



World Health
Organization

REGIONAL OFFICE FOR
Europe

Strengthening the management of diabetes and hypertension in primary health care

GEORGIA

May 2020 | Noncommunicable Diseases Integrated Prevention and Control Programme

www.euro.who.int

Overview of process

Feasibility testing

May–mid-June 2020

Assessing the feasibility of applying toolkit using routine clinical data from select primary health care facilities



Stock-taking & planning

End-June 2020

Exploring additional funding for wider roll-out and further synergies of plans with reform implementation



Possible wider roll-out

July 2020 – June 2021 *



Aim

To pursue alignment with **ongoing reforms in Georgia towards UHC** for an evidence-based approach to a revised **scope of PHC in NCDs management** and the **use of clinical quality optimization mechanisms**

** Subject to confirmation of funds*

Current phase: Feasibility testing

Stages and outputs

Starting-up mid-May

1

Tailored protocol for the feasibility intervention with timeline, resources needed, sampling framework (e.g. family doctors, specialists), adapted technical guide (e.g. type of records, years, etc.).

Data collected, standardized, anonymized and formatted for analysis and interpretation

2

Training & reviewing clinical records end-May

Analysing, interpreting and reporting mid-June

3

Draft report of findings; list and baseline of possible indicators for clinical quality optimization in the management of diabetes and hypertension.

Draft proposal for a scaled-up initiative

4

Scaling-up end-June

Rationale

Key facts and figures

16.7%... probability of premature mortality (30-70 years) on average caused by four main NCDs within the WHO European Region^(a)
Cardiovascular disease, diabetes mellitus, chronic respiratory disease, cancer.

34.9%... probability of NCD premature mortality for men in Georgia; 15.9% for women in 2016^(a)

CVDs... are the main driver of inequality in NCD premature mortality among males^(a)

45/100... on UHC index for NCD component in 2017 for Georgia, with overall service coverage score of 66^(b)

Purpose of Toolkit

Leveraging routine clinical data for clinical optimization of essential NCD-services in PHC

What

A free, open-source, standardized data collection methodology for use to assess essential CVD interventions in PHC using routine clinical data.

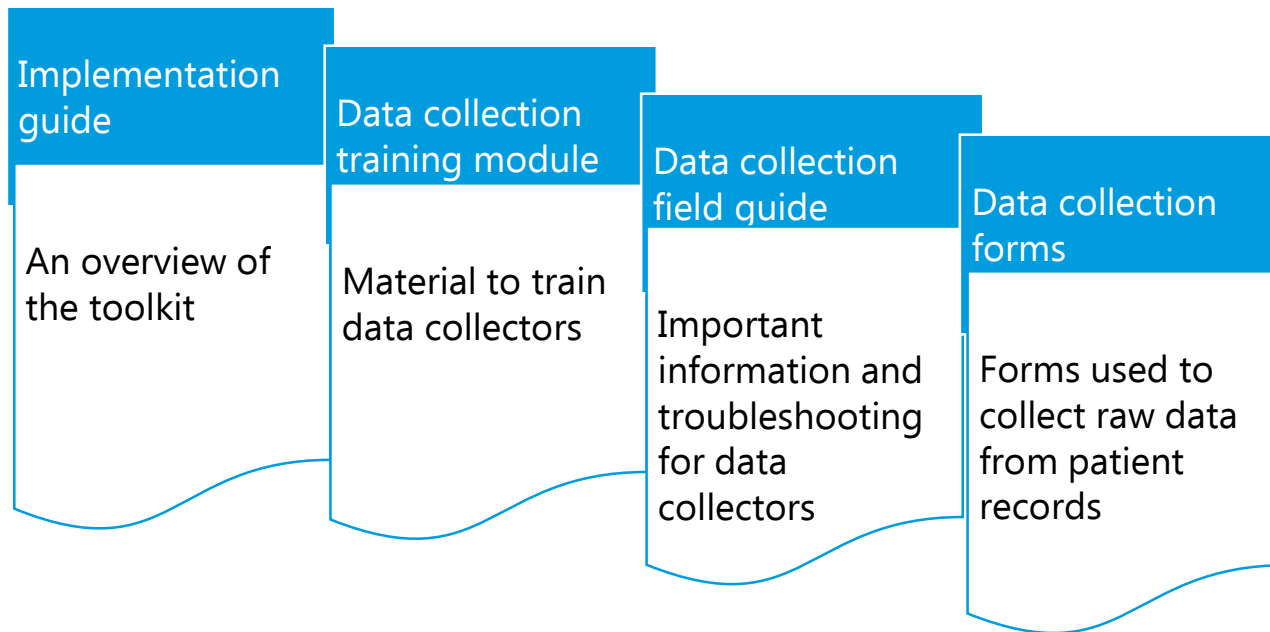
How

Data can be extracted from range of medical health record infrastructure (i.e. from paper-based records to electronic health records).

Where

The toolkit has been tested in other settings, including in health facilities with no internet or cell service coverage using paper-based data extraction forms.

Toolkit components



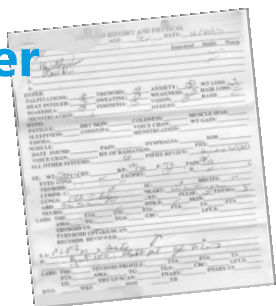
Data collection process

PHC medical records

Data collection

Data analysis

Paper

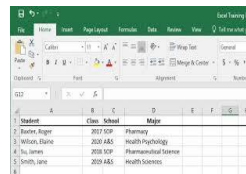


Form for manual data collection

Question	Answer
What is your name?	
Date of Data Extraction (dd/mm/yyyy)	
How many records were included in your sampling?	
How many records were excluded from your sampling?	
See (M1)	
Sampling method (stratified, randomised?)	
Has this patient been formerly diagnosed with hypertension? (Y/N)	
Date of hypertension diagnosis (dd/mm/yyyy)	
Can you find one or more blood pressure readings? (Y/N)	

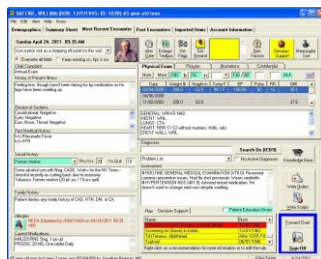
Template

Computer

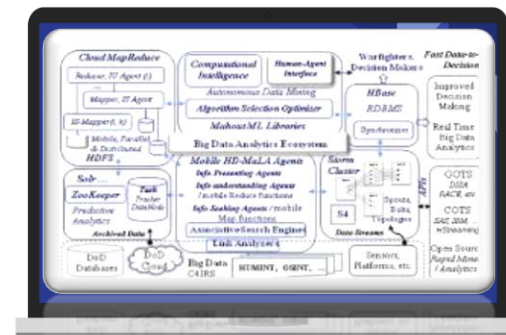


Student	Class	School	Major						
1									
2	Business	2017.02P	Pharmacy						
3	Wilson, Darin	2017.04S	Health Psychology						
4	Yu, James	2017.02P	Pharmaceutical Science						
5	Smith, John	2017.04S	Health Sciences						

Electronic



Mobile phone



Example Indicators

Tailoring selection of indicators in alignment with UHC reform agenda



The toolkit allows to identify possible indicators to be used in e.g. pay-for-performance, peer-reviews, clinical audits, improvements and their reliability.

Examples of indicators

- ◆ Patients over 40 years with a CVD risk assessment
- ◆ High risk CVD patients prescribed a statin
- ◆ Hypertensive patients prescribed blood-pressure lowering medication
- ◆ Hypertensive patients on drug treatment who achieve blood pressure control
- ◆ Patients with diabetes receiving treatment
- ◆ Patients with diabetes who achieve glycemic control

Main activities and deliverables

1

Starting-up

This includes seeking clearance from the Ministry of Health; engaging with senior staff of the primary health care Training Centre, Tbilisi and obtaining ethical review and approval according to local practice.

Deliverables: tailored protocol for the feasibility intervention with timeline, resources needed, sampling framework (e.g. family doctors, specialists), adapted technical guide (e.g. type of records, years, etc.).

Deadline: mid-May.

Main activities and deliverables

Training and reviewing clinical records^[1]

2

This includes training data collectors at-distance; reviewing routine clinical records and determine quality of care with at-distance support.

Deliverables: data collected, standardized, anonymized and formatted for analysis and interpretation.

Deadline: end-May.

[1] A team of six people could collect data on 160 records each day.

Main activities and deliverables

Analysing, interpreting and reporting

This includes creating summary tables; interpreting findings in terms of methods, procedures and clinical considerations; developing a narrative for the results and possible implications and use in a scaled-up intervention.

Deliverables: draft report of findings; list and baseline of possible indicators for clinical quality optimization in the management of diabetes and hypertension.

Deadline: mid-June.

3

Main activities and deliverables

Scaling-up

This includes strategic dialogue in relation to the scaling-up of this feasibility intervention; its contribution to the ongoing reforms; linking with other partners and stakeholders; joint interventions and future funding.


Deliverables: draft proposal for a scaled-up initiative.

Deadline: end-June.

Examples of country applications to-date

“The aim of this evaluation is to determine the feasibility of implementing and evaluating essential interventions for the prevention of CVD in primary healthcare in the Republic of Moldova”

“It is feasible to evaluate the quality and management of patients with NCDs in low-resource settings with routine data. Modest improvements in risk factor identification and management can be achieved in a relatively short period of time.”



World Health Organization
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Open access

BMJ Open Protocol for the evaluation of a pilot implementation of essential interventions for the prevention of cardiovascular diseases in primary healthcare in the Republic of Moldova

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Publication history for this paper is available online. [View these files, alongside other resources for this article.](#)

Protocol

ABSTRACT
Introduction Nearly 90% of all deaths in the Republic of Moldova are caused by non-communicable diseases, the majority of which (55%) are caused by cardiovascular diseases (CVD). In addition to reducing premature mortality from CVD, it is estimated that strengthening primary healthcare could out of the number of hypertension-related hospital admissions and evaluating essential interventions for the prevention of CVD in primary healthcare in the Republic of Moldova, with a view towards national implementation.

Methods A national steering group of national experts will be convened to package of Essential NCD Intervention Package in Low Resource Settings (ENCDIPS) to the health system of the Republic of Moldova, develop and conduct training for healthcare workers and test a core set of indicators to monitor the quality of care and change practice. To evaluate the impact of this intervention, a pragmatic, sequential mixed methods design, composed of quantitative and qualitative data collected from these formats will be analysed thematically for explanatory themes that relate to the qualitative findings.

Ethics and dissemination Ethical review and approval has been obtained. Findings of the evaluation will be shared in a project report to key stakeholders, presented back to participants and written into a peer-reviewed journal.

Strengths and limitations of this study

- To our knowledge, this is the first pilot implementation of a low-income and provides a model for other jurisdictions.
- A mixed methods design of the pilot implementation and evaluation allows for iterative development.
- Primary healthcare workers from different regions of the Republic of Moldova, develop and conduct training throughout the country.
- Since this is an evaluation, the sample size is not statistically powered.
- We are unable to experience in the field aspect of healthcare workers.

Introduction
Globally, non-communicable diseases (NCDs) account for the global burden of disease, estimated at 41 million deaths, which nearly half of these are cardiovascular diseases (CVD).¹ If we do not act, this burden will increase sharply. Early detection and management of these diseases is crucial for primary healthcare workers to support patients in their management. However, in low-resource settings, NCDs, as agreed in the Declaration of Astana, are under-recognized and under-managed.

Background
The aim of this study is to determine the feasibility of implementing and evaluating the World Health Organization Package of Essential Non-communicable Disease Interventions (WHO PEN) approach in primary healthcare in the Republic of Moldova. **Methods** According to our published a priori methods, 20 primary care clinics were randomized to 10 intervention and 10 control clinics. The intervention consisted of implementation of adapted WHO PEN guidelines and structured training for health workers; the control clinics continued with usual care. Data were gathered from paper-based patient records in July 2017 and August 2018 resulting in a total of 1174 and 995 patients in intervention and control clinics at baseline and 1239 and 1256 at follow-up. Pre-defined indicators describing assessment of risk factors and total cardiovascular risk, prescribing medications and treatment outcomes were calculated. Differences between baseline and follow-up as well as between intervention and control clinics were calculated using logistic and linear regression models and by assessing interaction effects. Improvements were seen in recording smoking status, activity to measure HbA1c among diabetes patients and achieving control in hypertension treatment. Improvement was also seen in identification of patients with hypertension or diabetes. Less improvement or even deterioration was seen in assessing total risk or prescribing status for high-risk patients. **Conclusions** It is feasible to evaluate the quality and management of patients with non-communicable diseases in low-resource settings with routine data. Modest improvements in risk factor identification and management can be achieved in a relatively short period of time.

Introduction
Non-communicable diseases (NCDs) are a major and an increasing challenge in many low- and middle-income countries (LMICs). In 2016, up to 85% of premature deaths due to NCDs occurred in LMICs.¹ The Republic of Moldova is an LMIC in the European Region of the WHO. In the Republic of Moldova in 2016, the probability of dying prematurely from NCDs was 23% with the rate almost twice as high for men (34%) compared with women (17%).² The rates of NCD risk factors in the Republic of Moldova, especially smoking and alcohol use, are among the highest in the WHO European Region. Also blood pressure levels are high and the management of blood pressure has not developed following the gains in Western and Central Europe.³

In the WHO European Region, Member States with the highest cardiovascular disease (CVD) burden tend also to have the weakest and lowest resourced health systems with underdeveloped primary healthcare (PHC).⁴ Lack of workforce and resources, variable clinical competences, lack of PHC oriented clinical guidelines, underutilized possibilities of risk sharing between professionals and non-extended clinical auditing and development processes reduce the engagement of PHC professionals.

The WHO has developed a conceptual framework for a Package of Essential NCD Interventions (WHO PEN) for strengthening efficiency and equity of PHC in low-resource settings. WHO is providing technical support to Ministries of Health to adapt the clinical protocols to PHC. In addition to efficient screening of risk factors and morbidity, a minimum set of interventions should be accessible in PHC.⁵

Data on quality of care in PHC level from low-resource settings has so far been missing. The aim of this study is to present the findings of a feasibility study carried out in the Republic of Moldova to evaluate the 1-year results of the pilot implementation of WHO PEN between 2017 and 2018 comparing the pilot PHC clinics with control clinics. Through this feasibility study also further knowledge on processes and health value of PHC in the Republic of Moldova in general is achieved.



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