World Health Organization

REGIONAL OFFICE FOR Europe

Workshop on implementation of a package of essential noncommunicable (PEN) disease interventions for primary health care in eastern Europe and central Asia

Helsinki, Finland
24–25 March 2017

ABSTRACT

A workshop was organized by the WHO Regional Office for Europe in Helsinki, Finland in March 2017 in the context of the Project on the Prevention and Control of Noncommunicable Diseases. This was the third opportunity since 2015 for countries from eastern Europe and central Asia to meet and consider ways of improving implementation of the package of essential noncommunicable (PEN) disease interventions in primary health care. Common topics of interest were explored such as quality systems, training and education, and monitoring and evaluation of impact. The global HEARTS package was also introduced. A particular theme was how broader community and patient initiatives might support the prevention and treatment of NCDs in the clinical setting, learning in particular from the Finnish and North Karelia experience.

Keywords

CHRONIC DISEASE – prevention and control
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CONTENTS

Page

Abbreviations

COSI	Childhood Obesity Surveillance Initiative
CVD	cardiovascular diseases
HEARTS	healthy lifestyles; evidence-based treatment protocols; access to essential medicines and technology; risk-based management; team care and task sharing; systems for monitoring
NCD	noncommunicable diseases
PEN	package of essential noncommunicable disease interventions
PHC	primary health care
STEPS	WHO STEPwise approach to surveillance

Introduction

To achieve the global target of a 25% reduction in premature mortality by 2025 from noncommunicable diseases (NCD), a mixture of population-wide and individual-level interventions will be required. Such cost-effective interventions have been identified, are available and include methods for early detection of NCDs and their diagnoses using inexpensive technologies, nonpharmacological and pharmacological approaches for modification of NCD risk factors and affordable medications for prevention and treatment of heart attacks and strokes, diabetes, cancer and asthma. The WHO package of essential noncommunicable (PEN) disease interventions is a conceptual framework for strengthening equity and efficiency in primary health care (PHC) in low resource settings. It defines a minimum set of essential NCD interventions to be implemented and comprises four clinical practice protocols.

In the WHO European Region, a number of countries have embarked on implementing the PEN or equivalent in primary care, and many share the aim of strengthening cardiometabolic risk assessment and management in particular. Countries are at different stages of implementation and have taken different approaches according to their contexts. A first meeting of the early implementers (held in Kyrgyzstan in October 2015) identified issues of common interest and a willingness to share experience, peer support and development of a community of practice. A second meeting (held in Uzbekistan in May 2016) focused on various topics of relevance to clinical guideline implementation such as training, a comprehensive quality system, monitoring and evaluation and community initiatives to support interventions in the clinical setting.

A third workshop was held on 24–25 March 2017 in Helsinki, Finland, with the aim of bringing together those involved in implementing essential NCD interventions in primary care in eastern Europe and central Asia to share experience and update progress since the previous meeting. Common topics of interest were explored such as quality systems, training and education, and monitoring and evaluation of impact. A new initiative by WHO and the United States Centers for Disease Control and Prevention was introduced. Entitled the global HEARTS package (healthy lifestyles; evidence-based treatment protocols; access to essential medicines and technology; risk-based management; team care and task sharing; systems for monitoring), this initiative aims to support governments in strengthening the prevention and control of cardiovascular disease (CVD).[1]

A particular theme was how broader community and patient initiatives might support the prevention and treatment of NCDs in the clinical setting, learning in particular from the Finland and North Karelia experience. For this reason, the workshop took place directly after the four-day NCD seminar/North Karelia visit organized by the National Institute for Health and Welfare, Finland, which shared Finnish experiences from the North Karelia Project and offered training in planning, implementation and evaluation of NCD prevention interventions: from theory to practice.[2] Participants were given the opportunity to participate in both events.
The workshop was organized by the WHO Regional Office for Europe in the context of the Project on the Prevention and Control of Noncommunicable Diseases (NCDs), hosted by the Finnish National Institute for Health and Welfare, and financed through a voluntary contribution

[1] Cardiovascular disease. Global Hearts Initiative [website]. Geneva: World Health Organization; 2017 (http://www.who.int/cardiovascular_diseases/global-hearts/en/, accessed 18 July 2017).
[2] Noncommunicable Disease Seminar (NCD Seminar) [website]. Helsinki: National Institute for Health and Welfare; 2017 (https://www.thl.fi/fi/web/chronic-diseases/what-s-new/noncommunicable-disease-seminar-ncd-seminar-, accessed 18 July 2017).

from the Ministry of Health of the Russian Federation with additional support from the Swiss Development Cooperation for some countries to participate. The programme (Annex 1) benefitted from the expertise of WHO collaborating centres and international experts, and was designed to be interactive. The list of participants is in Annex 2.

Opening

On behalf of the Ministry of Social Affairs and Health of Finland, Mr Veli-Mikko Niemi welcomed participants to the workshop, which addressed a topic of high importance for Finland as well as all other countries. A strong public health system, working for several decades in conjunction with other sectors, had been key for development in Finland. Despite some new developments in the country regarding prevention and health promotion and some structural/functional changes in the area of health and welfare responsibilities, including important international milestones and policy documents, there was a need to do more and move to implementing and learning from each other about best practice. Concerted action and cooperation was necessary at all levels to make healthy choices available for all.

Dr Jill Farrington added her welcome on behalf of the Regional Office. This was the third international PEN workshop in the Region since 2015 and the largest, with 14 countries, three WHO collaborating centres and participation at all levels (WHO headquarters, the European Region and countries). It had been a particular privilege to attend the NCD Seminar and visit North Karelia, and to see first-hand how Finland did NCD prevention. It was striking how values and principles such as equity permeate the work and the sustainability of the Finnish approach. An emphasis on evidence, monitoring and evaluation, had also informed the NCD prevention efforts, allowing the project to be reframed, adjusted and adapted as needed over 40 years.

Provisional agenda and expected outcomes

The strategic and technical context and orientation for the workshop was presented, as well as the rationale for the content and design of the programme. The programme had been planned to take account of what countries wanted, drawing on the evaluative comments of the previous meeting. It was designed to be interactive with lectures, group work and discussions. Participants were encouraged to record learning points and implications for practice at the end of each session.

WHO European developments to support implementation of essential NCD interventions in PHC

An overview of recent developments relevant to PEN implementation then followed. Since the previous meeting, WHO had supported a number of countries on topics such as economic assessment, evaluation of a pilot project, preparation for scale up and development of training modules. The 2017 WHO Country Capacity Survey (currently under way) would give an opportunity to see how countries were progressing on indicators such as provision of treatment and counselling in PHC facilities for people at high risk of CVD.

WHO global HEARTS initiative

The WHO global HEARTS initiative was then presented. HEARTS is an acronym for the supportive elements needed for PEN implementation particularly focusing on cardiovascular disease and diabetes: healthy lifestyle; evidence-based treatment protocols; access to essential

medicines and technology; risk-based management; team care and task-sharing; systems for monitoring. For each of these elements, one or more toolkits were being developed and would be available from May onwards. Eight countries had been selected to test the toolkits/approach, including Tajikistan in the WHO European Region.

Discussion

The following discussion included questions about updating WHO clinical guidelines and clarification regarding HEARTS and PEN. An updated list of best buys (cost-effective and effective interventions for NCD prevention and control) was due to be reviewed at the World Health Assembly in May 2017. The WHO risk prediction charts were being updated and made country-specific and would be available later in the year. The WHO PEN protocols for CVD would probably be reviewed in 2018. HEARTS is intended to be a user-friendly package to support the implementation of PEN protocols; it does not replace PEN. Any tools produced are to be used in the country context and adapted as needed.

The key to making strategies work is implementation, for which evidence, tools and constant monitoring are needed to move these issues forward and keep them on the agenda. For these practical issues, learning from each other is important.

Community interventions to support clinical prevention

The purpose of the session was to summarize the key messages and share highlights from the preceding four-day NCD seminar and visit to North Karelia, and to reflect on the learning points and implications for practice. Following a presentation by the organizer of the NCD seminar, a panel of three participants shared their impressions.

Summary and key lessons from the North Karelia visit

When the North Karelia project started, the region held the world record in CVD mortality in the 1960s. Key elements for action in NCD prevention were: clear priorities and clear messages for the target population, community organization for environmental change to make the healthy choice the easy choice, intersectoral working, a participatory approach, seeking win-win solutions, continuous monitoring and feedback, long-term dedicated intensive work and good collaboration and leadership. Success was due to a number of factors including personal relationships, common interests and new ways of working. The North Karelia tour included visits to (or talks from) a supermarket, newspaper, health centre, school, nongovernmental organization and workplace health project.

Reflections on the visit

Participants were invited to provide their own reflections on the visit. Contributions were received from three countries.

The participants from Belarus had found it a great opportunity. There were many dimensions which all worked synergistically towards the ultimate shared goal. The project was sustainable and long-term, reaching success due to the special involvement of all stakeholders. People were enthusiastic and spoke with pride about the project. The lessons for Belarus were the need to work with more people from other sectors as NCD is perceived as a health sector problem. Details matter and everywhere they saw symbols of this. Citizens can make choices and the state

offers the environment to support the right choice. The role of nongovernmental organizations is crucial. In Belarus, women are also active and their role could possibly be increased. The independent role of nurses to support public health made a strong impression on many of the participants, who felt they would like to learn and try this approach.

Visiting North Karelia fulfilled a lifetime dream for the Georgian participants to learn and see how such a project could work in life. Their expectations had been surpassed. It was a perfect time to learn about such a project as Georgia was in a reform process. The government is giving priority to NCDs as well as strengthening PHC and the quality of services. The visit showed the best examples of mechanisms and factors to ensure success and the Georgian participants thought they would like to start spreading these examples and collaborate to learn more and implement them properly.

The participants from Kyrgyzstan compared their experience in implementing NCD prevention with that of Finland. They start with a ministerial order whereas in Finland it starts with ideas, a local project and then gets nationwide importance. They had come across many things they liked: the gradual reduction of salt in food, the need for a licence to open a tobacco cessation clinic, the expansion of nurses' functions, connection between the media and real practice, measurement of blood pressure in multiple places such as shops, indicators for local government, healthy food and cooking lessons (including for boys) in schools. It was better to see all this once than hear about it a thousand times.

Discussion

In the discussion that followed, other countries offered their reflections. In Armenia there are national government committees and commissions but in Finland the Armenian participants saw the amount of work that takes place at municipal level. They learnt the need to work more intersectorally, collaborate with nongovernmental organizations, be focused, coordinate all efforts of various actors and carry out a pilot project to get results.

School meals have been provided in Finland since 1984 because poor children were too hungry to learn. It is not just about health, it is about building capacity for the future. Finland is now at the top of international comparisons for educational outcomes.

Country experiences

The purpose of this session was for all country delegations to share their overall progress in implementing a package of essential NCD interventions in PHC in their countries. Each country delegation had been asked to prepare and display a poster giving an overview of implementation of such interventions. During this session, they briefly presented their posters, then participants had an opportunity to walk through the gallery of posters, make comments and discuss them further.

Armenia

The Armenian poster described their two-year screening programme for the prevention, early detection and control of hypertension, diabetes and cervical cancer. Last year, they also carried out a survey of NCD risk factors using the WHO STEPwise approach to surveillance (STEPS) methodology and the results are being analysed. They wished and needed to introduce PEN and

planned to discuss with the government the options for piloting the approach in one of the regions of Armenia.

Azerbaijan

Azerbaijan has a national NCD strategy covering the period 2015–2020 and an interministerial action plan. Challenges include a lack of awareness about NCDs and their risk factors among health care workers, the media and the general public. A PHC system based on family doctors is still at a rudimentary level. Specific interventions include a pilot project for training PHC physicians in NCD prevention, which had been expanded.

Belarus

The Belarussian poster described the periodic medical (dispensary) examinations of the population as the basis for activities aimed at improving health and reducing mortality. These take place every one to two years, depending on age, and screen for NCD risk factors, cancer, CVD and diabetes. The forms for dispensary examinations are designed to be maintained and issued in electronic format. The role of nurses is changing.

Georgia

A reform of PHC services in Georgia was initiated in 2000 but became less of a priority during 2008–2012. Since 2013, a universal health coverage programme has been introduced with the goal of improving access to quality preventive and treatment services. Recent initiatives include training PHC staff to provide brief interventions for tobacco cessation and a pilot project on cervical screening. They face many challenges, such as a shortage of PHC doctors and preventive approaches, and are interested in implementing PEN.

Kazakhstan

Kazakhstan has started on the third national health programme. It has multiple screening programmes in place for children and for adults for diseases such as CVD, cancer and diabetes. An intersectoral approach is being taken within the framework of an NCD pilot project at regional level. Since late 2016, the school health unit moved from the responsibility of the Ministry of Education to the Ministry of Health. The need to educate nurses had been seen in Finland.

Kyrgyzstan

In Kyrgyzstan, an NCD action plan is in place and the WHO STEPS survey was carried out in 2013. The PEN has been implemented in 10 pilot family medical centres since 2015. PHC workers (both doctors and nurses) were trained in the pilot projects. The next stage is to increase coverage of cardiometabolic risk assessment and management, and for medicines for PEN to be included in the mandatory health insurance fund mechanisms.

Republic of Moldova

The Republic of Moldova is carrying out a feasibility study for PEN implementation. The PEN protocols have been adapted to the national context and a training package is being developed for PHC professionals. The next step is to collect baseline data and train staff. The evaluation will be quantitative and qualitative and compare PEN and non-PEN clinics.

Russian Federation

The system for promoting healthy lifestyles and preventing NCDs in the Russian Federation is coordinated by the medical prevention centre. It comprises cross-sectoral cooperation, informing and motivating citizens, providing conditions for a healthy lifestyle, and carrying out periodic preventive examinations and follow-up as well as NCD prevention in hospitals and sanatoria. Preventive examinations take place every three years and the programme is electronically monitored at regional and federal level. Detection rates for cancers and CVDs have increased and more cancers are detected at stages I and II.

Tajikistan

Tajikistan has translated the PEN materials and has implemented PEN pilot projects in 10 regions. Training courses, workshops and refresher seminars have been held. CV risk assessment /risk prediction charts have been implemented in clinical protocols and into curricula.

Turkey

Turkey described a field study for strengthening NCD prevention in PHC. The study comprises screening of healthy individuals, follow-up of chronic diseases and determination of complications. Implementation guidelines for PHC physicians and face-to-face training courses had been prepared. The evaluation of the pilot project had indicated how the model could be further improved.

Turkmenistan

Turkmenistan had not had time to prepare a poster but was nevertheless committed to combatting NCDs. PEN has been implemented since 2014 in one region. Training for PHC specialists is conducted all over the country and PEN implementation is ongoing.

Ukraine

The project for improving health and well-being in Ukraine by reducing NCDs has four components: policies, PHC training courses, communications and surveillance and monitoring. Clinical guidelines and decision-support tools have been developed for physicians, as well as a training package for seven pilot regions.

Uzbekistan

Uzbekistan has been implementing PEN protocols in eight pilot facilities. A roadmap for scaling them up countrywide is planned by the end of 2017.

Reflections

Countries are at different stages. Some are at the beginning of the process, some are already implementing PEN and others are advanced. The countries starting the process appeared to have a careful approach to planning and organizing the feasibility study. Some countries were using a multidisciplinary approach in the training courses. Many countries mentioned in the posters the importance of an intersectoral approach.

Further afield, in the West Bank and Gaza Strip, experience with implementing PEN had shown that there was a need to convince people (including specialists) that PEN is a good idea, and the PHC sector in particular that they have the confidence to do it. Initially, people could not calculate the risk scores correctly, which underlined the need for clinical audit and measurement of performance as well as the importance of having the proper indicators for doing this.

Training and education for primary care workers

The purpose of the session was to share countries' experience and approaches on training and education of PHC professionals over a range of relevant topics.

Training PHC doctors and nurses together: experience from Ukraine

The project in Ukraine has focused on an integrated approach, building on existing resources and aiming at sustainability. A two-day training course has been developed on the integrated management of hypertension and diabetes. For the seven regions, 52 PHC trainers (both doctors and nurses) have been trained so far and training cascaded to more than 800 family doctors and nurses. There has been good feedback. Further changes to clinical practice will require more effective use of limited resources through, for example, task-sharing, with other organizational changes to allow more time for patients.

Using online materials/social media to support training: experience from Turkey and Uzbekistan

In Turkey, PHC doctors undergo four phases of training: compliance training (face-to-face) covering the basic principles of family medicine, specific courses (face-to-face) related to NCDs, continuing vocational development training (online) composed of 15 modules and assessed by pre- and post-tests, and training videos which are free and accessible by both professionals and patients. Videos include practical skills such as calculating risk scores and using inhalers and have been prepared with the help of associations.

In Uzbekistan, PEN training has been developed with the support of the Centre for Distance Education.[3] Courses are divided into modules and have a theoretical part (70%) and a practical part (30%). Each module has presentations, videos and instructions as well as mini-programmes to develop practical skills. Users are registered and have two to three months to complete a module at their own pace. They then undergo practical skills assessment and multiple choice question tests. In the near future, training will be expanded to include other NCD clinical protocols. A challenge is that start dates cannot be customized: a course can only begin when a certain number of students have been recruited as they need to start simultaneously. The next steps include the development of methodological guidelines, regulation of distance learning and training of moderators.

[3] Tashkent Institute of Improvement of Doctors. Department of Qualification [website] (http://www.medical courses.uz, accessed 18 July 2017).

Measuring and monitoring clinical competence: experience from Kyrgyzstan

In Kyrgyzstan, nurses are trained together with doctors. Training covers knowledge as well as skills such as physical measurements. Testing is based on checklists. Nurses are taught how to fill out the clinical forms correctly.

Strengthening undergraduate, postgraduate and continuing medical education training on cardiometabolic risk assessment and management: experience from Tajikistan

Tajikistan has developed training of trainers in the pilot regions and followed up with refresher seminars. Even so, not everybody was reached because of the high turnover of staff, and follow-up showed that retention of knowledge was limited. Training in the use of protocols and risk prediction charts has been introduced into the university undergraduate curricula and postgraduate studies. There are only 39 trainers so it would be a challenge to scale up fast.

Discussion

In the following discussion, the participants from Azerbaijan demonstrated their online training materials. A manual had been developed to support the training of PHC doctors. It had been a surprise to find that nurses (250) were also using it. Modules can be done online, then tested online and a certificate printed out and taken to the postgraduate training institute.

Implementing evidence-based guidelines and protocols

The purpose of the session was to share information and country experience related to implementing evidence-based guidelines and protocols.

Essential medicines and technologies to support implementation of PEN protocols/equivalent

This presentation began by explaining the importance of access to medicines and defining essential medicines. The PEN implementation tools list the essential medicines, technologies and tools needed for implementation of PEN protocols. Alignment between clinical protocols and the national essential medicines list and reimbursement list is important: if drugs are not on the reimbursement list, costs are high and patients are unlikely to be able to comply with treatment recommendations. The medicines lists for Kyrgyzstan and the Republic of Moldova were used as illustrations. The availability of medicines in public health sector PHC facilities is monitored through the progress indicators of the United Nations time-bound commitments, using the WHO Country Capacity Survey. Monitoring access can also draw on routinely collected data such as prescribing records as well as price and availability surveys, when needed. Prerequisites for affordable access to medicines for NCDs are: adequate government financing, careful selection of cost-effective prioritized medicines, efficient procurement and distribution systems, coverage of medicines in health insurance systems, and prescribing in line with protocols and prioritized medicines.

The presentation generated a number of comments. The importance of alignment between protocols and the accessibility and availability of drugs was re-emphasized. If a drug is not

affordable, there is less chance that the patient will comply with treatment recommendations and that clinical outcomes will be achieved. Statins may be on the list but not available for patients. Participants from Kazakhstan mentioned that while the government guarantees a defined list of medicines, regions also have the right to procure more drugs for patients through their regional budgets. In Azerbaijan it had been challenging to ensure that necessary drugs were provided to patients. According to the law, health care providers had to provide medicines but in fact the drugs were not available. To avoid litigation, health care providers recorded that patients were given drugs even when this was not the case. This had led to the regulation being changed.

It is important for PEN protocols to be aligned with existing national protocols and not duplicate or conflict with them.

Implementing PEN protocols 1 and 2: common issues

The WHO Collaborating Centre on Self Care shared its experience of studying and supporting PEN implementation in countries, which had led to the identification of some common issues. These were the need to:

- reconcile PEN protocols with existing protocols and guidelines;
- assess and ensure the supply of essential medicines and technologies required for implementation;
- develop (map) clear referral criteria and pathways of care for newly identified patients at risk;
- minimize the influence of bias and develop evidence-based decision-making processes;
- conduct simple but valuable evaluations and use this information to inform scale-up;
- ensure quality and continuous quality improvement, such as the plan-do-study-act cycle, including check-points for adjustment or de-adoption of the model;
- carefully consider the opportunity cost of an intervention;
- plan for sustainability and integration with the health system.

Even simple evaluations can be valuable: periods can be planned to collect and analyse data and to pause, reflect and act on the findings. Implementation is complex and the first time something is implemented, it may not work. That is acceptable as long as there is evaluation and adjustment.

Decision-support tools and materials to support the use of clinical guidelines and cardiovascular risk assessment: experience from Belarus and Uzbekistan

A tool had been developed in Belarus which was a mobile version of *Practical approach to lung health. Manual on initiating PAL implementation*.[4,5] The equivalent PEN protocol would be

[4] Mobile application based on the "Practical Approach to Lung Health" guidelines, is available for downloading on Android Smartphones and Tablets! [website]. Minsk: Republican Scientific and Practical Centre of Pulmonology and Tuberculosis; 2017 (http://www.rnpcpf.by/en/news/176-2017-03-09-07-42-03.html, accessed 18 July 2017).

Protocol 3 on chronic respiratory diseases, although this tool was broader, covering the diagnosis and management of tuberculosis, the rational use of antibiotics to treat respiratory diseases, common ear-nose-throat diseases and smoking cessation in addition to chronic respiratory diseases. Apart from providing decision- and prescribing-support to the physician, the application also has information that can be forwarded to the patient or printed.

In Uzbekistan, tablet computers are being used with doctors and nurses for PEN clinical assessments. The form for each patient is filled out on the iPad and the data are automatically transferred into a database. A report of all those at risk of CVD can easily be generated. This allows the electronic management of patients with NCD. The administrator sees the entire system and can sort the patients according to risk and see who is due a visit.

Financial and other incentives to strengthen cardiometabolic assessment and management: experience from Armenia and Kyrgyzstan

A results-based financing programme supported by the World Bank in Armenia had comprised the mass screening of adults for hypertension, diabetes and cervical cancer in PHC, with financial incentives offered to increase detection. The bonus system was based on 28 indicators and doctors could receive the equivalent to a month's salary over two six-monthly payments according to performance. During the period 1 January 2015 to 28 February 2017, 977 000 screenings had been carried out in 362 PHC facilities; 8.1% of the screened population was found to have raised blood pressure. Once raised blood pressure is identified, however, there appeared to be no treatment readily available other than for vulnerable groups. Follow-up and treatment after screening were limited, as was information on what the patient does afterwards. This underlined the point that screening programmes can potentially do more harm than benefit if there is not a pathway leading to better health outcomes.

In Kyrgyzstan, financial incentives were being put into place to improve the quality of medical services provision. This World Bank results-based financing project would provide additional payments to PHC medical workers through the mandatory health insurance fund for four projects: tuberculosis, motherhood, childhood and implementation of PEN protocols. Randomly selected observation cards for patients with hypertension are assessed to see whether the patient has received the basic package of preventive measures (risk factors identified; patient consulted; tests for blood sugar, cholesterol and ECG carried out) and, if so, whether the patients had achieved their target blood pressure. Patients are also interviewed to see if they are taking anti-hypertensive medication and if they know what to do to lower blood pressure level. A comment was that bonuses based on team work performance might be fairer than paying just physicians.

Monitoring and evaluation

The purpose of the session was to share countries' experience with a range of approaches for monitoring and evaluation.

[5] Practical approach to lung health. Manual on initiating PAL implementation. Geneva: World Health Organization; 2008 (http://apps.who.int/iris/bitstream/10665/69937/1/WHO_HTM_TB_2008.410_eng.pdf?ua=1&ua=1, accessed 18 July 2017).

Economic evaluation of PEN

This presentation followed on from the discussion on economic evaluation at the previous PEN workshop in 2016. Globally, NCD business cases have been tried in six countries, two of which are in the European Region. Depending on the data available, these tried to assess the economic burden from four main NCDs and the costs of NCD interventions and/or the return on investments in NCD prevention. Reports are still being finalized but there were methodological and data challenges. A cost-effectiveness study of PEN implementation in Bishkek, Kyrgyzstan had been carried out. While it was possible to calculate the additional costs of implementing PEN, it was difficult to demonstrate effectiveness using routinely collected data. The next steps would include refinement of the methodology and further country studies.

A number of questions were raised following the presentation. Answers included that: (i) the NCD business cases include analysis of costs such as hospitalizations and medicines; and (ii) social costs arising from reasons such as disability or absence from work are included.

Evaluation of PEN implementation: experience from Jordan

In view of the comparative lack of experience globally with PEN implementation, it was felt useful for participants to hear the experience of the WHO Collaborating Centre for Self-Care in Oxford, United Kingdom, in evaluating the implementation of PEN in Jordan, in particular to demonstrate how routine data can be used for a simple but valuable evaluation.[6] The approach had used both quantitative data (to discover what the performance, quality or trends are) and qualitative data (to help explain the quantitative data) and drawn on audits of clinical records and interviews with health workers. The evaluation had found that only 28% of eligible patients had a risk score documented in their chart, and most of these scores were incorrect. The large majority (89%) of high-risk patients were not documented as such. Half of the patients eligible for statins had not been prescribed them; two thirds (64%) of patients were eligible for statins without risk assessment because of existing CVD. The study indicated a lack of knowledge or inability to use risk charts, leading to incorrect calculations of risk score or discordant use of treatment. There was a tendency to favour lifestyle interventions, suggesting a lack of knowledge or understanding of indications for treatment. A number of recommendations were made in the evaluation, including the development of practical training for health workers on CV risk assessment and associated guidance.

Quality, audit and performance indicators to support PEN implementation: experience from Uzbekistan

Uzbekistan was using continuous quality improvement mechanisms to support the implementation of PEN. They had used some of the same indicators as in the Jordan example and had found some of the same problems, such as incorrect calculation of risk scores. Their approach involved: a baseline capacity evaluation of PHC facilities and quality of care using an adapted WHO NCD capacity questionnaire and 11 quality improvement indicators; external monitoring visits by a national team to PHC facilities on a quarterly basis (baseline, final and three intervening periods); internal quality monitoring conducted on a monthly basis using

[6] Collins DRJ, Jobanputra K, Frost T, Muhammed S, Ward A, Shafei AA et al. Cardiovascular disease risk and prevention amongst Syrian refugees: mixed methods study of Médecins Sans Frontières programme in Jordan. Conflict and Health. 2017;11:14. doi 10.1186/s13031-017-0115-z (http://conflictandhealth.biomedcentral.com/track/pdf/10.1186/s13031-017-0115-z?site=conflictandhealth.biomedcentral.com, accessed 21 July 2017).

continuous quality improvement tools; regional monitoring and supportive supervision. Each external visit involved the assessment of a random selection of 10% of patients' records as well as assessments of one or two general practitioner consultations and three or four exit interviews of patients. These had revealed a number of issues such as the huge workload carried by general practitioners, the low commitment of patients to NCD prevention, and low skills on planning patient visits and long-term follow-up. Solutions were being developed to each of these. Overall, there had been a number of achievements in the implementation of PEN, such as an increase in the coverage of CVD risk assessment.

Consideration was being given as to what should be included in routine data collection and monitoring, given that studies can take a lot of resources. A methodology for supportive supervision would be useful, with managers of the clinics trained to use it. As regards the length of consultations, nurses spend around 10–15 minutes assessing a patient and completing paper-based forms, and then the patient is seen by a doctor. The e-health monitoring system (presented earlier) is under development and may help to reduce time. An initial visit by a patient to a PHC clinic takes 10–15 minutes for a nurse and 15–20 minutes for a doctor. Another approach being tried is visits by nurses to patients in their homes (patronage nurses). The nurses do the initial assessments at home, so less time is needed when patients come to the clinic.

Assessment of capacity to prevent and manage major NCDs in primary care centres: experience of Tajikistan

In Tajikistan, the PEN questionnaire had been adapted to assess facilities' capacities. An assessment had been carried out in 2014 prior to PEN implementation, and again in 2015. This showed that the main issues were: lack of human resources; lack of equipment; restrictions in performing some diagnostic tests (such as cholesterol); an acute lack of some essential drugs such as statins; difficulties in accessing acute care because of, for example, poor roads and weather conditions; lack of electronic registration systems; free access to drugs and tests only available to a few patients, and limited opportunities for health education in community settings. Recommendations or action had been generated to overcome each of these.

Lessons learnt from implementation of a national programme to improve cardiovascular risk assessment and management in PHC: experience from the Russian Federation

Monitoring and evaluation of the national NCD prevention programme at PHC level in the Russian Federation had been highlighted in the poster session. Screening covered 87.5 million people aged 21 years or above at three-yearly intervals, and in the four years 2013–2016, 23% coverage had been achieved. The first stage of the health assessment involved questioning patients, taking physical measurements, assessing risk of CVD and identifying the need for follow-up counselling. The second stage involved an examination by a general practitioner, in-depth preventive counselling and specification of the diagnosis. There were indications that although these health assessments were leading to increased detection of primary CV morbidity, challenges remained with the quality of check-ups and follow-up: only 80% of CVD patients were being followed up. There were plans to change the schedule of check-ups during 2017 and review how they were done.

The collection of information about risk factors was the responsibility of mid-level personnel and was mainly done by nurses. An effort was being made to reduce the load on doctors and the responsibilities of doctors and nurses had been changed. Health assessments were started for

people aged 21 years because other screening programmes were available for younger age groups. The programme had taken into account an economic analysis and discussions by the community. Initially, it had not appeared to be cost-effective to carry out massive screening in this way, so the approach might be changed. Computer-based health assessment is not possible for all the regions, as not all of them are computerized. However, all the regions are submitting on-line forms every month.

As regards the prevalence of smoking in the Russian Federation, surveys carried out in 1993 and 2003 had shown that around 60% of men and around 8–9% of women smoked. A recent round of the survey showed that overall prevalence of smoking in the population had dropped (around 39% of men and around 12% of women smoked). A key factor was the strong anti-tobacco law.

The chairperson of the session concluded that there were many reasons for conducting monitoring and evaluation. Often politicians are interested in economic evaluations. Receiving the data can, however, be fraught with challenges: surveys take a lot of resources and patient-based data are aimed at assessing and treating patients, not for research. It was encouraging that so many countries were trying to collect data. It was also important to run population-based surveys that yield different information, and to be able to compare the data from different sources and countries.

Scale-up and sustainability: moving towards countrywide implementation

The purpose of the session was to share countries' experiences and approaches to scale-up and the sustainability of PEN implementation.

Designing a feasibility study: experience from the Republic of Moldova

The Republic of Moldova had carried out a feasibility study which aimed to identify in practice the weaknesses and strengths of the current management of CVD and diabetes in comparison with the application of the complex management approach and adapted PEN tools by PHC physicians and nurses. The rationale for the study was the disease burden from NCDs, the high proportion (76.2%) of untreated patients with raised blood pressure, and the high proportion of avoidable hospitalizations for NCDs. The study recruited 20 PHC centres (10 intervention, 10 control), adapted the PEN protocol to the national context and developed a training package for pilot PHC units. Baseline indicators were collected for all 20 centres and staff in the 10 intervention centres were trained. Following the implementation of interventions and provision of technical support over a year, further data would be collected on quantitative and qualitative indicators in all 20 units. The results would be analysed and evaluated and experiences shared. The study was being coordinated by the WHO Country Office with the support of the Regional Office and funded by the Swiss Agency for Development and Cooperation.

Evaluation of a pilot study to inform scale-up: experience from Turkey

A study had been carried out in Turkey to assess the feasibility of monitoring NCDs in clinical practice, identify the problems faced by family physicians in practice and produce solutions that would inform scale-up. Family physicians from Ankara, Erzurum and Istanbul provinces were trained to carry out risk assessment for CVD. This qualitative and quantitative survey monitored chronic diseases at PHC level as well as successful implementation through support visits, data

input, feedback, focus group talks and analysis. The exercise had detected new cases, the problem of obesity and a high proportion of unregulated chronic patients, thus highlighting the importance of monitoring chronic diseases at PHC level. Difficulties encountered included insufficient time allocated for examination by physicians (9.9%) and by patients (5.6%), and patients not available for laboratory testing (6.8%). The study informed plans for strengthening chronic disease monitoring in PHC as part of routine work.

Developing a road map for PEN scale-up: experience from Kyrgyzstan

Kyrgyzstan had developed a preliminary roadmap for implementation of PEN with the goal of ensuring access to preventive measures at PHC level and improving the quality and efficiency of public health services. An assessment had been made of factors contributing to implementation of the PEN protocol such as institutionalization of training, availability of indicators for monitoring, grading of knowledge and existence of mechanisms for financial motivation. Obstacles identified included insufficient PHC financing, absence of a unified approach to the supervision of NCD risk factors, lack of information for the public about NCDs, an institutionalized system of monitoring, and lack of motivation mechanisms for health personnel. The main steps planned were to conduct training with a focus on nurses, increase coverage of cardiometabolic risk control among high-risk individuals, provide early detection and management of hypertension, and strengthen public awareness of NCD prevention.

Country action planning

Participants considered the following issues in country groups:

- implementation the PEN protocols or equivalent for CV risk assessment in countries, next steps for 2017 and for the biennium 2018–2019 and possible technical support by WHO for implementation of action plans (see Annex 3 for the action plans);
- future of the seminar (regional or subregional);
- twinning of countries for implementation.

Armenia would like to adapt the PEN protocols to the national context and integrate them with those already in existence. Support for this would be needed from WHO. They would like to: expand training of medical staff and review the current curriculum of higher education for nurses, looking to delegate functions such as consultations on NCDs lifestyles to nurses; and engage nongovernmental organizations and the media in their work. They are developing guidelines and would like to develop qualitative and quantitative indicators: 28 of their indicators need to be reviewed. Finally, they would value constant experience and exchange with colleagues from other countries

Azerbaijan planned to translate the PEN protocol and pilot it in three regions selected by the government. Like Uzbekistan (see below), they would like to pilot team training in two regions at PHC level, for which they would need technical support from WHO. They are establishing the family physician system at PHC level and would like to cooperate on a regional basis with Turkey to receive support and help for the family doctor system.

Belarus was planning to strengthen intersectoral cooperation with other institutions, and involve the Council of Ministers at policy level and nongovernmental organizations such as the women's organizations seen in North Karelia. Other plans included economic monitoring of NCDs and

implementation of PEN protocols, mapping and conduct of assessments. They wanted to develop distance learning initiatives with self-assessment. Another important area was to improve the availability of medicines: they would review the list of essential medicines and develop a mechanism to make them available. They appreciated learning about other countries' best practices, challenges and mistakes.

Georgia wanted to establish an intersectoral group for reviewing PHC and integrating PHC and public health. They would be launching the results of their STEPS survey in May, which would help motivate other sectors to work together. They also planned to review the terms of reference of doctors and nurses, review the current training curriculum of medical staff and establish continuous medical education, and pilot PHC reform in at least one region. Finally, they wanted to establish an electronic medical records system and train doctors and nurses in its use, for which they expected to need technical and financial support from WHO.

The burden of disease in **Kazakhstan** was similar to that in all former Soviet countries, so problems such as the shortage of medical staff, high mortality and risk factors need common solutions. Electronic resources will be used from 2018. They need to develop standards for continuous training and prescriptions for which they need WHO technical assistance to develop guidelines. Excise taxes on tobacco products should be raised, and indicators developed for monitoring and evaluating NCDs to capture the prevalence of hypertension, diabetes and CVDs, salt consumption, as well as hospitalization, ambulance care and disabilities arising from NCDs.

Kyrgyzstan wants to scale up the PEN project. It is drafting a roadmap for action and will engage other stakeholders in decision-making for implementation. Current data on risk factors and related diseases are being reviewed and an economic cost assessment (business case study) is being completed. A Childhood Obesity Surveillance Initiative (COSI) survey will be organized, as will a survey on tobacco and risk factors. A new health sector strategy is being developed with new regulations (Uzbekistan will be good model for multisectoral collaboration). The use of electronic medicine, information technology and patient records are also underway. The meeting was very useful and the poster presentation a good idea, as it helps to understand different aspects of the experience. They need WHO assistance for assessment and monitoring. Finally, they suggested that the next workshop should be organized in Turkey.

The Republic of Moldova is conducting a feasibility study (see above) with a detailed plan of action. A roadmap will then be developed. All materials could be shared with other countries. They were working on hypertension reduction, conducting a study of sodium consumption and working with the Ministry of Agriculture to decrease the amount of sodium in foods. Tobacco control legislation is relatively good but alcohol is a big problem. With the aim of controlling the consumption of alcohol, all sectors had been invited to support restrictions on the marketing of products.

The Russian Federation had found it interesting to see the implementation of the North Karelia project with different policy options, and had liked learning about the experience of Kyrgyzstan with the availability of drugs. They have a similar project to PEN and want to compare the results of the two projects. They also want to monitor some indicators such as ambulance calls, emergencies and clinical quality. They need to improve the effectiveness of PHC without increasing the cost. They plan to develop protocols for NCDs with age and gender and to organize geriatric assessment.

Tajikistan wants to expand and scale up the implementation of PEN. They plan to share intersectoral communication and action with all related organizations. Religious leaders can be enlisted for awareness campaigns for NCDs. They would like to implement best practices from North Karelia. A national action plan is being developed to implement Health 2020. With the support of WHO, they would like to develop a case for investment in NCDs.

Turkmenistan saw a need to continue these kinds of seminar, which had been very fruitful, especially the poster session. They can initiate a school health programme and establish an electronic registry system. They plan to develop algorithms for chronic obstructive pulmonary disease and to organize a study for NCD risk factors. They liked Belarus's experience of electronic materials for doctors.

Turkey plans to expand its pilot project all over the country. They are completing legal documents for monitoring and managing NCDs at PHC level, including performance-based payments. They are also developing guidelines and circulars, particularly for hypertension, diabetes and CV risk assessment. They are organizing an electronic monitoring system with decision support system similar to that in Finland. They want to carry out an NCD business case study for which they need technical and financial assistance from WHO. They are organizing face-to-face training of family doctors and nurse (about 23 000).

Ukraine is organizing training for PHC doctors and nurses in seven regions. They plan to integrate training courses into postgraduate education and to explore the development of online training. Assessment of clinical practice is needed, including a list of indicators. They would like to assess the economic implications of NCDs and are also planning STEPS and COSI surveys. Finally, they are developing an e-health system and will ensure that NCDs and score cards are part of the system.

Uzbekistan wishes to improve the legislation and regulations to support NCD preventions. They are implementing PEN in other regions and will create a coordinating council to meet once or twice a year to discuss the implementation of PEN and the prevention of NCDs.

Conclusions

The common themes from the country feedback presentations included the following:

- all countries mentioned and/or requested support from WHO regional and country offices;
- participants have interesting suggestions and want to continue these kinds of workshop;
- social media should be used more frequently, and the possibility investigated of developing a system to share resources, materials and experience;
- progress should be compared between countries, including implementation and activities as well as the challenges and achievements;
- all the countries needed qualitative and quantitative assessment tools;
- countries wished to display or present their achievements in the NCD directors meeting due to take place in Moscow, Russian Federation, in June 2017;
- it would be useful to develop bilateral communication and experience-sharing strategies;
- business case studies for NCDs or some studies on the cost-efficiency of PEN would be helpful;

- protocols and guidelines for PHC should be developed/adapted, and in the future technical assistance from WHO would be appreciated;
- information about new technologies for electronic systems for medical records is needed, as are medical recording systems;
- medical doctors and nurses should be included in NCD interventions.

Following thanks to those who had contributed to the smooth organization of the meeting, the meeting was formally closed.

Annex 1

PROGRAMME

Friday, 24 March 2017

09:00–09:30	**Opening**
	Welcome *Mr Veli-Mikko Niemi, Director-General (Health and Wellbeing), Ministry of Social Affairs and Health, Finland and Dr Jill Farrington, Coordinator, Noncommunicable Conditions, WHO Regional Office for Europe*
	Introduction of participants
	Briefing on programme and expected outcomes *Dr Jill Farrington*
09:30–10:15	WHO European developments to support implementation of essential NCD interventions in PHC *Dr Jill Farrington*
	WHO global HEARTS initiative *Dr Wendy Venter, Technical Officer, WHO headquarters*
	Discussion
11:00–12:30	**Session 1. Community interventions to support clinical prevention**
	Summary and key lessons from Finland visit (North Karelia) *Professor Tiina Laatikainen, National Institute for Health and Welfare, Finland*
	Reflections on the visit *A panel of three participants share their impressions on what they learnt and implications for practice*
	Discussion in country groups and feedback
14:00–15:15	**Session 2. Country experiences**
	Poster presentations and "gallery walk" *Each country delegation presents their poster then participants have an opportunity to walk through the gallery of posters and discuss further*
	Plenary discussion and reflections *(15 minutes)*
15:45–17:00	**Session 3. Training and education for primary care workers**
	Training primary care doctors and nurses together: experience from Ukraine
	Using online materials/social media to support training: experience from Turkey and Uzbekistan
	Measuring and monitoring clinical competence: experience from Kyrgyzstan
	Strengthening undergraduate and postgraduate, continuing medical education training on cardiometabolic risk assessment and management: experience from Tajikistan
	Plenary discussion and opportunity for other countries to share experience on the relevant topics
	Discussion on implications for practice
	Reflections
17:00-17:30	Summary and close

Annex 2

LIST OF PARTICIPANTS

Armenia
Ms Romella Abovyan
Head, Department of Epidemiology of Noncommunicable Diseases
National Centre of Disease Control and Prevention

Dr Knar Ghonyan
Head, Outpatient Medical Care, Division of Medical Care Policy Department
Ministry of Health

Azerbaijan
Dr Lutfi Gafarov
Head, Primary Health Care Organization Department
Ministry of Health

Dr Nabil Seyidov
Acting Head, Health Policy and Reforms Department
Ministry of Health

Belarus
Dr Aliaksandr Dubrouski
Head Internist, Ministry of Health

Dr Liudmila Yankouskaya
Head, Department of Primary Health Care
Ministry of Health

Finland
Mr Veli-Mikko Niemi
Director-General, Health and Wellbeing
Ministry of Social Affairs and Health

Ms Sirpa Sarlio-Lähteenkorva
Ministerial Adviser, Department for Promotion of Welfare and Health
Health Promotion Group
Ministry of Social Affairs and Health

Georgia
Professor Nino Kiknadze
Associate Professor, Deputy Clinical Director
Family Medicine Department
Tbilisi State Medical University and JSC "Curatio"

Dr Lela Sturua
Head, Noncommunicable Diseases Department
National Centre for Disease Control and Public Health

Kazakhstan
Dr Valikhan Akhmetov
Head, Almaty Health Department

Dr Akmaral Alnazarova
Head, Department of Health
Kyzylorda Region

Ms Diliara Kaidarova
Director, Kazakh Institute of Oncology and Radiology

Dr Saltanat Zharmayeva
Deputy Head, Mangistau Health Department
Aktau

Kyrgyzstan
Ms Gulai Abdrakhmanova
Doctor, Expert, Family Medicine Centre No.12

Ms Aliina Altymysheva
Researcher, Outpatient Department, National Centre for Cardiology and Therapy
Ministry of Health

Dr Roza Dzhakipova
National Coordinator of Noncommunicable Diseases
Chief Specialist, Organization of Medical Services Department
Ministry of Health

Republic of Moldova
Ms Angela Anisei
Head, Department of Health Services Quality Management
National Centre of Health Management

Professor Ghenadie Curocichin
Head, Department of Family Medicine
State University of Medicine and Pharmacy "Nicolae Testemitanu"

Russian Federation
Dr Liubov Drozdova
Senior Research Associate, Unit for Noncommunicable Diseases Primary Prevention
National Research Centre for Preventive Medicine

Dr Elmira Kamilevna Vergasova
Deputy Director, Department for Organization of Medical Care and Resort Business
Ministry of Health

Dr Georgy Georgievich Vvedensky
Head, Unit for Primary Health Care Organization
Department for Organization of Medical Care and Resort Business
Ministry of Health

Tajikistan
Dr Isfandiyor Mahmudzoha
Head, Primary Health Care Reform and International Affairs Department
Ministry of Health and Social Protection

Dr Zakriya Rahimov
Senior Cardiologist
Ministry of Health and Social Protection

Turkey
Dr Banu Ekinci
Head, Department of Chronic Disease, Elderly Health and Disabled
Public Health Institution of Turkey
Ministry of Health

Dr Özlem Yiğitbaşioğlu,
Head of Department
Public Health Institution of Turkey
Ministry of Health

Turkmenistan
Ms Soltanova Ogulgurban
Ministry of Health and Medical Industry

Ms Bazarova Ogulhan
Ministry of Health and Medical Industry

Ukraine
Ms Olena Baz
Chief Specialist, Programmes and Project Unit
Public Health Department
Ministry of Health

Ms Iryna Rudenko
Deputy Head, Unit of Coordination with other Central Authorities and Ministries
Public Health Department
Ministry of Health

Mr Vladyslav Zbanatskyi
Deputy Director, Noncommunicable Disease Control, Public Health Centre
Ministry of Health

Uzbekistan
Dr Barno Odilova
Chief Specialist, Main Treatment Department
Ministry of Health

Ms Rikhsinisa Salikhodjaeva
Chief Specialist on Nursery
Ministry of Health

Representatives of other organizations

Professor Pekka Jousilahti
National Institute for Health and Welfare
Finland

Professor Erkki Vartiainen
National Institute for Health and Welfare
Finland

Ms Sirje Vaittinen
Project Coordinator, National Institute for Health and Welfare
Finland

Ms Tuija Jääskeläinen
Secretary, National Institute for Health and Welfare
Finland

Ms Katja Tukiainen
Secretary, National Institute for Health and Welfare
Finland

Temporary advisers

Professor Tiina Laatikainen
WHO Collaborating Centre for Noncommunicable Disease Prevention, Health Promotion and Monitoring
Department of Epidemiology and Health Promotion
National Institute for Health and Welfare
Finland

Dr Anna Kontsevaya
WHO Collaborating Centre on Development and Implementation of Noncommunicable Disease Prevention Policy and Programmes
National Research Centre for Preventive Medicine
Ministry of Health
Russian Federation

Mr Dylan Collins
WHO Collaborating Centre for Self-Care
Primary Health Care Centre for Evidence-based Medicine, University of Oxford
United Kingdom

World Health Organization

Regional Office for Europe
Dr Angela Ciobanu
Technical Officer, Public Health
WHO Country Office, Republic of Moldova

Dr Anastasiya Dumcheva
National Professional Officer
WHO Country Office, Ukraine

Dr Toker Ergüder
National Professional Officer
WHO Country Office, Turkey

Dr Jill Farrington
Coordinator
Division of Noncommunicable Diseases and Promoting Health through the Life-course

Dr Rusudan Klimiashvili
National Professional Officer
WHO Country Office, Georgia

Mr Oskon Moldokulov
National Professional Officer
WHO Country Office, Kyrgyzstan

Dr Jane Robertson
Technical Officer, Health Technologies and Pharmaceuticals
Division of Health Systems and Public Health

Ms Anita Strandsbjerg
Programme Assistant
Division of Noncommunicable Diseases and Promoting Health through the Life-Course

Dr Elena Tsoyi
National Professional Officer
WHO Country Office, Uzbekistan

Headquarters
Dr Wendy Venter
Consultant
Management of Noncommunicable Diseases

Interpreters

Ms Victoria Frantseva
Mr Anton Frantsev

Annex 3

NOTES FOR COUNTRY ACTION PLANS

The following notes for country action plans are transcripts of the relevant countries' flipcharts (in places verbatim).

Armenia

- Develop PEN protocols, with WHO technical support (development and integration with existing NCD clinical guidelines).
- Train medical staff (including nurses) in NCDs.
- Revise existing training programmes at all levels (with emphasis on NCDs).
- Move tasks relating to NCD functions (counselling on risk factors, questionnaires) to mid-level health professionals.
- Ensure the implementation of the basic package of interventions and availability of technical equipment necessary for the implementation of PEN in PHC.
- Engage nongovernmental organizations and media in the implementation of PEN.
- Monitor key indicators, review bonus financing indicators.
- Exchange experiences continuously to introduce best practices and prepare NCD prevention specialists at the national level (training of trainers).

Azerbaijan

Next steps:

- regional twinning Azerbaijan and Turkey
- suggest next review meeting to be in Istanbul in 2018
- pilot implementation of PEN protocols in three regions (with WHO technical support)
- adaptation of PEN protocols

Belarus

- Develop proposals and initiatives on interagency cooperation to combat NCDs (such as joint projects under the auspices of the "Healthy Year").
- Organize a meeting with civil society organizations to ensure support for NCD strategies.
- Continue work in the Annual Action Programme for Belarus "International Accreditation of Testing Laboratories for Medical Products and support to healthcare in Belarus (BELMED)" project.
- Introduce distance learning programmes for both medical personnel and patients, with feedback and monitoring systems.
- Change approaches to training medical staff to integrated forms of training.

- Monitor availability of 1C protocol.
- Develop mechanisms to introduce the results of economic availability monitoring into PHC.
- Obtain support from WHO for system mapping.
- Continue these meetings, focusing on practice and exchange of experiences.

Georgia

1. Intersectoral group on PHC reform (Ministry of Health, Government of Georgia, WHO, professional associations):
    - common interest
    - win-win situation
    - integration of PHC and public health.

2. PHC/PCH + public health policy document (Ministry of Health, WHO, professional associations):
    - develop guidelines/protocols
    - essential drugs list/revise mechanism
    - doctors /nurses competencies, terms of reference
    - motivation /incentives
    - indicators
    - human resources planning

3. EMR (Ministry of Health, WHO, donors):
    - database
    - assess resources/capacity
    - technical/financial support
    - organize training courses.

4. Training courses (Ministry of Health, WHO, donors, professional associations):
    - undergraduate curriculum (doctors, nurses)
    - postgraduate
    - continuous medical education
    - school doctors/nurse.

5. Piloting
6. Monitoring /evaluation (Ministry of Health, professional associations):
    - indicators
    - data

- surveys
- incentives
- selective contracting.

Kazakhstan

1. Analytical stage:
   - same risk factors as for all countries of the Commonwealth of Independent States
   - same structure of mortality and morbidity
   - same problems regarding: shortage of staff, information and computers, low commitment of the population to their health
   - approximately the same socioeconomic development of the countries.
2. Implementation stage:
   - patient route
   - training of personnel (standardization)
   - drug provision (availability)
   - common software.
3. Monitoring: common criteria (target indicators):
   - percentage of hospitalizations
   - percentage of emergency medical care calls during business hours
   - percentage of disabilities (primary) from CVD
   - percentage in the structure of mortality.
4. Media support (media, nongovernmental organizations, civil society organizations).
5. Priority areas for action on NCDs:
   - reduce salt intake
   - reduce smoking
   - reduce alcohol consumption
   - increase physical activity.
6. WHO to give recommendations to the leadership of the participating countries on increasing excise taxes, health indicators.

Kyrgyzstan

1. PEN scale-up:
   - draw up roadmap (finalize PEN, CVD, essential drugs list now)
   - involve stakeholders (IF, WB)
   - analyse available data about NCD, КФ

- implement recommendations (NCD: mid-term review, economic evaluation, business case).

2. In 2017, carry out:
   - STEPS 2
   - COSI
   - knowledge, attitude, practice
   - investigation about feasibility.
3. New national programme:
   - develop health system regarding NCDs
   - continue NCD action plan implementation
   - national programme: tobacco, alcohol, oncology
   - strengthen legislation on tobacco.
4. Intersectoral collaboration, multisectoral team.
5. e-Medicine – 29 apps:
   - electronic cards
   - information systems.
6. Community involvement village health committees (religious leaders, private sector, youth).
7. Regional PEN workshops – yes on a regular basis; next one in Turkey.

Russian Federation

- Make a medical and economic evaluation of PEN and other methods of chronic NCD control in PHC.
- Create a list of target indicators and determine their values.
- Monitor progress in achieving target indicators (for example, incidence of disease, temporary disability, hospitalizations, emergency medical care).
- Monitor the clinical efficacy of management of patients with NCDs (total cholesterol, blood pressure, blood sugar).
- Develop models for strengthening the effectiveness of PHC using existing resources.
- Create protocols for the prevention of chronic NCDs, taking into account gender and age factors.

Tajikistan 2017–2018

- Scale up implementation of PEN Protocols 1–4 in the remaining regions of the country (WHO, World Bank).
- Revise documents in the light of PEN implementation (government orders, protocols, legislation).
- Strengthen intersectoral collaboration (media, ministries, religious leaders, economy).

- Disseminate and implement the North Karelia experience in Tajikistan (social environment promoting healthy lifestyles).
- Implement the provisions of Health 2020 and analyse mistakes for 2017–2018.
- Develop action plans for 2018–2019.
- Attract investors.

Turkey

Expand pilot project:

- complete legal documents for monitoring /managing NCDs in PHC (performance-based payment/guidelines /circulars hypertension, diabetes mellitus, CVD risk assessment);
- reorganize electronic monitoring system with decision support information system (750 forms translated);
- NCDs business case study (technical assistance from WHO);
- two days face-to-face training for general practitioners (23 000) and nurses (training of trainers) – university.

Ukraine

What?	Who?	When?
Cascade training courses in seven pilot regions	Ministry of Health Regional health authorities Ministry of Health/WHO/ Swiss Agency for Development and Cooperation-supported project	2017–2019
Integration of training courses into postgraduate department	Ministry of Health Academia Ministry of Health/WHO/ Swiss Agency for Development and Cooperation-supported project	2017–2019
Assessment of clinical practice changes: • development of list of indicators • selection of PHC facilities • assessment	Ministry of Health Academia WHO technical assistance	2017–2019
Change PHC level patient charts and forms so as to include NCDs risk assessment and factors	Ministry of Health (establishes working group) WHO technical assistance	2017–2019
Development of online training/ refreshment materials/tools	Ministry of Health WHO technical assistance	2018–2019
Assessment of economic implications from NCDs burden and interventions	Ministry of Health Academia WHO technical assistance	2018–2019
In the framework of health care reform and development of e-Health system, ensure that NCDs risk factors and systematic coronary risk evaluation are part of the system	Ministry of Health Public Health Centre WHO technical support	2017–2019
Planning STEPS and COSI survey	Public Health Centre leading process Ministry of Health WHO technical support	2017–2018

Uzbekistan

- Evaluation (feasibility study) of the PEN package for NCDs implementation (with WHO).
- Roadmap for action.
- National conference (with WHO).
- Strengthening of the legislation.
- Implementation of the NCD package at the country level (scale-up).