National Strategy and Action Plan for Non-Communicable Diseases Prevention and Control 2017-2020

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Tbilisi, Georgia

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Abbreviations

NCD	Non-Communicable Disease
NCDC	National Centre for Disease Control and Public Health
SDG	Sustainable Development Goals
MoENR	Ministry of Environment and Natural Resources
MoES	Ministry of Education and Science
MoESD	Ministry of Economy and Sustainable Development
MoSYA	Ministry of Sport and Youth Affairs
MoA	Ministry of Agriculture
NSO	National Statistics Office
MoF	Ministry of Finance
MoIA	Ministry of Internal Affairs
MoLHSA	Ministry of Labour, Health and Social Affairs
WHO	World Health Organization
WHA	World Health Assembly

English Abbreviations

EUROPREV	European Network for Prevention and Health Promotion in Family Medicine and General Practice
GERHS	Georgian Reproductive Health Survey
GERAMOS	Georgian Women of Reproductive Age Mortality Survey
PACT	Program of Action for Cancer Therapy
EHESI	European Health Research Initiative
ICD-O	International Classification of Diseases for Oncology
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
UNICEF	United Nations Children's Fund

Introduction

1. Situation Analysis

Review of Legislative Framework: To implement the National strategy and action plan for prevention and control of non-communicable diseases full-scale use of existing legislative framework and its further refinement is important. At present, non-communicable disease prevention and control is based on the following laws:

1. The Georgian Constitution
2. The Georgian Law on Health Care
3. The Georgian Law on Public Health
4. The Georgian Law on the 2016 State Budget

The Georgian Constitution contains provisions which provide for: equal socio-economic development of care (Article 26, paragraph 6), inclusion of sport and physical education of children and youth (Article 34) the right to a safe and healthy environment to live in (Article 37, paragraphs 3 and 4), and the right of the citizen to social equality (Article 37, paragraph 1). These provisions are an important prerequisite for creating an enabling environment in which to implement non-communicable disease prevention and control.

In the law on Health Care, Public Health is described as a system of state responsibilities, which aims at humans' physical and mental health protection, maintenance and restoration of human rights, prevention of disease, the study of its distribution, control of disease, and promoting and enabling a healthy lifestyle and healthy environment (Article 3 Paragraph "ph" 1). The State political principles of the law are: universal health care for citizens, having equal access to it (Article 4, paragraph "A"), the right of every citizen to participate in a healthy lifestyle (Article 4, paragraph "M") and cooperation with international health organizations (Article 4 Paragraph "t"). The Law for Central and Local Government Bodies recognizes the priority of non-communicable disease control (Article 73, paragraph 1) and stresses the need for epidemiological studies, prevention and treatment arrangements to be carried out on non-communicable diseases (Article 74).

The aim of the law on Public Health is health promotion and implementation of a healthy lifestyle, including elements such as a healthy environment, reproductive health and to avoid the spread of non-communicable diseases (Article 1). The law defines the rights and responsibilities of legal entities regarding public health and obliges them not to take any action which could create and enable health risks for non-communicable diseases and promotes the distribution of NCDs (Article 5, Paragraph 1). According to the law, the MoLHSA will develop policies related to non-communicable diseases, and child and adolescent health in order to ensure safety and healthy lifestyles (Article 31, Paragraphs "d" "V' and "z").

The law on the 2016 State Budget highlights that in order to prevent diseases and avoid public health threats regular health surveillance will continue. Special attention will be paid to the prevention of a

variety of non-communicable diseases with a special focus on the promotion of healthy lifestyles (Article 14, Paragraph 1).

The current legal framework ensures the health of individuals as well as public health, the protection of international treatises and agreements relating to controlling non-communicable diseases, and fulfilling requirements listed therein.

The European Union and Georgia Association Agreement includes prevention and control of non-communicable diseases, implementation of healthy life style, promotion physical activity and pay attention to major risk factors such as diet, alcohol, and drug (Article 356, Paragraph f).

1.2. Primary Challenges and Problems

1.2.1. Non-communicable Diseases Global Trends

Non-communicable diseases (NCD) are among the most important challenges in global health. The growing trend in this group of diseases increases the burden on populations and health care systems. Accordingly, these diseases present obstacles for social and economic development globally, including in Georgia.

The main non-communicable diseases, such as cardiovascular, cancer, diabetes and chronic respiratory diseases share common risk factors including: smoking, other forms of tobacco consumption including second-hand smoke[1], unhealthy diets high in unsaturated fats, sugar or salt, low physical activity, and excessive alcohol consumption. The four most important risk factors together with intermediate risk factors, such as obesity, hypertension, high blood glucose or cholesterol levels, which were previously considered to be important and acute health problems primarily in developed countries, are now rapidly becoming common in the poorest countries[234].

The World Health Organization's "Global Status Report on Non-Communicable Diseases 2014" states that globally in 2012 there were 56 million deaths, out of which 38 million deaths (68%) were due to

[1]M. Oberg, MS. Jaakkola, A. Woodward, A. Peruga, A. Prüss-Ustün, Worldwide Burden of Disease from Exposure to Second-hand) Smoke: a Retrospective Analysis of Data from 192 Countries (Lancet,2011, 377:139–46).

[2]MM. Finucane, GA. Stevens, MJ. Cowan et al, *National, Regional, and Global trends in Body Mass Index since 1980: Systematic Analysis of Health Examination Surveys and Epidemiological Studies with 960 Country-years and 9·1 Million Participants,* On Behalf of the Global Burden of Metabolic Risk Factors of Chronic Diseases Collaborating Group (Body Mass Index). (Lancet2011, 377:557–67).

[3]G. Danael, MM. Finucane, JK. Lin et al, *National, Regional, and Global Trends in Systolic Blood Pressure Since 1980: Systematic Analysis of Health Examination Surveys and Epidemiological Studies with 786 Country-years and 5·4 Million Participants*, On Behalf of the Global Burden of Metabolic Risk Factors of Chronic Diseases Collaborating Group (Blood Pressure). (Lancet2011, 377:568–77).

[4]F. Farzadfar, MM. Finucane, G. Danael et al, *National, Regional, and Global Trends in Serum Total Cholesterol Since 1980: Systematic Analysis of Health Examination Surveys and Epidemiological Studies with 321 Country-years and 3·0 Million Participants,* On Behalf of the Global Burden of Metabolic Risk Factors of Chronic Diseases Collaborating Group (Cholesterol). (Lancet2011, 367**:** 578–86).

NCDs. In addition, nearly one third of these NCD-related deaths occurred in low and middle income countries. Eighty-two percent of the deaths were attributable to the four major NCDs: cardiovascular disease (17.5 million deaths, 46.2% of NCD-related mortality), cancer (8.2 million deaths, 21.7% of NCD mortality), chronic respiratory diseases including asthma and chronic obstructive pulmonary disease (COPD) (4 million, 10,7%) and diabetes (1.5 million, 4%).

Globally, poverty and chronic disease increase the risk of disease complications and premature mortality. Non-communicable diseases can originate in poverty, but at the same time they can lead to further deterioration of health and social conditions, leading to a vicious cycle of poverty and ill-health. This has an impact not only individuals and their families, but also globally, due to a decrease in macroeconomic development opportunities for countries.

The World Health Organization estimates that if countries do not take decisive actions, by 2030 NCD-related deaths will increase to 50 million annually. States should ensure constant evaluation and monitoring of non-communicable diseases and their risk factors, with special attention being paid to poor and marginalized populations, such as migrant populations. Accordingly, non-communicable disease prevention and control issues need to be integrated into poverty reduction strategies; multi-sectoral and multidimensional approaches should be reflected in the relevant social and economic policies, and all state agencies and contracting parties should be involved. These efforts mentioned above must ensure a comprehensive approach to public health and comprehensive and targeted interventions against non-communicable diseases and their social determinants.

To recognise the damage caused by non-communicable diseases, particularly cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes, a high level United Nations meeting was held in September 2011[5]. The participating countries and their governments committed to the prevention and control of non-communicable diseases globally, which are a 'silent killer'. It is necessary and urgent to have a coordinated response, because no one country can cope with a problem of this scale.

During the UN meeting from 25 to 27 September 2015 in New York, the council adopted the "Sustainable Development Goals" in which NCDs are one of the most important issues, particularly relating to the third goal—**ensure healthy lives and promote well-being for all at all ages—**target 3.4 states—**by 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being**. The Sustainable Development Goals will become the basis of the international development agenda, replacing the Millennium development goals.

Scientific evidence shows that the burden of NCDs can be significantly reduced if cost-effective prevention and treatment interventions are implemented effectively and sensibly for those NCDs most associated with that burden.

[5]United Nations, Prevention and Control of Non-communicable Disease (New York, 2011). Available from: http://www.un.org/ga/search/view_doc.asp?symbol=A%2F64%2FL.52&Submit=Search&Lang=E

1.2.2. Non-Communicable Disease Trends in Georgia

Despite public health interventions and improved access to health care, non-communicable diseases remain the major challenge for the health system of the country. According to the World Health Organization's 2014 report, 94% of mortality in Georgia is attributable to non-communicable diseases; of these, cardiovascular diseases account for about 69%, cancer - 14%, diabetes - 1%, and chronic respiratory diseases and other NCDs - 4-6%.[6]

Cardiovascular Diseases. Between 2000 and 2014 an increasing trend of CVD was observed in Georgia, which cannot be only explained by the population aging and the true increase in incidence, but also by the increased access to health care services, as well as improved monitoring of the disease as compared to previous years. In addition, the total number of patients have raised due to increases in the major risk factors, management deficiencies, increased population awareness and a deficiency of interventions for asymptomatic patients. Hypertension, ischemic and cerebrovascular disorders are the leading nosologies among cardiovascular diseases. According to official statistics, the largest share of CVD mortality and morbidity in Georgia is attributable to hypertension: in 2014, CVDs accounted for 54.8% of hypertension, 19.7% - ischemic disease and 3.8% - cerebrovascular disease. In addition, the rate of hospitalizations for CVDs is increasing. A study conducted by the European Network for Prevention and Health Promotion (EUROPREV from 2009-2011, found that in Georgia the highest proportion of patients admitted to health care facilities are diagnosed with hypertension.

The epidemiological situation in terms of burden of hypertension in the population is in significant part due to serious defects in nosology management. Treatment with antihypertensive drugs is often changed because of patients with low adherence to long-term treatment, treatment stoppages and dosage errors.

In 2010, according to the STEPs study[7] , 33.4% of respondents (males 37% and females 30%) had hypertension or prehypertension: 61.1% of those were not receiving any antihypertensive treatment. The average systolic blood pressure reading was 129.3 mmHg, the average diastolic reading was 81.3 mmHg.

There is a growing incidence and prevalence of cerebrovascular and ischemic diseases, which are likely to be associated with poorly treated hypertension. Early detection and proper risk management by physicians is important for individuals at high risk of myocardial infarction and stroke. The detection of risk factors is of particular importance for improving prognoses in asymptomatic patients with undiagnosed disease in terms of personal cardiovascular risk determination.

Oncological Diseases. In recent years there has been a decline in the prevalence of registered malignant tumours, and incidence as well, which can be explained by the absence of cancer registries.

[6] GLOBAL STATUS REPORT ON NON-COMMUNICABLE DISEASES, 2014, WHO

[7] www.ncdc.ge

However in 2015 the first population-based cancer registry was introduced, which will significantly improve cancer monitoring. According to the data from the National Centre for Disease Control and Public Health the most common forms of malignant tumours in Georgia are breast cancer in women and lung cancer in men. Mortality rates from oncological disease are still high. The 5-year survival rate is low: 30% of patients will survive 5 years or more after their diagnosis. High mortality and low survival rates are usually due to the fact that about 60% of cancer cases are diagnosed at the third or fourth stage, this is due to complex reasons but primarily low population awareness about the disease and low involvement of primary health care facilities in awareness-raising activities.

Diabetes. Diabetes in a significant public health concern in Georgia. According to the National Centre for Disease Control and Public Health, distribution of diabetes is characterized by increasing trends; according to the available data in 2014 there were 85957 diabetes patients in the country; however, it should be noted that the available data is unlikely to reflect the true situation. The WHO estimates that in 2000 about 200,000 patients were suffering from diabetes in Georgia. It is predicted that by 2030 this number will increase to 223,000.[8] Type II diabetes is likely to be associated with increases in behavioural risk factors such as unhealthy diet, increases in tobacco consumption, excessive alcohol consumption, overweight and obesity, and low physical activity.

Chronic Respiratory Diseases. Bronchitis is most often encountered and diagnosed in Georgia's primary health care facilities**,** in conjunction with hypertension or ischemic heart disease.[9] Data based on routine statistics indicates that chronic obstructive pulmonary disease (COPD) prevalence is quite low. The World Health Organization estimates that in Georgia mortality rates for diseases of the respiratory system, out of 100,000 inhabitants, are almost three times lower than for the European region, the EU and the CIS countries. Presumably, such as big difference is due to incomplete registration of COPD in Georgia. A pilot study conducted in 2008 and in 2009 by the "Global Alliance against Respiratory Diseases" showed that, in the country, official data on allergic rhinitis and asthma was very close to the data found in the study, whereas the prevalence of chronic obstructive pulmonary diseases was found to be five times higher than in official statistics.[10]

According to a non-communicable disease risk factor survey results (STEPs, 2010), only 4.5% of respondents did not have any risk factors for a non-communicable disease, and about 40% had three or more risk factors for NCDs.

Tobacco. Various estimates suggest that, in Georgia, there are 11,000 tobacco-related deaths annually. The prevalence of smokers is significantly higher in Tbilisi and other large cities, as compared to small

[8] www.who.int

[9] Primary Healthcare Reform Monitoring Project; Georgian Society of Hypertension, 2008

[10] Monaldi Archives for Chest Diseases - Pulmonary Series, 2009 - Volume 71, Issue 4,141-146

cities and rural areas. Market tobacco sales in Georgia amount to 10 billion cigarettes (0.5 billion packs), worth a total of 0.58 billion lari.[11]

According to a non-communicable disease risk factor survey results (STEPs, 2010), 30.3% of the population are current smokers (27.7% daily smokers); the prevalence of smoking among males is almost eleven times higher than among females (55.5% of males vs. 4.8% of females). Among respondents, 23.3% (32.9% of males and 13.7% of females) are exposed to second-hand tobacco smoke in the workplace. According to the Reproductive Health Survey (GERHS10)[12] conducted in 2010 in Georgia, 6% of women aged 15-44 are smokers. 52% of women and 50% of non-smoking women are affected by second-hand tobacco smoke at home, while 44% of women and 40% of non-smoking women are exposed to second-hand smoke in the workplace.

Alcohol. The non-communicable disease risk factors survey (STEPS, 2010) found that 41% of respondents (59.4% of males and 23.4% of females) are current drinkers. Annual pure alcohol consumption per capita is about 6.4 litres. According to the 2010 GERHS, 31% of women have never consumed alcohol, while 17% are current drinkers. Alcohol use is more common in women living in urban areas (9%), particularly among the inhabitants of Tbilisi (12%), and among the richest quintile (12%).

Diet. According to a non-communicable disease risk factor survey (STEPs, 2010); respondents consume fruits and vegetables on average 5 days a week while the number of servings was 1.8 portion of fruits and 2.2 of vegetables. The vast majority of respondents (70%) on average eats less than 5 servings of fruits and vegetables daily. 56% of Georgia's population is overweight (58.6% of males, 54.2% of females) and 25.1% is obese (21.8% of males and 28.5% of females); average Body Mass Index (BMI) is 26.7. In 21% of cases (23% of males vs.18.6% of females) blood glucose levels were elevated, 18% of respondents (21% of males vs.15% of females) had elevated blood cholesterol level.

Salt Consumption. In the Georgian population hypertension is a high priority for public health as a major risk factor for cardiovascular diseases, and indicates the urgent prevention of excessive salt intake. recently conducted surveys investigated salt intake behavior, however no data on daily salt intake was gathered. For example, in 2015 during Salt Awareness Week a study by the NCDC in school children showed that 26% of children surveyed adds salt to their dishes; also in 2014, in order to assess public awareness about salt, a poll on social media revealed that 30% of respondents said they added salt to their food without tasting it, 91% had heard about the harm caused by excess consumption of salt, but the vast majority do not know the recommended daily doses for salt consumption. 75% of respondents do not read the label containing information about salt content when buying processed food.

[11] Population Survey on Tobacco Economy and Policy in Georgia (FCTC Implementation and Monitoring Center in Georgia, 2008).

[12] F. Serbanescu, V. Egnatashvili, A. Ruiz, D. Suchdev, M. Goodwin, Georgia Reproductive Health Survey, Summary Report (2010); Available from: www.ncdc.ge

Physical Activity. According to a non-communicable disease risk factor survey (STEPs, 2010), 22% of the respondents had reported low levels of physical activity.

2. Aims, Objectives, Vision, Principles and Targets for the Strategy

The National Strategy for non-communicable disease prevention and control is based upon the WHO Non-communicable Diseases Global Strategy and Action Plan. It aims to prevent and control non-communicable diseases and to achieve global targets on NCDs.

Vision

The country free of the avoidable burden of non-communicable diseases

Aim

To reduce the burden of non-communicable disease related to morbidity, mortality and disability caused by preventable and manageable conditions at the national level via multi-sectoral cooperation, in order to reach the highest standards of health and productivity of popation at any age and to ensure that these diseases no longer represent a barrier to health and socio-economic development.

Basic Principles and Approaches

- Work to prevent diseases and risk factors at all stages of the life cycle
- Focus on human and community capacity building
- Focus on the sustainable development of human resources
- Promote greater health using evidence-based strategies
- Universal accessibility to cost-effective medical services and essential medicines
- Focus on the clinical conditions with high burdens of morbidity and mortality
- Avoid conflicts of interest
- Protect human rights
- Work for equality and justice
- Work on national activity, international cooperation and solidarity
- Use multi-sectorial approaches

Targets for 2020

1. Reduce the risk of premature mortality from non-communicable diseases[13] :

- Cardio-vascular disease by 5% (annual 1% decrease)
- Halt the increase in mortality from Oncological diseases
- Diabetes by 5% (annual 1% decrease)
- Chronic Respiratory Disease by 5% (annual 1% decrease)

2. 5% relative reduction in hazardous/harmful alcohol consumption (annual 1% decrease)

3. 5% relative reduction in prevalence of low physical activity (annual 1% decrease)

4. 10% relative reduction in the average salt/sodium consumption in the population (annual 2% decrease)

5. 5% relative reduction in current tobacco consumption among the population aged 15 years and over (annual 1% decrease)

6. 25% relative reduction in the prevalence of high blood pressure (annual 5% decrease)

7. Halt the increase and spread of diabetes and obesity

8. Provide preventative drug treatment and counselling to at least 50% of the target population for myocardial infarction and stroke (including glycaemic control)

9. 80% accessibility of technology and basic essential medicines, including generics, used for the treatment of the main non-communicable diseases available at both public and private medical institutions

Objectives

[13] 2014 წელს 100000 მოსახლეზე გულ–სისხლძარღვთა დაავადებებით გამოწვეული სიკვდილიანობა შეადგენდა 553.2, კიბოთი გამოწვეული სიკვდილიანობა – 150.9, დიაბეტის – 17.9 და ფილტვის ქრონიკული ობსტრუქციული დაავადებების 6.3–ს.

1. To Strengthen National and International Cooperation in order to recognise the high priority of prevention and control of non-communicable diseases for the country's health care system
2. To strengthen the capacity for prevention and control of non-communicables in terms of development, implementation and evaluation
3. To improve monitoring and surveillance of non-communicable diseases and associated determinants
4. To modify behavioural risk factors for non-communicable disease through raising population awareness and improved health promotion
5. To promote screening and management for biological risk factors and NCDs
6. To improve financial access to Essential Medical Services and medicines (drugs) of NCDs
7. To improve the quality of screening and management for NCDs and their risk factors

Vision

This Action Plan provides guidance for the country, to carry out coordinated and coherent actions on all levels to reach the nine targets, the most essential pertaining to cancer, diabetes, cardiovascular diseases and chronic respiratory diseases, in order to achieve a significant relative reduction in premature mortality by 2025.

The National Strategy and Action Plan is based on a document – "Global Action Plan for the Prevention and Control of NCDs 2013-2020" and develops basic principles of "Health 2020".

The Action Plan focuses on the four major non-communicable diseases – cancer, diabetes, cardiovascular diseases and chronic respiratory diseases and their common risk factors: tobacco consumption, harmful alcohol consumption, low physical activity, and unhealthy diet with high salt and sugar contents. The Action Plan also includes the intermediate risk factors such as obesity, hypertension, and high blood cholesterol and glucose levels.

The Action Plan is based upon the best available scientific knowledge, evidence and experience related to non-communicable diseases prevention and control.

Strategic Objective #1: Strengthen National and International Cooperation in order to recognise the high priority of prevention and control activities for non-communicable diseases for the country's health care system

Justification

According to "Health 2020", governments can achieve real improvement in health, if the government works to fulfil two related goals: first—reduce inequality and strengthen the approach of "Health for All" and the second--improve governance and government involvement in health care[14]. The prevention and control of the main NCDs and their risk factors requires a multi-sectoral approach by the government as well as community. It is a step forward that on December 8th 2015 the Ministry of Labour Health and Social Affairs in the country approved a multi-sectorial Coordination Council for the prevention and management of non-communicable disease, composed of representatives of the health sector along with representatives from the Ministries of Education, Finance, Sports and Youth, Environment and Natural Resources, Internal Affairs and Agriculture. The main function of the Coordination Council for NCDs is to assess the morbidity and mortality data and the existing capacity of the relevant agencies in the country to collect and analyse this data. Based on the evaluation and analysis of service capacity, they will prepare national policies and programs and define priorities in order to enhance NCD prevention and control.

International cooperation is vital for advocacy and mobilization of resources, capacity building and assigning responsibilities, as was advocated at the UN General Assembly at a meeting in New York on the Prevention and Control of NCDs.

Achievement and Challenges

With the cooperation of the country and international donor organizations

(A) The national prevention and control strategy and 5-year Action Plan addresses non-communicable diseases, cancer, diabetes, hypertension, injuries and violence, excessive consumption of salt, hazardous alcohol consumption, unhealthy diet, and obesity;

(B) In a 2014 review mission within the Programme of Action for Cancer Therapy –PACT framework, a joint action between the World Health Organization and the International Atomic Energy Agency, a cancer control and management needs assessment was conducted in the country with the aim of determining the current cancer control capacity, capacity for effective implementation of a radiation medicine program and a needs assessment, as well as identifying suitable project proposals for cancer control measures and potential sources of financing.

(C) On the 1st of January 2015, the "CanReg-5", cancer registry program was introduced to the country as a result of cooperation with the International Agency for Research on Cancer (WHO, IARC).

(D) With technical and financial support from the World Health Organization the non-communicable disease risk factor survey (STEPS) is conducted in Georgia in 2016 (the first STEPS was conducted in 2010.

[14] Health 2020: a European policy framework and strategy for the 21st century. Copenhagen: WHO Regional Office for Europe; 2013

Strategic Interventions:

1.1. Integrate the prevention and control measures for four main NCDs (CVD, cancer, diabetes, chronic respiratory disease) in the state programs and national strategy of country development, considering the individual needs of target groups

1.2. Create evidence base and distribute the information on effectivity and efficiency of NCDs prevention and control measures as well as on outcomes of exposition of NCD morbidity and mortality on sustainable development of human resources in the country (including population, sector and legislation level)

1.3. Mobilize resources from state programs and private insurance schemes for the implementation of adequate, predictable and sustainable non-communicable disease prevention and control measures. Support the development of multilateral, bilateral and private/non-governmental organization programs.

1.4. Enhance international cooperation with donor organizations and with WHO member states in order to ensure compliance the Action Plan for prevention and control of non-communicable diseases.

Strategic Objective #2: To strengthen the capacity for prevention and control of non-communicable diseases in terms of development, implementation and evaluation

2.1 The relevant structural units at the Georgian Ministry of Labour, Health and Social Affairs and the National Centre for Disease Control and Public Health must be strengthening in order to conduct needs assessment for prevention and control of NCDs, strategic planning, policy and monitoring&evaluation activities.

Strategic Objective #3: Strengthen monitoring and epidemiologic surveillance of non-communicable diseases and associated risk factors

Justification

Goals 5 and 6 of the Global Action Plan for prevention and control of NCDs, which was adopted by the leaders of country governments in 2014, is dedicated to strengthening surveillance, monitoring and evaluation for a non-communicable diseases[15]. At a third high level United Nations Meeting in 2018 for non-communicable disease prevention and control, countries have committed to reporting their progress. This meeting will identify whether the member countries have achieved sustainable surveillance systems for non-infectious mortality, NCD-precipitating risk factors, the STEP-wise

[15] Global action plan for the prevention and control of non-communicable diseases 2013–2020. Geneva: World Health Organization; 2013

approach for surveillance (STEPS) of non-communicable disease risk factors and whether there are non-communicable disease prevention and monitoring processes active in the field.

Non-communicable disease epidemiologic surveillance continues to be harmonized with the EU countries' framework "European Health Research Initiative" (European Health Examination Survey initiative). The EU region is actively conducting studies for specific risk factors; particularly in 2016-2017 the STEP-wise (STEPS) survey for non-communicable disease risk factors is scheduled in 11 countries.

Achievements and Challenges

(A)**The Reproductive Health Survey** was performed in Georgia three times—in 1999, 2005 and 2010. Surveys in different years were conducted with financial support from the United States Agency for International Development (USAID), United Nations Population fund (UNFPA), and the United Nations Children's Fund (UNICEF) and technical support was provided by the Centre for Disease Control and Prevention in Atlanta. The results provided valuable indicators of demographic characteristics, fertility, child mortality, family planning and reproductive characteristics, reproductive and child health services utilization, treatment and barriers to the use of reproductive health services, medical expenses, the quality of medical care, harmful behaviours (tobacco and alcohol consumption), young people's awareness of health issues, intimate partner violence, and the spread of HIV/AIDS and other STDs[16].

(B) **The Reproductive Age Mortality Survey** (RAMOS - Reproductive Age Mortality Study) was conducted twice in Georgia—in 2008 and in 2014 and its purpose was to study causes of mortality among women aged 15-49 through verbal autopsy. RAMOS 2014 revealed that cancer is the leading cause of death in this age group of women, in particular, cancer's proportional mortality is 45.3% of the total, followed by external causes (18.5%) and cardiovascular disease (13.2%).

(C) In 2010 in Georgia, the NCDC and the European Union Mission, with the support of the WHO conducted the nationwide non-communicable disease risk factor survey by using the STEPwise approach, which is a WHO-standardized instrument for surveillance of NCDs risk-factors. The overall aim is the empowerment of major non-communicable diseases' and risk factors' surveillance, in order to strengthen prevention and control, as well as the management of health services for NCDs; in 2016 the STEP survey is ongoing for a second time in Georgia, with the aim of finding the basic behavioural and biologic risk factors for NCDs and their determinants, as well as to look at the trends in prevalence rates by comparing new survey results with those from 2010 in the 18-69 year old population.

[16] http://www. ncdc.ge

(D) Cancer Registry: On the first of January 2015 the country launched a population-based Cancer Registry. In order to register each cases of cancer properly and completely, to allow the correct assessment of trends at the national level and to capably allow for comparisons to international data, the International Classification of Diseases for Oncology ICD-O (International Classification of Diseases for Oncology ICD-O, Third Edition) was translated and introduced in the Georgian language. In the cancer registry, notification of cancer cases is regulated by the amendments in order #01-2/N of Ministry of Labour, Health and Social Affairs: "About the Rule of the Production and Supply of Statistical Information", issued on the 18th of January 2016. According to this order all oncologists (oncologist, clinical oncologist, radiation oncologist), surgeons, pathologists and other medical services specialists are required to complete a cancer registration form, and notify the cancer registry system for all cancer patients to whom they provided any type of medical service or diagnosed with a malignant tumour (forms are sent to the NCDC, Department of Statistics). This applies to all hospitals, clinics, diagnostic and treatment centres, radiation treatment centres and pathological-anatomical centres.

Strategic Interventions:

3.1 Integration of a non-communicable disease risk factors surveillance system and indicators for monitoring a health management information system, as well as promotion of routine generation, collection, analysis and use of data for evidence-based decision-making.

3.2 Planning and regularly performing population and institution-based studies to promote needs assessment for prevention and control of NCDs and to facilitate the evidence-based decision-making process.

3.3. Improve data quality of demographic statistics and registered data of causes of death

3.4 Promote the development and implementation of non-communicable disease registries (as well as their corresponding indicators) at the national, regional and local levels in order to better define their needs

3.5 Build human resource skills and organization capacity in order to facilitate the improvement of high-quality data generation, management, analysis and reporting skills for the development of non-communicable disease surveillance, monitoring and evaluation systems

Strategic Objective #4: Modifying behavioural risk factors for non-communicable disease through raising population awareness and improved health promotion

Justification

The main goal of non-communicable disease prevention is to reduce the exposure of the population to manageable risk factors. Public health policy must be based on a multi-sectoral approach in order to support the formation of healthy environment and healthy behaviours in the population. Strategic

interventions to decrease the exposure to NCD risk factors must include increasing public awareness, a policy of taxation on unhealthy products, increased promotion of and access to healthy products, and increased public campaigns focusing against harmful behaviours[17,18,19,20,21,22].

The "Best Buys" for the primary prevention of chronic diseases should be considered to be tobacco, high alcohol consumption, low physical activity, unhealthy diet, and excess salt consumption. In this regard countries should use powerful tools, such as the full potential of the World Health Organization's Framework Convention on Tobacco Control, tightening policy against excessive alcohol consumption, reducing trans and saturated fats, and salt, introducing sugar-free products for consumption, limiting the advertising and marketing impact of unhealthy food and beverages on children, and strengthening healthy lifestyles.

Healthy nutrition and physical activity reduces the risk of cardiovascular disease, diabetes and some types of cancer, and plays an important role in weight control and the management of chronic diseases and has an additional positive effect on mental health and the health of the skeleton and lungs. Physical activity brings significant benefits for both children and the adult population. Low physical activity is a major risk factor for sarcopenia and osteoporosis[23].

In many countries salt consumption exceeds the dose recommended by the World Health Organization– 6 grams a day; reducing salt intake for public health is the most cost-effective and readily available intervention. Salt reduction inprocessed food products would be a contribution by the food industry towards the health promotion. In this regard, of particular importance are having recommended levels defined by the guidelines and introduced by governments, as well as food labelling and monitoring of public awareness.

Control of infectious agents/conditions those are etiologically associated with NCDs should be considered as non-communicable disease prevention: some untreated infections (streptococcal infection and rheumatic valvuliti) may be the cause of some cardiovascular disease or cancers; some vaccine-preventable diseases are associated with the development of NCDs; but through vaccination it

[17] Resolution 66/2. Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. In: Sixtysixth session of the United Nations General Assembly. New York: United Nations; 2011 (A/67/L.36; http:// www.who.int/nmh/events/un_ncd_summit2011/ political_declaration_en.pdf).

[18] Global action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva: World Health Organization; 2013 (http://apps.who.int/iris/bitstream/10665/94384/1/ 9789241506236_eng.pdf).

[19] Health in all policies (HiAP) framework for country action. Geneva: World Health Organization;

2014 (http://www.who.int/cardiovascular_diseases/140120HPRHiAPFramework.pdf).

[20]Physical activity strategy for the WHO European Region 2016–2025. Copenhagen: WHO Regional Office for Europe; 2015

[21] 15. European food and nutrition action plan 2015–2020. Copenhagen: WHO Regional Office for Europe; 2014

[22] European action plan to reduce the harmful use of alcohol 2012–2020. Copenhagen: WHO Regional Office for Europe; 2012

[23] Physical activity strategy for the WHO European Region 2016–2025. Copenhagen: WHO Regional Office for Europe; 2015

is possible to avoid these infections and their related diseases[24]. The Human Papilloma Virus (HPV) vaccine is becoming an important part of a comprehensive strategy in cervical cancer prevention and control. There is evidence that influenza vaccination reduces COPD complications; and pneumococcal vaccine might be useful in patients with chronic lung conditions.

Achievement and Challenges

(A) In 2013 a Working Group of the State Commission on Tobacco Control developed and presented to the Georgian government amendments to the "Tobacco Control Law of Georgia", "Tobacco Advertising Law of Georgia" "Tax Code" "Administrative Violations Code" and the "Public Broadcasting Law of Georgia". The Amendments to these laws were aimed at:

(A.1) Strengthening tobacco control measures in the State Tobacco Control Strategy and Action Plan (approved by the Georgian government) based on the relevant EU directives and the recommendations of the WHO FCTC and its implementation guidelines.

(A.2) Approximation of the regulations related to tobacco production, presentation and implementation to the relevant EU and WHO FCTC Article 11th directives.

(A.3) Approximation of the regulations related to the tobacco advertising and sponsorship to the relevant EU and WHO FCTC Article 13th directives and to its implementation guidelines.

(A.4) In regulations related to exposure to tobacco smoke, approximation to the relevant EU and WHO FCTC Article 8th directives, and to its implementation guidelines .

(B) All the above-mentioned (Point A) laws have been submitted to the Georgian government for approval in order for discussion of the draft bills in Parliament to be initiated. Changes can also be provided on the Tobacco Control Strategy and the 5-year Action Plan (2013-2018), which are issues of the government with the relevant resolutions. The Action Plan calls for the gradual implementation of changes beginning in 2014. However, given the fact that the draft law has not yet been approved by the Government, it could not be enforced. It would be timely to approve the bills needed to implement the relevant measures.

(C) The Georgian Tax Code provides for an annual increase in taxation on tobacco products, as well as taxation mechanisms for electronic cigarettes.

(D) In 2015 the State Health Promotion Program was introduced, under which the following activities were carried out: (1) Information and Education campaigns; (2) Trainings for primary health care physicians about modern methodology and techniques for brief consultations about tobacco; trainings

[24] European Vaccine Action Plan 2015–2020. Copenhagen: WHO Regional Office for Europe; 2015

were carried out for 100 representatives of the Ministry of Internal Affairs of Georgia, Ministry of Finance of Georgia and Supervision Service of Tbilisi City Hall on how to identify and respond to tobacco control law violations; tobacco hotline operators were also trained; (3) Seventeen qualitative research focus groups were convened about health promotion priority activities to gauge the target population's knowledge, attitudes and behaviours, trends in communications and obtaining information and development and testing in the transfer order; (4) The execution and implementation of tobacco legislation in different types of institutions, where smoking is prohibited/restricted, advertised and/or sold (5) The Awareness, Attitudes and Behaviour (KAP) tobacco and other behavioural risk factors national survey is ongoing. An agreement has been reached on a flexible design by which strategic interventions will be determined annually based on current priorities.
(E) Industrialized countries National Strategy and Action Plan projects for "Reduction in hazardous consumption of Alcohol" is now developed, which was harmonized with the structure and content of the Global Strategy to Reduce Hazardous Alcohol Consumption (World Health Assembly 63, in May of 2010; WHA63.13 Global Strategy on Hazardous Alcohol Consumption) and the European Action Plan to reduce the harmful use of alcohol 2012–2020. Youth awareness activities and a health promotion program to reduce the harmful consumption of alcohol are also underway.

F) The national strategy to reduce the excess consumption of salt has been designed, which aims to reduce chronic disease morbidity and mortality associated with this factor (high salt consumption) in the Georgian population. Interventions given in the strategy according to the European framework are based upon the following five basic elements: (1) Data collection, (2) Formation of minimum standards to guide salt content in common food products, (3) raising public awareness, (4) Industry involvement and engagement, (5) Reformulation of monitoring and evaluation.

(G) On the 27th of November, 2015 Resolution (#2567) was adopted by the Georgian government, related to the Action Plan which regulates trans-isomeric fats in the food industry, and approves of appropriate measures. The Action Plan has the intended targets: (1) Informing stakeholders, (2) Introducing regulatory mechanisms for industrial trans-fat content (3) state oversight of trans-fat content in the food industry.

(H) In 2015, 93% of infants born in maternity homes received the hepatitis B vaccination within the first 24 hours of birth (the so-called zero-dose); in addition, the first, second and third doses were given to 96%, 94.4% and 93.7% of children under one years of age respectively. As for the introduction of the HPV vaccine, the decision-making process is ongoing in the country as to whether it could be introduced in 2017 with support from the Global Vaccine Alliance (GAVI).

Strategic Interventions:

4.1. Creating/implementing policy and regulatory mechanisms in order to limit access to tobacco, alcohol, and products containing high levels of trans- and saturated fats, salt and sugar

4.2. Using effective tools of communication in order to increase public awareness and to achieve sustainable behavioural changes in terms of healthy lifestyles

4.3. Modification of an environment and health system in order to promote changes in physical activity patterns

4.4. Strengthening vaccine promotion and specific communicable diseases control

4.5. Generating a health promotion environment in educational institutions and workplaces

Strategic Objective #5. To promote screening and management for biological risk factors and NCDs

Justification

NCDs often develop very slowly and can be asymptomatic for years before the manifestation of complications, which can delay their treatment and lead to inadequate control. The early diagnosis and treatment of NCDs is one of the most important approaches to prevent serious and expensive complications; increasing screening effectiveness in the population is recommended, organized screening programs, and strict quality control mechanisms are the best ways to guarantee the effectiveness of the program in the absence of evidence. There are screening programs and comprehensive health examinations, which are not always based on evidence and could lead to the waste of resources without improvement of public health status. Some tumours can be detected early, and signs and symptoms of the disease can be recognized: it is essential to raise awareness in both the population and among professionals of these signs, which will enable rapid diagnosis and treatment. Early recognition of signs and symptoms, and timely treatment of myocardial infarction and stroke significantly improve disease outcomes. Medical studies show that among the population at high risk of cardio-metabolic diseases only small a proportion receives effective treatment and/or their risks are adequately managed. Implementation of the NCD package of interventions that includes referral, diagnosis and proper treatment algorithms, availability of essential medicines and access to new technologies, will help countries to introduce the universal health coverage reforms and achieve equality in health care.

Achievements and Challenges

(A) In Georgia, it is common practice for blood pressure measurements to be taken during visits to medical institutions (87.4% of interviewed patients and 91% recorded in medical files), however, given that in most institutions there is no chronic disease surveillance system, we might conclude that

in most cases the management of care for hypertensive patients is inconsistent and fragmented (USAID's Health Quality Improvement Project 2012 survey).

(B) It should be noted that the most cost-effective interventions for cardiovascular diseases, primary and secondary prevention, including high impact medications, which significantly reduces the risk of CVD or development of complications and mortality are not performed in most medical institutions (those doing so are essentially non-existent). In particular, CVD multi-medication prevention therapy (aspirin, statins and antihypertensive medications) in patients with diabetes and high 10-year risk of CVDs (≥20%) are given only to 2% of the patient population, while multi-medication therapy for **secondary prevention of complications** (aspirin, statins, ACE inhibitors and beta blockers) are administered to 6% among those who have such needs. (USAID's Health Quality Improvement Project 2012 survey).

(C) Georgia's breast and cervical cancer screening program began in 2008 with the support of the National Council for Reproductive Health and with sponsorship from the United Nations Population Fund (UNFPA) Georgia Office and the Municipality of Tbilisi. In 2010, it expanded and added prostate and colon cancer screening in Tbilisi. In 2011, the government decided to expand the screening programs nationwide for all four localizations. Currently, the following cancer screening programs are being carried out throughout the country; breast (target population: 40-70-year-old women), cervical (target population: 25-60 year old women), and colorectal cancer screening (target population: 50-70 year old men and women); In addition prostate cancer management (target population: 50-70 year old men) is implemented – PSA testing of men within target population is a free of charge.

Strategic interventions

5.1. Decrease exposition to biological risk factors (high blood pressure, hyperglycaemia, hyperlipidaemia, hypercholesterolemia) by screening (early detection) and by improving access to high quality medical care services

5.2 Increase access to the early diagnosis of cancer

5.3. Increase human resources' professional knowledge, skills and practices concerning NCDs and risk factors--screening, management and counselling

Strategic Objective #6: Improvement of financial access to essential Medical Services and medicines (drugs) of NCDs

NCD-related political commitment should be supported with sufficient and sustainable resources; there are several ways to assess the economic costs of non-communicable diseases. Direct costs include the cost of prevention, screening and treatment, the loss of human life, the increased cost of medical personnel, and private sector and non-governmental spending on health care costs. Indirect costs include lost production due to absenteeism (labour productivity), worker turnover for those who

were expelled from the labour force due to chronic disease, reduced human capital, loss of income and loss of time due to social obligations. At the beginning of 2015, the WHO Global Task Force Coordination Mechanism, in order to answer the question of how to address the lack of resources earmarked for non-communicable diseases as a global problem, decided that, first of all, progress required the mobilization of internal resources and a balanced approach to the development of international impact. At the International Conference on Financing for Development in July 2015, governments adopted the 'Addis Ababa Action Agenda', it underlines that internal resources will play an increasingly important role as a source of funding as compared to the era of the Millennium Development Goals. Personally-oriented health care and social protection mechanisms are important tools to protect individuals from financial troubles, as they provide medical services, including those related to NCDs, and give everyone access to these services, especially the most vulnerable portions of the population.

Achievement and Challenges

(A) In 2013, by introducing Universal Health Care (UHC), access to medical services financed by the government has increased significantly. In 2014, patients visited hospitals for necessary appointments more often than they had in 2010. The financial barriers to out-patient and hospital services have been significantly reduced as compared to 2010. In 2010 about 17% of patients did not receive medical care due to financial problems, in 2014 this figure was reduced to 10%. A statistically significant decrease in financial barriers to out-patient facilities was found for those living in rural areas.

(B) In order to preserve the results of Universal Medical Care and achieve further progress it is important to: 1. Increase access to medications and services and increase maximum financial protection for poor, rural residents and people with chronic diseases; 2. Create stable resources of essentials drugs; expand coverage of the target population using a simple, flexible design for financial safety, and focus on cost-effectiveness in order to increase equality.

(C) The effectiveness of medical services will be doubtful if the patients do not have increased access to essential drugs, especially where the burden of communicable and non-communicable chronic diseases is high.

Strategic Interventions:

6.1 Integrate different funding mechanisms for non-communicable disease risk assessment and management, medical services and medication

6.2. Increase the efficiency of resource use and cost-effectiveness of NCD prevention and control services (diagnostic and treatment) and drug coverage through state health programs

6.3 Update the essential drugs list for non-communicable disease, in order to increase access to medications

Strategic Objective #7: Improvement of screening and management quality for NCDs and their risk factors

Justification

The quality of health care is important in order to manage chronic diseases[25,26]. Otherwise, it is impossible to provide high quality of life years and avoid premature mortality for patients with chronic diseases. However, this requires international evidence-based clinical guidelines to be adopted and implemented; it is desirable to have pilot implementation of quality assurance (QA) programs and later to extend them throughout the country; as well as to use accredited postgraduate training courses and updates to medical education and residency programs in certain specialties, especially those involved in the screening and management of NCDs.

Strategic Interventions:

7.1 Increase professional knowledge, skills and practices surrounding NCDs and their risk factors, including screening, management, consulting and human resources

7.2 Improve supervision on the quality of medical services

7.3 With the close involvement of professional associations, improve the use of and accessibility to evidence-based medical literature

3. The Strategy's Implementations Dates and Responsible Institutions

Strategic activities within each of the tasks and strategic interventions are listed in Appendix #2. The appendix also provides information on the implementation by the responsible institutions and their partner organizations.

Various government institutions according to their mandates and competencies will have responsibilities for the effective implementation of the National Strategy for non-communicable disease prevention and control. The following are the major leading and coordinating agencies that will supervise the implementation of the strategic plan:

[25] Priorities for health systems strengthening in the WHO European Region 2015–2020: walking the talk on people centeredness. Copenhagen: WHO Regional Office for Europe: 2015

[26] European action plan for strengthening public health capacities and services. Copenhagen: WHO Regional Office for Europe; 2012

- The NCD Coordinating Council, which is an advisory body at the Ministry of Labour, Health and Social Affairs with the purpose of prevention, control and management of NCDs; It (the advisory body) determines future national priorities, policies and programs based upon analysis of NCD morbidity and mortality data and the existing capacity of the relevant agencies and departments, and creates a number of recommendations for strengthening the control and prevention of NCDs;
- The Ministry of Labour, Health and Social Affairs, which is responsible for health service delivery, as well as for the development and implementation of National NCD policies and regulations
- The L Sakvarilidze NCDC, which represents a secretariat of the NCD Coordinating Council, one of its priorities is to reduce NCDs' morbidity and mortality;

One of the main principles of the National Strategic Plan is close cooperation between the State and international sectors and the use of multi-sectoral approaches. As NCDs have multifactorial natures, progress in their prevention and management could not be achieved if a multi-sectoral approach is not taken; that is why the MoLHSA is in charge of the implementation of the Action Plan along with its partner organizations in the health sector and the Ministries of Education, Finance, Sports and Youth, Environment and Natural Resources, Interior and Agriculture.

4. Possible Risks during Strategy Implementation

The Strategy's implementation process should take into account some of the possible social and financial risks, which may undermine the anticipated results of the action plan.

The financial risks associated with the implementation of the strategy on non-communicable disease could be caused by a lack of donor funding, which underlines the need for a gradual but significant increase of State funding to meet and fully pay for the financial requirements of the strategy. NCD prevention and control programs must be included in the National Development Goals. It is necessary to recognize, prioritize and mobilize domestic resources in order to provide adequate, predictable and sustainable funds for the National NCD prevention and control efforts and to ensure their implementation via local budgetary allocation. When governments met in July 2015 at the International Conference on Financing and Development and developed the Addis Ababa Action Agenda,[27] a clear message was sent that internal resources will play an increasingly important role in funding as compared to the era of the Millennium Development Goals. Seeking donor funding for extra-budgetary funds will be insufficient without first ensuring basic preventative, diagnostic and therapeutic services for high-risk groups.

[27] Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda) available at: http://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_Outcome.pdf

One of the strategic objectives of "Health 2020" was the "Health for All" approach to improve health and to reduce health-related inequalities. Health and wellbeing are significantly affected by social inequality, and the availability of health care services, which affect the mind-set of populations, leading to an increased sense of vulnerability[28]. Health inequality may be due to health-related behaviours including tobacco and alcohol consumption, diet, physical activity and mental health, which of course, lead to stress and a negative impact on individual's lives. In addition, the provision of social protection should be considered for those with chronic diseases (cancer, myocardial infarction, and stroke) who after the development of disease are able to return to work, though for a while they will need some benefits and some aid from their employers. Employers need to help these patients by adjusting their obligations, and supporting their gradual return to work. By working with the private sector and by increasing public awareness relating to gender, social protection, poverty reduction, and jobs, it is possible to work through the problems of persons with chronic diseases, to reduce barriers to their recruitment and to provide appropriate working conditions. Health inequity must be eliminated as it remains a significant obstacle to the strategy achieving its set targets.

5. The Strategy's Monitoring and Evaluation Mechanisms

For early detection and response to challenges in the implementation and progress on the national NCD prevention and control strategy, relevant mechanisms of regular monitoring and evaluation will be used.

The NCD strategy implementation is monitored by the Ministry of Labour, Health and Social Affairs, through the L Sakvarelidze National Centre for Disease Control and Public Health (here after referred to as the Centre).

Appendix #3 provides monitoring and evaluation indicators of the NCD National Strategy Action Plan for 2016-2020 outlines as well as the rate of implementation and the intended performance indicators for the plan.

Figure 1. Sources for financing NCDs' prevention and control activities

[28] Health 2020: A European Policy Framework and Strategy for the 21st century. http://www.euro.who.int/__data/assets/pdf_file/0011/199532/Health2020-Long.pdf

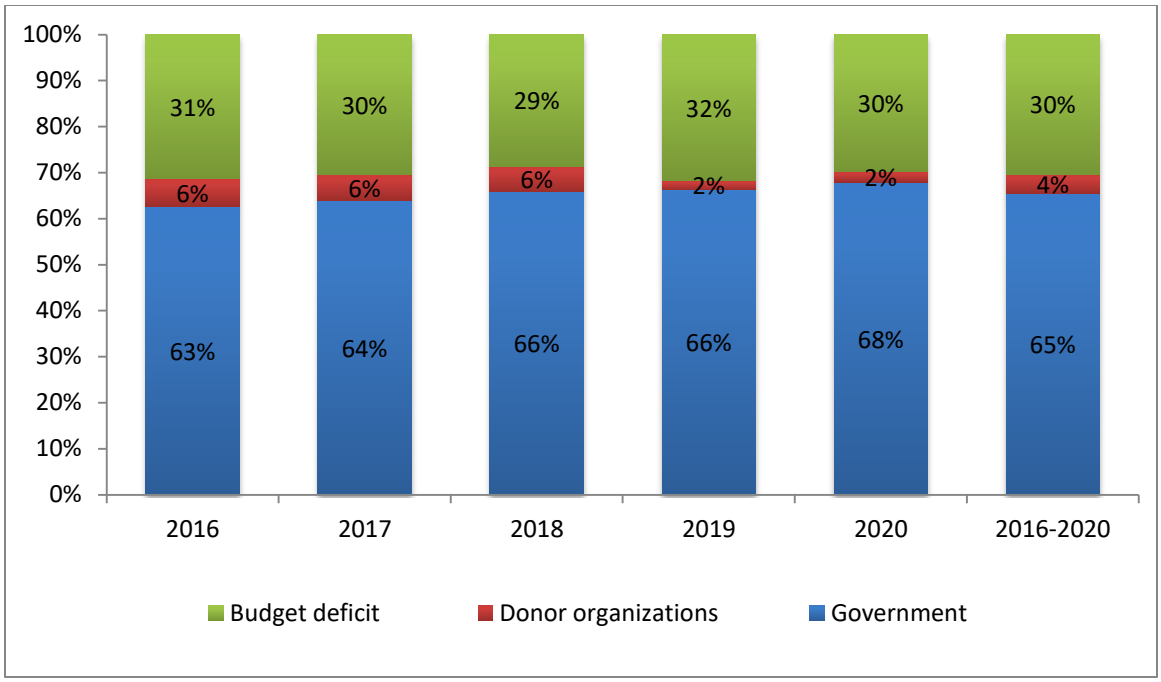
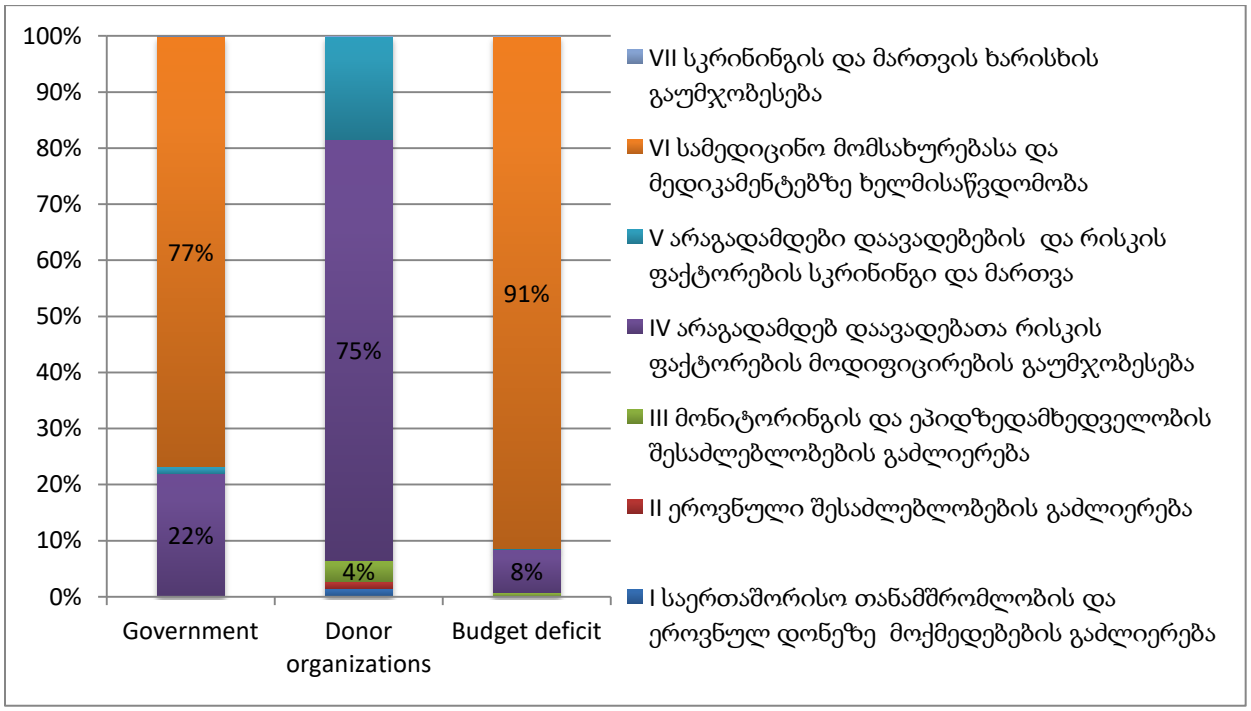
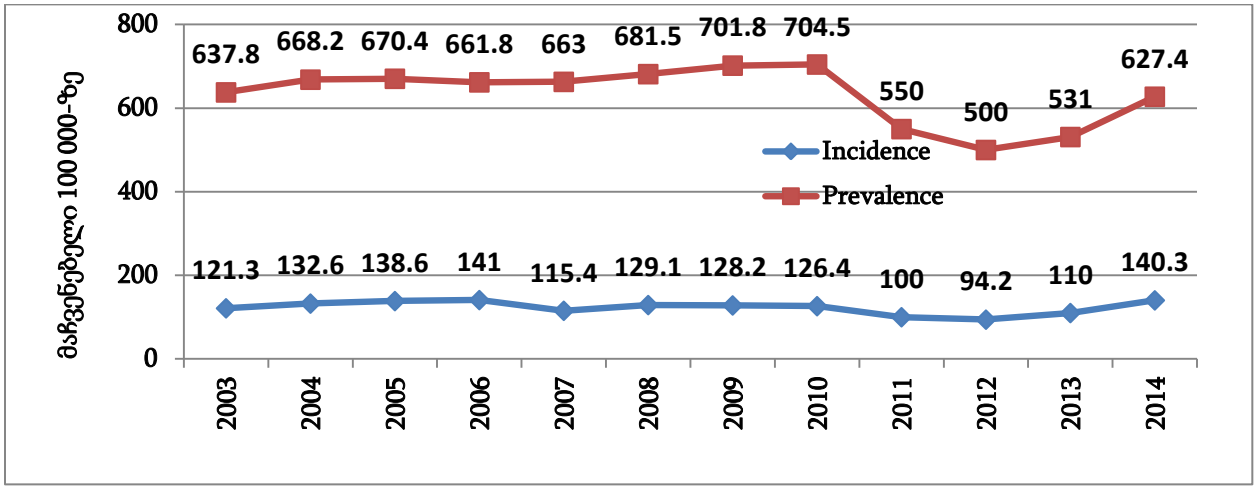


Figure 2. Proportion of financed strategic objectives according to sources of finance, 2016-2020



Annex 1. Data

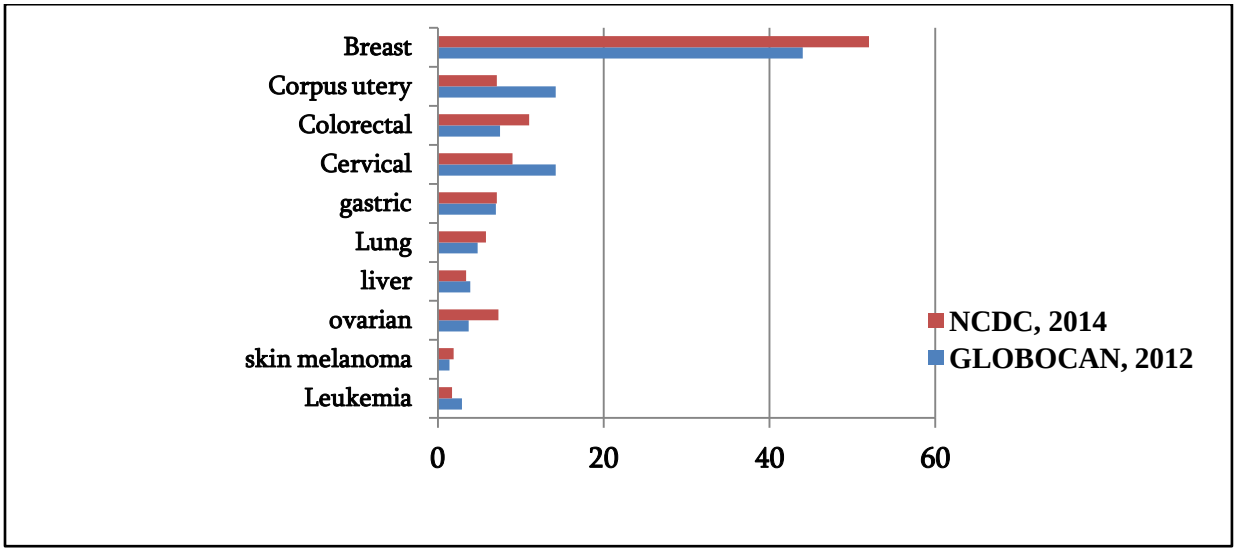
Incidence and Prevalence (per 100 000 population) of Cancer 2003-2014



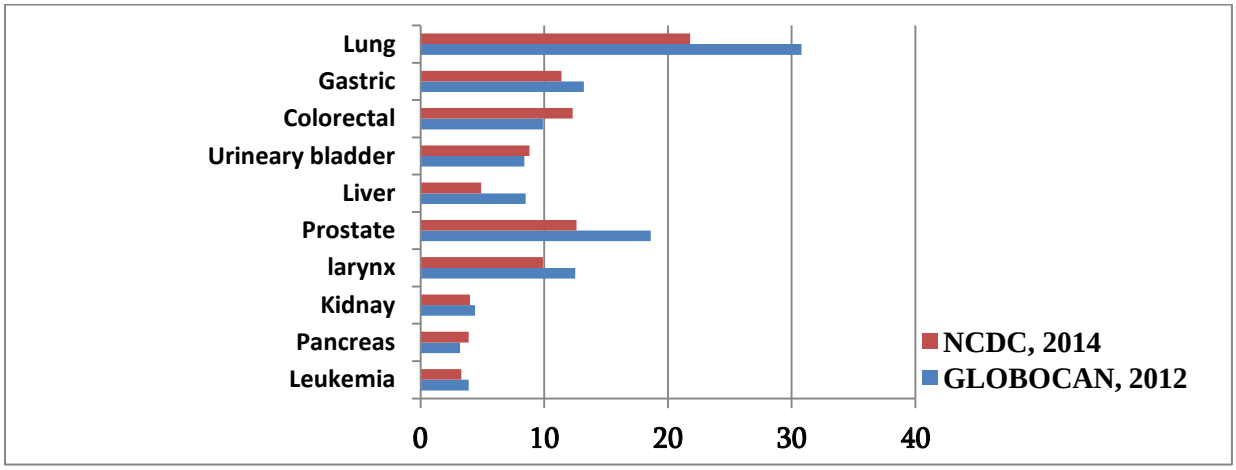
Source: NCDC

Ten localization of cancers with the highest incidence among women

Source: NCDC, 2014 and GLOBOCAN, 2012

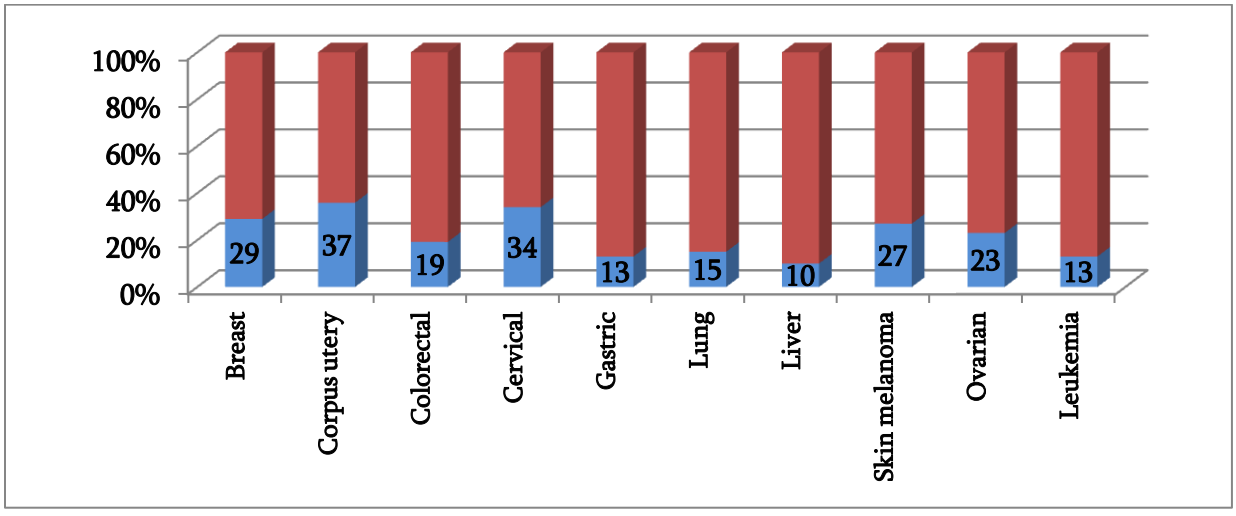


Ten localization of cancers with the highest incidence among men
Source: NCDC, 2014 and GLOBOCAN, 2012



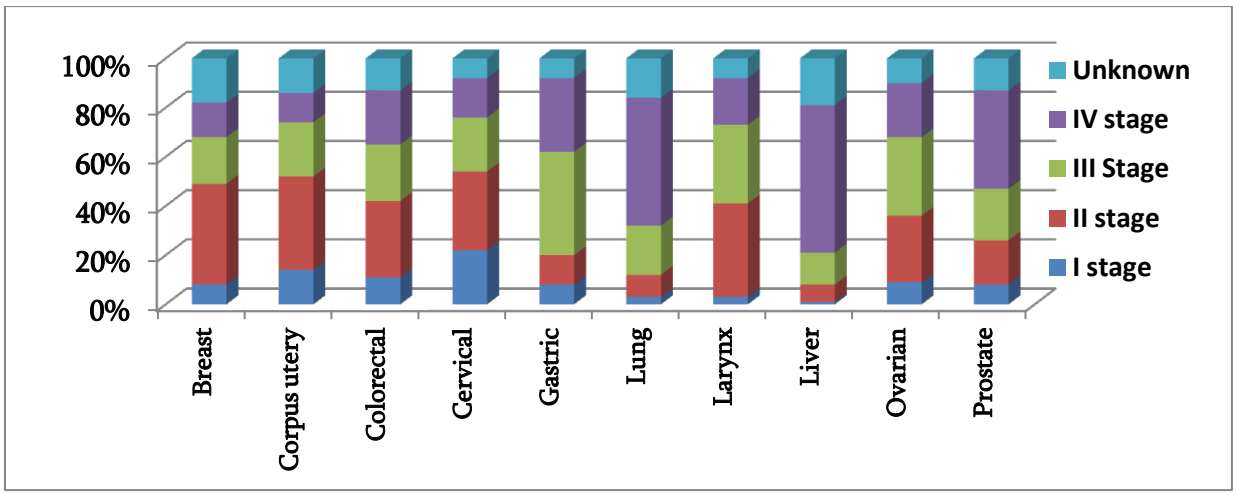
Source: NCDC

5-year survival rate, 2014



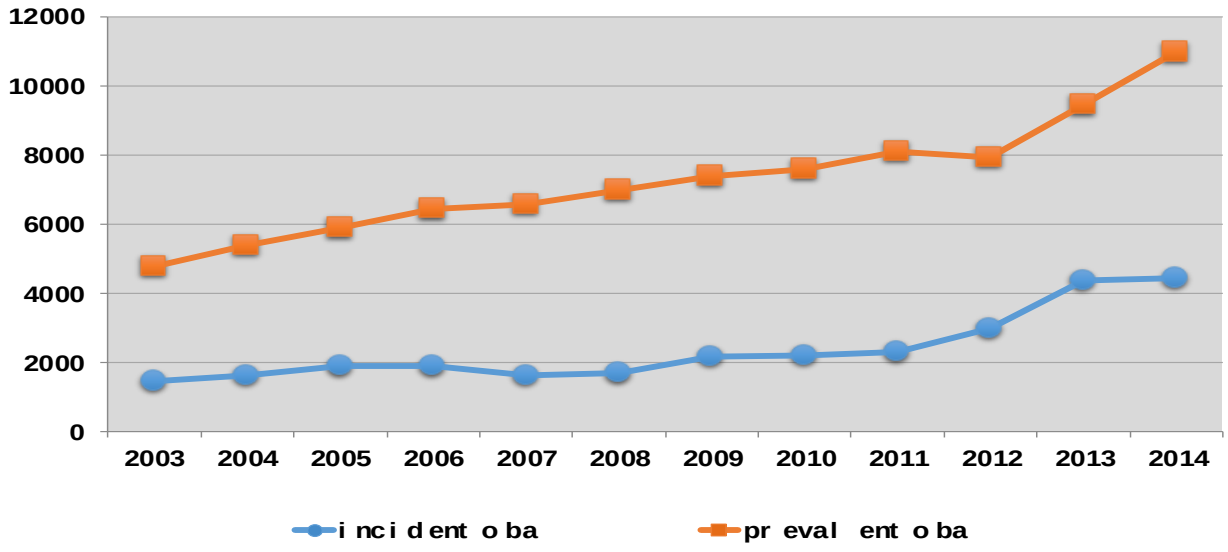
Source: NCDC

Stage at diagnosis for different localization of cancers



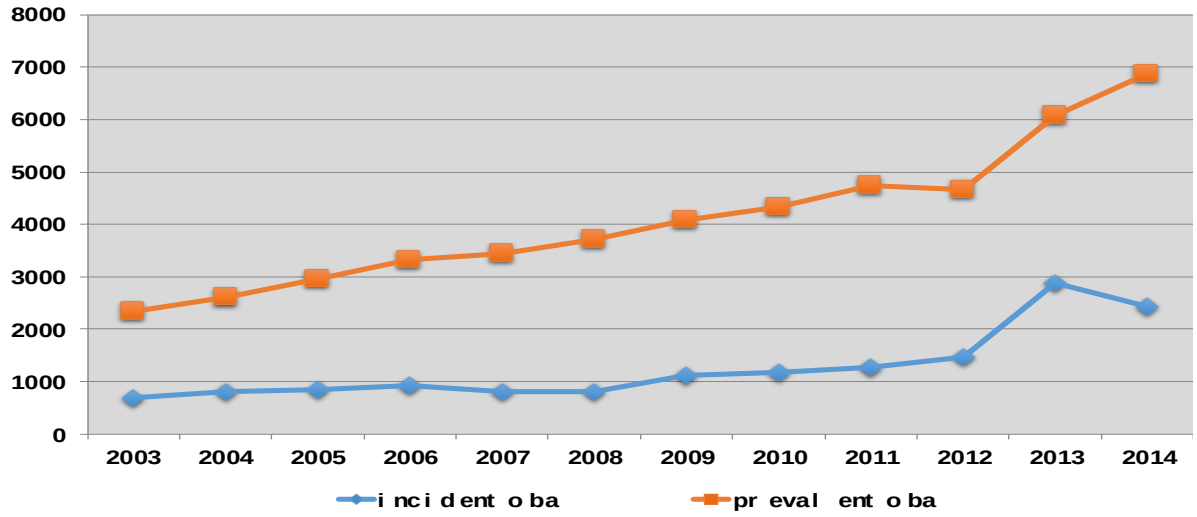
Source: NCDC

CVD, Incidence, prevalence, per 100000 population, 2003-2014



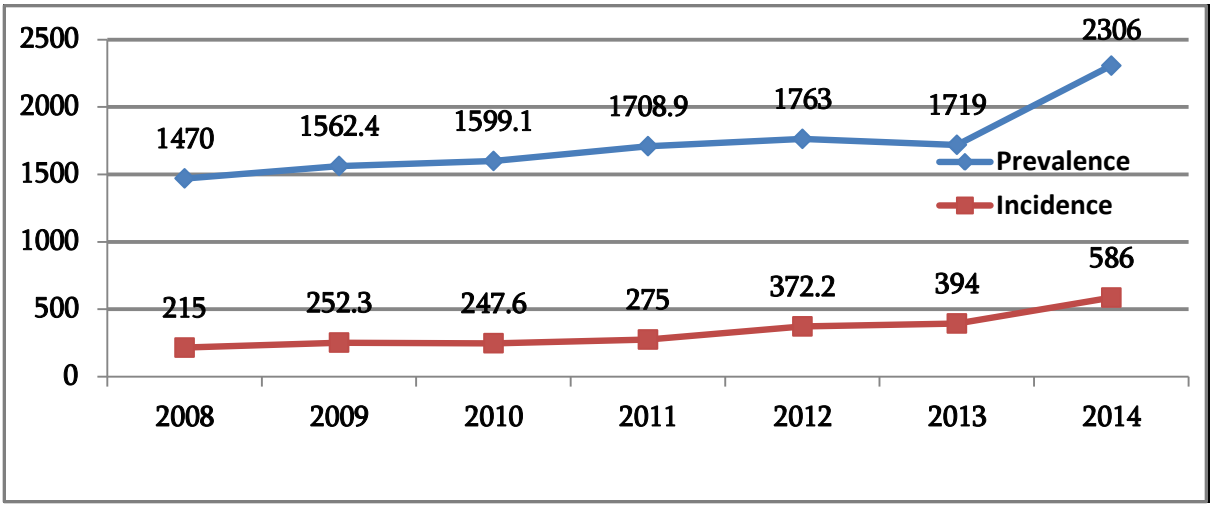
Source: NCDC

Hypertension, Incidence, Prevalence, per 100000 population, 2003-2014



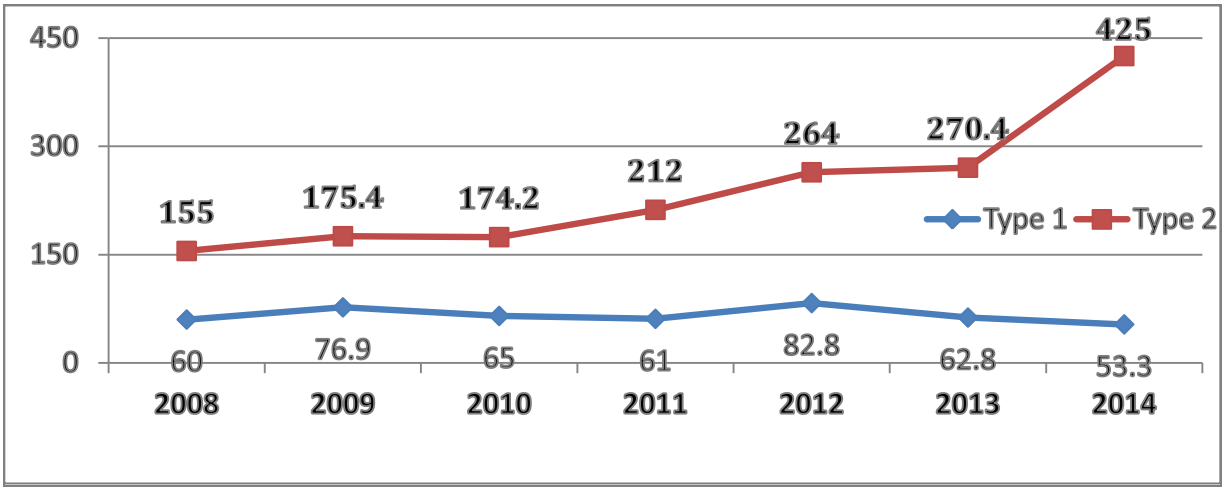
Source: NCDC

Diabetes, Incidence, Prevalence per 1000 000 population, 2008-2014



Source: NCDC

Type 1 and Type 2 Diabetes, Incidence, Prevalence per 1000 000 population, 2010-2014



Source: NCDC