion) come directly from the MoH budget and are based on historical expenditure patterns.

NCDC funding primarily covers communicable disease prevention and control and environmental monitoring, although NCD monitoring and control is increasingly being integrated into its services. Health promotion around lifestyle issues such as tobacco use and alcohol consumption, dietary risks and physical inactivity is piecemeal, but as of 2012 the NCDC is also responsible for the control of NCDs.

2.9. EPHO 9: ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION FOR HEALTH

EPHO 9 focuses on communication for public health, which aims at improving the health literacy and status of individuals and populations. It is the art and technique of informing, influencing and motivating individuals, institutions and public audiences about important health issues and determinants. Communication must also enhance capacities to access, understand and use information to reduce risk, prevent disease, promote health, navigate and utilize health services, advocate for health policies and enhance the well-being, quality of life and health of individuals within the community.

2.9.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- The MoH views communication as an important tool for public health and therefore includes within its structure a Public Relations Unit (PRU) composed of three officers. These offices

work hand-in-hand with the Minister's Press Secretary and the Minister's Media Assistant. The health communication activity of these staff covers several areas, including health journalism, interpersonal communication, media advocacy, organizational communication, risk and crisis communication and social marketing.

- Staff of the MoH, the NCDC, the NIH and other major institutions, as well as prominent specialists, provide professional content (the main message) of public health communication. The PRU focuses mainly on the design, language, forms and brokering of communication materials in the form of mass media, multimedia and interactive (including mobile and internet) communications to the general public via television and radio, print newspapers and their sites, media forums at the MoH and news conferences at various press houses.
- Communication activities are envisaged in almost all public health strategy documents of recent years, for example, for salt iodization, flour fortification, the promotion of healthy lifestyles, injury prevention, NCD prevention and control, the national immunization programme, TB prevention and control, AMR prevention, etc. (see Chapter 2.2 for more on the NCDC's communication strategy for emergencies). However, *The Concept for development of the health care system of the Republic of Armenia, 2015–2020* does not include any strategy or action to enlarge the portfolio and improve the effectiveness of public health communication in the long-term by, for example, enhancing the implementation of risk communication activities; improving the monitoring and evaluation of public health campaigns, etc.

2.9.2. Conclusions

Armenia's main strengths in the areas of EPHO 9 include the following.

- The MoH views communication as a tool to assist the public in accessing, understanding and using information to promote health and prevent diseases, navigate and utilize health services and advocate for health policies.
- A specific communication unit supported by the Minister's Press Secretary and Media Assistant is dedicated to health communication, covering its major areas and using relevant modern technologies.
- Communication is in principle part of specific national public health strategies, programmes and action plans.

Its main weaknesses in the areas of EPHO 9 include the following.

- The PRU is focused mainly on the design and brokering of health communication messages; the PRU itself does not have the professional capacity to produce materials aimed at improving health literacy and promoting behaviour change to foster healthy lifestyles, or the means to facilitate the introduction of new public health strategies to ensure consumer acceptance, awareness and education.
- The overarching policy document *Concept for development of the health care system of the Republic of Armenia, 2015–2020* does not address the area of public health communication and, thus, does not pay due attention to the development and implementation of relevant strategies to improve, inter alia, capacities and potential.

2.10. EPHO 10: ADVANCING PUBLIC HEALTH RESEARCH TO INFORM POLICY AND PRACTICE

EPHO 10 focuses on public health research, which is fundamental to informing policy development and service delivery. Public health research can take a number of different forms (descriptive, analytical or experimental) and includes: research to enlarge the knowledge base that supports evidence-based policy-making at all levels; the development of new research methods, innovative technologies and solutions in public health; and the establishment of partnerships with research centres and academic institutions to conduct timely studies that can support decision-making at all levels of public health.

2.10.1. Key findings of the self-assessment

The self-assessment of this operation identified the following key points.

- Up until 2017, Armenia had eight entities (centres and institutes) that conduct research in the area of public health: four of them – the NIH, the NCDC (its Acoustics Research Centre), the SRI of Epidemiology, Virology and Medical Parasitology, and the SRI of General Hygiene and Occupational Diseases – were subordinated to the MoH (that is, the MoH is the owner of their properties, buildings, equipment, etc.). On 19 October 2017, the Government of Armenia through its Decree No 1234 merged the SRI of Epidemiology, Virology and Medical Parasitology to the NCDC (reducing the staff from 40 to 9), and merged the SRI of General Hygiene and Occupational Diseases to the NIH (reducing the staff from 14 to 6). See Annex 5 for a brief profile of Armenia’s public health research centres, including their past and current staffing, main areas of scientific activity and funding sources, and the status of several SRIs.
- Explicit/formalized priority-setting based on the country’s main public health challenges and objectives as set out in MoH policies and programmes does not exist for medical science, or for fundamental analytical or experimental public health research (in epidemiology, toxicology, hygiene, etc.). The MoH does not shape the public health research agenda in that it does not identify research priorities for its research centres and institutes.
- The MoH does not have budgetary resources to support national representative studies of the actual prevalence of major NCDs, micronutrient deficiency disorders, injuries, occupational pathologies, etc., or their risk factors (though several prevalence surveys are carried out based on external donor funding or data from health facilities). Neither science-based staff from MoH-owned entities, nor the research institutions outside the health sector (the AUA, the National Academy of Science of the Republic of Armenia, YSMU, other SRIs and medical/biological scientific associations) are called upon to support the MoH to formulate public health priorities and design relevant concepts and long-term plans/strategies. Their rare and ad hoc participation is limited to interim group discussions on programme components (for example, for advocacy and promotion of the draft law “On wheat flour fortification”).
- Scarce funding for the research proposals of the NCDC, the NIH and SRIs is provided through the State Committee of Science of the Ministry of Education and Science, which

aims to maintain the institutes (that is, to cover salaries, supplies and building maintenance costs). The institutions attempt to keep themselves updated on the MoH's public health programmes and use available health statistics to initiate research proposals that are more-or-less in line with relevant health priorities.

- The MoH structure does not include a unit or official(s) tasked with medical science coordination. No mechanisms are established to formulate a public health research agenda within and beyond the sector, or to shape the health-related research of other stakeholders through collaborations, partnerships and guidance on priorities.
- Public health research institutions do not implement specific research programmes on social determinants of health, though the MoH cooperates with United Nations organizations and international NGOs in their ad hoc surveys that address health, nutrition and socioeconomic conditions.
- The NIH with its IAC serves the whole country as a source of technical expertise and is the facility called upon to provide expert advice on health policies and strategies, legislation, monitoring of disease and risk factors, health promotion and education. The MoH supports the NIH in the form of an annual budget. Advantages of the NIH include the assembly of health statistics countrywide, data aggregation and analysis, design and implementation of various surveys and development of regular reports to the MoH and WHO HFA databases.
- Reports and publications are easily accessible to policy-makers, health professionals, the media and the general public through websites, medical newspapers, popular and academic journals, proceedings of conferences of the MoH, the NIH, YSMU, and the National Academy of Science.
- Since mid-2014, the MoH has focused on enlarging the knowledge base that supports evidence-based policy-making for development, implementation, monitoring and evaluation of country-specific programmes of public health importance. The country research centres are called upon (though not on a regular basis) to cooperate with MoH staff and provide assistance in complex public health areas such as infection control, NCD prevention and control, strategies to overcome nutrition deficiencies, as well as biological, chemical and physical health risks in the food chain, the workplace and the wider environment.

2.10.2. Conclusions

Armenia's main strengths in the areas of EPHO 10 include the following.

- An appropriate number of research entities cover the majority of disciplines that constitute public health research areas; they collect data on a range of health risks.
- Research findings and survey reports are published and posted on public websites.

Its main weaknesses in the areas of EPHO 10 include the following.

- A lack of coordination of research entities hampers the ability to obtain information, data and evidence to support policy-making for the development, implementation, monitoring and evaluation of country-specific programmes of public health importance.
- Under-resourcing, skill shortages in the workforce and insufficient capacity within public health research institutions are not properly addressed.
- Research activities in the majority of public health fields are not sufficient to address existing health risks.
- Cooperation between research entities within and beyond the MoH is insufficient.

3. Recommendations for further action

3.1. RECOMMENDATIONS FOR EACH EPHO

EPHO 1: Armenia should strengthen the capacity of the health information system to report on vital statistics and routinely collected indicators of population health. This should be done through: undergraduate and postgraduate training on ICD-10; the development and implementation of a comprehensive strategy for data quality assurance; and the scaling up of health-related surveys (including through the regular implementation of surveys on NCDs at the national level). The MoH should consider supporting the development and implementation of regular, country-owned monitoring of behavioural and environmental risk factors, socioeconomic determinants of health and health inequalities. Improved data collection and surveillance of behavioural risk factors are required to better assess trends in areas such as tobacco use, alcohol consumption, physical inactivity, dietary risks and obesity. The MoH should promote and support the development of an effective AMR surveillance system as the key component of national action in this area.

EPHO 2: The country should scale up and strengthen communication and collaboration with key actors and stakeholders in DRR and emergency preparedness; institutionalize emergency preparedness tools introduced by donors (such as the Local Level Risk Management tool and hazard mapping) and test them in pilot communities; scale up educational and awareness-raising materials on risks and hazards; and continue seeking donors' support for further building the capacity of structures and stakeholders for DRR and emergency response.

EPHO 3: The MoH should enhance the level of intersectoral and multistakeholder cooperation through strong advocacy for health in all policies, by better using existing structural and interim mechanisms of joint decision-making and action, and by strengthening its capacities for better communication and involvement with key stakeholders. The MoH should also lead the development and implementation of strategies to control all environmental hazards to human health, including in the following areas: improvement of health and safety in the workplace; regulation of salt and trans fats and fortification of food products; monitoring of consumer goods and housing conditions (including standard-setting); provision of transport and road safety; and establishment of patient quality and safety strategies in health-care facilities.

EPHO 4: The MoH should develop a strong and coherent institutional framework to promote healthy lifestyles, behaviours and environments, as well as to ensure leadership for better intersectoral partnerships to enhance health promotion activities. The MoH needs to introduce modern methodologies for assessing the impact of public policies on health and risk communication. Core population-based interventions related to major NCD risk factors (tobacco use, alcohol consumption, poor diet and physical inactivity) need to be strengthened, as NCDs are responsible for the greatest burden of disease in Armenia. Given the high prevalence of tobacco smoking in Armenia, the MoH should make further efforts to scale up tobacco control measures (see Annex 6 for recommendations related to NCD prevention and control). The MoH should strongly consider developing an overarching national health promotion action plan to

integrate/consolidate and scale up existing actions and population-based interventions on health promotion and NCD prevention. The MoH should consider developing a stand-alone strategy to address social determinants of health and health inequity through improved advocacy and effective intersectoral and multistakeholder collaboration, and establish an information system to track relevant target-based indicators (including income and education inequalities, access to healthy environments and employment opportunities). It should also develop research to analyse the root causes of health inequities as well as appropriate care models (specifically at the PHC level) that encourage health promotion and ensure equal access to health care.

EPHO 5: The MoH should develop a comprehensive strategy to address current gaps in several areas lacking population-based public health interventions (including oral health, substance abuse, micronutrient deficiencies and workplace health). It should sustain and promote evidence-based screening programmes according to best practice, and include consideration of accessibility, affordability and acceptability so that screening programmes provide more effective coverage and include the populations' most vulnerable groups. It should also engage more active participation from community groups in the process.

EPHO 6: The MoH should consider promoting governance for health through cooperation and by developing intersectoral policies and programmes that view health as a collective goal and shape relevant health perspectives and targets. It should also review, in light of best practices, the national regulatory framework for quality control of public health services, and develop an implementation plan for incorporating performance assessment measures for the delivery of core public health services into the national health strategy. The MoH should strengthen capacities to formulate cross-cutting legislation and to expedite the discussion, debate and ratification of laws in legislative forums. Finally, it should introduce modern methodologies (HIAs and HTAs) for evidence-informed decision-making.

EPHO 7: The MoH should develop a public health human resources plan; monitor and evaluate the roll-out of public health specialists; adapt actions to mobilize funding for public health human resources; and allocate respective budget lines for salaries, allowances, education, incentive packages and other compensation for public health professionals. It should also develop policies that encourage the employment of individuals from non-medical fields as public health professionals.

EPHO 8: The MoH should ensure the clear delineation of the linkages, interactions, roles and responsibilities of different organizational structures for public health, and increase the emphasis on working with other sectors to achieve better health outcomes. It should introduce and enforce quality assurance at all levels, specifically for population-based health promotion and disease prevention services, and provide appropriate human and financial resources to public health institutes and monitor their effectiveness.

EPHO 9: The MoH should develop a long-term public health communication policy to reflect the strategic and systematic nature of work in this area, to plan measures to ensure its effectiveness, and to disseminate public health messages related to the main behavioural risk factors (tobacco use, alcohol consumption, poor diet and physical inactivity). The MoH communication strategy should focus on improving health literacy, involving various stakeholders (NGOs, business and trade partners, legislators, academics) and tailoring health messages to different groups and media (including mass media, health education and social networks).

EPHO 10. The MoH should seek ways to properly address lack of coordination, inadequate partnerships, and the continuing problems of under-resourcing, skill shortages in the workforce and insufficient capacity of the country's public health research institutions. The development of a national strategy to mainstream public health research and advance SRIs would be highly relevant. In this endeavour, the WHO Regional Office for Europe could be called upon to support capacity-building and provide examples of how to spread and share knowledge, including case studies that demonstrate how research on public health impacts policy and practice.

3.2. HIGH-PRIORITY RECOMMENDATIONS

Among the recommendations listed above, the following four are considered high priorities for further work:

- finalizing the draft law “On public health” to clarify the mandates of public health services and reduce fragmentation, thereby increasing effectiveness in service delivery;
- ensuring adequate financing for public health services, particularly by integrating health promotion and disease prevention services into primary health care;
- strengthening human resources for public health services, and aligning the allocation of human resources with the needs dictated by burdens of disease; and
- mainstreaming public health research for the development and implementation of evidence-based public health policy and action.

Annex 1. Organizational arrangements of the EPHO self-assessment

Table A1.1. List of participants of the WHO Workshop on the EPHO Assessment Process (Yerevan, 18–19 February 2015)

Executive Social Department of the Government	Yana Boyajyan – Senior Specialist of Executive Social Department (yana.boyajyan@gov.am)
Ministry of Health (MoH)	<p>Hrayr Aslanyan – Head of Public Health Unit (PHU) (hrayr_aslanyan@moh.am)</p> <p>Karine Gabrielyan – Senior Specialist of PHU (kgabrielyan@moh.am)</p> <p>Marianna Gabrielyan – Senior Specialist of PHU (manan0777@yahoo.com)</p> <p>Kristina Gyurjyan – Senior Specialist of PHU (g_krist@mail.ru)</p> <p>Samvel Soghomonyan – Head of Human Resources Department (s_soghomonyan@moh.am)</p> <p>Ruzanna Yuzbashyan – Head of Primary Health Care Unit (ryuzbashyan@moh.am)</p>
National Centre for Disease Control and Prevention (NCDC) of the MoH	<p>Lilit Avetisyan – Deputy Director (avetisyan_lil@yahoo.com)</p> <p>Nune Bakunts – Deputy Director (n.bakunts@gmail.com)</p> <p>Tigran Martirosyan – Deputy Director (martirosyantigran@list.ru)</p> <p>Lusine Paronyan – Head of Unit (lusineparonyan@yahoo.com)</p> <p>Aida Petikyan – Head of Unit (aidapetikyan@yahoo.com)</p> <p>Gayane Sahakyan – Adviser to the General Director (gsahakyan63@yahoo.com)</p> <p>Liana Torosyan – Head of Unit (liana_torosyan@mail.ru)</p> <p>Lusine Paronyan – Head of Unit (lusineparonyan@yahoo.com)</p> <p>Aida Petikyan – Head of Unit (aidapetikyan@yahoo.com)</p>
Ministry of Urban Development	Samvel Srapyan – Head of Housing Fund Management and Communal Infrastructure Unit (ssrapyan@yandex.ru)
Ministry of Nature Protection	Anahit Aleksandryan – Head of Hazardous Substances and Waste Policy Division Unit (haz@mnp.am)
Ministry of Education and Science	Karine Babayan – Senior specialist of Pre- and Secondary School Education Unit (karababayan18@mail.ru)
Ministry of Territorial Administration and Emergency Situations	Nune Adamyan – Head of Disaster Medicine Unit (adamyan@mail.ru)

Ministry of Labour and Social Affairs	Vanik Babajanyan – Head of Demography Unit (vanik.babajanyan@mlsa.am)
Ministry of Sport and Youth Affairs	Narek Vanesyan – Head of Sport Medicines and Science Unit (vannar@rambler.ru)
Ministry of Transport and Communication	Harutyun Hovseyan – Head of Technical Policy Division (harutun.hovsepyan@mtc.am)
Ministry of Agriculture	Tigran Vkhkryan – Senior Specialist of State Food Safety Service (SFSS) (tigran-vkhkryan@rambler.ru)

Table A1.2. Organizational structure, roles and responsibilities agreed at the Workshop on the EPHO Assessment Process

Commissioner	Sergey Khachatryan – Deputy Minister of Health
Oversight Committee	Hrayr Aslanyan – Head of PHU Nune Bakunts – Deputy Director of NCDC Sergey Khachatryan – Deputy Minister of Health Samvel Soghomonyan – Head of Human Resources Department
Core Secretariat	Hrayr Aslanyan – Head of PHU (Chair of the process) Marianna Gabrielyan – Senior Specialist of PHU (Assistant to Project Manager) Kristina Gyurjyan – Senior Specialist of PHU (Project Manager)
Specialized teams	Nune Adamyan – Head of Disaster Medicine Unit Anait Aleksandryan – Head of Hazardous Substances and Waste Policy Division Unit Lilit Avetisyan – Deputy Director of NCDC Vanik Babajanyan – Head of Demography Unit Karine Babayan – Senior Specialist of Pre- and Secondary School Education Unit Nune Bakunts – Deputy Director of NCDC Yana Boyajyan – Senior Specialist of Social Department Karine Gabrielyan – Senior Specialist of PHU Harutyun Hovseyan – Head of Technical Policy Division Tigran Martirosyan – Deputy Director of NCDC Lusine Paronyan – Head of Unit of NCDC Aida Petikyan – Head of Unit of NCDC Gayane Sahakyan – Adviser to the General Director of NCDC Samvel Srapyan – Head of Housing Management Unit Liana Torosyan – Head of Unit of NCDC Narek Vanesyan – Head of Sport Medicines and Science Unit Tigran Vkhkryan – Senior Specialist of SSFS Ruzanna Yuzbashyan – Head of Primary Health Care Unit

Annex 2. Minister of Health Order No. 1469–A (11 June 2015)¹

On approval of the list of coordinators for implementation of public health capacity and services assessment in the Republic of Armenia

Based on subpoint “d” of Point 12 of the Ministry of Health Charter approved by Attachment 1 of the Decree of the Government of the Republic of Armenia No. 1300–N of 15 August 2000,

I order to:

1. approve the list of coordinators for the implementation of the assessment of public health capacities and services in the Republic of Armenia – according to Attachment 1 [see Table A2.1 below];
2. request the coordinators to:
 - a. conduct an assessment of public health capacities and services in the Republic of Armenia until 10 July 2015;
 - b. involve relevant specialists for each essential public health operation; and
 - c. submit the results of the assessment of public health capacities and services to the Public Health Unit, Ministry of Health of the Republic of Armenia, by 13 July 2015; and
3. assign supervision over the execution of this order to Sergey Khachatryan, Deputy Minister of Health of the Republic of Armenia.

A. Muradyan [signature]

Table A2.1. Attachment 1 to Minister of Health Order No. 1469–A (11 June 2015)

EPHO No.	Coordinators for the implementation of the EPHO self-assessment
1.	Alexander Bazarchyan , Director of National Institute of Health (NIH), MoH (bazarchyan@gmail.com) and Lilit Avetisyan , Deputy Director of NCDC, MoH (avetisyan_lil@yahoo.com)
2.	Liana Torosyan , Head of Especially Dangerous Infections and Respiratory Infectious Diseases Epidemiology Unit, NCDC, MoH (liana_torosyan@mail.ru)
3.	Aida Petikyan , Head of Environment Unit, NCDC, MoH (aidapetikyan@yahoo.com)
4.	Karine Gabrielyan, Senior specialist of PHU, MoH (kgabrielyan@moh.am)
5.	Gayane Sahakyan , Adviser to General Director of NCDC, MoH (gsahakyan63@yahoo.com)
6.	Diana Andreasyan , Deputy Director of NIH, MoH (dianaandreasyan@mail.ru)
7.	Samvel Soghomonyan , Head of Human Resources Department, MoH (s_soghomonyan@moh.am)

¹ This is an informal translation.

EPHO No.	Coordinators for the implementation of the EPHO self-assessment
8.	<p>Ruzanna Yuzbashyan, Head of Primary Health Care Unit, MoH (ryuzbashyan@moh.am)</p> <p>Luiza Sargsyan, Leading Specialist of Finance and Economics Unit, MoH (sargsyan-luiza@mail.ru)</p>
9.	<p>Lusine Paronyan, Head of Vector-borne and Parasitic Diseases Epidemiology Unit, NCDC, MoH (lusineparonyan@yahoo.com)</p>
10.	<p>Hrayr Aslanyan, Head of PHU, MoH (hrayr_aslanyan@moh.am)</p>

Annex 3. Extract from Minister of Health Order No. 65 (18 October 2013)²

On population groups enrolled to free-of-charge or copayment-based inpatient care

On approval of the lists of diseases and conditions for state-guaranteed, free-of-charge urgent inpatient care to the population below 18 years of age, lists of diseases and conditions for state-guaranteed, free-of-charge urgent inpatient care to the population 18 years of age and over, and lists of diseases and conditions requiring state-guaranteed, copayment-based inpatient care (No. 65, 18 October 2013).

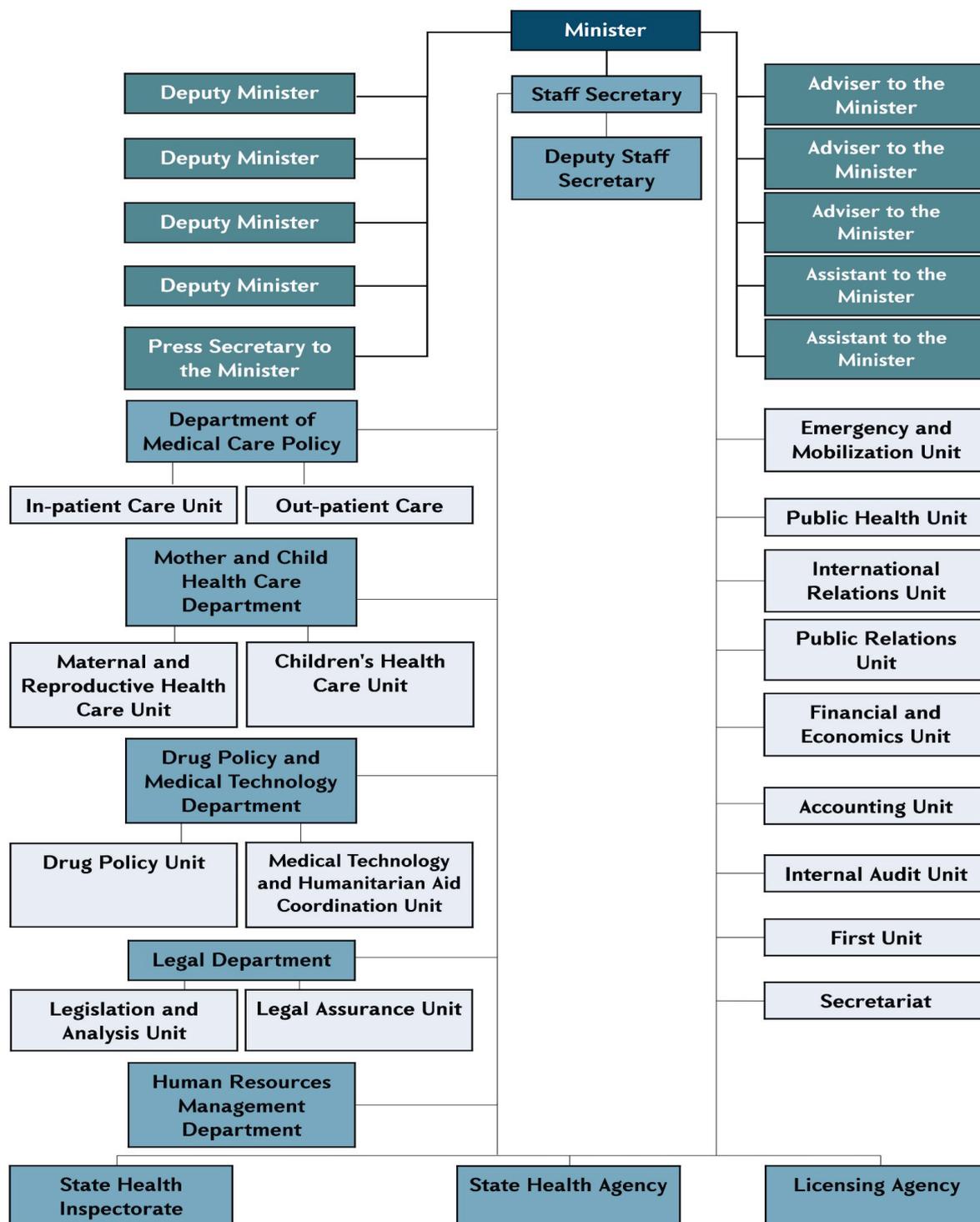
Based on subpoint “g” of Point 4 of the Decree of the Government of the Republic of Armenia No. 318-N of 4 March 2004, and subpoint “d” of Point 12 of the Minister of Health Order approved by Attachment 1 of the Decree of the Government of the Republic of Armenia No. 1300-N of 15 August 2000,

I order to approve:

1. lists of diseases and conditions for state-guaranteed free-of-charge urgent inpatient care to the population aged under 18 years, in accordance with **Attachment 1** [this list contains 13 diseases and conditions requiring reanimation or resuscitation; 33 infectious diseases; and a group of eight other diseases];
2. lists of diseases and conditions for state-guaranteed free-of-charge urgent inpatient care to the population aged 18 years and over, in accordance with **Attachment 2** [this list contains 10 diseases and conditions requiring reanimation or resuscitation; 57 diseases for urgent care; 33 infectious diseases, four sexually transmitted infections and skin diseases; and a group of nine other diseases]; and
3. lists of diseases and conditions requiring state-guaranteed copayment-based inpatient care, in accordance with **Attachment 3** [this list contains 23 urgent conditions and gynaecological diseases; two haematological and oncologic diseases; and four sexually transmitted infections and skin diseases].

² This is an informal translation.

Annex 4. Organogram of the Armenian Ministry of Health



Annex 5. Brief profile of public health research centres of the Armenian Ministry of Health

Scientific institutes in many European countries serve as national resources for preventing and controlling public health problems through research, interventions and policy development. In the recent past (some 20 to 30 years ago) Armenia was home to well-known medical scientists who represented the country internationally in the areas of epidemiology, environmental and occupational health, toxicology, occupational pathology and associated disciplines. Yet while the majority of post-Soviet countries, facing similar transition hardships, managed to maintain their public health research centres, Armenia's scientific research institutes (SRIs) were nearly abolished. Table A5.1 below introduces existing SRIs, their research areas and their past and current staffing.

Table A5.1. Existing SRIs in Armenia

Title of SRI	Year of foundation	Research area (in recent years)	Past maximum staffing	Current staffing
Epidemiology, Virology and Medical Parasitology (after academic A.B. Alexanyan) Note: merged to the NCDC in 2017.	1923	Epidemiological patterns of registered infectious diseases of viral, bacterial and parasitic etiology (adopted by a Prime Minister's Decision in 2002)	150–200	42–45
General Hygiene and Occupational Diseases (after N.B. Hakobyan) Note: merged to the NHI in 2017.	1959	Environmental and occupational health standards and regulations to inform policy and practice of environmental health services (focusing on the mining industry)	490	11

Title of SRI	Year of foundation	Research area (in recent years)	Past maximum staffing	Current staffing
Environmental Health and Preventive Toxicology (a former branch of a Soviet institute; currently a lab of the Yerevan State Medical University (YSMU))	1972	Environmental health standards and regulations for pesticides, polymers and plastics (formerly across the former Soviet Union)	110–130	8–9
Acoustics Research Centre (an affiliate of the MoH's NCDC since 2014)	1980	Dose–effect ratio of biological impact of acoustic energy, development of new metrological methods for acoustics, including a method for ultrasonic range	60	27 (including 5 research workers)

Prior to Armenia's independence, these four SRIs had advanced into large centres with employees totalling nearly 850 researchers and support staff. In the early period of the country's independence, the health sector gradually reduced the financing of its SRIs. Two of the above-mentioned institutes – the SRI of General Hygiene and Occupational Diseases and the SRI of Environmental Health and Preventive Toxicology – were moved from the national to the subnational level: the first was positioned as a small SRI in the structure of Yerevan's municipal health department (it was returned to the MoH in 2014), and the second was designated as a YSMU laboratory.

With scarce funding from state grants to cover infrastructure maintenance, these entities are currently able to maintain a total staff of about 20 specialists only. Furthermore, the institutes were deprived of their main functions of developing threshold value limits for industrial hazards, permissible residual quantities (for agrochemicals, etc.) and other hygienic standards and regulations. In view of the revival and expansion of the main sectors of Armenia's economy, such as mining, energy production, agriculture (including the use of agrochemicals), etc., the risks of exposure to environmental and occupational hazards have also been re-established. Armenia's National Environmental Health Action Plan, developed with WHO assistance in 2002, did not have adequate follow-up; neither did other environmental health policy documents. As a result, the country's environmental health research centres have continued to decline.

The MoH abolished its Scientific–Medical Council in 1992; this was followed by the removal of the science coordination function from the MoH’s Department of Education, Science and Management of Personnel in 2000. The MoH ceased its routine work on the coordination of research activities within the sector, and did not establish mechanisms for shaping the research agenda of other stakeholders through collaborations, partnerships and guidance on priorities. Government Decree No. 1269–N (18 October 2007) entrusted this function to the Ministry of Science and Education, which annually establishes calls for research proposals.

The NCDC, Armenia’s largest public health institution, has included an SRI since 2014 (see Table A5.1 above). The total staff of the NCDC is approximately 1810: of this number, 27 staff members work for the Acoustics Research Centre, an affiliate of the NCDC, but only 5 of them are directly assigned the task of research activity and funded by the State Committee of Science of the Ministry of Science and Education. The NCDC serves the whole country as a source of technical public health expertise; it is the facility called upon to develop public health policy, strategies and legislation, and to carry out public health programmes, disease and risk factor monitoring, surveys, health promotion and in–service training. The NCDC performs critical public health functions, such as surveillance. It fully or partially implements the core functions (as defined by the International Associate of National Public Health Institutes) of a national public health institute (NPHI) (except those functions from enforcement of regulations and human resource development through to continuous education) and is the country’s main agency responsible for the implementation and coordination of work on the International Health Regulations (2005). However, the NCDC is not leading in the realm of public health research as it does not formulate a relevant research agenda to address, among other things, the ecological and social determinants of health. Neither does it have a formalized strategy for the development of this function.

The second large organizational unit subordinated to the MoH is the NIH, which encompasses the health sector’s Information Analytic Centre (consisting of 134 employees). The NIH implements the majority of the core functions of an NPHI (except for epidemiological surveillance and regulatory enforcement). The NIH also serves the whole country as a source of technical public health expertise. It is the facility called upon to provide expert advice on the development of overall and public health policies, strategies and normative acts, and to facilitate health programme implementation, disease and risk factor monitoring, research, and health promotion and education. The MoH supports the NIH in the form of an annual budget. Advantages of the NIH include the assembly of health statistics countrywide (submitted from all health facilities), data aggregation and analysis, and the development of regular reports to the MoH and WHO Health for All databases, which are easily accessible to policy–makers, health professionals, the media and the general public. Public health research at the NIH is primarily descriptive and analytical, and aimed at developing a thesis (or dissertation) submitted in support of a candidature for an academic degree. Within the MoH, the NIH is the main body responsible for Demographic and Health Surveys in Armenia, collecting and disseminating accurate, nationally representative data on health. The project is implemented by ICF International and funded by the United States Agency for International Development (USAID) with contributions from the United Nations Children’s Fund (UNICEF). The NIH provides training and continuing education for both medical doctors and nurses.

The NCDC, the NIH and the above–listed SRIs have never received targeted grants from the State Committee of Science of the Ministry of Science and Education through the mechanism of calls for research proposals. Scarce funding for public health research is only provided to maintain

research institutions, while SRIs tend to keep themselves updated on public health programmes of the MoH in order to initiate research proposals for infrastructure maintenance funding in line with some priorities of the health sector.

Beyond the health sector, three additional institutes implement research projects related to public health:

- YSMU's Department (Chair) of Hygiene and Ecology for the areas of climate change and health, student health, student nutrition, heavy metals in workplaces, and POP-related morbidity (the main function of YSMU is training and continuing education for medical doctors and nurses);
- AUA's Department of Public Health (Blacksmith Institute) for the areas of environmental pollution with lead and its content in the blood of children, and human habitation in areas surrounding mining and copper smelting factories (AUA offers a Master of Public Health degree); and
- the National Academy of Science's SRI of Ecological-Noosphere Studies in the area of monitoring heavy metals in the environment.

Since mid-2014, the MoH has increasingly focused on enlarging the knowledge base that supports evidence-based policy-making for development, implementation, monitoring and evaluation of country-specific programmes of public health importance. Existing country research centres are called upon to cooperate with MoH staff and provide technical assistance in complex public health areas such as infection control, NCD prevention and control (mainly the NIH), strategies to overcome nutrition deficiencies, and biological, chemical and physical health risks in the food chain, workplaces and the wider environment.

However, MoH cooperation with the majority of research centres (except with the NIH) is not regular – that is, it is not based on any framework. The MoH needs to further consolidate the resources of its research centres, ensure their improved coordination, advocate and mobilize more investments in human resources and training, and develop partnerships with research centres and academic institutions to conduct timely studies that support decision-making at all levels of public health.

Annex 6. Actions to scale up cost-effective, population-based interventions for NCD prevention

In support of the implementation of the new Strategic Programme for the Prevention and Control of NCDs, 2016–2020, the WHO Regional Office for Europe carried out a comprehensive multidisciplinary assessment and provided the country with actionable policy recommendations. These include, inter alia, actions to scale up cost-effective, population-based interventions on NCD prevention. The actions recommended in the 2016 report of the WHO Regional Office for Europe *Better noncommunicable disease outcomes: challenges and opportunities for health systems* are listed below.

1. Review the law “On restriction of the realization, consumption and usage of tobacco” in order to strengthen protection against harmful effects of tobacco use and tobacco smoke, which include social, environmental and other consequences.
2. Implement core population-based interventions through the new governmental programme on the prevention and control of NCDs in Armenia for 2016–2020, and through the application of whole-of-government approaches to control the use of tobacco and alcohol.
3. Adopt the proposed new tobacco control law, which would be a major step forward in addition to the programme on NCDs.
4. Accelerate and step up efforts and enforcement modalities to address alcohol and tobacco use.
5. Step up action on obesity, poor nutrition and physical inactivity as important risk factors for NCDs through plans to reduce salt intake along with measures to reduce marketing of unhealthy food and beverages to children.
6. Establish and institutionalize at the MoH level comprehensive NCD surveillance of both biological and behavioural risks factors, as well as health system measures to assess the impact of NCD policies and interventions in line with the NCD global monitoring framework.

The WHO Regional
Office for Europe

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

Member States

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Armenia
Austria
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Finland
France
Georgia
Germany
Greece
Hungary
Iceland
Ireland
Israel
Italy
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Malta
Monaco
Montenegro
Netherlands
Norway
Poland
Portugal
Republic of Moldova
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