

# Tackling noncommunicable diseases in Bosnia and Herzegovina

WHO country office in  
Bosnia and Herzegovina



**© World Health Organization 2018**

All rights reserved. The Regional Office for Europe of the World Health Organization welcomes requests for permission to reproduce or translate its publications, in part or in full.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions omitted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. The views expressed by authors, editors, or expert groups do not necessarily represent the decisions or the stated policy of the World Health Organization.

Address requests about publications of the WHO Regional Office for Europe to:

Publications  
WHO Regional Office for Europe  
UN City, Marmorvej 51  
DK-2100 Copenhagen Ø, Denmark

Alternatively, complete an online request form for documentation, health information, or for permission to quote or translate, on the Regional Office website (<http://www.euro.who.int/pubrequest>).

# Introduction

The main public health challenge in Bosnia and Herzegovina<sup>1</sup> is reducing noncommunicable diseases (NCDs): heart disease, stroke, cancer, diabetes and chronic respiratory disease. NCDs are estimated to account for 80% of the country's annual deaths, and addressing them is the foremost public health priority in the country. They dominate the overall burden of disease and disability, as do the risk factors that contribute to them, such as high blood pressure, tobacco use and unhealthy nutrition. In 2016, cardiovascular diseases (CVDs) alone were the cause of approximately half of reported deaths and were among the leading causes of reported morbidity in family medicine and primary health care overall.

The project "Reducing Health Risk Factors in Bosnia and Herzegovina – Developing and Advancing Modern and Sustainable Public Health Strategies, Capacities and Services to Improve Population Health in Bosnia and Herzegovina" was developed jointly by the Swiss Agency for Development and Cooperation (SDC), the WHO Regional Office for Europe, the WHO country office in Bosnia and Herzegovina, and the health authorities in Bosnia and Herzegovina.<sup>2</sup> Its first phase (2013–2018) was launched at the end of 2013.

The overall goal of the project is to reduce the burden of ill health from NCDs and achieve better health for the population. It aims to increase the public's access to efficient, effective, good quality and equitable public health programmes and services that will reduce NCDs and their risk factors.

## In brief – what has the project achieved?

- Governance for health in Bosnia and Herzegovina has been formalized and improved at all administrative levels. With extensive involvement from inside and outside the health sector in a whole-of-government approach, the project has brought together a wide range of relevant stakeholders to work on public health reforms and harmonize the public health policy priorities of the health authorities in Bosnia and Herzegovina.
- Action plans for the management and control of NCDs, modelled on WHO regional and global action plans, are expected to be finalized, adopted and made operational by the health authorities in Bosnia and Herzegovina by the end of 2018.
- Tobacco control regulation has been strengthened in line with the WHO Framework Convention on Tobacco Control, working in collaboration with the World Bank.
- Over 67% of the population of Bosnia and Herzegovina now has access to standardized cardiovascular risk assessment and management services to reduce the risk of CVDs, thanks to a massive training programme designed for and delivered by the project to family medicine professionals. These services, provided in family medicine practices as part of primary health care, are monitored and are confirmed to be of a high standard.

---

<sup>1</sup> Constitutionally, Bosnia and Herzegovina is composed of two entities, the Federation of Bosnia and Herzegovina (further devolved to 10 cantons) and the Republika Srpska, and one district, the Brcko District of Bosnia and Herzegovina.

<sup>2</sup> The health sector in Bosnia and Herzegovina is governed by the Ministry of Civil Affairs of Bosnia and Herzegovina, the Ministry of Health of the Federation of Bosnia and Herzegovina, the Ministry of Health and Social Welfare of the Republika Srpska, and the Department of Health and Other Services of the Brcko District of Bosnia and Herzegovina (hereafter referred to collectively as the health authorities in Bosnia and Herzegovina).





The strategic management  
of major public health risks

The aim is to increase intersectoral coordination and participatory public health governance, including through operational public health policy frameworks, informed by the best evidence, practice and expertise available.

Existing public health policy frameworks in Bosnia and Herzegovina, which the project fully acknowledges, remain key to tackling NCD prevention and control.<sup>3</sup> The project builds on the the principles and values set in the European policy for health, Health 2020, and its accompanying plans and is strongly aligned with the United Nations 2030 Agenda for Sustainable Development, which is promoted in the country.

## Working together

Working closely together is essential in Bosnia and Herzegovina. To strengthen governance for health in Bosnia and Herzegovina, the WHO country office, supported by the WHO Regional Office for Europe and the South-eastern Europe Health Network (SEEHN) subregional forum, has continuously been working closely with the health authorities in Bosnia and Herzegovina and their respective nominated working bodies of the project. These comprise government officials from health and other ministries, health and public health authorities, and health managers and health professionals at all levels of administration in Bosnia and Herzegovina.

Work on public health policy development has been closely coordinated with United Nations sister agencies through the United Nations Development Assistance Framework, the European Commission, and other international and local partners operating in the health sector. The entire project has been supported financially by the SDC Health Portfolio in Bosnia and Herzegovina. This supports several projects directly related to strengthening health systems to address NCDs in the country, including: a complementary project on reducing health risk factors in selected communities in the Federation of Bosnia and Herzegovina and the Republika Srpska implemented by the World Bank through a trust fund; a mental health project implemented in Bosnia and Herzegovina by a local nongovernmental organization that aims to improve access to good quality community-based mental health services; and a project implemented by a consortium of partners from Switzerland and Bosnia and Herzegovina to improve nursing services in primary care, particularly for vulnerable groups.

---

<sup>3</sup> The frameworks include the *Strategic plan for health care development in the Federation of Bosnia and Herzegovina between 2008 and 2018*, the *Policy of health improvement for the population of the Republika Srpska until 2020*, and subregional commitments expressed in the Banja Luka Pledge (Third Health Ministers' Forum – Health in All Policies in South-eastern Europe: a Shared Goal and Responsibility, 2011).



# Results

## *Laws based on effective consultation*

Two thirds of all public health-related laws which were developed in 2016–2017 were enforced after consultations with the respective health authorities in Bosnia and Herzegovina. Good examples include the law on organic production in agriculture in the Federation of Bosnia and Herzegovina and on general product safety and general food laws in the Republika Srpska.

Legislation and policy-making has successfully taken a health-in-all-policies (HiAP) approach: professional exchanges and consultations between institutions on public health priorities continue within and across the governments and sectors, strengthening consultations and commitments across the whole of government, and thus giving the executive and the legislature greater effectiveness in all constituencies in Bosnia and Herzegovina. This degree of consultation was made possible by establishing and engaging the **Public Health Liaison Network**, whose purpose is to ensure an intersectoral approach. It is composed of stakeholders from outside the health sector, such as representatives of sectors and ministries in the Council of Ministers of Bosnia and Herzegovina and the governments of the Federation of Bosnia and Herzegovina, the Republika Srpska and the Brcko District of Bosnia and Herzegovina. All 16 ministries of the Government of the Republika Srpska are represented in this whole-of-government approach. The network was established in 2014 and has been restructured periodically with new members and expertise.

*After discussing intersectoral approaches to improve the health of people, we modified our urban planning scheme to incorporate a completely new bike path and a public swimming pool.*

**Governmental official, member of the  
Public Health Liaison Network**

## *Major policy events in Bosnia and Herzegovina*

Eight major policy conferences, dialogues and workshops were held to expose both health and non-health stakeholders and policy-makers to the best international practice and evidence in public health policy development. Some were also held with subregional SEEHN participation: these were dedicated to essential public health operations and covered areas such as public health governance, the workforce, and organization and financing. They also established familiarity with the concepts and processes critical for responsive and

participatory public health policy-making, such as social determinants of health, a pro-equity approach, HiAP and whole-of-government involvement. In the multisectoral capacity-building exercises on public health, participants from outside the health sector showed great interest in the multisectoral capacity-building exercises on public health.

### *High-profile international capacity-building*

Events in which nominated stakeholders participated included: the Lugano summer schools on public health policy, economics and management, which are organized annually by the Swiss Tropical and Public Health Institute; the Venice summer schools organized by the European Observatory on Health Systems and Policies, on primary health care in 2016 and quality of care in 2018; and the WHO and World Bank flagship courses and meetings on health system strengthening, which in 2016 focused on NCDs, sustainable financing and universal health coverage and in 2018 on health systems' responses to NCDs.

### *Comprehensive self-assessments of public health systems*

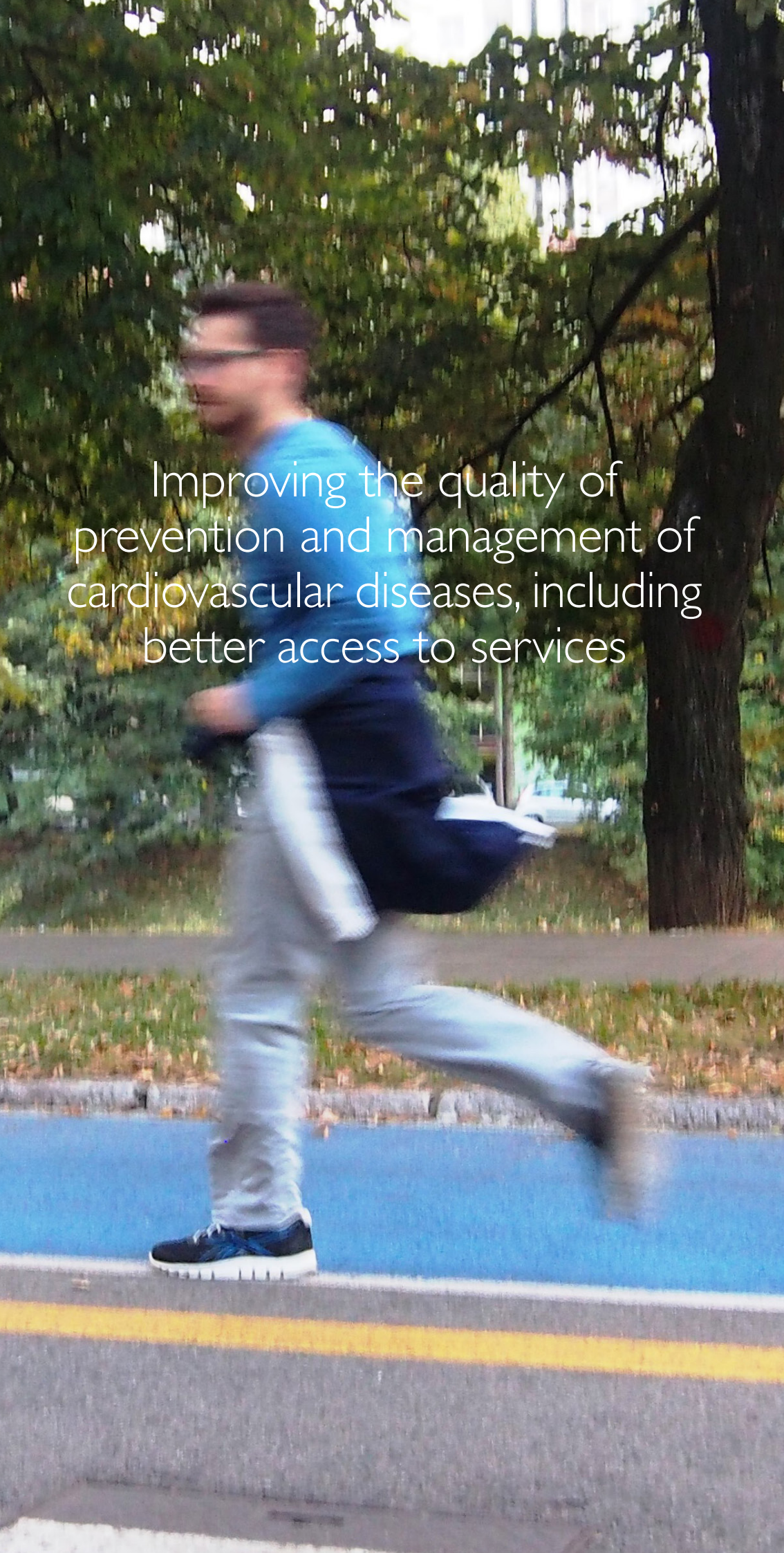
These were completed in the Republika Srpska and the Federation of Bosnia and Herzegovina in April 2015 and May 2016 respectively. The project used the Self-Assessment Tool for the Evaluation of Essential Public Health Operations in the WHO European Region. The average scores on a scale of 1–10 were 5.2 in the Republika Srpska and 5.3 in the Federation of Bosnia and Herzegovina; based on the conceptual framework, this indicates that some measures taken could be considered adequate, but they are preliminary and require further development.

Over 80% of public health suboperations across all four key areas of the health systems – governance, financing, resource generation and service provision – were considered in need of improvement. Situational analyses in the Republika Srpska and the Federation of Bosnia and Herzegovina strongly indicated a need for further prioritization and strategic refocusing in the process of planning and formulating new policies. The health authorities in Bosnia and Herzegovina were invited to specify their preferences on public health planning documents on policies, strategies, programmes and action plans they wanted to develop in this first phase of the project.

### *Action plans on NCDs*

Development of prioritized action plans on prevention and control of NCDs in the Republika Srpska and the Federation of Bosnia and Herzegovina began in March 2018. This involved setting up a **Public Health Task Force** consisting of officially appointed representatives from the health authorities in Bosnia and Herzegovina, and public health, primary health care and family medicine clinical and quality managers and experts from the Federation of Bosnia and Herzegovina, the Republika Srpska and the Brcko District of Bosnia and Herzegovina. It was tasked with producing self-assessments of public health systems and developing action plans, which are expected to be completed and operational by the end of 2018.



A man with glasses, wearing a blue long-sleeved shirt and grey trousers, is captured in motion running on a blue athletic track. The background consists of lush green trees and a clear sky, suggesting an outdoor park or sports field setting. The image has a slight motion blur, emphasizing the activity.

Improving the quality of prevention and management of cardiovascular diseases, including better access to services



The aim was to set up a comprehensive, quality-assured programme for cardiovascular risk assessment and management (CVRAM) in Bosnia and Herzegovina, which would then be integrated, implemented and evaluated. This programme is now in place. The project designed the programme, ensured standardization, created and disseminated materials, and delivered comprehensive training for trainers and service providers. Monitoring and evaluation was performed by the respective quality improvement authorities and agencies in Bosnia and Herzegovina.

Reaching the wider population involves supporting the capacities of policy-makers and regulators to consider and subsequently implement initiatives which introduce regulatory, fiscal and marketing frameworks that promote healthy consumption to improve the health of the population. Typically, these will include policies against tobacco, dietary salt, sugar and fats.

Reaching high-risk individuals involves providing personalized CVRAM services designed by a range of professionals under the guidance of public health specialists and delivered on a large scale by family medicine services in Bosnia and Herzegovina.

*The real value of the CVRAM programme is that it strengthened professional links between family medicine service providers and public health experts specializing in health promotion and disease prevention. We were in it together, from inception all the way through to its application in daily practice.*

**Public health manager, member of the  
Public Health Task Force**

## Working together

To ensure that a wide range of stakeholders could contribute to, and benefit from, discussions and decisions on the delivery of CVRAM in family medicine, a **CVRAM Expert Group** was set up by the health authorities in Bosnia and Herzegovina. To support this, WHO provided experts from WHO collaborating centres in Finland and Israel who have been championing progress in tackling NCDs and CVDs in Europe.

The Expert Group included representatives of health authorities, public health professionals and health quality experts, clinical cardiologists and primary care experts from the Federation of Bosnia and Herzegovina, the Republika Srpska and the Brcko District of Bosnia and Herzegovina. The group also enjoyed full support from family medicine educators and trainers and family medicine doctors and nurses involved in the CVRAM training programme in Bosnia and Herzegovina.



## Results

The programme is undertaken from two perspectives – population-wide primary prevention, and a focus on high-risk individuals.

### *Primary prevention – a series of policy dialogues*

Health and non-health stakeholders were involved in a series of thematic intersectoral policy dialogues (IPDs) to improve their capacity to use internationally recommended evidence-based policy and regulatory measures to reduce NCD-related health risks in the population. The impact of the IPDs could be seen in the concrete actions taken by health authorities and governments in Bosnia and Herzegovina between 2015 and 2018. Improvements in the strategic guidance provided by the health authorities in Bosnia and Herzegovina on promoting healthy behaviours and preventing CVDs at population level were also significant.

### *Salt and unhealthy fats*

An IPD on reducing dietary risks such as salt and unhealthy fats in the diet and food in Bosnia and Herzegovina was held in Banja Luka in December 2014. The event highlighted the importance of obtaining and using local information on the dietary risks in the country and initiated a food environment description study in the cities of Sarajevo and Banja Luka. The study uses the WHO Regional Office for Europe FEEDcities methodology and protocol, which describes the takeaway food vending environment, consumption patterns



and nutritional content of ready-to-eat food. The results of the study will be presented to stakeholders in Bosnia and Herzegovina in the last quarter of 2018.

#### Fiscal and marketing policies for strengthened tobacco control

An IPD involving a partnership between WHO and the World Bank, who led tobacco regulatory efforts, took place in Sarajevo in September 2016. The IPD helped to inform intersectoral strategic and regulatory action in tobacco control, including a legislation update, taxation and marketing restrictions. WHO provided strong technical support.

The IPD resulted in updated draft laws on tobacco control in the Federation of Bosnia and Herzegovina and the Republika Srpska, together with a tobacco-control action plan in the Republika Srpska. These are fully aligned with the requirements of the WHO Framework Convention on Tobacco Control (United Nations Sustainable Development Goal (SDG) 3.a), which Bosnia and Herzegovina ratified in 2009.

Key international partners in Bosnia and Herzegovina – the European Commission and the European Union, the embassies of Switzerland and the United States of America, the United Nations Children's Fund, the World Bank and WHO – established a broad lobbying and advocacy platform for stronger tobacco-control legislation in Bosnia and Herzegovina, including a complete smoking ban in public places. This coincided with the draft law beginning its parliamentary adoption procedure in the Federation of Bosnia and Herzegovina in March 2017.



### Helping health workers give up smoking

Ten-month pilot schemes promoting smoke-free primary health-care institutions targeted family medicine professionals who smoke. The pilots were designed, developed and evaluated by the public health institutes of the Federation of Bosnia and Herzegovina and the Republika Srpska, who used them to assess the effectiveness of combined population/individual risk-reduction strategies.

Rates of smoking among family medicine doctors and nurses were high (34.7% in the Federation of Bosnia and Herzegovina and 30.7% in the Republika Srpska and the Brcko District of Bosnia and Herzegovina), but the pilot schemes resulted in measured quit rates of 7.2% in the Federation of Bosnia and Herzegovina (four quitters, all nurses) and 20.2% in the Republika Srpska (41 quitters: 15% doctors, 83% nurses and 2% primary health-care administrators). All quitters were awarded non-financial health promotion rewards in the spirit of the “Quit and Win” smoking-cessation programmes promoted worldwide.

### Active living

An IPD on creating environments that promote active living and mobility was held in Neum in June 2017. The IPD explored internationally successful programmes for increasing physical activity and the action required across sectors to create enabling environments for patients and the general population, including children and older people, in the context of Bosnia and Herzegovina.

### Targeting high-risk individuals – the CVRAM intervention package

This intervention package was developed specifically for Bosnia and Herzegovina to target high-risk individuals in family medicine practices. The package was comprehensive, based on evidence, and included recommended “best-buy” interventions. It was quality-assured and implemented on a large scale, targeting 70% coverage of the country (SDGs 3.4 and 3.8).

The package included assessing total cardiovascular risk by using Systematic Coronary Risk Evaluation (SCORE) charts based on gender, age, total cholesterol, systolic blood pressure and smoking status, and identifying the preventative or therapeutic interventions that would address the three main metabolic risk factors – raised blood pressure, raised blood lipids and diabetes type 2 – and three behavioural risk factors – tobacco smoking, overweight or obesity, and lack of physical activity.

In parallel, the CVRAM Expert Group proposed an agreement on a minimum set of CVRAM quality indicators covering structure, process and outcomes, known as a consensus list, to monitor and evaluate CVRAM implementation in Bosnia and Herzegovina.

### CVRAM trainers trained

In Bosnia and Herzegovina, there are 43 family medicine educators and trainers affiliated with five training centres in the Federation of Bosnia and Herzegovina, and 23 family medicine educators and trainers affiliated with two training centres in the Republika Srpska. Using the CVRAM package, senior WHO consultants delivered the training-the-trainers course, reaching 88% of all authorized family medicine educators and trainers in Bosnia and Herzegovina (83% of the doctors and 93% of the nurses).

### CVRAM material developed and distributed

The training and intervention package targets both patients and health workers in Bosnia and Herzegovina. It includes evidence-based clinical guidelines, algorithms and recommendations for family medicine practitioners, as well as information leaflets for patients and the general population. The material was developed, endorsed, printed and widely distributed.

A set of evidence-based guidelines on risk factors and information materials based on the CVRAM approach, including seven guidelines and 11 leaflets, was developed and approved

by the Ministry of Health and Social Welfare of the Republika Srpska. These were printed and distributed through two family medicine training centres and the Public Health Institute of the Republika Srpska.

The set developed in the Federation of Bosnia and Herzegovina included eight guidelines and seven leaflets. Approved by the Ministry of Health of the Federation of Bosnia and Herzegovina, they were printed and promoted by the Federation's Public Health Institute in a series of presentations for all 10 cantons and were distributed through five family medicine training centres to teams participating in the CVRAM training programme.

*The training was organized to promote teamwork in family medicine – we participated not as doctors or nurses but as teams who work together. I come from a place where we are few and our patients are widely dispersed. We have to be able to skilfully and rapidly help the people we serve, and to be properly prepared for that. The course equipped us well.*

**Family medicine nurse, participant in CVRAM continuous professional development training**

**Continuous professional development revitalized**

A standardized two-day CVRAM training programme was completed by February 2018, having targeted 70% of all family medicine teams in Bosnia and Herzegovina. The course included evidence-based guidelines and information, and education and communication materials. In total, 2624 family medicine professionals (1022 doctors (39%) and 1602 nurses (61%)) successfully completed the course, passed a test and received certificates on their successful completion. The programme implementation rate was 95% (78% in the Brcko District of Bosnia and Herzegovina, 92% in the Republika Srpska and 100% in the Federation of Bosnia and Herzegovina).

**CVRAM services in place and improved patient access to CVD services**

An estimated 67.6% of the population of Bosnia and Herzegovina (54.6% of the Brcko District of Bosnia and Herzegovina, 64.4% of the Republika Srpska and 70% of the Federation of Bosnia and Herzegovina) now have access to standardized, evidence-based, preventative CVD/CVRAM services in primary health care and family medicine, exceeding the original access target of over 60% in Bosnia and Herzegovina.

*Thanks to the project we have significantly increased our capacity to monitor the quality of work of the family medicine teams' cardiovascular risk assessment and management, as well as our ability to provide timely and accurate information to health professionals, which is so important for further quality improvement.*

**Quality expert in an agency for accreditation and quality improvement in health care**



### Quality of CVRAM service implementation ensured

Family medicine teams are the first point of contact with patients and the population at large, and represent the smallest organizational unit providing CVRAM services. They are evaluated and accredited as teams. The Agency for Certification, Accreditation and Health Care Improvement of the Republika Srpska and the Agency for Health Care Quality and Accreditation of the Federation of Bosnia and Herzegovina have been monitoring CVRAM implementation in family medicine practices that took part in the CVRAM training course. They are using an agreed minimum set of 13 structure, process and clinical outcomes indicators that are not routinely collected and reported by family medicine teams. Capacity-building was evaluated before and after the course.

Both agencies have been asked to update their existing accreditation standards for family medicine teams in the Republika Srpska and the Federation of Bosnia and Herzegovina with the set of CVRAM indicators, and to undertake and complete a quality improvement and accreditation–reaccreditation process for 100 selected family medicine teams in Bosnia and Herzegovina – 50 from the Brcko District of Bosnia and Herzegovina and the Republika Srpska and 50 from the Federation of Bosnia and Herzegovina. Based on the agreed set of indicators, they will also complete a comparison study before and after CVRAM training on all family medicine teams that completed CVRAM training in Bosnia and Herzegovina.





(483 in the Republika Srpska, 25 in the Brcko District of Bosnia and Herzegovina and 616 in the Federation of Bosnia and Herzegovina), which is expected to be completed by November 2018. It is anticipated that the comparison study will demonstrate the beneficial effects of CVRAM continuous professional development training on the quality and clinical effectiveness of CVRAM services in family medicine practices in the Republika Srpska, the Brcko District of Bosnia and Herzegovina and the Federation of Bosnia and Herzegovina.

The results of the pre-CVRAM training study in Bosnia and Herzegovina, which were made available in December 2017, were reported as averages (with ranges) per agreed 13 quality indicators at the Republika Srpska, the Brcko District of Bosnia and Herzegovina and the Federation of Bosnia and Herzegovina levels and at corresponding primary health-care institution level. The Agency for Certification, Accreditation and Health Care Improvement of the Republika Srpska and the Agency for Healthcare Quality and Accreditation of the Federation of Bosnia and Herzegovina have the datasets for each family medicine team that had been given CVRAM continuous professional development training. This information should become an indispensable tool for managers of institutions and policy-makers to further improve the quality of CVD preventative services provided in primary health care in the country.

## The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

### Member States

Albania  
Andorra  
Armenia  
Austria  
Azerbaijan  
Belarus  
Belgium  
Bosnia and Herzegovina  
Bulgaria  
Croatia  
Cyprus  
Czechia  
Denmark  
Estonia  
Finland  
France  
Georgia  
Germany  
Greece  
Hungary  
Iceland  
Ireland  
Israel  
Italy  
Kazakhstan  
Kyrgyzstan  
Latvia  
Lithuania  
Luxembourg  
Malta  
Monaco  
Montenegro  
Netherlands  
Norway  
Poland  
Portugal  
Republic of Moldova  
Romania  
Russian Federation  
San Marino  
Serbia  
Slovakia  
Slovenia  
Spain  
Sweden  
Switzerland  
Tajikistan  
The former Yugoslav  
Republic of Macedonia  
Turkey  
Turkmenistan  
Ukraine  
United Kingdom  
Uzbekistan

### **World Health Organization Regional Office for Europe**

UN City, Marmorvej 51, DK-2100 Copenhagen Ø, Denmark

Tel.: +45 45 33 70 00 Fax: +45 45 33 70 01

Email: [eurocontact@who.int](mailto:eurocontact@who.int)

Website: [www.euro.who.int](http://www.euro.who.int)