

Country report State of Azerbaijan – July 2018



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Health care | Risk factors | Prevention methods | Prevention activities | Cardiac Rehabilitation | Future

Acknowledgement

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General information about Azerbaijan

Azerbaijan is a transcontinental country located in the south Caucasus on the western coast of the Caspian Sea, between Western Asia and Eastern Europe. There are 9 climatic zones in the territory of the country, and this climatic diversity is caused by the complicate geographical location and landscape, and the proximity of the Caspian Sea.

Azerbaijan regained its independence in 1991. Today, Azerbaijan has a stable political environment; it is a democratic, constitutional, secular and unitary republic. The president is the head of the state, who is elected for seven years. Government is headed by the Prime Minister.

53 % of the population lives in urban areas, 47 % in rural areas. 49.9% of population are males, while 50.1% percent are females. There are currently more than 1 million refugees, internally displaced persons (IDPs). In the years of 2001-2017, 97 new settlements complete with social and technical infrastructure, covering the total area of 3,3 million m² were constructed, the housing conditions of 52,300 families and 265,000 refugees and IDPs were improved. Health, social protection and social security expenditures of the state budget in 2016 amounts to 29,4% of gross domestic product (GDP), with the total health expenditure about 1,2%.

Capital: Baku (2 245 800 inhabitants in the beginning of 2017).

Territory: 86,6000 km², including forests 12%, water basins 1.7%, sown area 54,9%, including 31.1 % pastures and hayfields, 31.4% other lands.

Population: 9 810 000

Population density: 113 persons per km²

Population rank: 90

Growth Rate: 0,98%

Coastline: The coastline of the Azerbaijan sector of the Caspian Sea is 825 km.

Land borders: Azerbaijan has borders with Iran (765 km) and Turkey (15 km) on the south, Russia (390 km) on the north, Georgia (480 km) on the north-west and Armenia (1007 km) on the west.

Main religion: Islam.

Type of Government: Republic

Administrative regions: The Republic of Azerbaijan includes Nakhchivan Autonomous Republic, 63 administrative regions, 78 towns, 261 settlements and 4248 rural settlements.

Official language: Azerbaijani

Currency: Azerbaijani manat (AZN)

Total expenditure on health per capita (Intl \$, 2014): 1,047

Total expenditure on health as % of GDP (2014): 6.0

References:

<https://www.stat.gov.az/source/demography/>

<http://www.refugees-idps-committee.gov.az/en/>

<http://www.who.int/countries/aze/en/>

I. Structure of Health care

The Azerbaijan healthcare system is an inherited Soviet system and still remains highly centralised and hierarchical.

There are the following health care services in Azerbaijan: facilities at the national level, central authorities, republican hospitals, tertiary-level specialized scientific research institutes under the Ministry of Health; local hospitals, district polyclinics, etc. owned by district and city departments, which are financially dependent on the local district health authorities or the village authorities; parallel health services which are managed by some of the Ministries in addition to their main service; the private sector which is completely independent, but licensed by the Ministry of Health.

569 public hospitals and 1758 outpatient services (polyclinics) are run by the state, and medical care is offered free of charge for Azerbaijani residents. There are currently about 700 private medical facilities throughout Azerbaijan, covering almost all areas of

medicine, which are mostly located in Baku. Health services at private hospitals are being paid out of pocket or employer-provided and voluntary health insurance.

Insurance system

The aim of the introduction of compulsory medical insurance, an integral part of health care reform in the country, is to ensure access to health services for all citizens.

The Law on Medical Insurance was adopted in 1999 in Azerbaijan. The process of implementation has been delayed till 2016. During this period a number of the related legal documents were developed and adopted, and the State Agency for Compulsory Health Care Insurance has been established.

In 2017 two pilot areas started the implementation of the compulsory health insurance with the basic envelope. In the frame of the pilot project low-income families, disabled persons, pensioners, children, students will be exempted from payment of compulsory health insurance. It includes over 1,800 medical services.

Depending on the results of the project the system can be applied across the country. The mandatory insurance program will enable citizens to receive free, high-quality medical care and eliminate unofficial payments.

There are currently about 10.2 cardiologists per 100.000 inhabitants in Azerbaijan.

Prevention of cardiovascular diseases as a priority area

Preventive measures delivered through the country, can reduce all-cause mortality, particularly from CVD. In accordance with the Strategy for the Prevention and Control of Non-Communicable Diseases in the Republic of Azerbaijan from 2015-2020, medical examinations of the population are being performed annually during the first quarter of each year.

According to the results of medical examination in 2017, the number of the examined population reached 5 499 863 (2 640 119 males and 2 859 744 females) during the reporting period. The prevalence of cardiovascular diseases was 17.2%, respiratory diseases 16.8%, digestive tract diseases 11.7%. More than 2 041 388 persons were referred for further examination and/or treatment to specialised centres (e.g. Scientific Research Center for Cardiology), or public hospitals.

Reference:

<http://sehiyye.gov.az/main/1667-halinin-tibbi-profilaktik-mayinsi-uurla-hyata-keirilir.html> (in Azerbaijani only)

Finances

The main sources of funding for health care in Azerbaijan are out of pocket payments (61.5% in 2007) and general government expenditure (31.5% in 2007). In 2008, the share of budgetary allocations for health controlled by the Ministry of Health represented

around 63% of all expenditure. The remaining 37% went to the 65 local government administrations which fund primary and secondary state facilities within their district boundaries.

Cardiovascular Rehabilitation starts at the hospital. Services in the specialised rehabilitation centers, sanatoriums and rehabilitation departments mostly are being paid by patients' own funds. There are a few specialised for cardiovascular rehabilitation sanatoriums, which are under the Trade Unions Confederation, where service is provided for the union members and their family for a special price.

References:

<http://sehiyye.gov.az> (in Azerbaijani only)

<https://www.stat.gov.az/>

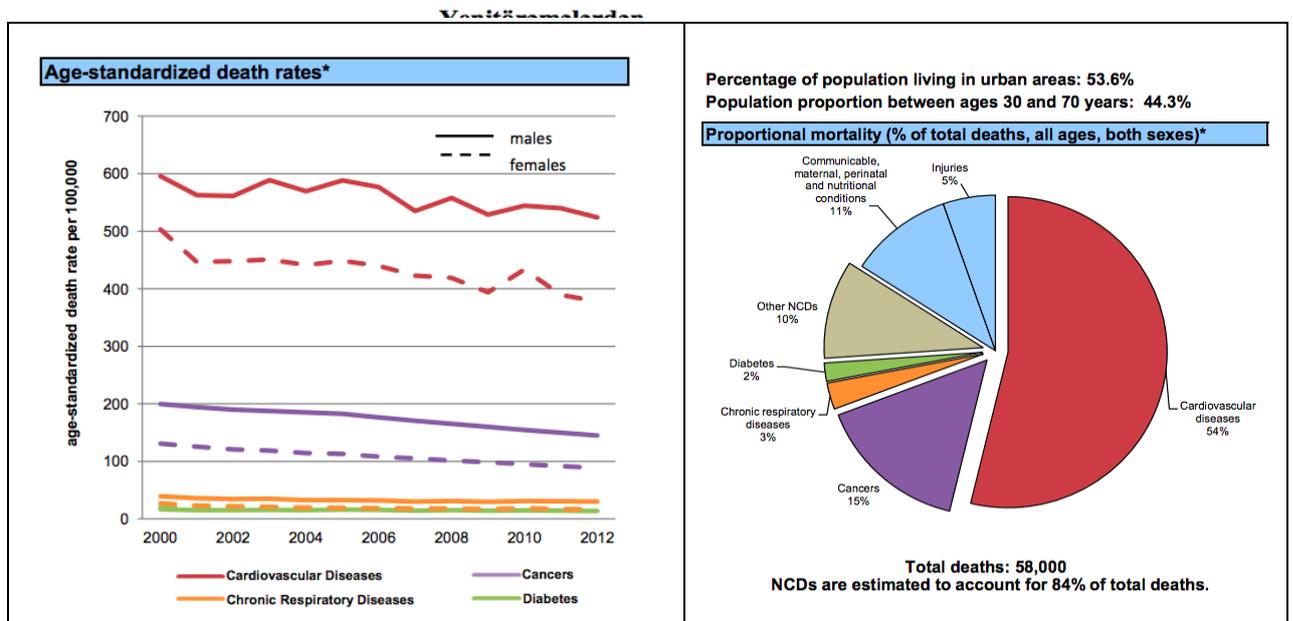
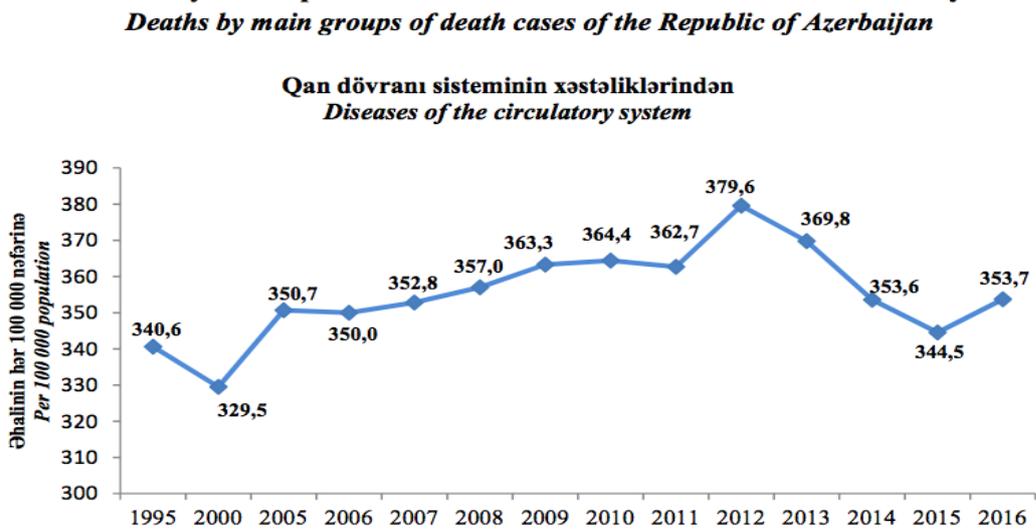
http://www.lse.ac.uk/LSEHealthAndSocialCare/pdf/eurohealth/Vol16No2/Ibrahimov_Ibrahimova_Richardson.pdf

II. Risk factor statistics

CVD Mortality

The main causes of adult mortality and morbidity in Azerbaijan are essentially non-communicable diseases (NCDs), with a predominance of the circulatory system diseases (59.8%). Over the past 10 years, CV diseases have increased in the country by 5%. In 2016 death from the circulatory system diseases accounted for 353.7 per 100.000 population.

Fig. 1 and 2:



Source: World Health Organization - Noncommunicable Diseases (NCD) Country Profiles, 2014

PCI resources

In accordance with the information from 2017 there are 19 public and private centers for interventional cardiology in the country, 17 of which are on 24h/7 days service. The number of percutaneous coronary intervention (PCI) centers in average is one per 1.9/ million inhabitants. Total number of PCI procedures in 2017 was 4357, which represented approximately 435 procedures/million inhabitants.

Main CVD risk factors

Predominating circulatory diseases have been recognised as one of the key health priorities in the country.

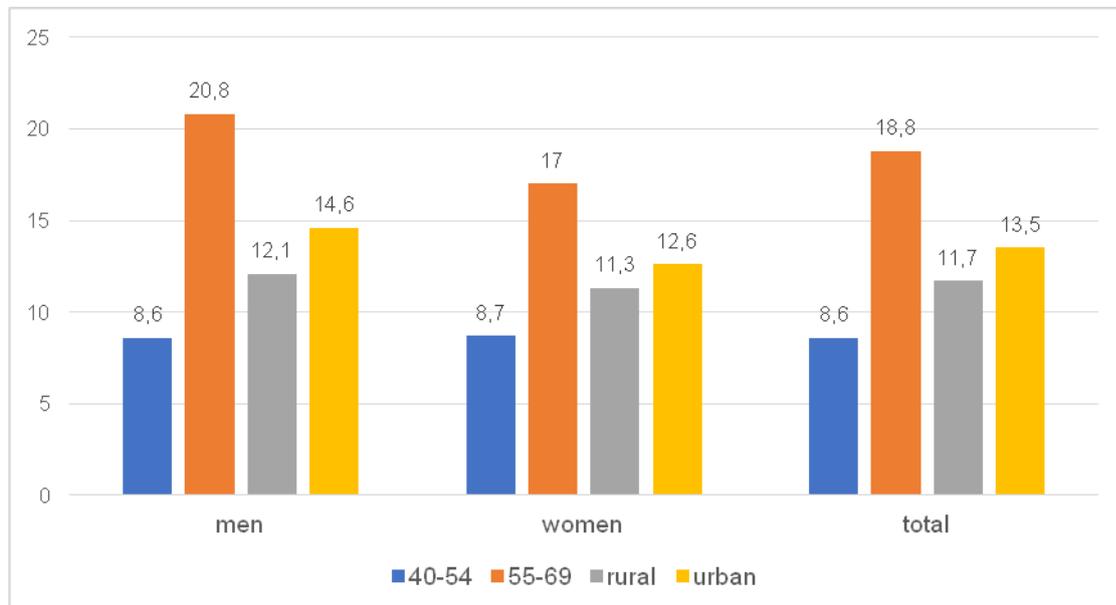
The nationwide survey has been conducted in Azerbaijan by the Public Health and Reforms Centre of the Ministry of Health of Azerbaijan to assess the prevalence of the risk factors for NCDs: tobacco, alcohol, physical inactivity and dietary habits.

A WHO-recommended STEPS study covered the majority of districts in the country. Two nationwide STEPS survey were conducted in 2011 and 2017.

- According to the results of the study the prevalence of tobacco use, both smoked and smokeless combined, was 24.0%. Overall, 48.8 % of men were estimated to be current smokers, with 47.2% being daily smokers and 1.6% non-daily smokers.
- Approximately 29.7% of all respondents reported ever consuming an alcoholic drink in their lives with the remaining 70.3% being lifetime abstainers.
- As far as diet is concerned the respondents consumption of fruit and vegetable was generally low: fruits on 5.1 days of the week on average and ate vegetables on 5.9 days in a typical week. Consumption of both fruit and vegetables was more frequent in older age groups.
- Azerbaijan citizens consume 10 grams of salt per day, with significant gender difference mean salt intake, where 11.4% of men versus 26.8% of women.
- According to BMI risk assessment, almost 34.8% of the population was overweight (BMI 25.0–29.9), and 20.6% was obese (BMI \geq 30.0).
- The prevalence of diabetes mellitus for all respondents was 6.5% (women significantly more than men - 7.9 vs. 5.2% respectively).
- About one in ten individuals (12.5%) had a raised total cholesterol level (\geq 5 mmol/L or taking medication for hypercholesterolemia), with the proportion of women (13.3%) being higher than that of men (11.9%).
- Almost one in 5 individuals (19%) did not meet WHO recommendations on physical activity for health. About 91% of women are not engaging in vigorous physical activity (men – almost 72%).
- The prevalence of arterial hypertension among the entire sample was almost 30%. About 65.4% of respondents with increased blood pressure was not taking any

medication, with the proportion of men (72.0%) being higher than that of women (59.2%).

Fig. 3: Percentage of respondents with a 10-year CVD risk \geq 30% or with existing CVD



Source: https://isim.az/upload/File/docs/NCD_Survey_Report_Nov_2012.pdf

- The percentage of those aged 40-69 years with a 10-year cardiovascular risk of greater than 30% or with existing cardiovascular disease (CVD) was 12.6% being 13.3% for males and 12.0% for females (fig 3).

References:

<http://www.euro.who.int/en/countries/azerbaijan/news/news/2017/09/azerbaijan-preparing-for-nationwide-survey-to-assess-risk-factors-for-ncds>

www.isim.az

http://iccia.com/sites/default/files/library/files/demography_2017.pdf

<https://www.stat.gov.az>

Azerbaijan National Strategy for The Prevention and Control of Non-Communicable Diseases 2015-2020

Demographic and Health Survey, Azerbaijan 2006 (2008)

Demographic and Health Survey, Azerbaijan 2011 (2013)

Global Burden of Diseases, Injuries and Risk Factors Study 2010. World Health Organization (2010)

Healthcare 2017, State Statistical Committee of Azerbaijan Republic (2017)

National Survey of Risk Factors for Chronic Noncommunicable Diseases in Azerbaijan, 2011. Public Health and Reforms Center of Ministry of Health (2011)

Package of essential noncommunicable (PEN) disease interventions for primary health care in low-resource settings. World Health Organization (2010).

Study of Trends in the Prevalence of Certain NCD Risk Factors Among Women in Azerbaijan. Public Health and Reforms Center of Ministry of Health (2015)

World health statistics 2017: monitoring health for the SDGs, Sustainable Development Goals, World Health Organization (2017)

III. Main actors and Prevention methods

Who delivers?

In Azerbaijan the main actors in primary and secondary CV prevention are cardiologists, general practitioners and internal medicine specialists. Paediatricians and Public Health specialists are mainly involved in primary prevention programs at the country level.

The "Strategy for Non-communicable diseases (NCDs) in the Republic of Azerbaijan for 2015-2020" was approved on 23 December 2015. The main goal is to improve the health of the population through joint and integrated measures implemented in Azerbaijan, in particular to achieve a significant reduction in the premature deaths associated with NCD.

The objectives of the Strategy are to establish an effective inter-sectoral co-operation mechanism to combat NCD, to take effective measures to reduce the risk factors (tobacco use, alcohol abuse, unhealthy diet, physical inactivity) to prevent and control these diseases.

The key role in the implementation of the Strategy and monitoring results through enhancing the quality of health services (including primary prevention, rehabilitation and palliative care) plays the Ministry of Health, Public Health and Reforms Center of Ministry of Health. Their role does not merely focus on improving the healthcare system and healthcare services, but also on promoting a healthy lifestyle for the population.

National Cardiac Society provides information days and thematic conferences to increase awareness of the population on the CVD prevention.

Some non-governmental and public organisations also participate in promotion and popularisation of healthy life style and primary prevention.

Funded by the U.S. Agency for International Development (USAID) the 4-year Primary Health Care Strengthening (PHCS) project was implemented by Abt Associates, and aimed at strengthening Azerbaijan's primary health care system. The project has provided technical assistance to the Government of Azerbaijan to strengthen health policies, establish a foundation for improvements in quality of care, and improve health information systems, services for prevention and treatment of diseases. The nation-wide project was implemented either in big cities or regions.

Reference:

https://azertag.az/en/xeber/USAID_holds_final_conference_on_Primary_Health_Care_Strengthening_project_in_Azerbaijan-612073

The World Heart Day is widely celebrated in our country every year. In 2014 about 500 runners participated in the marathon race, dedicated to combating heart diseases and encouraging population to choose a healthy lifestyle. In 2016, the public awareness-raising campaign was initiated by the Azerbaijan Society of CV Surgery. Free checkup examinations, with the estimation of blood sugar and cholesterol levels and physician examination have been undertaken in the shopping centers in Baku, as well as seminars

were organised. Educational information books were distributed in the different regions of the country.

Where?

CV prevention measures are delivered at the hospitals, outpatient clinics and schools by cardiologists, internal medicine specialists, paediatricians and nurses.

Patients receive recommendations on diet and physical activity along with medical treatment.

Guidance

Since 2007 Public Health and Reforms Center of Ministry of Health along with relevant scientific institutes and professional societies develop national guidelines and recommendations for medical professionals. The development process is fully in compliance with international standards.

The European guidelines as well as US guidelines on cardiovascular, cerebrovascular disease and many other fields are used extensively in the process of developing national standards and recommendations as well as locally adapted hospital-based protocols.

Along with the development process, Public Health and Reforms Center has been organising training seminars for medical professionals on evidence-based medicine and on application of internationally recognised and national recommendations and guidelines.

In 2015 with the support from the Ministry of Health, Public Health and Reforms Center also conducted a survey related to the use of clinical practice guidelines and evidence-based medical decision-making among 500 physicians in several regions of the country. The report helped to develop a plan of actions to address shortcomings in the area.

The Azerbaijan Society of Cardiology holds annual international and national congresses, monthly conferences with a main theme that relates to important topics of cardiology including the ESC guidelines.

Quality control

There is no centralised quality control system to evaluate cardiovascular prevention activities in Azerbaijan. But it should be mentioned that Working groups of the National Society of Cardiology conduct clinic-based and population-based registries to improve quality of care delivery.

In 2016 prospective Heart Failure (HF) Hospital registry study was initiated at the Hospital of Azerbaijan Medical University to determine the burden of disease, risk factors, and predictors of poor prognosis among Azerbaijani patients with HF, evaluate physician adherence to prescription guidelines for heart failure treatment.

Since 2017 Azerbaijan has been participating in the ESC Valvular Heart Disease II Survey. Nine medical centres are involved in the study.

IV. Main Prevention activities

Campaigns

Preventive campaigns are mainstay of activities to combat NCDs in Azerbaijan. Every year various government organisations and professional societies organise Bike Marathon, Cardiac Walk, and International Healthy Life Style Day related activities to promote the population's engagement in physical activity and sport.

During the last three years the Public Health and Reforms Center in partnership with Ministry of Education has been organising national an education campaign on reproductive health among school children in over 1000 schools around the country.

Projects

E-resources for public: In 2015 the Ministry of Health developed <https://saqlamliq.isim.az> (in Azerbaijani only) a health awareness raising web portal for population, which also incorporates the NCD portal and Reproductive health portal. This portal includes articles about key non-communicable diseases and their risk factors and prevention strategies.

Mobile Health Applications: Given the advancement in the use of smartphones and tablets, Public Health and Reforms Center developed special application for android – My Health and My Reproductive Health – which is aimed at promoting healthy life style and combat risk factors for major NCDs among general population and specifically among reproductive age women.

In partnership with the National Parliament, ASAN Volunteers Union and support from the Bloomberg Foundation, Public Health and Reform Center implemented successfully a project on Improvement national legislative framework to combat tobacco epidemic. As the result of this project, the parliament adopted the new law, which enhanced the limitations to tobacco use in public spaces, including transportation, schools, restaurants, medical facilities as well as supported the establishment of tobacco control programs, hotlines and pharmacotherapy initiatives.

STEPS 2017: In 2017 the Public Health and Reforms Center in partnership with WHO conducted STEPS survey among 3.000 respondents around the country to reveal the prevalence of main risk factors for NCDs as well as prevalence of diabetes and high blood pressure as well as dyslipidemia among adult population aged 18 years and above.

Education

In recent years important steps have been taken to improve the Rehabilitation services in the country. Bachelor and MSc degree programs in Sports Medicine and Rehabilitation have been launched, which includes also cardiovascular rehabilitation module. Residency program for cardiologists also consist of cardiovascular prevention and rehabilitation training for the young generation of doctors.

As part of the development of e-training resources, Public Health and Reforms Centre of Ministry of Health as well as Advanced Postgraduate Training Institute for Physicians initiated the development of e-training courses for physicians from remote areas. One of

the successful programs included the establishment of e-telim.isim.az web portal. The portal has specific e-training on cardiovascular risk factors, promotion of physical activity and tobacco cessation skills for physicians among others.

References:

<https://isim.az/az/news-view/1109-ISIM-de-31-May-2018-ci-il-Umumdunya-Tutunsuz-Gununun-30-illik-yubileyi-movzusunda-Kutlevi-Informasiya-Vasitelerinin-ishtiraki-ile-deyirmi-masa-kechirildi>

<https://isim.az/upload/File/print/print-173-file.pdf> (in Azerbaijani only)

<https://isim.az/upload/File/print/print-157-file.pdf> (in Azerbaijani only)

<https://isim.az/upload/File/print/print-145-file.pdf> (in Azerbaijani only)

<https://www.isim.az/az/pages/39/>

<https://e-telim.isim.az> (in Azerbaijani only)

<http://mttm.edu.az/az/mekteblerimiz>

V. Cardiac Rehabilitation (CR)

Patients after Myocardial Infarction (MI), Percutaneous Coronary Intervention (PCI), Coronary Artery Bypass Grafting (CABG) and stroke have their first rehabilitation consultation and treatment at the hospitals, then it continues after discharge. In some private hospitals patients have referrals to the Cardiac Rehabilitation departments, if any. Further rehabilitation programs are limited to only a few private hospitals after discharge.

In recent years, two centers with a state-of-art rehabilitation departments have been launched in Baku: The Heart Center and National Institute of Sports Medicine and Rehabilitation. The rehabilitation program offered by the departments of Cardiology mainly includes exercises controlled by the physician, development of the special diet, methodical lifestyle teaching and psychological support of patients. Rehabilitation programs are intended for rehabilitation after infarction, stenting, heart surgeries, hypertension, angina pectoris, cardiomyopathy, myocarditis and other cardiac diseases.

There are no specialised training programs on Cardiac Rehabilitation tailored to region-specific needs in the country.

VI. The Future

Main strategic needs for prevention and rehabilitation in Azerbaijan are to increase the number of centers and to ensure their adequate geographical distribution, with particular focus on the regions of the country.

Main obstacles are lack of collaboration, networking and common approach to the patients between the very few rehabilitation facilities in the country. Other challenges are shortage of rehabilitation centers and qualified personnel, as well as state funding for cardiac rehabilitation programs.

Our future plan is to expand indications of cardiac rehabilitation services including non-acute cardiovascular diseases, peripheral artery disease, neurovascular disease, and programs for primary prevention for the population with elevated cardiovascular risk factors.