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Progress report on the implementation of Kyrgyzstan's programme and action plan on prevention and control of noncommunicable diseases, 2013–2020

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Abstract

Kyrgyzstan adopted a NCD programme and an action plan on noncommunicable diseases (NCDs) for 2013–2020 in 2013. The country requested support from the WHO Regional Office for Europe in conducting a mid-term review on its implementation to monitor progress towards the targets and to identify challenges and opportunities for improvement and innovation in the second part of the term. A comprehensive framework guided the review of the programme and action plan on NCDs based on the logical result-chain matrix. Key recommendations have been identified and discussed with the Ministry of Health in the following areas: accelerating efforts to control the NCD risk factors; increasing capacity in monitoring and evaluation; improving allocative efficiency; and strengthening coordination and accountability to ensure increased capacity.

Keywords
Chronic Disease - prevention and control
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Acronyms and abbreviations

AIDS	acquired immunodeficiency syndrome
BMI	body mass index
CVD	cardiovascular disease
HIV	human immunodeficiency virus
NCD	noncommunicable disease
NGO	nongovernmental organization
PEN	Package of Essential Noncommunicable Disease [interventions]
SWAp	sector-wide approach
STEPS	STEPwise approach to surveillance

1. Introduction

1.1 Background

Kyrgyzstan adopted a programme and an action plan on noncommunicable diseases (NCDs) for 2013–2020 in 2013. The country requested support from the WHO Regional Office for Europe in conducting a mid-term review on its implementation to monitor progress towards the targets and to identify challenges and opportunities for improvement and innovation in the second half of the term. To achieve these objectives, a multidisciplinary team of international experts visited Kyrgyzstan and met with national representatives from 30 May to 2 June 2016 (Annex 1). Follow-up missions were organized on 22–26 August 2016 and 6–10 October 2016 to collect additional information on health economics and health care. The support was envisioned by the biennial collaborative agreement between the Ministry of Health and the WHO Regional Office for Europe for 2016–2017 and received funding from the project on the prevention and control of NCDs, which is funded through a voluntary contribution of the Ministry of Health of the Russian Federation.

Although this assessment focused on Kyrgyzstan's programme and action plan on NCDs for 2013–2020, synergy with related programmes has also been explored, including the Strategy on Health Protection and Promotion, the Den Sooluk Health Reform Programme, with cardiovascular diseases (CVDs) as one of its four priority areas, the tobacco control programme, the draft Alcohol Control Programme, the draft Programme on Diabetes and the draft United Nations Development Assistance Framework.

In the same year as the mid-term review, stakeholders carried out three other assessments that are discussed in the chapter on findings and recommendations.

- The United Nations Interagency Task Force on the Prevention and Control of Noncommunicable Diseases (March 2016) assessed the progress of the country against the United Nations time-bound commitments on NCDs, including NCD mortality and the prevalence of the related risk factors. This mission included representatives from nine agencies *(1)*.
- The implementation of Den Sooluk was comprehensively reviewed jointly by government representatives from Kyrgyzstan and development partners in the health sector, chaired by the Minister of Health (June 2016). With CVDs being one of the priority areas, this review studied the progress against the expected outcomes and the level of implementation of activities, including tobacco control.
- Den Sooluk and supporting projects were independently reviewed (July 2016) *(2)*. This review also studied the progress in CVDs and tobacco control.

1.2 Aim and objectives of the programme and action plan on the prevention and control of noncommunicable diseases, 2013–2020

Aim

The aim of Kyrgyzstan's programme and action plan on NCDs for 2013–2020 is to create a national system for preventing and controlling NCDs by:

- reducing morbidity, premature mortality and disability from NCDs;
- reducing the prevalence of NCD risk factors; and
- reducing the social and economic burden of NCDs based on the principle of intersectoral cooperation through comprehensive action focusing on controlling major risk factors and improving evidence based on the quality of health care.

Objectives

The specific objectives of the programme and action plan are the following.

1. Establish an effective system of intersectoral cooperation and partnerships to increase the priority of NCD prevention and control.

2. Study and assess the prevalence of major NCDs and their risk factors at the primary health care level.

3. Reduce the prevalence of common modifiable risk factors for NCDs, including tobacco use, unhealthy diet, physical inactivity and harmful alcohol consumption.

4. Improve the quality of the health care delivered in relation to NCDs at all levels of the health sector by using interventions that are consistent with the principles of evidence-informed medicine.

5. Ensure equal access to health care, regardless of socioeconomic factors such as geographical location, transport and income.

1.3 Methods for developing the progress report, including data quality issues

Framework

A comprehensive framework guided the review of Kyrgyzstan's programme and action plan on NCDs for 2013–2020 (Table 1). The logical result-chain matrix depicts the components of the programme and action plan and visualizes how inputs (such as funding, infrastructure and human resources) and activities (such as training and health collaboration) are reflected in outputs (such as the availability of services and products), ultimate outcomes (such as changes in health behaviour) and impact (such as decreased premature morbidity) *(3,4)*.

Table 1. Results matrix adjusted for this purpose of work

	Resources		Results		
	How		What	Why	
Results chain	Input	Activities and process	Output	Outcomes	Impact
Domains	Resources that can be devoted to the programme, including personnel and materials	Action taken through which capacity and funds are mobilized (to produce specific outputs)	Quantity of products or services provided	Result of the products or services Effects of an intervention's output Changes in health and well-being	A visionary statement or broad societal outcome
Indicators	Context analysis Stakeholder analysis Economic evaluation National documents: decisions, laws, regulations, strategies and action plans	As listed in the NCD action plan and other related plans upstream and downstream Possible scorecard: NCD progress monitor 2015	Key achievements	As listed in the NCD action plan and other related plans upstream and downstream International guidance: WHO NCD Global Monitoring Framework, Health 2020 targets and indicators and Sustainable Development Goals targets and indicators	

	Resources	Results	
	How	What	Why
Data sources (examples – the sources mentioned are not exhaustive)	Assessment reports; financial data sheets; interviews; the NCD programme and action plan, including the data sources required by the indicators of the NCD action plan; country fact sheets; NCD progress monitor 2015; population-based surveys; clinical reporting system; national, regional and global databases; and civil registration		
Analysis and synthesis	Data quality assessment, estimates and projections, in-depth studies, use of research results, assessment or progress and performance and efficiency		
Communication and use	Targeted and comprehensive reporting; regular review processes; national, regional and global reporting; adjustment of capacity and resources; adjustment of priorities; and adjustment of targets		

Indicators and data collection

The team considered that the collected information must be trustworthy and relevant to the Ministry of Health and must be perceived as credible to ensure that stakeholders accept the findings and act on recommendations. Data were collected against the objectives of the NCD programme and indicators that were specific, observable or measurable and relevant. In addition, information was gathered about the implementation of the four United Nations time-bound commitments *(5,6)* and core population-based interventions, as proposed by global and regional NCD action plans *(7,8)*.

Interviews with the NCD working group, experts and external stakeholders were organized and guided by the following questions.

What were the planned activities?

- Has the process of implementation happened as planned? What were the key achievements?
- Which factors have been noticed that supported or challenged the implementation?
- Has money been disbursed as planned? Was the capacity compatible with the requirements for implementation?
- Has equity in health improved?

Initial information was gathered through a desk review of key background documents, such as the programme and the action plan on NCDs, the country assessment report on the challenges and opportunities of the health system for better NCD outcomes *(9)*, the Health Systems in Transition report *(10)* and several WHO country fact sheets *(11–13)*. The findings were then validated through discussion sessions with the NCD working group and its partners during the missions. Since data for the indicator frameworks at the output level had been collected earlier, respectively for the health system assessment for NCD in 2014 *(9)* and the United Nations Interagency Task Force mission in 2016 *(1)*, trend analysis could be performed for the implementation of NCD policy interventions.

Data sources for indicators that measured progress towards the targets of the WHO NCD Global Monitoring Framework *(14)* and Kyrgyzstan's NCD programme included the Health for All database of the WHO Regional Office for Europe *(15)*, the Global Health Observatory database of WHO *(16)* and the national STEPwise approach to surveillance (STEPS) survey.

For the financial evaluation, the total costs of the NCD programme and action plan per year in general were calculated as well as specifically for each population-based intervention and primary care intervention. Only activities for which an exact amount of money was allocated in the NCD programme and action plan were studied; others were assumed to have been realized from the regular budget.

Information system for NCDs in Kyrgyzstan

Monitoring progress requires thoroughly analysing existing information. For NCDs, this should be based on retrospective analysis of mortality data, current cross-sectional analysis of morbidity data and retrospective and prospective analysis of data on risk factors to capture current achievements and to predict how NCDs will contribute to the future burden of disease. Ideally, these data would be stratified by sex and socioeconomic status to measure potential health inequities. Kyrgyzstan has a three-tier information system. Data are collected at the level of family medicine centres, the regional level and the national level.

The following registries have been set up in Kyrgyzstan at the national level: the Register of newborns, the Register of infant mortality, the Register of people with diabetes, the Register of maternal mortality.

A stroke registry was established for Bishkek, the capital, and the oblast of Osh in 1997 *(17)*. However, it functions only in the capital today and is managed by the city's emergency service, which registers all cases of stroke and myocardial infarction. Published results offer an interesting analysis of stroke trends and epidemiology *(18)*. Antenatal care registration has been implemented in pilot facilities, as well as the Register of patients with tuberculosis, and the Register of people living with HIV/AIDS. The work has begun on creating a cancer registry.

Data on risk factors include the following national surveys of adults: Kyrgyzstan STEPS (2013) *(19)*, Demographic and Health Survey (2012) *(20)*, Health Systems in Transition study (2011) *(10)*, national epidemiological study of tobacco use prevalence in 2005 *(21)* and CINDI Kyrgyzstan (2002) *(22)*. Surveys among youth include the Global Youth Tobacco Survey in 2004, 2008 and 2014. The Republican Medical Information Centre also receives data on risk factors, but these are data on people who visit a doctor only and of health-care organizations that participate in the pilot projects only. For the year 2017, the second round of the STEPS survey and the WHO Childhood Obesity Surveillance Initiative are planned to be implemented *(23)*.

The mission noted that several factors challenge the current information systems, affecting its capacity. These include inadequate computer equipment in health-care organizations, insufficient computer literacy among health-care personnel and weak commitment to use information technology systems, weak infrastructure in the regions (communication, technical equipment and electricity supply) and the limited implementation and maintenance of information technology because of limited funding and human resources.

Mission programme

Since it is important that sound monitoring and evaluation be built into the policy process and since the results form the basis for policy change and effective future management, the on-site evaluations were organized as a collaborative process between the national NCD core team and the international team. The first two days of the mission programme were built around interactive discussions between the two teams and members of smaller working groups. Data were collected and discussed as a joint exercise.

It was acknowledged that those involved in implementing the programme as well as those served or affected by it had to be engaged in the mid-term evaluation to build credibility for the methods and to support trust-building and understanding. A round-table discussion was organized for the national and international teams to engage with partners. These included partners both within and outside the health sector, such as Ministry of Health officials, advocates, health professionals, patient groups, nongovernmental organizations (NGOs), civil society organizations and academics.

Towards the end of each mission, key recommendations were discussed between the national and the international teams, which were then presented to the Minister of Health.

Limitations

Several limitations were related to this study. First, data were lacking that could have been used to assess progress towards the targets set by the WHO NCD Global Monitoring Framework *(14)* and the NCD programme and action plan. The national

team could benefit from reviewing their targets and the collection of related data to make sure that progress against the targets is measurable.

Second, data on the implementation of activities were solely collected through interviews and were therefore subjective. The Ministry of Health had no dedicated NCD unit responsible for implementing the NCD programme and action plan that could have shared implementation plans and progress reports. This created difficulty in analysing the chain of results.

For the financial evaluation, it was challenging that not all required data were available and not all the activities of the NCD action plan were budgeted.

Finally, it was not possible to collect all information during one mission because of the agendas of the experts, but three separate missions had to be carried out. To avoid potential inconsistencies, the team leaders of the first and the following missions communicated closely and shared relevant materials.

2. Measuring progress towards the targets

At the international level, governments have adopted several monitoring frameworks that include targets and indicators related to NCDs, such as Health 2020 *(24)*, the Sustainable Development Goals *(25)* and the WHO NCD Global Monitoring Framework *(14)*. For assessing progress against the targets in Kyrgyzstan, however, the targets of their NCD programme for 2020 were selected. Table 2 includes the progress against the proposed targets of the WHO NCD Global Monitoring Framework *(14)*, since this is the key framework adopted by the United Nations General Assembly.

A limitation of the study is that the data available in the country did not always correspond to the indicators established in the programme and the WHO NCD Global Monitoring Framework *(14)*. This should be considered when reading the assessment on progress against the targets.

2.1 Stabilization of overall premature mortality caused by cardiovascular diseases, cancer, diabetes and chronic respiratory diseases

This target of the programme on NCDs is less ambitious than the target of the WHO NCD Global Monitoring Framework, which proposes a 25% reduction in mortality by 2025 *(14)*. Data from the European Health for All database *(15)* show that premature mortality from NCD trends in Kyrgyzstan has decreased from 659.5 per 100 000 population in 2010 to 604.1 in 2013, or almost 9% in the four-year period (about 2.2% per year). Based on these data, projections indicate that, if trends continue, this indicator is on track to reach the Health 2020 target *(26)* by 2020, the global NCD target *(7)* by 2025 and the Sustainable Development Goals target *(25)* by 2030.

Mortality levels (NCDs, all causes combined) have a gender gap, being almost twice as high for men as for women. Although mortality trends have decreased for both men and women, the ratio has grown from 1.87 in 2008 to 2.03 in 2012 *(15)*, suggesting that the benefits are not reaching men at the same pace as women. For specific NCDs, the same situation applies for cerebrovascular disease but not for cancer, potentially because of increasing mortality from breast and cervical cancer among women.

Of the 13 CVD indicators in Den Sooluk, four have improved. According to national statistics, total CVD mortality rates declined during 2012–2015 among both men and women of working age (30–39 years and 40–59 years) *(2)*. The mortality rates for stroke have also decreased for all ages, as has premature mortality from acute myocardial infarction, but changes have occurred more rapidly for women than for men.

2.2 Relative reduction of 10% in the harmful use of alcohol

This target of the programme on NCDs is aligned with that of the WHO NCD Global Monitoring Framework *(14)*. However, data suggest that the country will not be able to meet the target and that stronger measures are needed *(27)*.

Between 2000 and 2014, pure alcohol consumption increased overall from 3.6 litres to 5.0 litres per year among people older than 15 years *(27)*. Since 2011, the consumption levels have been stable. According to data from the STEPS survey *(19)*, 45% of men reported drinking alcohol during the past 12 months versus only 18% of women. Among these current drinkers, 9% of men and 6% of women reported having consumed unrecorded alcohol within the past week. Heavy episodic drinking during the past month was reported by 23% of men and 3% of women. As estimated by WHO, alcohol was attributed as the cause for 60% of liver cirrhosis, 5% of cancer, 6% of CVDs and 20% of injuries in 2014 *(27)*.

The second STEPS survey, scheduled for 2017, will help to perform further analysis related to this target and to adjust the target within the NCD programme accordingly.

2.3 Relative reduction of 10% in the prevalence of insufficient physical activity

This target of the programme on NCDs (decrease in incidence) is different from the target of the WHO NCD Global Monitoring Framework (decrease in prevalence). The WHO European Health for All database has no data on trends in physical activity, but body mass index (BMI) could be used as a proxy indicator. The prevalence of BMI > 25 (overweight and obesity) among men and women older than 18 years increased from 45% to 47% between 2010 and 2014 *(15)*. This does not seem to be commensurate with the reported prevalence of physical inactivity of 11% among people 25–64 years *(19)*.

Data aggregated and stratified by sex are available in the STEPS survey *(19)*, which indicates a nearly 60% higher probability of physical inactivity among women than men (14% versus 9%). The STEPS survey reported a higher level of BMI > 25 of 56% of the population than the WHO European Health for All database, which can be explained by the differences in data sources. Further, even more important, STEPS revealed that 23% of the population is obese (BMI > 30).

2.4 Decrease of 30% in average salt intake in the population

This target is aligned with the WHO NCD Global Monitoring Framework and especially important because of the high prevalence of hypertension (48%), which is associated with high salt intake. The achievement of this target cannot be assessed because no data on individual salt intake are available, either based on dietary survey or 24-hour sodium urine excretion survey. However, in the context of FeedCities, a WHO project led by the WHO Office on Noncommunicable Diseases in Moscow and the Nutrition Programme of the Regional Office, extremely high amounts of salt were found in common foods in marketplaces in the capital city.

An additional although very inaccurate proxy measure could be the frequent addition of salt to food during the meal. Some of these measures could be useful to assess the progress against this target, since the country does not yet have data from a gold standard evaluation method. Recently another central Asian country estimated individual salt intake at 15 grams per day as the first country in the European Region performing this estimation. According to the STEPS survey, 18% of the population often or always adds salt to their food *(19)*.

2.5 Relative reduction of 15% in tobacco use

On this target of the national NCD programme, WHO comments that data on tobacco use are rather sparse; however, according to the Health for All database, the prevalence of tobacco smoking among people in Kyrgyzstan 15 years and older is 4% for women, and 51% for men (2013). STEPS 2013 *(19)* reported that 56% of men and 3% of women 25–64 years old are current tobacco users (smoked and/or smokeless) (2013). The gender gap may also help to explain the higher mortality risk from CVDs among men. Exposure to second-hand smoke is also worrying, with 24% of adults being exposed to tobacco smoke at the workplace and 23% being exposed at home *(19)*.

The Global Youth Tobacco Survey, implemented in Kyrgyzstan in 2014, revealed that 12% of boys and 5% of girls 13–15 years old used tobacco products; 14% of the students reported being exposed to second-hand tobacco smoke at home and 28% to tobacco smoke inside enclosed public places. Regarding access and availability, 85% of current cigarette smokers obtained cigarettes by buying them directly from a store, shop, street vendor, kiosk, small shop or market (bazaar); 68% were not prevented from buying them because of their age.

For the trend analysis, the team examined the most recent data published in the WHO global report on trends in prevalence of tobacco smoking 2015 *(28)*. Because no trend analysis was available regarding tobacco use, the prevalence of tobacco smoking was used as a proxy indicator. Tobacco smoking has not declined among people older than 15 years in Kyrgyzstan: it was 50% for men in both years and 5% versus 4% for women in 2000 and 2015, respectively, and is projected to be 51% for men and 3% for women in 2025. If no major changes occur, the target of reducing tobacco use by 15% will not be achieved by 2020. If Kyrgyzstan wants to meet the voluntary target of the WHO NCD Global Monitoring Framework (30% relative reduction from 2010 to 2025), the prevalence of tobacco smoking will have to decline to 34% for men and to 3% for women.

2.6 Increase from 2% to 4% in indicators of an effective hypertension control system

This particular target aims to reflect improvements in blood pressure control. Previous reports have highlighted shortcomings in this area, especially affecting men, and explored determinants of access, such as drug availability and costs and lack of awareness of the condition *(9,29)*. According to the STEPS survey for 2013 *(19)*, 43% had either systolic pressure >140 mmHg or diastolic pressure >90 mmHg. Almost 80% of those diagnosed with high blood pressure were not under medication (86% of men and 73% of women). Since no data were available to perform a trend analysis, no assessment could be made against this target in the NCD programme or the indicator of the efficacy of health system in controlling hypertension in Den Sooluk.

2.7 Preventing people from moving from pre-diabetes to diabetes

People with pre-diabetes have blood glucose levels that are higher than normal although not high enough to be diagnosed with type 2 diabetes.[1] Without sustained lifestyle changes such as following a healthy diet, engaging in physical activity and controlling weight, about one in three people with pre-diabetes will develop type 2 diabetes. Evidence shows that intensive lifestyle changes can prevent more than half (58%) of the people with pre-diabetes from developing type 2 diabetes *(30)*.

There are two pre-diabetes conditions: impaired glucose tolerance and impaired fasting glucose. The latter is included in the STEPS survey *(19)*, which found 4.5% (4.3% among men and 4.7% among women) to have impaired fasting glucose and 8.8% (7.1% among men and 10.5% among women) to have type 2 diabetes. The next STEPS survey should enable the change in prevalence to be assessed and success in preventing the conversion from one state to the other to be estimated.

2.8 At least 50% of individuals who meet certain criteria (≥40 years, high risk of CVD, stroke or heart attack) receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes

The numbers of patients admitted to hospital with an acute myocardial infarction, receiving a standard package of services, are increased *(17)*. In Kyrgyzstan, 49% of people 40–64 years old (48% among men and 51% among women) with high CVD risk (total CVD risk score ≥30% or with existing CVD) received medication and counselling in 2013 *(19)*, which means that the first target was already achieved for women in that year. The next STEPS survey will indicate whether the target for women has been reached on a sustained basis and whether it has been achieved for men.

The Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020 *(7)* recommends a standard package of services for treating acute myocardial infarction. The concurrent review of services for acute care and rehabilitation of heart attacks and strokes in Kyrgyzstan did not find a means of monitoring the numbers receiving such a package in Kyrgyzstan. A similar target is found in the indicators of Den Sooluk, measuring the "percentage of patients

[1] Defined as elevated fasting blood glucose (plasma venous value ≥7.0 mmol/L or capillary whole blood glucose ≥6.1 mmol/L) or is taking medication for elevated blood glucose.

with acute myocardial infarction administered the standard package of services in the hospital (aspirin, beta-blockers and heparin)". The mid-term evaluation of Den Sooluk *(2)* found that the indicator could not be routinely measured without conducting a special study, and the appropriateness of the indicator has therefore been questioned.

2.9 Availability of 75% of affordable basic diagnostic and treatment technologies and medicines, including generics required for treating major NCDs, both in public and private health-care institutions

Several studies have demonstrated issues in the affordability and availability of medicines in Kyrgyzstan *(29,31)*. The prices of medicines are not regulated, and low-cost generics are not frequently used because by health-care providers and patients mistrust their quality. The access to medicine for priority conditions[2] is ensured, and medicines should be provided free of charge but actually cost about 80–90% of the retail price. Insured people, about 70% of the population, are entitled to medicines under the additional drug package, which targets mainly NCDs and covers about 50% of the costs. According to a survey by the Ministry of Health in 2011, only 37% of the patients interviewed were aware of the additional drug package *(32)*.

Simple monitoring tools urgently need to be developed that will enable the availability and affordability of medicines to be measured to assess progress against this indicator. Before the start of the WHO Package of Essential Noncommunicable Disease Interventions (WHO PEN) for primary health care *(33)*, a survey was carried out in the pilot health facilities to assess access to basic technologies and medicines – and in principle, this survey could be extended or repeated to look for improvements.

Table 2. Scorecard for selected targets related to premature NCD mortality and NCD risk factors

Targets of the WHO NCD Global Monitoring Framework by 2025	Targets of Kyrgyzstan's on NCDs by 2020	Assessment in 2016
1. A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases	Stabilizing the overall mortality caused by CVDs, cancer, diabetes and chronic respiratory diseases Increasing life expectancy (5-year survival) and the quality of life of people with cancer – reducing mortality from cancer by 1.4%, equivalent to a decline of 2.1 cases per 100 000 population	On track. The target of the programme can be adjusted based on current trends. The global target will be surpassed with a premature mortality trend decrease of nearly 2.2% per year. According to the WHO Global Health Observatory, cancer mortality increased by 11% between 2010 and 2015. Stronger measures are therefore needed to turn this trend and progress towards meeting the target. Progress has been made in palliative care, which means progress towards achieving the target on improving the quality of life.
2. At least 10% relative reduction in the harmful use of alcohol,1 as appropriate, within the national context	Relative reduction of less than 10% in the harmful use of alcohol in appropriate cases	Total consumption (recorded and unrecorded) has increased since 2000 by 11% but has been stable since 2011. Effective policies need to be introduced, especially on pricing, marketing and availability.

[2] These include acute myocardial infarction, tuberculosis, bronchial asthma, cancer in the terminal phase, mental disorders (schizophrenia and affective disorders), epilepsy, diabetes and haemophilia (32).

Targets of the WHO NCD Global Monitoring Framework by 2025	Targets of Kyrgyzstan's on NCDs by 2020	Assessment in 2016
3. A 10% relative reduction in prevalence of insufficient physical activity	Relative decrease of 10% in the incidence of physical inactivity	The STEPS survey indicates the level of physical inactivity. Only the next STEPS survey will enable change to be assessed. With the prevalence of overweight and obesity as a proxy indicator, this has increased, which makes the case for stronger measures in this area to meet the target.
4. A 30% relative reduction in mean population intake of salt/sodium2	Relative decrease by 30% in the average salt and sodium intake among the population	No data are available on salt intake. However, in the context of FeedCities, extremely high amounts of salt were found in common foods in marketplaces in the capital city.
5. A 30% relative reduction in prevalence of current tobacco use among people aged 15+ years	Relative decrease by 15% in the prevalence of tobacco use among people 15 years and older	The latest global trends report for 2015 *(28)* shows no decreasing trend in smoking prevalence, but it has stabilized since 2000. If nothing major is done, the national target and the target of the WHO NCD Global Monitoring Framework will not be achieved.
6. A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances	Increase from 2% to 4% in indicators of an effective hypertension control system	The STEPS survey found a high prevalence of high blood pressure, including those with high blood pressure not taking medication. The next STEPS survey will enable change to be assessed.

Targets of the WHO NCD Global Monitoring Framework by 2025	Targets of Kyrgyzstan's on NCDs by 2020	Assessment in 2016
7. Halt the rise in diabetes and obesity	Preventing pre-diabetes to diabetes transformation	The STEPS survey measures the prevalence of impaired fasting glucose. Only the next STEPS survey will enable change in the prevalence of pre-diabetes and diabetes to be assessed and the success in preventing conversion from one state to the other to be estimated. The global target on obesity will not be met because there is an increasing trend.
8. At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	Drug therapy and counselling (including glycaemic control) for preventing heart attacks and strokes – at least 50% of individuals who meet certain criteria (≥40 years, high risk of CVDs, stroke or heart attack) Increase in the number of people admitted to hospital because of acute myocardial infarction who receive a standard package of services	The country is close to achieving this target, with 49% receiving drug therapy now. The target was already achieved for women in 2013.
9. An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities	Availability of 75% of affordable diagnostic and basic treatment technologies and medicines, including generics required for treating major NCDs, both in public and private health-care institutions	Routine measurement of indicators is necessary to perform an assessment against this target.

3. Progress on the population-based interventions

3.1 Alcohol consumption

Although Kyrgyzstan does not have an operational action plan on alcohol yet but solely a draft action plan on the control of alcohol consumption in the process of being adopted, measures to reduce the harmful use of alcohol are already in place. For example, the government has increased taxes on alcohol for domestic products, and this will be taken further under the Eurasian Economic Union. However, 40% of the alcohol consumed is imported or illegally produced, and this remains unaffected by the tax increases. There is reasonable legislation in place that limits the advertising of alcoholic beverages, such as a 2006 law on advertising that prohibits direct and indirect advertising of alcoholic beverages in public places, limits the length of advertisements on television and radio and prohibits the sponsorship of events using the logos of alcoholic products. However, the evaluation team notes limited enforcement of the law.

The round-table discussion with stakeholders mentioned that the stricter legislation of the past years on blood alcohol levels for driving (maximum of 0.3 g/L) has shown positive effects: drunk-driving cases have decreased with the increase in fines.

Since 2006, there have been rules prohibiting the sale of alcohol in public transport, government offices, parks and city squares and institutions for children, education, health, sports and culture as well as facilities located within 100 metres of them. Vodka in a small plastic container of 100 ml, popularly known as “yogurt”, is sold at a very reasonable price (2 som, which is cheaper than the price of fruit).

Table 3. Scorecard for alcohol-related population-based interventions

Interventions to prevent harmful alcohol use						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Raise taxes on alcohol	Alcohol taxes follow the price index	Alcohol taxes follow the price index; special taxes on the products attractive to young people	Alcohol taxes follow the price index and related to the alcohol content; special taxes on the products attractive to young people	Moderate The taxation of alcoholic beverages is in accordance with the current consumer price index The tax level is related to the alcohol content A large proportion of illegal and imported alcohol creates problems for taxation policy	Not highlighted in Den Sooluk	Moderate Alcohol taxes have been increased; however, much alcohol is still imported or illegally produced

Interventions to prevent harmful alcohol use						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Restrictions and bans on advertising and promotion	Regulatory frameworks exist to regulate the content and volume of alcohol marketing	Regulatory frameworks exist to regulate the content and volume of alcohol marketing, including direct and indirect marketing and sponsorship	Full ban on alcohol marketing of any kind	Moderate There are mechanisms prohibiting the distribution of alcohol in public transport, government offices, parks and city squares and institutions for children, education, health, sports and culture as well as in facilities located within 100 metres of them	Not highlighted in Den Sooluk	Moderate Restrictions on direct and indirect advertising are in place, but enforcement is weak
Restrictions on the availability of alcohol in the retail sector	Regulatory frameworks on serving alcohol in government and educational institutions	Regulatory frameworks on serving alcohol in government institutions and ban on serving alcohol in educational institutions	All government and educational institutions free of alcohol	Moderate The sale and distribution of alcohol is banned in government and education institutions, but implementation is slow to spread and to affect the behaviour of consumers	Not highlighted in Den Sooluk	Moderate Rules prohibit the sale of alcohol in public places

Interventions to prevent harmful alcohol use						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Regulation and enforcement of the minimum purchase age[a]	Minimum purchase age of 18 years for all alcohol products	Minimum purchase age of 18 years for all alcohol products and effective enforcement	Minimum purchase age of 18 years for all alcohol products and effective enforcement; loss of licence to sell alcohol for violators	Limited Restriction of the sale of alcohol to people younger than 18 years is not enforced	Not highlighted in Den Sooluk	Limited The law prohibits sales but enforcement is a problem; local administrations are responsible for regulation
Maximum blood alcohol concentration permitted for driving[a]	Maximum blood alcohol concentration of 0.5 g/L	Maximum blood alcohol concentration 0.5 g/L and zero for novice and professional drivers	Maximum blood alcohol concentration 0.2 g/L and zero for novice and professional drivers	Moderate Maximum blood alcohol concentration of 0.3 g/L; zero for professional drivers and no specific level for novices	Not highlighted in Den Sooluk	Moderate Maximum blood alcohol concentration while driving is 0.3 g/L; drivers are tested, but fines are not systematically collected

[a]Additional criteria to those mentioned in the global NCD action plan *(7)*.

3.2 Nutrition and physical activity

The team noted an increasing number of supportive activities related to nutrition and physical activity. Efforts have been made to bring policy documents in accordance with the provisions of a law on the technical regulations on the labelling of food products and with the treaty on the accession of Kyrgyzstan to the Treaty on the Eurasian Economic Union in 2014. The technical regulations directly affect Kyrgyzstan and will enter into force on 12 August 2017 (a two-year transition period).

Collaboration between the Ministry of Health and the Ministry of Education has resulted in the revision of rules for diet and food safety in schools and preschools. There is a programme on food security and nutrition, and a food-based dietary guideline (food pyramid) for healthy nutrition has been developed. The country has developed and approved the technical regulations on labelling of food products under the framework of the Eurasian Economic Union, which will come into force in August 2017. However, there are no specific regulations to reduce marketing to children of foods high in sugar, salt and fat nor policy measures to reduce the intake of salt and *trans*-fatty acids. Most of the initiatives on salt have focused on iodine deficiency and salt iodization without real effort to balance the needs for salt reduction and concurrent iodine supplementation balance, whereas no efforts have been made to reduce the salt content of foods to lower the high prevalence of arterial hypertension. There is no nutrition centre to develop and implement national standards for the consumption of salt, sugar and *trans*-fats, and a national survey on the consumption of salt is lacking.

Increased popular interest and a few achievements to increase physical activity have been noted. For example, bicycle and pedestrian paths have been built to promote cycling and walking in the pilot cities Bishkek and Osh. To achieve more

intensive use, local authorities need to have stronger means to prohibit car parking on these lanes, and city streets should be restructured to provide enough space for both cycling and car parking.

Other activities related to promoting physical activity include the collaboration between the Ministry of Health and the Ministry of Education, which resulted in the campaign Health Walk Day and the order that requires the first 15 minutes of each school day to be dedicated to physical exercise. The former has recently been initiated and received good media coverage, since some political leaders joined the walk.

Table 4. Scorecard for population-based interventions related to nutrition and physical activity

Interventions to prevent harmful alcohol use						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Reduce salt intake and the salt content of foods	<10% reduction in salt intake in the past 10 years	About 10% reduction in salt intake in the past 10 years	>10% reduction in salt intake in the past 10 years	Not highlighted in the assessment	Not highlighted in Den Sooluk	Limited No policy measures are in place to reduce salt intake Only proxy data available on salt intake, such as through FeedCities on the amount of salt in common foods
Virtually eliminate trans-fatty acids from the diet	No evidence indicates that *trans*-fats have been significantly reduced in the diet	*Trans*-fats have been reduced in some food categories and industry operators but not overall	*Trans*-fats have been eliminated from the food chain through government legislation and/or self-regulation	Not highlighted in the assessment	Not highlighted in Den Sooluk	Limited No policy measures are in place to reduce *trans*-fatty acids while the technical regulations from the Eurasian Economic Union clearly indicates the level of trans-fatty acids

Interventions to prevent harmful alcohol use						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Reduce free sugar intake	The aim of reducing the intake of free sugar is mentioned in policy documents, but no action has been taken	Reducing the intake of free sugar by 5% is mentioned and has been partly achieved in food categories	Reducing the intake of free sugar by 5% is monitored, with a focus on sugar-sweetened beverages	Not highlighted in the assessment	Not highlighted in Den Sooluk	Limited No policies in place
Increase intake of fruit and vegetables[a]	The aim of increasing the consumption of fruit and vegetables is mentioned, but no monitoring data have been collected to support it	The aim of increasing the consumption of fruit and vegetables is in accordance with the WHO/FAO recommendations of at least 400 grams per day, and some initiatives exist	The aim of increasing the consumption of fruit and vegetables is in accordance with the WHO/FAO recommendations of at least 400 grams per day, with population initiatives and incentives to increase availability, affordability and accessibility	Not highlighted in the assessment	Not highlighted in Den Sooluk	Limited No policies in place
Reduce the marketing pressure of food and non-alcoholic beverages to children[a]	Marketing of foods and beverages to children is noted as a problem but has not been translated into specific action in government-led initiatives	WHO recommendations on marketing have been acknowledged and steps have been taken in a self-regulatory approach to reduce the marketing pressure on children	WHO recommendations on marketing and the implementation framework on marketing are followed consistently, including a mechanism for monitoring	Not highlighted in the assessment	Not highlighted in Den Sooluk	Limited No policies in place

Interventions to prevent harmful alcohol use						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Promote awareness about diet and activity[a]	There has been no workforce development for nutrition and physical activity; nutrition and physical activity are not priority elements in primary care	Some workforce development for nutrition and physical activity; nutrition and physical activity are starting to be considered priority elements in primary care	Workforce development for nutrition and physical activity exists; nutrition and physical activity are priority elements in primary care	Not highlighted in the assessment	Not highlighted in Den Sooluk	Moderate Some policy measures are in place to increase physical activity

[a]Additional criteria to those mentioned in the global NCD action plan *(7)*.

3.3 Tobacco

The strategy for tobacco control is integrated into the programme on NCDs, the Den Sooluk health programme, the strategy on health protection and promotion and the programme for the transition of Kyrgyzstan to sustainable development for 2013–2017.

Kyrgyzstan ratified the WHO Framework Convention on Tobacco Control in 2003. A law on protecting the health of citizens of Kyrgyzstan against the harmful effects of tobacco was adopted in 2006, and amendments and additions were introduced in 2009. A law on advertising adopted in 1998 was amended in 2009. During 2008–2015, there was a state programme for protecting citizens' health against the harmful effects of tobacco use, which was first overseen by the Coordination Council on Tobacco Control and then amalgamated into the Coordination Council on Public Health in 2014. A new tobacco control strategy has been drafted but not been endorsed by the government.

According to the WHO report on the global tobacco epidemic 2015 *(13)*, the total tax on tobacco products in Kyrgyzstan is 39%, which is substantially lower than the 75% taxation recommended by the WHO. The price of cigarettes is very low; the average price of a pack in 2015 was just 34.7 som (US$ 0.50) *(34)*. During 2011–2014, the excise tax rate increased by four times, resulting in a five-fold increase in state revenues *(34)*. A study by WHO recommends that an increase in tobacco tax, foreseen in 2017, will be implemented with urgency *(34)*. According to preliminary data from the National Statistical Committee, the market volume nearly halved between 2014 and 2015. Local production of tobacco has diminished, so most tobacco products are imported. However, local chewing tobacco (*nasvay*) is becoming more popular and remains unregulated.

Smoking is completely prohibited in educational institutions, organizations for recreation for children, health organizations, cinemas, theatres, sports facilities and arenas, circuses, concert halls and other enclosed institutions of culture and sports. Smoking is also banned on intercity buses, fixed-route taxi vans and urban electric transport. Violation of the code entails a penalty, ranging from 10 000 to 50 000 som. The legislation is weakly enforced, and smoking continues to occur in public places where smoking is officially banned. Smoking is still allowed in areas close to schools and health facilities and in designated areas in cafés and restaurants. Additional work is needed to align the national policy with the WHO Framework Convention on Tobacco Control, requiring a complete smoking ban in all indoor public places. The new drafted law has such

a provision. There is no ban on the sale of cigarettes to people younger than 18 years, and cigarettes are placed in open-access areas in supermarkets.

Although the 1998 law on advertising was amended in 2009, it does not ban direct and indirect advertising of tobacco products, as required by Article 13 of the WHO Framework Convention on Tobacco Control and its guidelines. The current law should be revised in this respect. Further, the supervisory bodies, including neighbourhood police, are not effectively enforcing the law.

Twelve tobacco warning labels appear on cigarette packs. The current labels constitute 40% of the package and include the phone number for a quit line. Currently, the Republican Health Promotion Centre operates two national quit lines and receives 450 calls per month per line. These quit lines operate five days per week from 9:00 to 21:00. Other aid to help people quit smoking is not being offered. For example, nicotine replacement therapy is not readily available and has to be paid out of pocket.

As part of the implementation of the NCD programme and action plan, campaigns to inform the public about the dangers of tobacco use have been set up. These include information seminars for customs officers and the campaign You Smoke? Check Your Lungs. There has been a meeting with six rural health committees to facilitate the dissemination of leaflets among taxi and bus drivers as well as local administrators. Other information activities have not yet started because of a lack of funding. For the future, mass-media campaigns are planned to be organized such as "quit and win" campaigns with funds from the Health Protection Foundation, and young people can potentially be involved in preparing information materials through student contests. For the planned activities, WHO recommends that these have to be implemented through a comprehensive approach to be effective.

Table 5. Scorecard for population-based interventions related to tobacco

Range of antismoking interventions						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Raise tobacco taxes	Tax is less than 25% of the retail price	Tax is between 25% and 75% of the retail price	Tax is greater than 75% of the retail price	Limited The total tax varied from 30% to 45% of the retail price depending on the brand	Moderate Gradual increase of tobacco taxes to 75% of the retail price by the end of 2016.	Moderate Tobacco taxes combined constitute about 50% of the retail price

Range of antismoking interventions						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Smoke-free environments	100% smoke-free environments enforced in schools and hospitals only	100% smoke-free environments enforced in hospitals, schools, universities, public transport and workplaces	100% smoke-free environments enforced in all public places, including the hospitality sector	Limited A law exists and the responsible institutions are well defined; the law is not enforced, except for schools and hospitals	Moderate Expand smoke-free environments and ensure enforcement	Limited The law does not cover all indoor public places and should be strengthened and aligned with the WHO Framework Convention on Tobacco Control
Warnings of the dangers of tobacco and smoke	Warning labels required on tobacco products, size not specified	Warning labels on all tobacco products comprising at least 30% of the package size (front and back)	Warning labels comprise greater than 50% of the package size (front and back), with pictures (standardized packaging)	Limited In 2011, the Ministry of Health developed 12 warning labels with pictures to cover more than 30% of the front and back of the package; the government approved has these but they have still not been implemented	Moderate Implement and enforce government-approved warning labels	Moderate The pictorial warnings have been implemented, and the packages have a phone number for a quit line; however, the warnings comprise only 40% of the package
Bans on advertising, promotion and sponsorship	No ban or a ban on national TV, radio and print media	Ban on direct and indirect advertising and promotion	Ban on all advertising and promotion, including at points of sale, with effective enforcement	Moderate Direct and indirect advertising and promotion are banned, with restrictions on advertising at points of sale	Moderate Strengthen the enforcement of existing legislation	Moderate Not all forms of direct and indirect advertising are banned in accordance with the current law, which needs to be strengthened; enforcement is weak

Range of antismoking interventions						
	Limited	**Moderate**	**Extensive**	**Assessment of health system strengthening for NCDs 2012–2013**	**Target by the end of Den Sooluk (2016)**	**Mid-term evaluation May–June 2016**
Quit lines and nicotine replacement therapy[a]	No quit lines or government-funded cessation services, but nicotine replacement therapy allowed and available for individuals who pay the full cost	Quit lines and government-funded cessation services are available (possibly with co-payment); nicotine replacement therapy available for individuals who pay the full cost	Toll-free quit lines; cessation services and nicotine replacement therapy are available and affordable (subsidized at least partly)	Limited Quit lines do not operate The government runs a cessation service through general practice groups as part of capitation payment Nicotine replacement therapy is allowed and available for individuals who pay the full cost	Moderate Step-up support to people who want to quit smoking through village health committees, primary health care counselling and quit lines	Moderate Quit lines are operating, but nicotine replacement therapy is not readily available and is paid out of pocket

[a]Additional criteria to those mentioned in the global NCD action plan *(7)*.

4. Progress on the objectives of the NCD programme and action plan

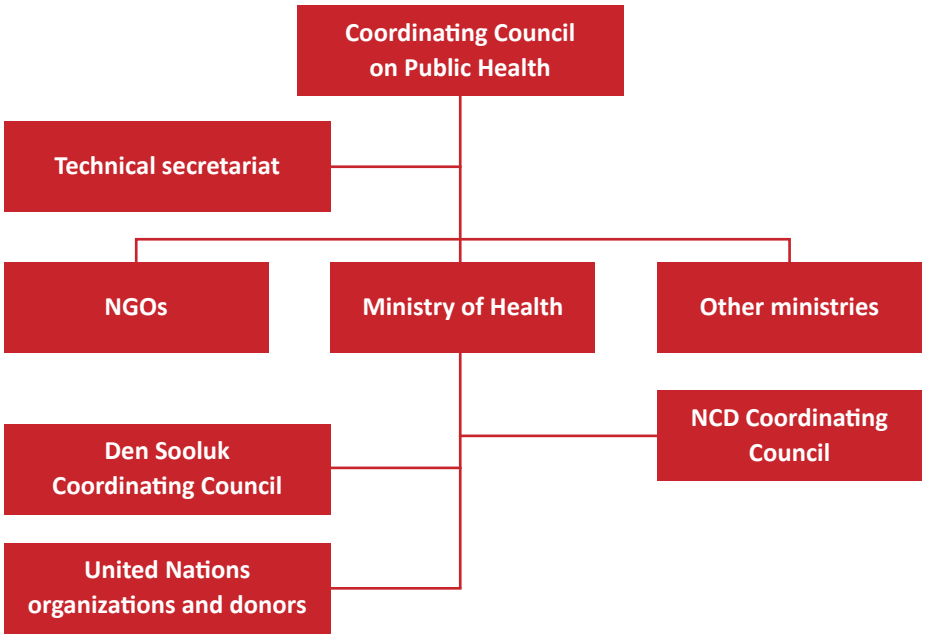
4.1 Objective 1: Establish an effective system of intersectoral cooperation and partnerships to increase the priority of NCD prevention and control

As part of the implementation of this first objective, the Coordination Council on Public Health under the government was established in 2014 and chaired by the Vice Prime Minister and the Minister of Health as deputy chair. The Council works across sectors and involves other ministries and departments as well as NGOs that work in various areas such as oncology, tobacco and respiratory diseases.

The Council was formed through a merger of the Council on Tobacco Control and the Council on Reproductive Health. It covers the broader public health functions and is responsible for coordinating the implementation of both the programme and action plan on NCDs and the strategy on health protection and promotion. Another structure was set up for Den Sooluk. For its coordination, an intersectoral group, which also involves United Nations organizations and donors, organizes thematic meetings and reviews the implementation once a year, coordinated by the Minister of Health.

So far, the Coordination Council on Public Health has held two meetings. The first was on the launch of the Council, and the second was on the strategy on health protection and promotion and the results of the STEPS survey *(19)*. A third meeting was planned for 2016 on nutrition (iodizing salt and fortifying flour) and physical activity and sports. However, the work of the Council stagnated because of changes in the government, and this meeting did not happen.

Fig. 1. Governance structure



Involving stakeholders working in other sectors is essential for successfully implementing the activities outlined in the NCD action plan. During the first meeting of the Council, various partners were therefore given tasks and responsibility for implementing activities, which were then reported on in the second meeting. However, only the Ministry of Health has been made responsible for implementation under the NCD action plan, and the Council therefore only has a formal role. To strengthen the influence of the Council on the coordination of activities related to NCD prevention and control, a secretariat of the Ministry of Health should be set up that functions better, and the NCD action plan should be adjusted to reflect the roles and responsibilities of other partners.

At the level of the Ministry of Health, a Coordinating Council on Noncommunicable Diseases is chaired by the Deputy Minister, who is responsible for delivering health care. Many actors are involved in this Council, including public health officers of the Ministry of Health, the heads of institutions related to NCDs, representatives from research institutes and academia, NGOs and representatives from primary health care centres. This Council meets twice a year to discuss the progress made towards implementing the NCD action plan's activities, to study interim reports and to reflect on recent developments and challenges. The decisions of this Council will be adopted by decrees issued by the Ministry of Health. One key accomplishment of the Council is establishing pre-examination rooms for preventing NCDs at family medicine centres (see Objective 2).

In each district (rayon) and each region (oblast), coordination councils have been established that develop local NCD action plans based on the NCD program, which are then approved by the local administration. These action plans take into account the specific priorities for each region and involve partners in development, implementation and reporting.

At the local level, the unit of social policy is responsible for coordinating activities. This is a point of concern, since their representatives normally work with social issues and do not have a health background, limiting the capacity to support the development and implementation of the NCD programme and action plan. However, there are mechanisms for coordination and interaction between the national and subnational levels. The national level can give recommendations, which are usually taken into account.

Another mechanism to support the NCD work at local level is the health promotion programme Community Action for Health. This programme builds on citizen participation through village health committees, comprising volunteers who are

trained to perform health checks. It has had a huge impact on improving the early detection and treatment of hypertension, and the donor organizations are using the structure of the village health committees for implementing their activities *(9)*.

NGOs are actively involved in developing and implementing programmes that complement the work of the Ministry of Health. They raise and catalyse public discussions on issues related to preventing and controlling NCDs. By conducting surveys, organizing events and working as members in thematic groups, NGOs influence the decisions of the government and are valued as an important resource. Strong cooperation between the government and NGOs is recommended, since the public is receptive to their ideas and work.

4.2 Objective 2: Study and assess the prevalence of major NCDs and their risk factors at the primary health care level

This second objective of the NCD action plan includes three main areas: assessing the prevalence of NCDs and their risk factors at the primary health care level; assessing the availability and accessibility of diagnostic, therapeutic and preventive interventions for NCDs at the primary health care level; and controlling risk factors at the primary health care level and conducting preventive and curative activities. The sources of the budget are split between international funds, grants and Ministry of Health funds.

The first planned activity to assess the prevalence of NCD risk factors was implementing the WHO STEPwise approach to risk factor surveillance. The results of the STEPS survey in Kyrgyzstan *(19)* have been presented at a meeting chaired by the Ministry of Health that involved a range of partners, including directors of the national health centres, representatives of research institutes, public health leaders, members of the Coordination Council on Public Health and the working groups of Den Sooluk and the Health 2020 programme. Implementing the STEPS survey has developed the capacity to conduct risk factor surveillance, and the national team learned how to analyse and use the data for policy-making. The next STEPS survey is planned for 2017.

As a second activity, the annual campaign Know Your Blood Pressure! has been implemented. It aims to improve the early detection and treatment of arterial hypertension and to increase awareness about the risks of high blood pressure among the general public. The campaign reached 480 289 people, including 326 795 people from rural areas. High blood pressure was observed in 66 102 people (14%), of which 16 776 people were identified with high blood pressure for the first time. Unfortunately, the follow-up of the people diagnosed with high blood pressure was not part of the project, so no information is available on the impact of this project.

The third activity comprised the development of a national registry of people with diabetes, which includes basic information such as the person's details, the type of diabetes and the date of diagnosis but also information related to the complications caused by the drugs prescribed. The registry is considered an important tool for managing people with diabetes and identifying the needs for procuring insulin. Moreover, the Ministry of Health has started to implement an order to initiate a national cancer registry that collects and analyses data from the health facilities in Bishkek and the Chui oblast.

For the second area, assessing the availability and accessibility of diagnostic, therapeutic and preventive interventions for NCDs at the primary health care level, an activity has been carried out to assess primary health care facilities in Bishkek with the support of WHO. Before WHO PEN was implemented, WHO encouraged identifying the infrastructure and capacity (personnel, equipment and the availability of drugs) by using one of the PEN tools.

For controlling the major risk factors for NCDs at the primary health care level, special pre-medical examination rooms for preventing NCDs have been established in family medicine centres countrywide. Ministry of Health order 445 of 5 August 2014 developed the location and responsibilities of nurses, equipment and a patient accounting form. In the 10 centres that are part of the pilot project of PEN, nurses have received additional training to evaluate NCD risk factors and to calculate a total cardiovascular risk score and to refer people appropriately according to the risk level (see Objective 4). The special

pre-medical examination rooms have shown the greatest functionality in Bishkek and the facilities in which PEN is currently being piloted.

Steps have also been taken in quality control, including setting up Committees to support family medicine centres and general practices and developing additional systems of funding and motivational interventions for physicians to link payments to results. Indicators already exist as part of the health insurance system, but these indicators are not currently linked to funding. Working groups are working on a system to use these indicators for motivational purposes.

4.3 Objective 3: Reduce the influence of common modifiable risk factors for NCDs, including tobacco use, unhealthy diet, physical inactivity and harmful alcohol consumption

This objective includes three major activities to increase awareness, healthy living through the life-course and campaigns through village health committees. The activities are mainly carried out under the leadership of the Republican Health Promotion Centre, and some are implemented with the financial support of the WHO Regional Office for Europe, the United Kingdom Department for International Development, the Swiss Agency for Development and Cooperation and the Russian Federation funds for NCDs. However, many planned activities have been delayed and initiated only this year because of a lack of funding. The following is a detailed review of the specific activities planned to achieve Objective 3.

The first group of activities under this objective relates to implementing educational interventions for preventing and controlling NCDs and their risk factors. An agreement was obtained with the mass media and a media plan prepared to establish a TV programme on healthy lifestyles in Russian and Kyrgyz. However, there are constraints to fully implementing and sustaining these activities. For example, UNICEF funds helped to build a studio for the TV show but were inadequate to shoot more than three episodes. In addition, commercial TV companies do not provide free broadcast time. Collaboration between the Ministry of Culture and Minister of Health is being sought to facilitate the use of free time charge for healthy lifestyle messages.

Further, the Republican Health Promotion Centre has aimed to involve mobile phone service providers in NCD campaigns. An agreement has been drafted with the mobile phone service provider Megacom to use short-message service (SMS) for health messages. However, this service will not be provided free of charge. Some money has been allocated to provide training to leaders at the local level on how to engage and work with media in preventing high blood pressure. The Republican Health Promotion Centre has an official website for disseminating information on healthy lifestyles, but maintaining it remains a challenge because of limited human resources.

The second group of activities focuses on implementing the principles of healthy living from childhood and throughout the life-course. Several activities started in 2015 to raise awareness within the general population and to improve student learning about healthy lifestyles. In this regard, the Republican Health Promotion Centre, in collaboration with the Ministry of Education, produced a methodological textbook in 2015 that targets the teachers of students in grades 6–11 on extracurricular work on healthy lifestyle.

The third group of activities under this objective relates to involving the population in programmes and campaigns to promote healthy lifestyles through village health committees. Under the component Community Action for Health of the Manas Taalimi Programme, the Republican Health Promotion Centre created the village health committees in 1700 villages across the country, and they successfully operate in 1480 villages. The main funding source is the Swiss Agency for Development and Cooperation. Many activities aim at strengthening the capacity of the village health committees to ensure the dissemination of information and education on healthy lifestyles at the local level. For example, there have been training seminars and round-tables on tobacco and blood pressure control, and in October 2016, a round-table on nutrition and food was implemented. Members of the village health committees who receive the training have great potential in spreading information and educating on healthy lifestyles at the local level. Several assessments, supported by the Swiss Agency for Development and Cooperation funds, showed that the village health committees were successful in maternity and child health, blood pressure control and infectious diseases.

Since 2012, the Republican Health Promotion Centre, with the assistance of the World Food Programme and more recently with UNICEF, has funded an information campaign on the first 1000 days of a child, from preconception to the age of two years, especially focusing on the importance of breastfeeding. As a result, 84% of women breastfeed until the child is one year old. The village health committees have also been effective in supporting breastfeeding at the community level.

The Republican Health Promotion Centre organizes the annual Health Day with round-tables, sports competitions and national games among representatives of state administrations, health-care and educational institutions, public organizations and mass media. Other annual campaigns are being organized, including Know Your Blood Pressure!, World No Tobacco Day, World Diabetes Day, World Heart Day and World Asthma Day.

4.4 Objective 4: Improve the quality of the health care delivered in relation to NCDs at all levels of the health sector by using interventions that are consistent with the principles of evidence-informed medicine

This objective was not formally evaluated during the main mission in May and June. Instead, this section is drawn from observations during other related WHO NCD missions in August and October 2016. The conclusions of these missions are cross-referenced within this report *(17,35)*.

The first activity under this objective is improving and optimizing management at all stages of health care, especially at the level of primary health care focused on identifying high-risk groups and early detection and control of NCDs. Within this, the NCD programme and action plan refer to these specific events:

- implementing programmes to combat CVDs, diabetes and chronic obstructive pulmonary disease in primary care from 2014 to 2020 to improve the early diagnosis and treatment of people with NCDs;
- capacity-building programmes Schools of Diabetes and Asthma Cabinet at the primary health care level (no additional funding) from 2014 to 2020, which is expected to result in improved early diagnosis and treatment of people with diabetes and chronic obstructive pulmonary disease;
- developing applied epidemiology on NCDs from 2014 to 2020, which is expected to result in the development of appropriate information; and
- changes to the list of documents for licensing pharmacies (including the information about measuring blood pressure) to be achieved within the first two years (2013–2014) with no additional funding, with the expected result of early identification of people with arterial hypertension.

These events were not formally evaluated as part of this mid-term evaluation, and none was due to receive additional funding. CVDs are given priority as one of the main themes of Den Sooluk 2012–2016. There is no separate programme on CVDs. The Ministry of Health has just adopted a Programme for Chronic Respiratory Diseases 2016–2020 that aims to cover: surveillance; prevention (tobacco control, including brief intervention in primary health care, and indoor air pollution, especially in high altitude); early diagnosis in primary health care, including spirometry and effective management; and education of health-care workers.

Specific interventions to combat CVDs, diabetes and chronic obstructive pulmonary disease in primary care are covered to some extent within the implementation of the WHO PEN protocols, which is described below.

The second activity under this objective is applying the service package at the level of primary health care and adapting and introducing integrated clinical protocols, with one associated event:

- implementation of clinical protocols for NCDs at the primary health care level, as recommended by WHO, to take place between 2014 and 2020, with the expected result of improving the quality of the diagnosis and treatment of people with NCDs.

With the implementation of WHO PEN, WHO and the Ministry of Health agreed to develop intervention protocols in June 2014, and a piloting project was implemented from June 2015. A random sample of family medicine centres in Bishkek and the Chuy region was chosen for piloting the approach, which was then assessed in terms of infrastructure and capacity and training personnel by using specially developed materials. The pilot project has since been expanded and now includes more family medicine centres in districts of the Issyk kul, Chuy and Batken regions.

As described under Objective 2, nurse cabinets have been established in family medicine centres. Nurses see people first and measure the CVD risk factors before they reach the doctor. Within the PEN pilot projects, total CVD risk is calculated using WHO charts. Risk is stratified: people with moderate or high risk are sent through to the doctor for management. A nurse counsels and follows up those with low risk. Almost three quarters (71%) of the people assessed had CVD risk in the first half of 2016, and nine-tenths (90%) had their blood pressure measured.

The implementation of WHO PEN protocols was included in Den Sooluk under the CVD theme. The focus so far has been on protocols 1 and 2, which relate to CVDs and diabetes through cardiometabolic risk assessment and management and behavioural counselling on lifestyle. More recently, implementation of protocol 3 on managing chronic obstructive pulmonary disease and asthma has been initiated, and the first results from the evaluation of its implementation will be available shortly.

The budget for the NCD action plan includes funds for reimbursing diabetic drugs, so these are available free of charge. Drugs for managing risk factors related to CVDs among people with diabetes are not free of charge, unless the person is in a special category such as 70 years and older or in a disability category.

Project monitoring suggests improvement in several indicators, such as the detection rate of CVD risk factors and diseases within PEN pilot family medicine centres over time and compared with non-PEN family medicine centres, but the differences have not been statistically significant. A WHO evaluation of the cost–effectiveness of the initiative is underway.

The third activity under this objective is developing and strengthening human resource capacity in prevention, early diagnosis and treatment of NCDs and rehabilitation measures, especially acute coronary syndrome. This has two associated events:

- creating the Department of Endocrinology and Diabetology at the Kyrgyz State Medical Institute for Continuing Education, with the expected result of improving early diagnosis and treatment of people with NCDs; and
- creating a rehabilitation programme after interventional procedures in acute coronary syndrome to support early cardiac rehabilitation.

The Kyrgyz State Medical Institute for Continuing Education organizes courses and workshop for professional development. Of those concerning CVDs, the main focus is on primary care and CVDs and less on stroke.

Training opportunities on NCDs for family physicians and nurses are available, for example, through the WHO PEN implementation. Initially aimed at health workers in the PEN project pilot districts, these have been extended to include other district and community health workers as well as teachers of the Kyrgyz State Medical Institute for Continuing Education and the I.K. Akhunbayev Kyrgyz State Medical Academy.

The components of evidence-informed care are partly in place for acute coronary syndrome and stroke, but the system lacks modern health-care technology, equipment and drugs. Providing post-acute myocardial infarction treatment and secondary prevention through cardiac rehabilitation and drug therapy (beta-blockers, aspirin and angiotensin-converting enzyme inhibitors) have been proposed as highly cost-effective measures for Kyrgyzstan *(36)*. The concurrent review of services for people with heart attacks and stroke found no national guidelines on cardiac rehabilitation and multiple gaps in secondary prevention and cardiac rehabilitation provision for people with acute coronary syndrome. Drug availability for the secondary prevention of stroke and acute coronary syndrome is limited as are public sector cardiac rehabilitation facilities. Post-discharge follow-up and patient education mainly rely on the Centers of Family Medicine and Centers of General

Practice. Further, fragmentation and limitations in the clinical pathways for the acute care of acute myocardial infarction and stroke leads to avoidable chronic disease and disability.

4.5 Objective 5: Ensure equal access to health care, regardless of socioeconomic factors such as geographical location, transport and income

The first planned activity under this objective is providing universal health services to overcome inequalities resulting from social and geographical living conditions. This activity is planned to run from 2014 until 2020 and is funded under the budget of the Ministry of Health.

To tackle the issue of limited health personnel in rural areas, an incentive scheme has been developed to recruit doctors for the identified 150 positions in rural areas. Under this programme, doctors receive an additional payment on top of their salary paid by the government. The programme is well established and successful; all 150 positions have been filled with physicians younger than 45 years for three years, and the programme is reviewed quarterly. However, the main challenge is that the additional payments are only made in the first three years. To prevent personnel turnover, local administrations need to find ways to provide support to the doctors who only moved to the area because of the incentive scheme. Since the programme started in May 2013, this issue was evident during the mid-term evaluation. In addition, the NCD working group reported that the actual need for doctors in rural areas is actually twice as great (300 positions).

The second activity under this objective is organizing transport to health-care facilities for 2016–2020, supported by the budget of the Ministry of Health and implemented in partnership with the Ministry of Transport and Communication. Several projects have been proposed that aim to support the transport of patients to health-care facilities and physicians to remote areas. The distribution of free transport tickets has been suggested for patients to travel to policlinics and hospitals, after they have been diagnosed, for example, with high blood pressure at the village health committees. The Ministry of Transport is taking the lead on this project. Providing tickets to health personnel has also been proposed, so they can travel to patients' homes or to areas that only have a nurse or a feldsher. However, there is not only a shortage of health workers in rural areas but also a need for more equipment. In response, three health caravans were purchased in 2015, which serve as mobile units with a team of health providers and have laboratory equipment. The number of these health caravans is envisaged to increase over the coming years, depending on the budget.

The third activity is being carried out to support people with low income to reduce the economic burden of NCDs in 2016–2020 and implemented in partnership between the Ministry of Health and the State Agency for Local Government and Interethnic Relations. No specific activities have been started as of the date of this evaluation.

During the evaluation, the NCD working group reported that patient education projects also contributed to the implementation of Objective 4. The country struggles with low levels of motivation and awareness of patients. Many people avoid seeing a doctor. This group includes, for example, men of working age. To increase awareness, the country has invested in distributing communication materials such as infographics and videos for television, and health workers visit factories to measure blood pressure on special occasions such as World Health Day. The potential of the programme on health at the workplace can be strengthened.

5. Funding

The NCD action plan has multiple internal and external sources of funding. The NCD action plan includes providing countrywide diabetes medication free of charge, which is costly and accounts for more than 70% of the whole NCD action plan budget and for more than 80% of the internal resources. Since one activity has such a great impact on the budget, the analysis was conducted including and excluding these costs.

Most of the internal sources of funding come from the national budget, mainly the Ministry of Health, which covers many of the NCD action plan activities and the salaries paid for the national coordinator for NCDs and all staff of the Republican Health Promotion Centre. Within the Ministry of Health, the NCD action plan receives 1.04–1.16% of the total health-care budget (including diabetes drugs), or 0.03–0.08% of the total health-care budget (excluding diabetes drugs) (Table 6). According to WHO estimates, a share of 4% of the health budget is required for a limited number of priority NCD interventions to become effective in low-income countries *(37)*. The expenditure for preventing NCDs can be viewed as constituting 4.2–4.3% of the total health-care budget based on a broader perspective and adding expenditure outside the NCD action plan; for example, those for physical activity of the Sport and Youth Agency, the programme for sport in school of the Ministry of Education and the programme on healthy schools and universities of the Ministry of Health.

Table 6. Percentage of the NCD action plan budget and real expenditure and broad NCD prevention expenditure from the whole health budget of the Ministry of Health (%)

	2014		2015	
	Planned	Expenditure	Planned	Expenditure
NCD action plan budget and real expenditure including diabetes	1.46	1.16	1.32	1.04
NCD action plan budget and real expenditure without diabetes	0.38	0.08	0.31	0.03
All NCD prevention activities as a percentage of the NCD action plan budget	4.58	4.26	4.21	4.20

Although the national budget accounts for the largest part of the internal sources, municipal budgets fund some activities (205 000 som, 2015) as does the health insurance fund (97 000 som, 2015). For example, the Bishkek municipal budget was used for establishing biking paths, and the health insurance fund paid for equipment and personnel at family medicine centres.

External sources of direct funding by international organizations include WHO and the Swiss Agency for Development and Cooperation. Some concrete activities have also been planned to be funded by World Bank–led SWAp-2 pooled funding, using the Procurement Plan. However, these funds were not allocated in 2014 and 2015.

Table 7 provides an overview of planned and allocated funds for the NCD action plan. Internal sources covered 94% (2014) and 97% (2015) of the action plan, including diabetes medication. However, excluding the resources allocated to diabetes medication, these numbers change to 6.7% (2014) and 3.4% (2015).

Table 7. NCD action plan budget, planned budget and allocated funds for 2014–2015, by funding source (in som)

	2014		2015	
	Planned	Allocated	Planned	Allocated
Internal sources				
National budget (Ministry of Health)	150 427 000	124 092 000	152 612 000	123 619 000
Municipal budget (Bishkek)	205 000	205 000	205 000	205 000
Health insurance fund	0	0	0	97 000
Total, internal	150 632 000	124 297 000	152 817 000	123 921 000
Total, internal excluding diabetes drugs	26 947 000	612 000	29 132 000	139 000

	2014		2015	
	Planned	Allocated	Planned	Allocated
External sources				
Direct funding by donors (WHO, Swiss-Kyrgyz project)	13 503 000	8 490 000	6 053 000	4 009 000
SWAp-2 (donor money collection)	2 878 750	0	2 878 750	0
Total, external	16 381 750	8 490 000	8 931 750	4 009 000
Total internal and external				
Total, internal and external	167 013 750	132 787 000	161 748 750	127 930 000
Total, internal and external, excluding diabetes drugs	43 328 750	9 102 000	38 063 750	4 148 000
% from internal sources, whole action plan with diabetes drugs	90.2	93.6	94.5	96.9
% from internal sources, whole action plan excluding diabetes drugs	62.2	6.7	76.5	3.4

The Sport and Youth Agency allocates considerable money annually to physical activities, including campaigns to promote exercise, maintaining and constructing sports facilities and organizing amateur sports competitions. The budget of this programme for physical activity is twice the whole annual budget of the NCD action plan, including diabetes drugs. However, there seems to be no coordination between the programme of the Sport and Youth Agency and the activities of the NCD action plan.

Table 8 provides an overview of the planned and actually realized budget for NCD activities per capita. The planned budget for alcohol, physical activity and nutrition was low and constituted less than 1 som per capita. For tobacco-related activities, the planned budget was 3.26 som (2014) and 3.46 som (2015). However, the actual per capita expenditure was much lower than planned: 0.05 som on tobacco, 0.01 som on alcohol and 0.03 som on physical activity in 2015. No funds were spent on nutrition and air pollution activities in 2014–2015, although they had planned budgets of 0.44–0.45 som and 0.12 som per capita. These numbers are lower than the WHO estimates of mean per capita expenditure: US$ 0.1 (~7 som) on tobacco control, US$ 0.138 (~9 som) on alcohol control, US$ 0.077 (~5 som) on physical activity and US$ 0.82 (~57 som) on the package of best buys to show effects on the population health in low-income countries *(20)*.

Expenditure per capita for primary care was 21.50 som in 2015, of which 20.95 som was allocated to diabetes drugs. The NCD action plan expenditure was 22.99 som (2014) and 21.70 som (2015) per capita. The expenditure for all NCD prevention interventions, including those not mentioned in the NCD action plan, was 84.13 som (2014) and 87.48 som (2015) per capita.

Table 8. Per capita expenditure on the NCD action plan (and broader for physical activity) by risk factor in 2014–2015 and general (in som)

	2014		2015	
	Planned budget	Expenditure	Planned budget	Expenditure
Multiple risk factor interventions	0.84	0.09	0.88	0.09
Tobacco	3.26	0.02	3.46	0.05
Alcohol	0.25	0.01	0.25	0.01

	2014		2015	
	Planned budget	Expenditure	Planned budget	Expenditure
Physical activity (only NCD action plan)	0.05	0.12	0.09	0.03
Physical activity (broad spectrum of NCD prevention activities)	59.29	59.36	58.14	58.08
Nutrition	0.45	0	0.44	0
Air pollution	0.12	0	0.12	0
Primary care	22.90	21.46	22.44	21.50
Diabetes drugs	21.87	21.38	21.43	20.95
All NCD action plan	28.91	22.99	27.44	21.70
All NCD action plan excluding diabetes drugs	7.50	1.58	6.46	0.70
All NCD prevention interventions	90.30	84.13	87.69	87.48

Table 9 shows the annual expenditure on risk factors and some other activities in absolute numbers. The NCD action plan allocated 19% of the resources to the population-based interventions on all risk factors and 82% to the individual services in primary care. However, only the planned expenditure on primary health care was realized in 2015, while far less was spent on controlling risk factors (0.8%) within the budget of the NCD action plan. Resources by the Sport and Youth Agency for physical activity exceeded these numbers and comprised 49% of the total expenditure for NCD prevention.

Table 9. Annual expenditure on risk factors in the NCD action plan and on broader NCD interventions (in som)

	2014		2015			
	Planned	Expenditure	Planned	% of total	Expenditure	% of total
Multiple risk factors interventions	4 835 000	500 000	5 205 000	3.2	520 000	0.4
Tobacco	18 838 000	100 000	20 373 000	12.6	300 000	0.2
Alcohol	1 465 000	50 000	1 500 000	0.9	60 000	0.001
Physical activity (only NCD action plan)	275 000	705 000	520 000	0.3	205 000	0.2
Nutrition	2 580 000	0	2 580 000	1.6	0	0
Air pollution	700 000	0	700 000	0.4	0	0
STEPS survey	7 450 000	7 450 000	---	---	---	---
Total risk factors	36 143 000	8 805 000	30 878 000	191	1 085 000	0.8
Primary care, all	132 270 750	123 982 000	132 270 750	81.8	126 748 000	99.1
Diabetes drugs	126 358 750	123 480 000	126 358 750	78.1	123 480 000	96.5
All NCD action plan	167 013 750	132 787 000	161 748 750	100	127 930 000	
All NCD action plan without diabetes drugs	43 328 750	9 102 000	38 063 750		4 148 000	
Physical activity: Sport and Youth Agency[a]	254 571 900	254 571 900	254 571 900	49.2	254 571 900	49.4

	2014		2015			
	Planned	Expenditure	Planned	% of total	Expenditure	% of total
Total: all NCD prevention intervention	521 622 050	485 995 300	516 936 450	100	515 673 400	100

[a]Numbers only received for 2015.

6. Key findings and recommendations

6.1 Accelerate efforts to control the NCD risk factors

Findings

The team looked at the information available on NCD mortality and the risk factor prevalence to assess the effectiveness of the implementation of the NCD programme and action plan on NCDs. The indicators and targets of the NCD programme and action plan and the WHO NCD Global Monitoring Framework were chosen as reference points. Of those that could be evaluated, only the target on NCD mortality was on track but none of those related to risk factors, despite the nearly met target on drug therapy and counselling. In particular, stronger measures are needed to meet the targets related to alcohol, tobacco, diet and overweight and obesity as proxies for physical inactivity and diabetes. Because of the lack of data, trend analysis could not be performed for the targets related to physical inactivity, salt intake, hypertension, diabetes and the availability of diagnosis and treatment.

Although the framework of mandates is in place, recent assessments show that the implementation of core population-based interventions and core individual services could be strengthened in the country *(1,9)*, which this evaluation has confirmed. There is fair implementation of cost–effective interventions that are in accordance with the Global NCD Action Plan and the United Nations commitments in tobacco and alcohol control. Compared with the previous assessment by the WHO in 2014, which was part of the assessment of challenges and opportunities for health systems to respond to NCDs, most progress seems to have been made in tobacco control, including establishing pictorial warnings and quit lines on cigarette packs, while progress in alcohol control appears to have stagnated. The lack of enforcement mechanisms and monitoring in both areas is still an issue, and interventions are therefore not achieving their expected results. In nutrition and physical inactivity, policy measures need to be strengthened and public awareness improved (which is in itself not very effective).

Both the United Nations Interagency Task Force on the Prevention and Control of Noncommunicable Diseases (March 2016) *(1)* and the independent review of Den Sooluk and supporting projects (July 2016) *(2)* also noted the progress in tobacco control in terms of taxation and pictorial warnings and the message of this report that additional activities are needed to improve the implementation of the WHO Framework Convention on Tobacco Control. Tobacco products need to be taxed more, and the smoking bans in public places have to be enforced more strongly. In addition, the United Nations Interagency Task Force on the Prevention and Control of Noncommunicable Diseases (March 2016) *(1)* concluded that taxes on alcoholic beverages also need to be increased nd then a ban on advertising and promotion and regulation on the availability of alcohol should be introduced. Regarding nutrition, the Task Force recommended improving the proportion of the population eating a healthy diet *(1)*. This report confirms the findings of these two reviews.

Recommendations

- Stronger measures are needed to reduce the prevalence of high blood pressure in the country.
  - Priority actions for 2017: alcohol – introducing screening and brief interventions in primary care settings, including a train-the-trainer workshop; tobacco – adopting a renewed tobacco control strategy and action plan and preparing

for adopting the legislation aligned with the time-bound obligations of the WHO Framework Convention on Tobacco Control including a tobacco tax increase; and nutrition and physical activity — assessing salt consumption and introducing a salt-reduction plan, eliminating *trans*-fat from the food supply, and increasing physical activity of school children.

- In the longer term, effective alcohol control policies need to be introduced, especially on pricing, marketing and availability. Regarding tobacco, the implementation of other aspects of the WHO Framework Convention on Tobacco Control has to be increased. To improve the availability and affordability of a healthy diet, other aspects should be included in the NCD action plan such as the reduction of free sugars in processed foods and beverages, and the intake of fruit and vegetables.
- The implementation of individual-level NCD interventions needs to be strengthened in primary health care, especially cardiometabolic risk assessment and management and secondary prevention for high-risk individuals such as those who have already experienced a heart attack or stroke. Reviewing the evaluations and lessons learned from the existing WHO PEN pilot projects and implementing NCD interventions in primary health care can inform a roadmap for the way forward that builds on broader health system opportunities for increasing the coverage and quality of care.

6.2 Increase capacity in monitoring and evaluation

Findings

This mid-term evaluation has laid the ground for building institutional capacity and specifying the roles and responsibilities of in-country institutions to support more regular monitoring, review and (remedial) action. A clear process for capacity-building has to be set up for all aspects of monitoring and evaluation, including collection, analysis, synthesis, quality assessment and disseminating and using data for progress and performance reviews. Leveraging the expertise and capacity of in-country institutions, such as academic, public health and research institutions, can contribute to improving the quality of health-related statistics.

Because of poor capacity, data were lacking to analyse the progress towards several targets and the level of implementation of activities and to conduct more comprehensive financial evaluation. Once the second round of the STEPS survey has been implemented, the change towards achieving most targets can be assessed. A logical model could be used for planning further activities within the NCD action plan and tracking indicators.

All the other review missions in 2016 acknowledged the challenges caused by limited data, even for the indicators set by Den Sooluk and the NCD programme and action plan, and the absence of implementation plans, which could be used to explain the result chain of activities and outcomes. The comprehensive review of Den Sooluk, as a joint event of the government and the development partners, explicitly suggested that that the STEPS survey has to be implemented as a priority in 2017.

Recommendations

- Sources, capacity and mechanisms for collecting and analysing data are weak in Kyrgyzstan. The country needs to build capacity in monitoring and surveillance to assess progress and adjust the priorities accordingly.
  - As a priority for 2017, it is advised to implement the second round of STEPS for capacity-building and informing on progress based on trend analysis. The targets of the NCD programme, and related programmes and strategies, need to be adjusted in accordance with those proposed in the WHO NCD Global Monitoring Framework.
  - In the longer term, the country could benefit from a framework that depicts the responsibilities for collecting and providing data and the mechanisms for communicating and disseminating the results.
  - Expanding and strengthening disease registries for acute coronary syndrome, stroke and diabetes could be opportunities to identify and share good practices, provide feedback to clinicians, monitor performance and benchmark against international standards. A limited but realistic set of indicators, well measured and monitored, would assist in monitoring and evaluating the disease-specific thematic programmes.

- It is recommended to develop an implementation framework, including indicators for the NCD programme and action plan.
  - As a priority for 2017, it is suggested to pilot the development of an implementation plan related to Objective 1 of the NCD action plan on intersectoral cooperation and partnerships.
  - In the longer term, these implementation plans could be developed for all the objectives of the NCD action plan and thereby increase the possibility for tracking progress against the implementation of activities.

6.3 Improve allocative efficiency

Findings

There have been numerous activities to implement the objectives of the NCD programme and action plan. A Coordination Council on Public Health has been established to strengthen the work across sectors as well as a Coordination Council on NCDs under the chairmanship of the Deputy Minister of Health. A STEPS survey has been conducted to assess the prevalence of NCD risk factors, and the PEN tool is currently being piloted in several primary health care facilities to perform cardiometabolic risk assessment and improve the management of CVDs and diabetes. In addition, educational activities have been carried out, and the work of the village health committees in this can be complimented. Lastly, there have been efforts to reduce inequalities in access to health care by creating an incentive scheme for doctors, improving transport facilities in rural areas and setting up health caravans.

One challenge is ensuring funding for projects. Many activities have not yet started because of the lack of resources. Some programmes are important to continue to benefit the whole country and to ensure the sustainable development of the health sector, including the WHO PEN project and the incentive scheme for doctors.

Population-based interventions for preventing risk factors especially experienced inadequate funding from internal resources, since the budget of the NCD action plan is mainly allocated to primary care interventions and diabetes drugs. Except for physical activity interventions funded by the Sport and Youth Agency, the per capita expenditure on NCD prevention activities is rather low. The actual expenditure is often inconsistent with the planned budgets for internal sources, whereas the allocation of external resources occurred largely as planned.

There is an opportunity to improve NCD funding by improving the coordination and allocation of existing resources. This finding is aligned with the independent review of Den Sooluk and supporting projects (July 2016) *(2)*, which advocated improving allocative efficiency and focusing on “freeing up and reallocating existing financial and other resources within the health sector and reallocating them to where they have the greatest impact” *(2)*.

Recommendations

- Many activities have not started because of a lack of funds. Improved allocation of funds is needed to increase effective implementation and ensure the sustainability of the programme.
  - As a priority for 2017, it is recommended to organize a workshop to review the potential returns on investment from NCD prevention interventions and to discuss improving the allocation of funds in accordance with the recommendations of the independent review of Den Sooluk and supporting projects *(2)*. The workshop in 2017 should have as a result a longer-term plan for implementing the recommendations.
  - Management of resources is also significant for CVDs. The review of a report on heart attacks and strokes being prepared in 2017 will also provide an opportunity to review the effective use of resources, including rationalizing existing infrastructure, triaging resources, capitalizing on professional networks and coordinating and planning new developments.

6.4 Strengthen coordination and accountability to ensure increased capacity

Findings

Several mechanisms are in place to address the burden of NCDs, and the responsibilities are shared between different institutes. Coordination and accountability clearly need to be strengthened at the Ministry of Health and government level to ensure intersectoral and intrasectoral capacity. As a first step, this could be accomplished by setting up a dedicated NCD unit within the Ministry of Health. Further, collaboration between partners working on preventing and controlling NCDs could be fostered at a high level by revitalizing the Coordination Council on Public Health, an intersectoral body chaired by the Vice Prime Minister, and putting NCDs as a standing priority on their agenda. Reporting on progress should be carried out by the Coordination Council on Noncommunicable Diseases and supported by the future NCD unit, which can function as the secretariat.

The recommendation to set up a dedicated NCD unit is supported by the findings of the United Nations Interagency Task Force on the Prevention and Control of Noncommunicable Diseases in March 2016 *(1)* and reiterated by the independent review of the Den Sooluk and supporting projects *(2)*, which concluded that the Ministry of Health is understaffed and therefore not able to fulfil its leadership role and responsibility.

In addition, dedicated human resources that have strategic and public health competencies need to be increased, in addition to their knowledge of NCD prevention and control. This will require efforts to develop and implement training programmes on NCD prevention and control within the health curricula. This finding is supported by the comprehensive review of Den Sooluk as a joint event of the government and development partners, which identified strengthening physicians' training in relation to NCD as a priority area for 2016–2018.

Recommendations

- It is recommended to ensure an intersectoral approach for effective NCD prevention and control.
  - As a priority for 2017, it is suggested to prepare an implementation plan related to Objective 1 of the NCD action plan on intersectoral cooperation and partnerships, including specifications about the roles and responsibilities of partners as well as indicators. One key suggestion for 2017 is to revitalize the Coordination Council on Public Health and to have NCDs as a standing item on their agenda.
  - In the longer term, the options offered by the well established coordination structure of Den Sooluk can be studied. NCDs should be higher on the implementation agenda of Den Sooluk, and its well established mechanism could be used for coordinating and reviewing risk factors other than those related to CVDs and tobacco.

- It is recommended to strengthen coordination and accountability through solid NCD capacity. Establishment of an NCD strategic unit at the Ministry of Health, covering both prevention and care, is essential for supporting the implementation and evaluation of the NCD action plan and keeping NCDs on the agenda of the Minister of Health.
  - As a priority for 2017, it is proposed to create an NCD strategic unit within the Ministry of Health. This unit should have strong capacity in preventing and controlling NCDs.
  - In the longer term, this strategic NCD unit should coordinate the implementation and evaluation of the NCD action plan and should function as the secretariat for intersectoral work.
  - There is also an opportunity to review and strengthen the governance of the CVD thematic working group and to develop a roadmap for CVD prevention, treatment and rehabilitation that designs the system and directs further investment for maximum benefit.

References

1. Joint Mission of the United Nations Interagency Task Force on the Prevention and Control of Noncommunicable Diseases: Kyrgyzstan, 14–17 March 2016. Geneva: World Health Organization; 2016 (unpublished).
2. Anderson I, Buga M, Obermann K, Temirov A, Ibragimova G. Independent review of Den Sooluk and project in support of the mid-term review. 2016, unpublished.
3. United Nations Development Programme. Handbook on planning, monitoring and evaluating for development results. New York: UNDP; 2009 (http://web.undp.org/evaluation/evaluations/handbook/english/documents/pme-handbook.pdf, accessed 20 February 2017).
4. Monitoring, evaluation and review of national health strategies: a country-led platform for information and accountability. Geneva: World Health Organization; 2011 (http://www.who.int/healthinfo/country_monitoring_evaluation/1085_IER_131011_web.pdf, accessed 20 February 2017).
5. United Nations General Assembly. Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. New York: United Nations; 2012 (http://www.who.int/nmh/events/un_ncd_summit2011/political_declaration_en.pdf, accessed 20 February 2017).
6. United Nations General Assembly. Outcome document of the high-level meeting of the General Assembly on the comprehensive review and assessment of the progress achieved in the prevention and control of non-communicable diseases. Geneva: World Health Organization; 2014 (http://www.who.int/nmh/events/2014/a-res-68-300.pdf, accessed 20 February 2017).
7. 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?ua=1, accessed 20 February 2017).
8. Action Plan for implementation of the European Strategy for the Prevention and Control of Noncommunicable Diseases 2012–2016. Copenhagen: WHO Regional Office for Europe; 2012 (http://www.euro.who.int/__data/assets/pdf_file/0019/170155/e96638.pdf?ua=1, accessed 20 February 2017).
9. Better NCD outcomes: challenges and opportunities for health systems – country assessment Kyrgyzstan. Copenhagen: WHO Regional Office for Europe; 2014 (http://www.euro.who.int/__data/assets/pdf_file/0020/272108/BetterNCDoutcomes_challengesOpportunitiesHealthSystems_Kyrgyzstan1.pdf?ua=1, accessed 20 February 2017).
10. Ibraimova A, Akkazieva B, Ibraimov A, Manzhieva E, Rechel B. Kyrgyzstan: health system review. Copenhagen, WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies; 2011 (Health Systems in Transition, 13(3):1–152; http://www.euro.who.int/__data/assets/pdf_file/0017/142613/e95045.pdf, accessed 20 February 2017).
11. Nutrition, physical activity and obesity. Country profile Kyrgyzstan. Copenhagen: WHO Regional Office for Europe; 2013 (http://www.euro.who.int/__data/assets/pdf_file/0020/243308/Kyrgyzstan-WHO-Country-Profile.pdf?ua=1, accessed 20 February 2017).
12. Alcohol. Country profile Kyrgyzstan. Geneva: World Health Organization; 2014 (http://www.who.int/substance_abuse/publications/global_alcohol_report/profiles/kgz.pdf?ua=1, accessed 20 February 2017).
13. WHO report on the global tobacco epidemic, 2015. Country profile Kyrgyzstan. Geneva: World Health Organization; 2015 (http://www.who.int/tobacco/surveillance/policy/country_profile/kgz.pdf?ua=1, accessed 20 February 2017).
14. NCD Global Monitoring Framework [website]. Geneva: World Health Organization; 2017 (http://www.who.int/nmh/global_monitoring_framework/en, accessed 20 February 2017).
15. European Health for All database [online database]. Copenhagen: WHO Regional Office for Europe; 2017 (http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-database-hfa-db, accessed 20 February 2017).
16. Global Health Observatory data. The data repository [online database]. Geneva: World Health Organization; 2017 (http://www.who.int/gho/database/en, accessed 20 February 2017).
17. Farrington J, Pezzella FR, Yakovlev A, Rotar O. Review of acute care and rehabilitation services for heart attacks and strokes in Kyrgyzstan. Copenhagen: WHO Regional Office for Europe; in press.
18. Turgunbayev DD, Artykbayev AS, Kadyrova N, Abdraimova A, Urmanbetova A. Analysis of stroke diagnosis verification in patients that died at home. Bishkek: Health Policy Analysis Center; 2014 (Policy Research Paper No. 82; http://www.hpac.

kg/en/14-recent-documents-policy-research/30-situatsionnyj-analiz-po-obosnovannosti-gospitalizatsij-sredi-detej-do-5-let-i-beremennykh-zhenshchin, accessed 20 February 2017).

19. Kyrgyzstan STEPS 2013. Unpublished.
20. National Statistical Committee of the Kyrgyz Republic, Ministry of Health of the Kyrgyz Republic, ICF International. Kyrgyz Republic Demographic and Health Survey 2012. Calverton (MD): ICF International; 2013 (https://dhsprogram.com/pubs/pdf/FR283/FR283.pdf, accessed 20 February 2017).
21. Kyrgyzstan national epidemiological study of tobacco use prevalence 2005. Bishkek: Ministry of Health of Kyrgyzstan; 2005.
22. Bekbasarova CH, Meimanaliev T. Kyrgyzstan Countrywide Integrated Noncommunicable Diseases Intervention Programme (CINDI) highlights 2002. Bishkek: Ministry of Health, National Statistical Committee; 2002.
23. WHO European Childhood Obesity Surveillance Initiative (COSI) [website]. Copenhagen: WHO Regional Office for Europe; 2017 (http://www.euro.who.int/en/health-topics/disease-prevention/nutrition/activities/monitoring-and-surveillance/who-european-childhood-obesity-surveillance-initiative-cosi, accessed 20 February 2017).
24. Targets and indicators for Health 2020. Version 2. Copenhagen: WHO Regional Office for Europe; 2014 (http://www.euro.who.int/__data/assets/pdf_file/0009/251775/Health-2020-Targets-and-indicators-version2-ENG.pdf, accessed 20 February 2017).
25. Sustainable Development Goals [website]. New York: United Nations; 2017 (http://www.un.org/sustainabledevelopment, accessed 20 February 2017).
26. Targets and indicators for Health 2020. Version 3. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0011/317936/Targets-indicators-Health-2020-version3.pdf?ua=1, accessed 20 February 2017).
27. Public health successes and missed opportunities. Trends in alcohol consumption and attributable mortality in the WHO European Region, 1990–2014. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0018/319122/Public-health-successes-and-missed-opportunities-alcohol-mortality-19902014.pdf, accessed 20 February 2017).
28. WHO global report on trends in prevalence of tobacco smoking 2015. Geneva: World Health Organization; 2015 (http://apps.who.int/iris/bitstream/10665/156262/1/9789241564922_eng.pdf, accessed 20 February 2017).
29. Abdraimova A, Iliasova A, Zurdinova A. Underlying reasons for low levels of seeking medical care in men. Policy research document. Bishkek: Health Policy Analysis Center; 2015.
30. Lindstrom J, Ilanne-Parikka P, Peltonen M, Aunola S, Eriksson JG, Hemiö K et al. Sustained reduction in the incidence of type 2 diabetes by lifestyle intervention: follow-up of the Finnish Diabetes Prevention Study. Lancet, 2006;368:1673–9.
31. Akkazieva B, Jakab M, Temirov A. Long-term trends in the financial burden of health care seeking in Kyrgyzstan, 2000–2014. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/en/countries/kyrgyzstan/publications/long-term-trends-in-the-financial-burden-of-health-care-seeking-in-kyrgyzstan,-20002014-2016, accessed 20 February 2017).
32. Pharmaceutical pricing and reimbursement reform in Kyrgyzstan. Copenhagen: WHO Regional Office for Europe; 2016 (http://www.euro.who.int/__data/assets/pdf_file/0005/325823/Pharmaceutical-pricing-reimbursement-reform-Kyrgyzstan.pdf?ua=1, accessed 20 February 2017).
33. Package of Essential Noncommunicable (PEN) Disease interventions for primary health care in low-resource settings. Geneva: World Health Organization; 2010 (http://apps.who.int/iris/bitstream/10665/44260/1/9789241598996_eng.pdf, accessed 20 February 2017).
34. Tobacco taxation policy in Kyrgyzstan. Copenhagen: WHO Regional Office for Europe; 2015 (http://www.euro.who.int/__data/assets/pdf_file/0006/293640/Tobacco-taxation-policy-Kyrgyzstan-en.pdf?ua=1, accessed 20 February 2017).
35. Kontsevaya A, Farrington J. Implementation of a Package of Essential Noncommunicable disease interventions in Kyrgyzstan: evaluation of effects and costs in Bishkek after one year. Copenhagen: WHO Regional Office for Europe; in press.
36. Akkazieva B, Chisholm D, Akunov N, Jakab M. The health effects and costs of the interventions to control cardiovascular diseases in Kyrgyzstan. Bishkek: Health Policy Analysis Center; 2009 (Policy Research Paper No. 60; http://www.hpac.kg/images/pdf/prp60cvd_eng.pdf, accessed 20 February 2017).
37. Scaling up action against noncommunicable diseases: how much will it cost? Geneva: World Health Organization; 2011 (http://www.who.int/nmh/publications/cost_of_inaction.pdf, accessed 20 February 2017).

Annex 1. List of participants and programme of the mission

Scope and purpose

The objective of the mid-term evaluation is to monitor the progress in Kyrgyzstan in the areas covered by the national NCD plan, enabling improvement and adjustment compatible with country capacity and resources and aligned with national and international commitments and guidance.

Participants

International team:

- Frederiek Mantingh, Technical Officer for Noncommunicable Diseases, WHO Regional Office for Europe
- Sylvie Stachenko, consultant for noncommunicable disease plan development and implementation, WHO Regional Office for Europe
- Marina Popovich, Consultant, National Research Centre for Preventive Medicine, Russian Federation
- Oskonbek Moldokulov, WHO Country Office in Kyrgyzstan
- Anna Kontsevaya, health economist (by Skype on 1 June 2016)

National team:

- Roza Jakypova, NCD working group
- Alina Altymysheva, NCD working group
- Ruskulova Saira, NCD working group
- Abdrahmanova Gulay, NCD working group
- Knyazeva Valeria, NCD working group
- Sasukulova Dinara, NCD working group
- Gulmira Aitmurzaeva, Director, Republican Health Promotion Centre
- Baktygul Ismailova, Head, Public Health Unit, Ministry of Health
- Chinara Bekbasarova, tobacco focal point
- Ruslan Tokubaev, Director, Narcology Centre
- Zuura Dolonbaeva, Head, Health Policy Analysis Unit, Ministry of Health
- Murzakarimova Larisa, Head, Republican Medical Information Centre
- Talant Sooronbaev, Chief Pulmonologist, Ministry of Health
- Anara Eshkhodjaeva, Expert, Department of the Office of Government on Education, Culture, Sports, and Health
- Baktygul Kambaralieva, Consultant, primary health care, Ministry of Health
- Vera Aseeva, Head, Family Medicine Centre 8, Bishkek
- Elnura Boronbaeva, Chief Specialist, Ministry of Health
- Nurgul Ibraeva, Chief Specialist, Ministry of Health
- Kerimkulova Alina, Association of Cardiologists
- Taalaigul Sabyrbekova, NGO, Ergene

- Gulmira Kojobergenova, SUN Network
- Djangazieva Baktygul, Salt Producers
- Nurlan Briumkulov, Prorector, I.K. Akhunbayev Kyrgyz State Medical Academy
- Tologon Chubakov, Rector, Kyrgyz State Medical Institute for Continuing Education
- Cholpon Imanalieva, UNICEF
- Elvira Muratalieva, Swiss Agency for Development and Cooperation
- Meder Omurzakov, UNFPA
- Bermet Sydygalieva, WFP
- Sarina Abdysheva, FAO

Provisional programme

Monday, 30 May 2016		
16:00–17:00	**Briefing** *International team*	Park Hotel

Tuesday, 31 May 2016		
09:00–10:00	**Meeting with WHO Representative** *Jarno Habicht and the international team*	WHO Country Office
10:30–11:00	**Introduction** *Complete international and national team*	Park Hotel

Tuesday, 31 May 2016		
11:00–12:00	**Review of outputs, outcomes and impact** **Working group 1:** Review of the progress towards the WHO NCD Global Monitoring Framework, Health 2020 targets and indicators, Sustainable Development Goals (Annexes 4–6 of the methods) *International team: Frederiek Mantingh, Marina Popovich* *National team: Alina Altymysheva, Ruskulova Saira, Abdrahmanova Gulay, Knyazeva Valeria, Sasukulova Dinara,* *Gulmira Aitmurzaeva, Baktygul Ismailova, Chinara Bekbasarova, Ruslan Tokubaev, Zuura Dolonbaeva, Murzakarimova Larisa, Talant Sooronbaev* **Working group 2:** Review of the progress on the United Nations time-bound commitments and the coverage of the population-based interventions (Annexes 2 and 3 of the methods) *International team: Sylvie Stachenko, Oskonbek Moldokulov* *National team: Alina Altymysheva, Gulmira Aitmurzaeva* *Coordinator of village health committee (name TBC)*	Park Hotel
12:00–13:30	*Lunch break*	
13:30–16:00	**Review of outputs, outcomes and impact (continued)**	Park Hotel
16:00–17:00	**Feedback from the working groups** *Complete international and national team*	Park Hotel

Wednesday, 1 June 2016		
09:00–12:00	**Review of input and activities** Objective 1 of the NCD plan (national policies through intersectoral approach and partnership – Annex 1 of the methods) *Complete international team* *National team (Anara Eshkhodjaeva, Chinara Bekbasarova, Baktygul Ismailova, Murzakarimova Larisa)*	WHO CO
12:00–13:30	*Lunch break*	Park Hotel

Wednesday, 1 June 2016		
13:30–16:00	**Review of input and activities (continued)** **Working group 1:** Objective 2 of the NCD plan (NCDs and primary health care – Annex 1 of the methods) *International team: Marina Popovich, Oskonbek Moldokulov* *National team: NCD/PEN Working Group – two members TBC, Roza Sultanalieva, Baktygul Kambaralieva, Vera Aseeva, Nurgul Ibraeva* **Working group 2:** Objective 3 of the NCD plan (communities and population engagement – Annex 1 of the methods) *International team: Sylvie Stachenko* *National team: Chinara Bekbasarova, Ruslan Tokubaev, Zuura Dolonbaeva, Murzakarimova Larisa, Talant Sooronbaev* **Working group 3:** Objective 5 of the NCD plan (inequalities – Annex 1 of the methods) *International team: Frederiek Mantingh* *National team: PEN working group members, Elnura Boronbaeva, Ibraeva Nurgul*	Park Hotel Ministry of Health Park Hotel
16:00–17:00	**Feedback from the working groups** *Complete international and national team*	Park Hotel

Thursday, 2 June 2016		
09:30–11:00	**Round table discussion with stakeholders** Review of the NCD plan aspects related to intersectoral approach, partnership, community approach and population engagement (Annex 1 of the methods) *Complete international and national team* *NGOs (Kerimkulova Alina, Taalaigul Sabyrbekova, Ergene, Gulmira Kojobergenova, Djangazieva Baktygul, Chinara Bekbasarov, S. Mukeeva)* *Academia (Nurlan Briumkulov, Tologon Chubakov)* *Stakeholders (Government Unit on Education, Culture, Sports and Health; Public Health Unit, Ministry of Health)* *International organizations (UNICEF, Swiss Agency for Development and Cooperation, UNFPA, WFP, FAO)*	Park Hotel
11:00–12:00	**Summary, key recommendations on adjustment of the programme, next steps** *International and national team*	Park Hotel
12:00–13:30	*Lunch break*	
13:30–15:00	**Meeting with the WHO Representative to discuss preliminary recommendations** *Jarno Habicht and the international team*	Park Hotel
15:30–16:30	*Meeting with the Deputy Minister of Health to present preliminary recommendations*	Ministry of Health

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