

**ORIGINAL RESEARCH**

**Self-assessment of essential public health operations in Kosovo**

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## Abstract

**Aim:** The National Institute of Public Health of Kosovo (NIPHK) considered the challenge of assessing the availability and performance of critical public health services in Kosovo. To this end, support was requested from the World Health Organization (WHO) European Regional Office, through the WHO office in Pristina, for an action-oriented process. The systematic process of the self-assessment of public health operations aimed to generate sufficient empirical evidence to identify the strengths and weaknesses of the country's health services and functions to provide recommendations for future public health actions in Kosovo.

**Methods:** The NIPHK team followed the systematic self-assessment methodology of the Essential Public Health Operations (EPHO) model that the WHO's regional office for Europe developed. The appraisal was conducted throughout 2018 and the first quarter of 2019 and involved a broad spectrum of public health actors. It also followed a participatory, interdisciplinary, and inter-sectoral approach. It was developed in three phases: preparation and collection of information, analysis and interpretation of the data, and critical recommendations for the Kosovo health authorities' consideration.

**Results:** The assessment resulted in an overall score of 48% sufficiency for the set of public health operations (core and enablers). The most in need of development were EPHO 6, which is related to governance (only 20% of what is needed in this dimension as a whole), followed by EPHO 3, which considers vital aspects of health protection (35%), and EPHO 10, which is related to research capacities (40%). Based on the EPHO assessment results, the specialized teams developed a set of priority recommendations to strengthen the implementation of the EPHOs in Kosovo.

**Conclusion:** The self-assessment revealed that, despite ongoing initiatives and measures to strengthen public health, the application of EPHOs has much room for improvement. We believe that decision-makers can use this method and the findings that it reveals to implement the most effective interventions to protect and promote the population's health. In addition, the methodology and experience can be used for educational and training purposes.

**Keywords:** *disease prevention, EPHO, health promotion, health protection, Kosovo, participatory approach, public health.*

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**Disclaimer:** The authors alone are responsible for the views expressed in this publication, and they do not necessarily represent the decisions or policies of the WHO.

## Introduction

Kosovo has the youngest population in Europe, with an average age of 30.2 years (1) and a life expectancy of 76.7 years (74.1 years for men and 79.4 years for women). Furthermore, the overall unemployment rate is very high (reaching 27.5%), with youth unemployment reaching 52.4%. Kosovo also has the highest female unemployment rate in Europe at 31.8%.

Kosovo's healthcare system is divided into three levels: primary healthcare (PHC), secondary healthcare (SHC), and tertiary healthcare (THC) services. The PHC portfolio includes health promotion, prevention, early detection, diagnosis, treatment, and rehabilitation and deals with diseases, disorders, and injuries. SHC services, on the other hand, include hospital care services and out-of-hospital services covering diagnosis, therapy, rehabilitation, and emergency transport, as well as public health coordination and protection services. Finally, THC services are provided by health institutions that offer the most organized health activities, university teaching, undergraduate and postgraduate training, and research activities (2). The National Act 06/L-133 on budget allocations for 2019 shows that the health sector received 10% of the total government budget, with the largest allocation (51%) given to the Hospital and University Clinical Service of Kosovo (HUCSK). Overall, the total budget allocated for public health in Kosovo is comparable to other countries with similar GDP levels.

Environmental pollution has had a significantly negative impact on the population's health in Kosovo, and it is estimated that its cost is higher than all investments made for health in Kosovo each year (3). For example, the prevalence of smoking is relatively high compared to other Eastern European countries, with 25.7% of the population reported as smokers according to the STEPS survey (2019, Kosovo), which outlines the expected impact of increased incidences of smoking-related diseases (4).

During the last decade, several significant improvements have been achieved in Kosovo, including decrease of infant mortality (10.6‰ in 2018) and perinatal mortality (11.2‰ in 2018), decrease in prevalence of infectious diseases, especially tuberculosis, eradication of poliomyelitis and other (5). Nevertheless, the analysis provided in the Health Sector Strategy (HSS) of the Ministry of Health, but also other recent analyses, highlight that Kosovo, needs to tackle a number of fundamental challenges before the health sector becomes a comprehensive system of preventive, diagnostic and treatment services attuned to the needs of the population and supporting the citizens in obtaining a health status comparable to the EU populations.

To address these public health challenges in an operational manner, approaches based on models that systematically structure essential public health functions and services have been followed in different regions and countries of the world (6).

Specifically, the framework provided by the so-called "Essential Public Health Operations" (EPHOs), designed and adapted to the needs of the European Region with World Health Organization (WHO) leadership and support, have proven to be practical instruments for promoting a harmonized understanding of public health, both within and outside of the health sector (7). This tool can strengthen the dialogue regarding the advantages and disadvantages present in public health, help to generate health policy options and recommendations for public health reform, and contribute to the development of public health policies, while it can also be used for educational purposes. The process of assessing the EPHOs serves as a tool for renewing public health services in line with the precepts of Health 2020 (9) and the European Action Plan for Strengthening Public Health Capacities and Services (14).

The National Institute of Public Health of Kosovo (NIPHK) considered the challenge of

assessing the availability and performance of critical public health services in Kosovo. To this end, in 2017, support was requested from the World Health Organization (WHO) European Regional Office, through the WHO office in Pristina, for an action-oriented process. The systematic process of the self-assessment of public health operations aimed to generate sufficient empirical evidence to identify the strengths and weaknesses of the country's health services and functions to provide recommendations for future public health actions in Kosovo.

The specific objectives of this first EPHO assessment process in Kosovo were to:

- achieve a shared understanding of what services are encompassed by “essential public health operations”;
- generate the empirical evidence necessary to identify strengths and weaknesses and substantiate key recommendations for future action; and
- foster a consensus on priority recommendations and translate the output of the process into actionable recommendations.

## Methods

The process of assessing the EPHOs in Kosovo involved a broad spectrum of public health actors, including representatives of the NIPHK and other governmental and non-governmental institutions, referred to as the specialized teams for each EPHO, as well as other consultants. Further, it followed a participatory and systematic approach. It was comprised of three phases: preparation, data gathering and analysis, and key recommendations.

The constitutive meeting of the Steering Committee was held on December 1, 2017, followed by a three-day workshop on the self-assessment EPHO process held from December 6 to 8, 2017. Relevant ministries and institutions nominated the specialized team members, who performed the EPHO self-assessment process. In Kosovo, the NIPHK led the process in close

coordination with the WHO office, and the process ran from December 2017 through to July 2019.

Once the data had been entered into the online self-assessment tool, a long process of meetings, workshops, and coordination per WHO methodology and principles ensued, following which recommendations were formulated.

The next step was to organize the recommendations in terms of priority and achieve consensus thereupon, a process that took place in May 2018. Led by a team of international experts from the WHO regional office, a series of workshops took place with each of the EPHO specialized teams. Following this series of focus workshops, the facilitators chose to convene a two-day final prioritization workshop with the members of the Oversight Committee to organize the top recommendations in terms of priority across all EPHOs. The group also agreed on the next steps in the process toward action planning.

The final workshop with all specialized teams, members of the Steering Committee, and relevant stakeholders was held on November 21 and 22, 2018, to prepare a final draft of the outcomes and discuss the conclusions from the assessment process with high-level officials who played key roles in implementing the priority recommendations across various sectors. Partnership meetings to discuss the NIPHK's plan for strengthening public health services were held in Prishtina on December 6 and 7, 2018. The final draft was compiled in 2019 (see Figure 1).

During this period, numerous meetings and workshops were held with ten sub-working groups of EPHO, including all relevant stakeholders, partners, and governmental and non-governmental organizations (see Figure 1). During the launch workshop, members of the Specialized Teams have performed a “first pass” assessment, where they filled the online tool (the respective sections of the questionnaire that the Specialized Team members were nominated for completion).

For the self-assessment process, the electronic version of the Self-assessment tool for the evaluation of essential public health operations in the WHO European Region (7) was used.

During the completion of the questionnaire (Electronic Self-assessment Tool) participants had the possibility to answer with yes or no, in certain questions. Otherwise, the answer should be a brief description of the item in question, with pertinent details as required. Whenever possible, quantitative data should be provided, but qualitative responses are also possible. Other ways to answer the questions were as follows: “IDU”: I do not understand the question; “IDK”: I understand the question but do not know the answer; “n/a”: not applicable to the national context.

### **Scoring system**

Each suboperation contained in the list of EPHOs contained one or more scoring fields, in which evaluators can note the score (0–10) achieved and recommend areas for improvement (“G”: governance; “F”: financing; “RG”: resource generation, including human resources, medicines and technology and/or information and technological research; “SD”: service delivery).

The scores should be assigned from 0 to 10 based on the following criteria.

0. We are unable to evaluate the performance of this operation based on the information currently available.

1. No activity: this operation/service is completely undeveloped at this time.

2. Rudimentary work has been performed to improve the effectiveness of this operation, but a stronger framework and/or mandate is necessary to develop the basic foundations and to implement the programme or activity effectively.

3. There is an explicit commitment in a formal strategy document expressing the will to further develop this operation, but no practical developments have been carried out yet.

4. There are some antecedents for actions to improve this operation, but they have been inconsistent and require a better approach.

5. There is a conceptual framework to improve this operation, with some actions that can be considered adequate, but these are preliminary and still require development.

6. We have specific experience and evidence that allows us to identify a few strong points, as well as other areas in need of improvement.

7. The performance of this operation is reasonably acceptable, based on accumulated experience, but there are still some areas in need of particular work.

8. The performance of this operation is solid and well developed within the area of public health, although there are isolated areas that could still be improved.

9. A body of evidence shows that this operation is particularly effective; no significant problems need correction as performance is quite positive.

10. The development of this operation is excellent, based on independent and objective evidence. We believe that it could be a useful model for other countries; there may be international benchmarking studies that support its status to be proposed as a best practice for the WHO European Region.

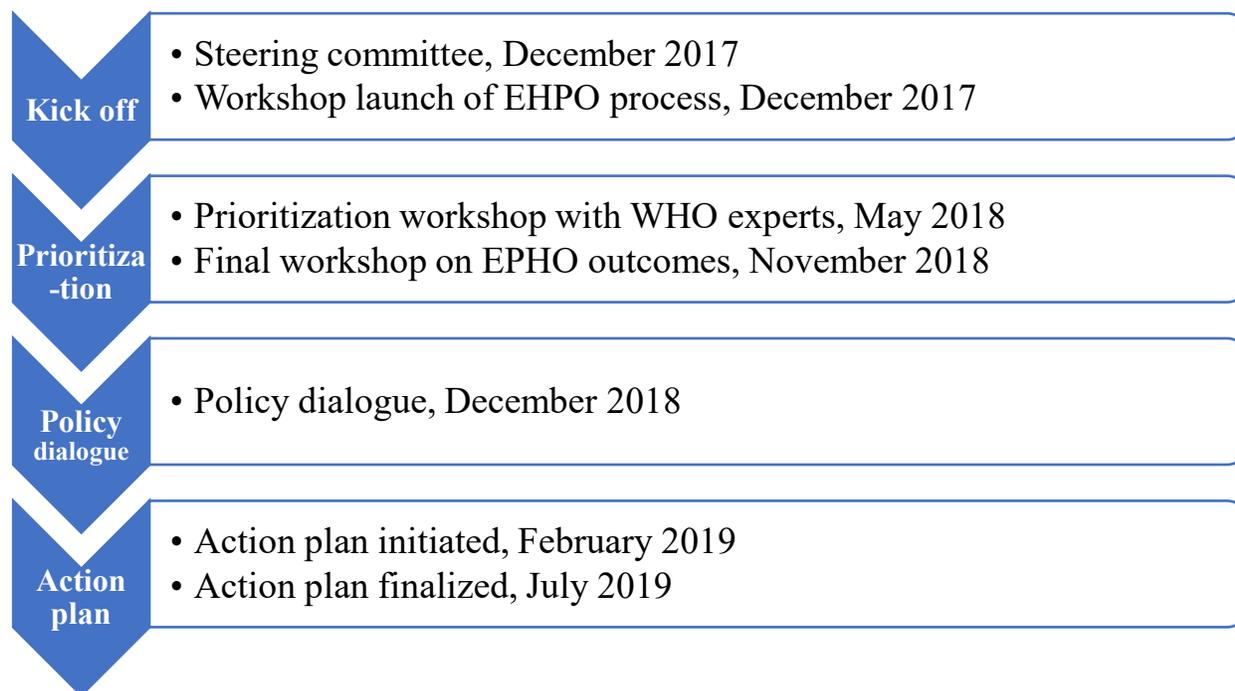
The designated areas for improvement are based on the four health system framework functions, but may be further broken down into the following building blocks: “G”: governance; “F”: financing; “RG”: resource generation, including human resources, medicines and technology and/or information and technological research; “SD”: service delivery.

This field is included to spark a preliminary reflection on which areas are most in need of concerted action to improve performance of the operation. The item is systematically included under all suboperations, with the understanding that all these functions may play a role, even in operations that initially seem to be concentrated under only one function (for example, one challenge related to governance may be that the

ministry of health does not receive enough funding to carry out its duties). The Specialized Team members were able to exchange with each other on the spot about

difficulties/dilemmas they encounter, raise issues, share perspectives, and receive coaching.

**Figure 1. Timeline of the self-assessment process in Kosovo**



## Results

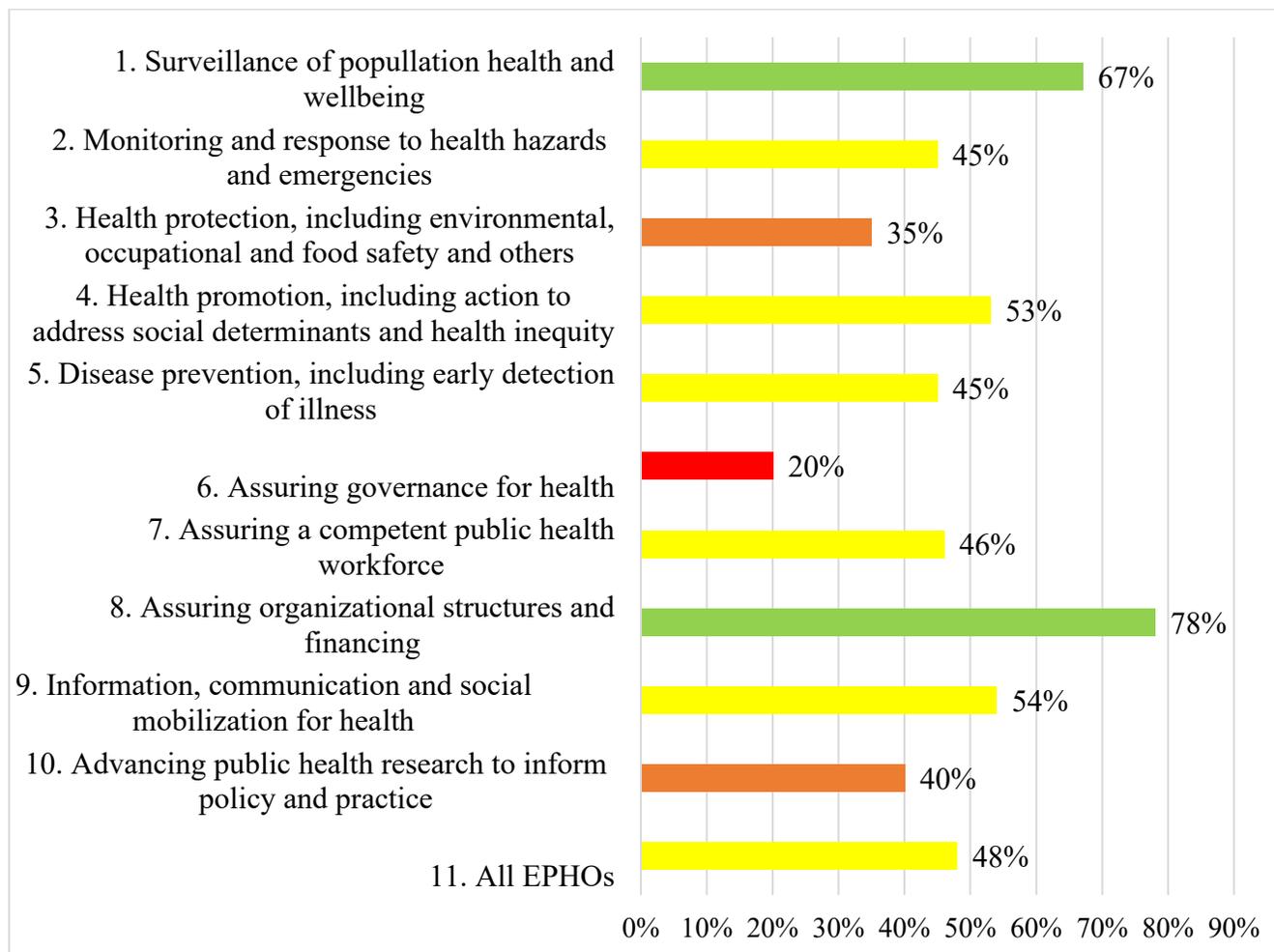
The country scored 48% overall on the self-assessment (see Figure 2). The assessment indicated that Kosovo’s health system scored the lowest in governance, as described in EPHO 6 (20%), followed by the risk factors described in EPHO 3 (35%) and research in the field of public health described in EPHO 10 (40%).

Observation of the population’s health and well-being, as described in EPHO 1, falls under the responsibility of several institutions in Kosovo. However, the Health Information System (HIS) is highly fragmented; data and documentation regarding the population, minorities, regional areas, and the private sector are lacking, and the country does not have a universal electronic medical record system. Resulting from the assessment of EPHO 1, the primary recommendations were to *review and update the*

*health information strategy and establish population-based registries for non-communicable diseases (diabetes, cardiovascular diseases).*

The primary goal of EPHO 2 is to enable health institutions to monitor and strengthen responses to public health emergencies, evaluate post-emergency actions at an organization or system-wide levels, and take corrective action to ensure that competent health service delivery is available for people directly affected by an emergency. The specialized teams found that it is necessary to have a response plan that outlines the coordination of activities and sharing of tasks among the relevant institutions at all levels of health care and includes the development of a risk communication guide for emergency situations.

**Figure 2. Results of the EPHO self-assessment process in Kosovo**



EPHO 3 aims to supervise the enforcement and control of activities for the minimization of exposure to health hazards to protect the population, including ensuring environmental, occupational, toxicological, food, and other safety measures in the country. The Ministry of Health, in close coordination with the NIPHK, the Ministry of Environment and Spatial Planning, the Ministry of Transport, the Food and Veterinary Agency, and other relevant stakeholders, found that an inter-ministerial committee for health protection, including environmental, occupational, food, and other safety measures, should be established to address the current deficiencies in this area. The

development of a strategy for health protection, including environmental, occupational, food, road, patient, and consumers' safety, should incorporate definitions of the roles and responsibilities of each institution and evidence-based data for direct intervention and prevention activities and a commitment to monitoring and evaluating tools for its implementation. The implemented strategy should enhance the sustainability of health protection by focusing on environmental, occupational, and food safety and related factors.

EPHO 4 aims to develop programs that address challenges regarding healthy eating and food control systems. This assessment area relies on

the vision that all of Kosovo's future population will be physically active and will live, work, and play in environments that both promote and support healthy lifestyles and mitigate diseases, injuries, and negative behaviors.

An important element of promoting healthy lifestyles in Kosovo is limiting tobacco consumption. The Ministry of Health drafted Kosovo's Law on Tobacco Control 04/L-156, which was implemented in 2013. The Global Youth Tobacco Survey (GYTS), conducted in 2004 and repeated in 2016, showed a decrease in the number of people aged 13–15 years who smoke, although the implementation is incomplete.

To implement the Health Promoting Schools program aimed at maintaining the health of pupils and creating a healthy lifestyle, the drafting of an Administrative Instruction for Healthy Nutrition in Educational Institutions of Pre-University was initiated. The introduction of the concept of "healthy settings" derived as a priority action from the assessment process. A healthy setting refers to a social context in which a range of individuals with distinct roles engage with, in their daily activities (8).

Further to this, Under EPHO 5, the two primary recommendations were to *develop a national screening program for rare diseases and the early detection of congenital malformations and certain specific diseases* and *develop a national plan for a palliative care system*. The national screening program's main goal was to build a system for the early detection of congenital anomalies, as well as to propose and take specific measures to address these (surgical correction, early treatment of functional problems, etc.). An inter-institutional collaboration between public health institutions and healthcare facilities exists concerning population-based information campaigns, but it is not permanent. The assessment process identified several significant gaps:

- There are targeted activities related to health promotion, but there is no information system to monitor either

disease burden patterns or access to and quality of health services for migrants, ethnic minority populations, and homeless people.

- There is no legislation in place that protects the financial and social rights of informal caregivers, nor are their interventions in place to address the stress that formal and informal caregivers experience. Unfortunately, there are also no training programs in place for training volunteers and family caregivers.
- In prisons, which act as primary healthcare providers for incarcerated populations, health promotion activities for specific communicable diseases are present, but there are no services available for the stress management of prison workers.
- The process of rehabilitation within personalized patient care plans has not been developed and is not functional yet. The development of health policies to support tertiary rehabilitation is, thus, an urgent need.
- In the context of palliative care, no institution offers services for pain management, nor is health care linked with psychosocial services or related health services (e.g., nutritional counseling, smoking cessation therapies).

The Ministry of Health launched the Health Sector Strategy 2017–2021 in March 2017. The Health Sector Strategy 2017–2021 was designed to develop a vision and strategic approach in the context of the ongoing health sector reforms in Kosovo (EPHO 6). In this assessment area, the Ministry of Health is encouraged to enhance its participation and active involvement in international health initiatives regarding the public health agenda of the country.

The goal of the recommendation for EPHO 7 is to enable the proper planning, analysis, and

distribution of the public health workforce as per population needs. The focus is on empowering primary healthcare providers, decentralizing services at the local level, and legalizing the private sector. Although Kosovo has the youngest population in Europe, there are no recruitment or retention strategies to prevent younger generations from leaving the country to pursue better opportunities outside Kosovo.

The goal of EPHO 8 is to enable the proper planning, analysis, and implementation of public health insurance that offers accessible and quality healthcare services in the country. Public health insurance will then insure the population against the costs of health care. However, the Health Insurance Law has still not been implemented in Kosovo.

Good communication with the public at the right time and the right place is linked with EPHO 9. Lack of a comprehensive action plan for communication activities that incorporates the use of multiple channels and low-cost media outlets was found.

EPHO 10 covers research, which is fundamental to informing policy development and service delivery, including research to expand the knowledgebase that supports evidence-based policymaking at all levels; the development of new research methods, innovative technologies, and solutions in public health; and the establishment of partnerships with research centers and academic institutions to conduct timely studies that support decision-making at all levels of public health.

Within the NIPHK, the epidemiologic surveillance system collects data on communicable diseases. Existing evidence (epidemiologic and health system data) is then used for decision-making regarding health system priorities. Non-communicable chronic diseases are surveilled as well.

There is a legal framework for scientific research activities in Kosovo (Act no. 04/L-135 on Scientific Research Activities), which regulates the establishment, activity, organization, governance, rights, and obligations of scientific

workers and researchers; the position of the National Science Council and the approval and implementation of the National Science Program; the financing of the bases of scientific research activity; and other issues regarding scientific research activities in Kosovo.

At the conclusion of the EPHO assessment process in Kosovo, in line with the implementation of the Health Sector Strategy 2017–2021, as well as the WHO’s Health 2020 objectives (9), the action plan was developed.

The self-assessment process in Kosovo resulted in the prioritization of ten top recommendations (out of twenty) for priority actions derived from the assessment process:

- Review and update the health information strategy.
- Develop an action plan for emergency healthcare services and public health, which is the 8<sup>th</sup> function of the National Reaction Plan.
- Establish an inter-ministerial committee for health protection, including environmental, occupational, food, and other safety measures, which also protects people from air pollution by, for example, reducing air pollution from transport in the municipality of Prishtina.
- Introduce the concept of “healthy settings”.
- Develop a national action plan for non-communicable diseases.
- Begin the governmental implementation and enforcement of laws and strategies regarding tobacco, drugs, reproductive and sexual health, mental health, etc., related to the health of the population.
- Begin strategic planning regarding human resources in the health sector.
- Revise and implement the law for health insurance.
- Draft the new communication strategy for public health.
- Develop a national strategy regarding mainstream of public health research.

## Discussion

The self-assessment revealed that, despite ongoing initiatives and measures to strengthen public health, Kosovo still faces significant challenges in implementing the EPHOs and the application of EPHOs has much room for improvement.

The assessment process generated the empirical evidence necessary to identify strengths and weaknesses and substantiated key recommendations for future action. Following the self-assessment process, an action plan was developed, focusing mainly in addressing the priority actions derived from it.

In regard to specific priority recommendations, i.e. the assessment process revealed that it is crucial to establish a strong HIS to enable the systematic and timely collection of data, as well as the analysis of health-related data, required for the planning, implementation, and evaluation of the health status of the population. A HIS capable of generating the information required for monitoring the population's health and with strong inter-institutional cooperation, can monitor trends and track indicators that need to be reported to the WHO, CDC, EUROSTAT, and other related entities. In order to monitor and strengthen responses to public health emergencies the development of a specific action plan for emergency healthcare services and public health, the 8<sup>th</sup> function of the National Emergency Plan, is needed.

Further to this, the introduction of the concept of "healthy settings" which include schools, work sites, homes, markets, hospitals, villages and cities, would serve to the engagement of a wide range of individuals with distinct roles, in their daily activities. This social context is shaped by a variety of factors, such as environmental, organizational, and personal, which interact with each other to affect overall health and wellbeing (8). The National Program on Nutrition for children aged 5–18 years and the National Plan on Physical Activity in Kosovo are also

identified as priority recommendations from the EPHO.

The development of a national screening program for rare diseases and development of a national plan for a palliative care system are considered very important to build a system for early detection of congenital anomalies, as well as efficiently response to the rising burden of chronic diseases and the aging population in the country.

Encouragement of the Ministry of Health to enhance its participation and active involvement in international health initiatives regarding the public health agenda of the country will take guide toward improvement in the general population's health, which depends on the quality and preparedness of the public health workforce too. This last is, in turn, dependent upon access to high-quality education and training. Therefore, investing in the continuous professional development of the public health workforce is a basic factor in the delivery and implementation of public health services. This is an especially compelling issue in Kosovo. Compared to the European region, the country has an insufficient number of doctors and nurses. The number of doctors per 100,000 inhabitants in Kosovo is the lowest in the region. In 2009, Kosovo had around 111 doctors compared to the EU's 320, Albania's 115, Macedonia's 255, Montenegro's 199, and Serbia's 204 (13). Strengthening new profiles for degree specializations in public health is needed per EU directives, and these changes need to be reflected and supported with new curricula at the university level, i.e., in the Faculty of Medicine. Strong financial support and operationalization of the public health insurance system in Kosovo, combined with a good communication plan and strong strategy regarding public health research will support needed evidence-based policymaking at all levels.

Considering the findings of the EPHO assessment process in Kosovo, it can be concluded that almost similar challenges were also identified with the self-assessment EPHOs,

in Macedonia, the first country in the region where this type of self-assessment process was performed. Many improvements are needed, including addressing the lack of inter-sectoral cooperation and coordination, as well as considering and developing further responsibilities for all parties involved in public health. Even though the developed strategies and documents are in line with international global health development objectives, there is a lack of quantitative and qualitative indicators (health metrics) or published papers, as well as a lack of information flow, which are needed for public health policy formulation and evaluation. This kind of experience could also contribute to strengthening the collaboration and partnerships among South-Eastern European (SEE) countries to improve the health of the population in the region (10).

In another country in the EU, Slovakia, the self-assessment of the public health system provided a positive example of collaboration between the WHO's regional office for Europe and a member state. The final self-assessment report has laid the foundation for major changes in the Slovakian public health system (11).

To understand the value of investing in this public health exercise, one only needs to consider how the "Essential Public Health Operations" framework has proven to be determinant in tackling the challenge of the COVID-19 pandemic (12).

### **Conclusions**

The self-assessment revealed that, despite ongoing initiatives and measures to strengthen public health, the application of EPHOs has much room for improvement. We believe that decision-makers can use this method and the findings that it reveals to implement the most effective interventions to protect and promote the population's health. Although the final self-assessment report has not yet led to major changes in the public health system, it does serve as a foundation for future evidence-based changes. It is the most comprehensive evaluation

report of the existing healthcare system, and it should be used by all relevant health and non-health stakeholders to implement the proposed changes. In addition, the methodology and experience can be used for educational and training purposes. The self-assessment of the public health system of Kosovo, also, provides a positive example of collaboration between the WHO's regional office for Europe and relevant health and non-health stakeholders in Kosovo.

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