



System change for better public health in North Macedonia:

a roadmap

Report of the Public Health Retreat, Ohrid, 1–3 October 2019



Republic of North Macedonia Ministry of Health

System change for better public health in North Macedonia: a roadmap

Report of the Public Health Retreat, Ohrid, 1–3 October 2019

Document number: WHO/EURO: 2021-1603-41354-56303

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).

© World Health Organization 2021

Some rights reserved. This work is available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO licence (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

Under the terms of this licence, you may copy, redistribute and adapt the work for non-commercial purposes, provided the work is appropriately cited, as indicated below. In any use of this work, there should be no suggestion that WHO endorses any specific organization, products or services. The use of the WHO logo is not permitted. If you adapt the work, then you must license your work under the same or equivalent Creative Commons licence. If you create a translation of this work, you should add the following disclaimer along with the suggested citation: "This translation was not created by the World Health Organization (WHO). WHO is not responsible for the content or accuracy of this translation. The original English edition shall be the binding and authentic edition: System change for better public health in North Macedonia: a roadmap. Report of the Public Health Retreat, Ohrid, 1–3 October 2019. Copenhagen: WHO Regional Office for Europe; 2021".

Any mediation relating to disputes arising under the licence shall be conducted in accordance with the mediation rules of the World Intellectual Property Organization. (http://www.wipo.int/amc/en/mediation/rules/)

Suggested citation. System change for better public health in North Macedonia: a roadmap. Report of the Public Health Retreat, Ohrid, 1–3 October 2019. Copenhagen: WHO Regional Office for Europe; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Cataloguing-in-Publication (CIP) data. CIP data are available at http://apps.who.int/iris.

Sales, rights and licensing. To purchase WHO publications, see http://apps.who.int/bookorders. To submit requests for commercial use and queries on rights and licensing, see http://www.who.int/about/licensing.

Third-party materials. If you wish to reuse material from this work that is attributed to a third party, such as tables, figures or images, it is your responsibility to determine whether permission is needed for that reuse and to obtain permission from the copyright holder. The risk of claims resulting from infringement of any third-party-owned component in the work rests solely with the user.

General disclaimers. 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 WHO 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 and dashed 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 WHO in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by WHO to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall WHO be liable for damages arising from its use.

Contents

Executive summary	5
Introduction	6
Health in North Macedonia	6
Institutional framework for public health	7
Government initiatives to improve population health	8
Rationale and objectives of public health retreat	9
Methods	11
Description of retreat and activities	11
Design	11
Data collection and analysis	12
The vision	13
The diagnosis	14
Core functions and institutional roles and responsibilities	14
Knots impeding progress in the delivery of core functions	17
Transforming public health services in North Macedonia	20
Roadmap for action	21
Work packages	24
Conclusion	30
References	31
Annex 1. List of participants	32

34

Executive summary

This report synthesizes the findings of the retreat, Strengthening Public Health Services in North Macedonia, held in Ohrid on 1–3 October 2019. Participatory methods were used to facilitate discussions between the Ministry of Health, the Institute of Public Health, and the 10 Centres of Public Health. Representatives from WHO and invited experts worked to apply their insights to enrich both the retreat discussions and the present report, which represents the product of this co-creation process. It identifies key areas of work and specific agendas for improving the provision of public health services and fulfilling legislative commitments set out in the 2010 Law on Public Health.

Currently, there is insufficient integration between institutions and no overarching strategy that gives coherence to activities. Institutional fragmentation, a misaligned financial model, and administrative and regulatory barriers comprise the main obstacles for progress. Tackling these problems requires transformational change, which we believe could be achieved through a two-pronged approach. First, the Ministry of Health would need to broadly define new institutional relationships and set a strong mandate for taking forward future reforms, including by establishing a public health lead at the ministry (ideally a department or directorate), with sufficient authority to recommend and enact approved policy. Second, that authority would oversee a formal public health reform programme, to be carried out in close partnership with public health institutions, WHO and other international partners. The transition tasks could be organized in seven work packages with the following aims.

- **Coordination and management:** to articulate routine communication pathways and functional relationships between institutions for current public health work; to ensure coordination between work packages; and to make progress reports to the Ministry.
- **Legislation and enforcement:** to speed up and simplify administrative/regulatory processes to make the system more flexible and aligned with strategic goals.
- **Financing:** to develop and agree on a new financial model for funding public health services under a single budget, thereby aligning accountability streams and favouring coordination.
- **Public health workforce development:** to strengthen and ensure a public health workforce with a structure and size that is appropriate for its legally mandated mission.
- **Laboratories:** to harmonize the national laboratory system.
- **Health intelligence system:** to work toward the harmonization and digitalization of the health intelligence system.
- **National Public Health Programmes development:** to align and coordinate technical programmes at a national level in line with people's health needs.

Numerous opportunities for short-term improvements can generate significant, positive momentum. However, achieving meaningful change in the long term will require political commitment and leadership, dedicated resources, strategic planning, and an explicit commitment to collaborative work practice and better communication (participatory process and co-creation).

Introduction

Key points:

- The disease burden in North Macedonia is dominated by chronic, noncommunicable diseases and a high prevalence of environmental and behavioural risks. But the country's fragmented and under-resourced public health institutions lack the capacity to effectively address these challenges.
- The current health policy environment is favourable to renewed efforts for transformational change, and there is great promise for enhancing institutional arrangements and communication in the public health sector.
- This report lays out a roadmap for modernizing and strengthening public health services in North Macedonia, developed through a co-creation process that began during a public health retreat in Ohrid on 1–3 October 2019. It blends insights from participants' first-hand knowledge of the country with expertise from international experiences and WHO.

Health in North Macedonia

Population health in North Macedonia largely mirrors the country's footing in the broader international context. Just as its impending accession to the European Union signals a transition in its socio-political position toward status as a full European partner, health indicators also paint the picture of a country in epidemiological, demographic and environmental risk transition. The past 30 years have seen significant drops in the disease burden from communicable diseases and traditional environmental risks like unsafe water, along with steady increases in chronic noncommunicable diseases and their risk factors (figure 1).

Communicable, maternal, neonatal, and nutritional diseases						
Non-communicable diseases	Macedonia					
Injuries Both 990 rank						
_990 rank		2017 rank				
1 Cardiovascular diseases		1 Cardiovascular diseases				
2 Neoplasms		2 Neoplasms				
3 Maternal & neonatal		3 Musculoskeletal disorders				
4 Unintentional inj		4 Unintentional inj				
5 Other non-communicable		5 Diabetes & CKD				
6 Musculoskeletal disorders		6 Neurological disorders				
7 Neurological disorders	1.	7 Mental disorders				
8 Mental disorders		8 Other non-communicable				
9 Respiratory infections & TB		9 Chronic respiratory				
10 Diabetes & CKD		10 Sense organ diseases				
11 Chronic respiratory		11 Maternal & neonatal				
12 Enteric infections		12 Digestive diseases				
13 Digestive diseases	i i	13 Transport injuries				
14 Sense organ diseases		14 Self-harm & violence				
15 Transport injuries		15 Skin diseases				
16 Nutritional deficiencies		16 Substance use				
17 Self-harm & violence		17 Respiratory infections & TB				
18 Skin diseases		18 Nutritional deficiencies				
19 Substance use		19 Other infectious				
20 Other infectious		20 Enteric infections				
21 NTDs & malaria		21 HIV/AIDS & STIs				
22 HIV/AIDS & STIs		22 NTDs & malaria				

Figure 1. Top causes of lost disability-adjusted life years (DALYs) in North Macedonia, 1990 to 2017¹

Today, the most important causes of adult mortality and morbidity are cardiovascular diseases, while diabetes is also on the rise. Tobacco consumption, obesity and air pollution are major risk factors for noncommunicable diseases and cancer, and the country is highly vulnerable to natural disasters like floods, earthquakes, heat waves and forest fires. Perinatal mortality is still among the highest in Europe and has seen an uptick since 2010². Large measles outbreaks and related fatalities were registered in 2018 and 2019; the MoH managed to contain these threats through increased vaccination efforts, notwithstanding important vaccine hesitancy. Health promotion, health literacy and disease prevention are all under-resourced, and health emergency preparedness and risk management are in need of strengthening. Human resources for health are scarce, including in key fields such as family medicine, where there are just 0.8 to 1.0 primary care practitioners per 1000 insured people³. Environmental health challenges, mainly air pollution, are critical for the country, and recent improvements have been limited. At the same time, a low birth rate, emigration among working-age adults (including health professionals) and increasing life expectancy are all contributing to population ageing, to the point where the projected population growth is nearly zero. This trend is expected to increase pressure on the country's social protection systems and could have a drastic impact on population health and well-being.

Furthermore, although the country's per capita income has nearly doubled in recent decades, moving it to upper-middle-income status, the pace of reforms in social, health, environmental and other development sectors seems more modest. On gaining independence, the country inherited a system with strong health protection, good communicable disease control, and equitable access to services, but it was also left to grapple with the system's inefficiencies, including massive health infrastructures, and these problems have only been partially addressed. Relative expenditure on health is actually decreasing (standing at PPP\$ 935 per capita, or about 6% of GDP in 2016⁴), and of this total, out-of-pocket expenditure accounts for 36.7%.⁵ This high rate is despite near-universal health insurance coverage; a forthcoming WHO study on financial protection situates North Macedonia below its European peers and under the threshold for impoverishing out-of-pocket expenditure.

In this context, clarity is emerging around the need for a modern, agile public health system, with fluid communication among institutions, integrated risk assessment and management practices, and responsive services that can contribute to reducing population morbidity and mortality.

This report synthesizes the findings of the retreat, Strengthening Public Health Services in North Macedonia, held in Ohrid on 1–3 October 2019. Integrating a range of national and international expert and technical perspectives, it identifies the key issues to address and the complex challenges hindering progress. Finally, it lays out areas of work and specific agendas that North Macedonia will need to tackle on its way to building a 21st century public health system.

Institutional framework for public health

According to the 2010 Law on Public Health⁶, the Ministry of Health (MoH) is charged with formulating and monitoring health policies, influencing broader government policies, developing annual public health programmes, collecting and using health intelligence (also through the E-health Directorate), ensuring emergency preparedness, and enforcing health legislation.

The Institute of Public Health (IPH) is the main scientific and technical body in public health, and its core competencies include ensuring environmental health (sanitation, water, control of microbiological hazards); collecting and analysing health data; performing reference laboratory work; monitoring the performance of public health activities; and implementing annual public health programmes and activities. Another of its main functions is scientific research aimed at generating evidence for the



purpose of policy-making in the area of public health; unfortunately, this is not supported by the State to a sufficient extent and mainly depends on foreign donations and projects.

At a subnational level, there are also 10 Centres of Public Health (CPHs) distributed across eight administrative regions; like the IPH, they are tasked with implementing the annual programme, and they report their activities to the IPH. However, they work independently to provide local laboratory services and others in areas like social medicine, health protection, health education, environmental health, epidemiology and microbiology⁴.

The IPH and the CPHs have proven their key role in a public health response during crises, emergencies and disasters, demonstrating the skills and capacities of the public health workforce and the system's preparedness in terms of material and financial resources. However, these are not necessarily sufficient at present.

Regarding funding sources, the MoH negotiates its annual budget with the Ministry of Finance, while the IPH and CPHs depend on three separate funding streams: MoH annual programmes, the Health Insurance Fund (HIF, through payments for laboratory services), and self-financing (other payments for laboratory services). The IPH and CPHs are obliged to perform the services set out in the annual programmes; however, delayed and missed payments from the MoH have led to substantial operating deficits, increasing the reliance on private sources of funding. Laboratory services may be purchased through the HIF or through agreements with private sources; purchasers are free to contract services from both public and private laboratories.

Government initiatives to improve population health

North Macedonia has a long tradition of public health, dating back to the founding of the Hygiene Institute (today the IPH) in 1924 under the leadership of Dr Andrija Štampar. It is a member of the International Association of National Public Health Institutes (IANPHI) and the South-Eastern Europe Health Network, and it closely collaborates with WHO, for example in the 2014 self-assessment of the Essential Public Health Operations (EPHOs), which served as a basis for the *Action Plan for Public Health of the Republic of Macedonia until 2020*⁷. Additionally, a WHO Joint External Evaluation of IHR core capacities was performed in 11-15 March 2019. Within the broader framework of the EU

enlargement policy, the country also participated in a technical assessment of the communicable disease prevention and control systems by the European Centre for Disease Control (ECDC), the MoH and the IPH on 14–18 October 2016⁸.

Recently, the MoH has renewed efforts to improve health system performance. Following on from a systematic assessment in 2018⁹, in February 2019 the MoH launched a national reform of the primary health care system in line with the Astana declaration¹⁰, to be the basis for an overall health reform aimed at achieving universal health coverage. The success of this initiative remains a challenge considering the low public expenditure on health and the major shortage of health professionals. Effecting a real paradigm shift towards an integrated, quality and people centred care remains a great undertaking for the country which has seen its public health system regress over the past two decades.

In the area of public health, a WHO scoping mission on public health services and capacities in February 2019 explored the potential to enhance the institutional arrangements for public health across the three administrative levels (MoH, IPH and CPHs). This mission set the stage for the Ohrid retreat in October 2019.

Rationale and objectives of public health retreat

The February 2019 scoping mission brought to light the scant uptake of North Macedonian Government Action Plan for Public Health 2020 and identified potential opportunities for aligning strategic goals and interinstitutional communication, strengthening the IPH's institutional leadership in public health intelligence and policy, and bolstering the financial sustainability of services. To support dialogue among all key institutions and stakeholders, with the ultimate objective of forging a shared vision and road map for public health reforms, the WHO, IPH and the MoH agreed to host a 2.5-day retreat in Ohrid.

Specific objectives of the retreat were to:

- come to a shared understanding of the current core functions and public health competencies of the IPH and its associated regional CPHs;
- develop a draft vision for the public health services provided by the IPH and CPHs in North Macedonia;
- identify emerging shifts needed for operationalisation such a vision;



- identify key opportunities to address the emerging shifts; and
- achieve shared clarity on roles and responsibilities across the 3 levels (MoH, IPH and CPHs).

Expected outcomes were:

- a draft vision for public health services provided by the national Institute of Public Health and its associated regional Centres for Public Health in North Macedonia;
- a list of emerging questions towards operationalisation of such a vision;
- identified opportunities to address the emerging questions; and
- strengthened working relationships and trust between the three administrative levels of the core public health system (the MoH, the IPH and the regional CPHs).

Methods

Key points:

- A 2.5-day retreat was attended by representatives from all North Macedonian institutions with responsibilities in developing and delivering public health services; public health experts from WHO, Wales (UK), and Slovenia; and a process facilitator to guide participants through a participatory programme.
- Sessions were designed to maximize collaboration and co-creation, based on the idea that working together and bringing in diverse perspectives from across the system is the only way to develop sustainable solutions for the future.
- The methods also worked to role model participatory communication methods that participants could put into practice in their home institutions.
- A careful record of notes and photographs was kept of the proceedings, and these were analysed and synthesized with expert inputs to operationalize the findings.

Description of retreat and activities

To foster a focused and positive working environment over the course of the full 2.5-day programme, the retreat was held on Lake Ohrid, about a 3-hour drive from the capital of Skopje. Thirty participants from North Macedonia attended, including the director of the IPH (Shaban Memeti), the 10 directors of the CPHs, and high-level representatives from the MoH, including Sanja Sazdovska and Bojan Boskovski. Two international experts also attended to provide insight based on their countries' experiences in reorganizing public health institutions and service delivery: Quentin Sandifer, Executive Director of Public Health Services and Medical Director, Public Health Wales; and Pia Vracko, Senior Advisor, National Institute of Public Health, Slovenia. Representatives from WHO included the Programme Manager for the Public Health Services Division at the Regional Office (Anna Cichowska Myrup); the WHO Representative and Head of the Country Office (Jihane Tawilah); and several other technical consultants, including an expert in process facilitation (Anne Madsen, from Status Flow, Denmark). See Annex 1 for a full list of participants.

Design

The programme of the retreat was designed with an equal focus on content and process. In order to ensure shared ownership of the outcomes and shared responsibility for implementation, careful attention was paid to ensuring participation and co-creation, building trust and supporting the frank exchange of perspectives. The retreat was also an exercise in capacity-building, guiding participants through interactive exchanges that modelled the kinds of inter-institutional discussions that will need to continue in order to successfully realize reform. WHO facilitators and invited experts contributed their insights based on international experiences in overcoming similar challenges.

The programme (Annex 2) led participants through exercises mapping out the journey that public health services should take in their country. An aspirational vision for the future was fixed as the

destination, while a joint assessment of the current state established the origin. In between, the roadblocks hindering progress were defined, and possible strategies to overcome them explored.

Data collection and analysis

Throughout the event, WHO consultants and support staff worked to document key messages related to the retreat's objectives and expected outcomes. A set of overarching questions served to inform the design of the group work. In addition to photographing and transcribing the specific outputs of each activity (i.e. cards and post-its with participants' reflections), a public health consultant and the rapporteur from WHO took notes and photographs of the proceedings. Following each day's activities, the WHO hosting team and international experts had 'sense-making' meetings to draw out insights in real time and feed those into the remaining sessions. There was special emphasis on the need to craft a report that both captured the perspectives of public health professionals in North Macedonia and widened the lens of their understanding, in order to transform the clarities emerging from the retreat into an actionable policy roadmap.



The final data set (notes, transcriptions, presentation slides, photographs) has both strengths and limitations. The methods applied were very effective in breaking the existing silos, drawing out the key qualitative issues that system participants perceive as the most relevant, and in fostering convergence around how to approach them from different institutional angles. The resulting action plan thus addresses the system's self-perceived problems by proposing organic solutions, derived from participants' own ideas. This approach favours a sense of ownership and increases participants' motivation to take an active role in implementing the solutions. On the other hand, the retreat did not constitute a comprehensive quantitative assessment of the system's challenges; rather, the group work provided a platform to launch conversations between entities that will need to continue well into the future.

The vision

Key points:

- The public health workforce in North Macedonia aspires to achieve a sustainable and modern system, with fluid communication and resource security, capable of truly responding to population health needs.
- Better communication and financing were considered the main areas in need of work to achieve this vision.

The opening session of the retreat elicited participants' aspirations for the future of public health services in North Macedonia. Together, the professionals attending the meeting envisioned an integrated, comprehensive, and well-developed system, with strong local institutions that were oriented towards citizens' needs. Regular and continuous communication would take place within a system of interconnected institutions, capable of protecting the population – especially the most vulnerable – from environmental and other health risks, helping to reduce population morbidity and mortality. Greater availability and security of material, financial and human resources would enable the continuous performance of public health activities, producing better health for the whole population in a healthy environment.

Groups then proposed goals for achieving this vision. Mitigating financial and other resource constraints was a top objective, as was increasing coordination and communication among institutional levels. Other primary goals were to connect the disparate health information systems for better data exchange; create specific programmes for vulnerable groups in the pursuit of better health equity; and promote co-creation of health policy by different institutions.



LEGO® SERIOUS PLAY® This session served to activate participants' creativity and to stimulate reflection on a shared vision for public health services. Here, tables of five collectively constructed a representation of the ideal future for the public health system.

The diagnosis

Key points:

- Essential public health functions are delivered without sufficient integration between institutions or any overarching strategies that give coherence to activities.
- Institutional fragmentation, a misaligned financial model, and administrative and regulatory barriers comprise the main obstacles for progress across different areas.
- System strengths include great capacity for adaptation, along with good technical knowledge and expertise, capacity to propose and develop policy, and electronic data systems; these assets could form a solid foundation on which to build future work.

Core functions and institutional roles and responsibilities

The Law on Public Health in North Macedonia4 lays out 11 essential public health functions (EPHFs), generally consistent with the WHO 10 EPHOs and the IANPHI Core Functions. On the first day of the retreat, professionals from each administrative level worked together to describe their core functions. They subsequently mapped these across the three administrative levels, indicating where they had institutional alignment. Finally, participants compared their assembled functions with the EPHFs (Table 1). The overall aim of the session was to gain clarity on how the current core functions are performed and the role each administrative level plays in executing them.



Responsible institution and activities

Core function	Ministry of Health	Institut Health	e of Public	Centres	for Public Health
1. Surveillance and assessment of the population's health and well-being	- Electronic real-time evidence (through Moj Termin)	assessm populat and wel	ion health	statistics health ir seconda morbidit	medicine - health for the operation of istitutions (primary and ry) and registration of y nic system - Moj Termin
2. Identification, prediction, investigation and mitigation of health problems and health hazards in the community	investigation and mitigation - Epide of health problems and health (monit hazards in the community - Healt		- Epider (monitc - Health	biological reference laboratories miology: communicable diseases oring and prevention) h education fection and deratization	
3. Preparedness and management of public health emergencies, including prevention, response and mitigation	- Preparedness and management of public health emergencies, including prevention, response and mitigation				
4. Health protection, assessment of needs and activities required for the provision of health protection	 Health protection, assessment of needs and activities required for the provision of health protection Lab control of medicines and medicinal products - Microbiological, clinical, toxicological, environmental, chemical and sanitary testing an inspections 			al, environmental, nd sanitary testing and	
5. Health promotion and health education	- Health promotion and health education - Disease prevention counselling			revention counselling	
6. Disease prevention through primary and secondary prevention	- Annual programmes - Public health, screening programmes	 Primary and secondary prevention measures Coordination and monitoring of public health programme activities with CPHs 		- Local implementation of programmes	
7. Development and enforce- ment of health protection laws and regulations	- Legal framework - Devt of regulation (accreditation, statutes, controls)	protection laws and		- Field inspections	
8. Assuring a competent multidisciplinary public health workforce	- Assuring a competent multidisciplinary public health workforce				
9. Ensuring intersectoral partnership and community participation to improve health and reduce inequalities	- Ensuring intersectoral partnership and community participation to improve health and reduce inequalities				
10. Initiation, support and carrying out of health-related research	- Support for the implementation of public health research activities				
11. Initiation, development and planning of public health policy	- Health policy	- Initiation, development and planning of public health policy			
Other core functions	- Performance managem	nent - Drafting reports, forms, work on certain programmes			

Table 1. Approximation to how essential public health functions are delivered in North Macedonia, as described by retreat participants.

Based on these findings and the discussions held during the session, the MoH appears to take a relatively hands-off approach to the governance of public health. It establishes health policy, defines the annual programmes, and sets laws and regulations, but it is not closely implicated as a steward of the system. The IPH, for its part, appears to assume the sole responsibility for a number of functions (e.g. intersectoral working, human resource planning), without clear strategic direction from the MoH or engagement with the CPHs to understand local conditions in the regions. At the same time, the CPHs seem to mostly work independently, often with overlapping competencies or a lack of technical coordination in specific areas. Based on the general approximation made during the retreat, they have no role in health policy, intersectoral cooperation, human resource generation, research, or emergency preparedness.

Participants representing their respective institutions described both the strengths and weaknesses in their delivery of public health functions. A representative from the Ministry of Health pointed to the existence of mechanisms to initiate and submit policies and an e-health records system (*Moj Termin*) as assets to the system, but lamented the lack of capacity for monitoring and the insufficient information that the MoH receives for making strategic policy decisions, especially with regard to cost-effectiveness of public health interventions. At the IPH, strengths mentioned were health statistics, environmental health, epidemiology, different microbiological labs (bacteriology; parasitology; virology - national reference lab for influenza [national influenza center]), measles and rubella, HIV and arboviruses; microbiological investigation of food and water, medicines and cosmetics), capacity for policy proposals and plans, and the electronic information flow; weaknesses included insufficient capacities to collect population health data through surveys, lack of harmonization across programmes, and impending shortages in human resources due to workforce ageing and emigration.

Finally, strengths of the CPHs were a good level of expertise among existing staff and capacity for adapting to systemic constraints; however, the directors emphasized recurring resource shortages, lack of receptiveness to their input by the IPH and MoH, and major administrative hurdles.



Comparing the situation in North Macedonia to the Welsh and Slovenian experiences, Drs. Sandifer and Vracko explained how these core functions are articulated in their countries. There, each institutional level has complementary roles in the performance of all public health functions. The Ministry of Health acts as a steward, setting the direction and priorities for the system as a whole and working to ensure that resource generation, financing, and oversight support effective service delivery. The National Public Health Institute has the role of providing evidence-based leadership in the development of public health strategies and the coordination of public health activities, while the local public health teams (Centres of Public Health) assess, plan, lead and manage the needs of the local population. In contrast, in North Macedonia each level seems to be unaware of what the others are doing, which leads to frustration when their own activities are not supported as well as a lack of appreciation for the work that other institutions are doing.

Knots impeding progress in the delivery of core functions

The second day of the retreat was mainly devoted to the participant-led conversations around the shifts necessary to address the system's most pressing challenges. The attending health professionals put forward numerous practical ideas for improving system performance (figure 2).



Figure 2. Open Space Technology. Participant-proposed ideas for group discussion. The session was framed as a marketplace, wherein people were free to move around tables in order to contribute to different conversations. International experts also participated, suggesting areas of commonality where appropriate.

In discussing these shifts, the groups were able to identify several complex problems that impeded transformational progress. These 'knots' generally fell into three broad categories: institutional fragmentation, an inappropriate financial model; and administrative and regulatory barriers (figure 3).

Institutional fragmentation

Institutional fragmentation is the direct cause of many operational gaps and weaknesses that hinder the delivery of core public health functions. Disjointed institutional relationships are reflected in the lack of coordination, supervision and monitoring of different programmes and activities as well as in the incapacity for strategic policy development. The MoH, IPH and CPHs do not participate in any consensus-based processes to determine national public health priorities, which undermines programme consistency and budget negotiating power. Decisions are made within silos, so for instance, each CPH uses its own software, making it impossible to share data, and they also procure laboratory equipment independently, leading to overlaps and inefficiencies. Moreover, there are no established mechanisms for horizontal or vertical technical collaboration, complicating the development of standard operating procedures or even minimal coordination in health promotion programmes.



Institutional fragmentation	Inappropriate financial model	Regulatory barriers	Others
 No information flowchart for institutional coordination Poor communication between IPH and CPHs No established procedures for technical programme meetings No established process for MoH to present rationale for increased investments to government 	 Public health system not fully funded from the national budget Inappropriate compensation for intellectual work Inappropriate financial framework regulating reference laboratory activity Insufficient funding for new equipment and vehicles 	 Lack of harmonized legal framework Slow procedures for hiring new staff No on-the-job to speed up training Inflexible administrative procedures for residency programmes 	 Difficulties implementing changes in the field No timeframe for reaching the WHO/ ECDC criteria for reference laboratories and biosafety and biosecurity criteria

Figure 3. Factors impeding effective delivery of public health services, as proposed by retreat participants. The top three scored factors are shown in bold.

The urgent need for better communication is not only a question of formal protocols. Several retreat participants also alluded to poor communication skills, describing a tendency for meetings to end tensely and with unresolved conflicts. In some cases, there seems to be an unwillingness to engage with professionals from other institutions, for example, among professionals at the IPH and CPHs responsible for communications between institutions and to make attendance at meetings mandatory, suggesting that rapport, working environments and accountability should be targets for improvement as well as the creation and strengthening of formal communication channels.

Financial model

The lack of coordination in institutional governance also extends to the financial model. The IPH and CPHs are highly reliant on private sources of income to cover basic overhead costs (salaries, accreditation), creating competition between centres that should be working in tandem. Public laboratories must also compete with private laboratories, including for publicly financed services, diverting scarce public funding towards the private sector.

In addition to the technical inefficiencies, there are also administrative inefficiencies, as directors must devote considerable time to fundraising and marketing activities rather than technical programme management. Difficulties in obtaining invoice payments from the MoH and the HIF (there is no HIF coordinator for accounting purposes) mean that the IPH and the CPHs are operating with chronic deficits – and that clinical laboratory activities are essentially cross-financing public health services. In practical terms, intellectual work is not compensated.

All of this creates tremendous insecurity, making it difficult to plan for the long term or even to carry out essential day-to-day activities (e.g. environmental risk management). All in all, the fragmented and insecure funding streams disincentivize coordination and undercut public health institutes' motivation to partner with the MoH in creating a unified case for public health services in negotiations with the Ministry of Finance.

Administrative and regulatory barriers

The interval between proposing a new law and its final adoption and implementation can be several years. Moreover, each institutional level has a different understanding of how laws work in practice, making it difficult to coordinate and streamline these processes.

This situation generates serious problems in numerous areas. For example, the Law on Public Administration defines the professional profiles of all civil servants, but the public health discipline is evolving faster than these definitions are updated. On top of that, new staff requests must be approved by the MoH, HIF and the Ministry of Finance, and candidates (often medical physicians) must then be trained in the public health speciality, which can take up to four years. Even under the best circumstances, then, it takes at least a year to fill a vacant position. Aggravating factors like scant interest in the public health speciality among doctors, brain drain, and resource shortages can lengthen this process even further. Administrative and legislative backlogs also cause delays in the area of e-health (e.g. implementation of standard data reporting forms), reference laboratories (e.g. accreditation and regulations on quality criteria), and environmental health (e.g. alignment between regulations and enforcement mechanisms), among others.



Transforming public health services in North Macedonia

Key points:

- Meaningful improvements to public health services require foundational changes, including stronger governance from the MoH; a revised financing model; integrated institutional arrangements; and long-term, strategic thinking about system priorities.
- A strong mandate to lead these changes from the MoH, plus operational units to resolve pending challenges (in the form of different work packages), can set North Macedonia on the road to a modern public health system.
- International partners, including WHO and IANPHI, can support this endeavour through training, twinning, and professional exchanges.

Since its independence, North Macedonia has made several attempts to strengthen its public health services and capacities – the last only a few years ago7. Yet, discussions during the Ohrid retreat suggest that old problems have only become more entrenched, even as new ones have appeared and exacerbated them. If there is only one unequivocal conclusion from the retreat, it is the emerging clarity on the need for transformational change, not just in the kind of model framing service delivery, but also in how it is shaped and acted upon daily by different stakeholders in the system. To truly realize the vision of modern, responsive services that meet population needs, North Macedonia's public health institutions – including the MoH as its ultimate steward – will need to ambitiously and collectively tackle the systemic problems that have frustrated prior reform efforts. The biggest public health challenges facing the population of North Macedonia (noncommunicable diseases, climate change and environmental degradation, population ageing) are too complex to address in a piecemeal fashion; all institutions must work in concert towards the same objectives.

This section operationalizes the discussions held during the retreat, reformulating the shifts proposed by participants into concrete system objectives, informed by international expertise and framed as a collaborative reorganization and reform process.

Box 1. Public health governance in Wales

Public Health Wales, the national public health institute for Wales, was created in 2009 from the merger of nine organizations. The new board assumed a complex array of roles and responsibilities, including dozens of public health programmes, each separately funded and reporting to different policy leads in the Welsh health ministry. By its sixth year, the 54 programmes had been reduced to 6, and the institute had an agreed medium-term strategy aligned with ministerial priorities. In 2016, Public Health Wales became a full member of the International Association of National Public Health Institutes (IANPHI), actively contributing to and learning from other national institutes. In 2018, it published an ambitious long-term strategy to 2030 consistent with the UN sustainable development goals.

However, only recently has Public Health Wales managed to resolve one of the most tenacious challenges arising from the creation of the organization: its relationship with the local public health teams embedded in the seven local health boards. After two years of negotiation and using formal project management methods, the ministry, health boards, and Public Health Wales finally agreed on a model for public health system leadership:

- the Welsh Government acts as system steward;
- Public Health Wales provides evidence-based leadership in the national development of public health strategies and the coordination of public health activities; and
- local public health teams assess, plan, lead and manage to meet the needs of the local population.

This process illustrated some necessary conditions for effective reform, including clear governance from an executive director-level head of public health within the ministry; explicit accountability through an agreed performance management framework; an agreed long-term strategy, led by Public Health Wales; and agreed financial and workforce strategies with resources aligned to ministerial and public health priorities.

Roadmap for action

System leaders should be cognizant at the outset that modernizing the country's public health capacities and services will require considerable resource commitments. However, intentional, stepwise actions can deliver early benefits, while also laying the foundation for more lasting change. Experiences in Slovenia and Wales (see boxes 1 and 2) show that other countries have faced and are overcoming challenges similar to North Macedonia's. Lessons from these settings, plus guidance from both WHO and IANPHI, can help North Macedonia navigate the journey towards a more functional and efficient system.

Mandate

The first step on the way to a modern public health system in North Macedonia is a clear statement

of intent from the MoH, backed up by a tangible commitment to assume greater governance responsibilities and explicit incentives for the professionals carrying the reform through. In that sense, two initial steps that the MoH can take to create momentum would be to:

Broadly define new functional roles and relationships for the three institutional levels. Slovenian and Welsh experiences provide a valuable blueprint, wherein the MoH would assume responsibilities for strategic direction, resource generation, and oversight; the IPH, scientific and technical leadership, plus health intelligence analysis; and the CPHs, assessment of local needs and service delivery in line with national priorities. Decision-makers may consider establishing a new institution dedicated to laboratory services, taking the Slovenian experience as a model (Box 2).

Box 2. Reorganizing public health institutions and services in Slovenia

In 2014, Slovenia underwent a major reorganization of its public health institutions. Nine regional public health centres and one National Public Health Institute were merged and then split into two organizations - the National Institute of Public Health (NIPH) and the National Laboratory for Health, Environment and Food (NLHEF), each with one national and nine regional units.

Situation before reorganization

Before reorganization, regional centres ran their own public health programmes and laboratory services, meaning that each had to procure complete lab equipment, ensure accreditation, and invest in new technologies. In the absence of national coordination and sufficient financing from the state budget, health promotion and other public health services were fragmented, under-resourced, and inequitable, and they largely failed to address emerging population health problems. Meanwhile, lab services attracted disproportionate and overlapping resource investments. Costs ballooned as modern technologies became available, increasing deficits and diverting resources further away from population-based services. As the burden of non-communicable diseases outstripped Slovenia's capacities to address them, reorganizing the system became inevitable.

Changing the institutional model

Splitting laboratory and other health services into separate institutional entities posed numerous challenges, including inter- and intra-institutional communication, standardization of training, and reluctance from regional centres to surrender income from laboratory services. However, the Ministry of Health and the NIPH collaborated in the design of a single national public health services plan, guaranteeing funding from the state budget and ensuring greater harmonization and quality. Today, the NIPH works with regional centres to collect and analyse health intelligence, coordinate national public health programmes, participate in international projects, train professionals, and inform policymaking. For its part, the NLHEF is the sole provider of laboratory services for all public entities, and efficiency savings have enabled it to increase the services offered to the population.

Establish a public health lead (e.g. department, directorate, executive directorate) at the MoH, to act as a stable and permanent steward of public health services. While different models exist for such a unit, it needs to have sufficient authority to recommend and enact approved policy. This measure has both practical and symbolic value. At the practical level, it clarifies the contact point for communication with the IPH and CPHs, materializes the ministry's commitment for more direct public health governance, and establishes a body to manage and oversee the organizational transitions envisaged. More symbolically, such a unit would be a strong affirmative answer to IPH and CPH proposals, communicating the ministry's partnership to the country's public health institutions.

Following these initial steps, a process should be established to resolve the specific institutional challenges brought to light during the retreat. The next steps would need to frame future work within a systematic, project management approach.

Formally launch a public health reform programme, to be overseen by the public health authority at the MoH. The project framework could consist of seven work packages (WPs) tasked with developing institutional consensus and implementing improvements around different areas of work, identified at the retreat as priorities for enhancing system effectiveness and efficiency.

Appoint WP teams with representatives from all institutional levels. A small team of dedicated local professionals can be the most effective motor for meaningful change. As envisaged, a core team would take responsibility for coordination and management, while six additional teams (a mix of technical experts and managers representing different institutional levels) would be in charge of developing agendas in other priority areas.

At the retreat, six professionals from the MoH, IPH and CPHs expressed their willingness to contribute to this endeavour going forward:

- 1. Sanja Sazdovska, State Advisor, MoH
- 2. Nermina Fakovic, Sector for Primary and Preventive Health Care, MoH
- 3. Golubinka Boshevska, Head of Laboratory for Virology and Molecular Diagnosis, IPH
- 4. Mihail Kochubovski, Head of Environmental Health Department, IPH
- 5. Toni Dimitriev, Director of CPH, Veles
- 6. Dragica Nikoloska, Director of CPH, Prilep

If the roadmap proposed here is followed, the MoH should strongly consider inviting these professionals to form part of the core group. Once these and other WP members have been appointed, the WHO Country and Regional Office stand ready to support their work through practical workshops on concepts such as collaborative leadership, communication, negotiation, and management. Likewise, the IPH can engage with IANPHI to seek peer-to-peer support, institutional exchanges, and twinning experiences. These capacity-building exercises constitute an investment in the professionals responsible for driving change, and they place North Macedonia firmly within European and international efforts to strengthen public health.

Work packages

The proposed WPs are organized around specific functions identified during the retreat as requiring the most urgent and transformational changes.

- 1. WP 1: Coordination and management
- 2. WP 2: Legislation and enforcement
- 3. WP 3: Financing
- 4. WP 4: Public health workforce development
- 5. WP 5: Laboratories
- 6. WP 6: Health intelligence system

7. WP 7: National Public Health Programmes development

Furthermore, some key agendas for the future have been suggested for each WP. Tasks are divided into quick wins (measures achievable within 6 months to 1 year) and strategic development measures. Most of the latter should be initiated within a relatively short timespan (< 2 years).; however, fully realizing some of the more ambitious strategies could take considerably longer.

The work packages and their agendas are subject to review, and they will need to change as new challenges emerge. However, as conceived below they are intertwined and co-dependent; thus oversight and coordination are essential, and changes should be considered in light of their effects on the reform effort as a whole.

Of importance, across all the WP a participatory and co-creative process will need to be applied to ensure an authentic and sustainable reform process. As such capacity building for participatory process, including effective ways to hold deep dialogues, will need to be supported and developed amongst all stakeholders.

WP 1: Coordination and management

Mission: to articulate routine communication pathways and functional relationships between institutions for current public health work; to ensure coordination between work packages; and to make progress reports to the Ministry.

Quick wins Develop information and communication protocols between institutions (MoH and E-health Directorate, IPH, CPH).

Set up a schedule of meetings between professionals at all levels (in-person or via video-conferencing technology) in critical areas of technical work, e.g. epidemiology, health promotion/disease prevention, environmental risk assessment, public health-primary health care interface, etc.

Strategic development measures

Coordinate activities led by other WPs, identifying areas of synergy and further

challenges requiring transformational changes.

Develop unified 'case' for increasing public health funding in government negotiations, emphasizing efficiency gains in public health services and throughout wider health system, and laying out consensus-based priorities for taking the health system forward.

Co-create a national strategy for public health, laying out priority areas of work in line with a population health needs assessment, resource availability, and international evidence.

WP 2: Legislation and enforcement

Mission: to speed up and simplify administrative/regulatory processes to make the system more flexible and aligned with strategic goals.

Quick wins MoH to negotiate adoption of approved legislation to expedite administrative processes for new hires, changes to e-health system, environmental risk management, and other areas.

Strategic development measures

Introduce and enforce quality criteria for accrediting public health and private laboratories.

In collaboration with WP 1 and WP 7, review alignment of the regulatory framework with national public health priorities and programmes.

Work to simplify primary laws related to public health and health care (regarding staffing, environmental risk management, health records, etc.), facilitating more agile use of secondary legislation (amendments) to keep pace with changes in the public health discipline.

WP 3: Financing

Mission: to develop and agree on a new financial model for funding public health services under a single budget, thereby aligning accountability streams and favouring coordination.

Quick wins Identify redundancies and potential efficiency gains within (a) the organization of public health services and (b) the wider health system (e.g. hospitals), including in the process for public procurement of health technologies and equipment.

Review opportunities for external funding through the development and international aid institutions (e.g. European Commission, World Bank), ensuring funding is infused through a sector-wide approach that strengthens the health system.

Strategic development measures

Secure a stable public health budget from MoH covering – at a minimum – all overhead costs.

Use efficiency gains to establish explicit funding streams for underfinanced areas, such as risk assessment (both environmental risk assessment and behavioural risk assessment) and health promotion.

Identify potential areas of interdisciplinary and intersectoral overlap and develop collaborative funding schemes with other stakeholders within (e.g. public health-primary health care) and outside the health system (e.g. public health-environment) (see WP 7).

Work toward streamlining the funding of all public health activities through the national budget, ensuring a certain percentage of public health expenditure is directed towards public health activities, and that these activities are aligned with available resources.

WP 4: Public health workforce development

Mission: to strengthen and ensure an appropriate public health workforce structure and size that is fit for the purpose of developing annual public health programmes, collecting and using health intelligence, ensuring emergency preparedness, and enforcing health legislation.

Quick wins In collaboration with WP 6, create a map of human resources for public health, including a definition of public health professionals, plus data on workforce supply, deployment and current vacancies.

Establish protocols for temporarily shifting workloads between institutions to cover holidays, sick days, family leave, etc.

Pending the resolution of regulatory barriers, channel appropriate workforce development activities through community organizations and NGOs, using a similar experience in Slovenia as a model.

Strategic development measures

Develop national public health workforce development strategy, to include the following elements:

– Assessment of current workforce (in addition to supply and deployment, collect data on retention/attrition, skills mix, staff productivity, and service needs vs. outputs)

- Use of tools to anticipate workforce requirements in the medium to long term

 Engagement with key stakeholders (ministries of health, finance, labour and education; academic institutions; professional associations; development partners) to formulate strategic workforce plan and objectives, aligned with broader policies on health workforce development and public health priorities.

Objectives might include (a) improving recruitment and retention; (b) expanding access to knowledge resources and continuous training to current workforce; (c) expanding training opportunities to non-medical students and other mid-level providers; and (d) preparing for projected workforce flows (i.e. expected retirements)

WP 5: Laboratories

Mission: to harmonize the national laboratory system.

Quick wins The IPH and CPHs should strongly consider pooling their funding through profit-sharing agreements, if necessary under a higher authority (e.g. IPH, MoH) and centralizing administrative and fund-raising activities as well as some laboratory activities and tests. The goal would be to eliminate redundancies, improve efficiency, increase funding stability, ensure accountability, and capitalize on collective negotiating power.

Ensure that MoH and other ministries (agriculture, environment, etc.), as well the Food and Veterinary Agency, municipalities, Public Water Enterprises etc. use national public laboratories for their services, rather than purchasing the services of private providers.

Strategic development measures

Develop quality management systems and a timeline for implementation in line with ISO 15189 (for all medical labs) and ISO 17025 (testing and calibration labs); work with WP 6 to harmonize data collection across labs.

Together with National Public Health Programme managers in infectious diseases, develop a strategy for infectious diseases that includes an agreed model for laboratory services.

Set clear terms of reference and accreditation criteria (preferably ISO certification) for reference laboratories, and establish a national reference laboratory at the IPH.

Define central and regional laboratories and decide which tests should be performed at which level. This plan can inform a needs assessments, on the way to establishing a central funding stream for public health-related laboratory processes (accreditation, tests).

Develop a strategy for integrating private lab resources (professionals, equipment) into public system.

Initiate work with other ministries to unify laboratory systems within and outside the health sector (food safety, air and water quality, etc.), as part of a planned programme of service change.

WP 6: Health intelligence system

Mission: to work toward the harmonization and digitalization of the health intelligence system.

Quick wins Review data collection forms for use by providers and CPHs, prioritizing forms that are easily digitalized.

In collaboration with WP1 and WP4, create a 'living' public health workforce directory to facilitate communication (e.g. name, institution, professional position and qualifications, contact information, geographical area). The directory could also be linked to a public health workforce database to monitor and evaluate human resource indicators.

Organize series of training sessions for healthcare and public health professionals, teaching use of the Moj Termin system and accompanying IT.

Define and systematize collection methods for core public health indicators, defining a list of risk factors, health indicators, and health system performance indicators (incl. cost-effectiveness of interventions), for IPH and CPHs to collect in support of public health goals.

Strategic development measures

Finalize development of the national digitalization strategy* , including, as a first step, a national eHealth vision that responds to broader health and development goals. Such a vision should include:

– Establishment of strategic context (comprehensive assessment of: population health status, including through behavioural surveys; the current health system; and national health and development goals) to determine how an eHealth system could contribute to health system improvements

- Review of international trends and experiences in digital health systems

 An initial vision with goals (e.g. harmonization of laboratory and health care provider software; automated linkages between databases; streamlined reimbursement and pharmaceutical pricing systems)

- Identification of current assets, gaps, and required components*

- Development of strategic recommendations, to inform a national action plan on eHealth

*The HIF is currently undertaking work to develop a national digitalization strategy with the support of WHO and the World Bank. The latter has already formulated a situational analysis laying out key assets and gaps in the digital health system.

WP 7: National Public Health Programmes development

Mission: to align and coordinate technical programmes at a national level.

Quick wins Interinstitutional technical groups (see WP 1) should coordinate their activities, identifying redundancies and opportunities for collaboration.

Produce national summary reports in each technical programme area, laying out national priorities and regional variations.

IPH to synthesize inputs from technical reports and regional policy briefs (see WP 5) into policy recommendations for MoH.

Strategic development measures

Develop and implement new programmes or national strategies addressing the key public health challenges (smoking, childhood obesity, adult obesity, mental health, health inequalities, healthy behaviours, cancer screening, NCDs risk factors screening etc.), as identified in Action Plan for Public Health until 2020.

Programmes should include:

 Needs assessments in each programme area, using data on population health to justify and prioritize specific investments

 Intersectoral collaboration in different technical areas, for example with the Ministries of Agriculture, Education, Environment and Physical Planning, and the Food and Veterinary Agency through intersectoral working groups

– Measurable targets and embedded mechanisms for monitoring and evaluation

Conclusions

Strengthening North Macedonia's public health capacities and services is both necessary and urgent. Yet, the systemic challenges facing the country's institutions cannot be addressed in isolation; their interlocking nature, moreover, means that half-measures in one area will inevitably obstruct progress in others.

In this context, only a whole-systems approach will do, and participation and co-creation from all three administrative levels must be secured to ensure success. The latter will require a conscious investment in developing skills within the system for applying participatory processes.

A comprehensive reform must strengthen governance from the MoH and technical leadership at the IPH, while providing both the IPH and CPHs with sustainable financing, aligned with local health needs and national priorities. Institutional relationships and communication must be better articulated, but just as importantly they need to be made effective through increased accountability and skills building.

Above all, long-term, strategic, systems thinking must prevail, so that actions taken to improve services today also lay a foundation for stronger and more integrated capacities tomorrow.

References

- 1. Institute for Health Metrics and Evaluation. GBD Compare [online]. Available at: https://vizhub.healthdata.org/gbd-compare/
- 2. World Bank Group. *Sowing the Seeds of a Sustainable Future*. Republic of North Macedonia Public Finance Review. Washington DC: World Bank; 2018.
- 3. Milevska Kostova N, Chichevalieva S, Ponce NA, van Ginneken E, Winkelmann J. The former Yugoslav Republic of Macedonia: Health system review. *Health Systems in Transition*, 2017; 19(3):1–160.
- 4. WHO. Global Health Expenditure Database. Available at: http://apps.who.int/nha/database/Home/Index/en
- 5. Health for All Database [online]. WHO Regional Office for Europe. Available at: https://gateway.euro.who.int/en/hfa-explorer/
- 6. Law on Public Health of 2010 of the Republic of Macedonia. No.07-717/1
- 7. Ministry of Health of the Republic of Macedonia. Action Plan for Public Health of the Republic of Macedonia until 2020 [online]. 2016. Available at: http://www.zdravje2020. mk/doc/Akciski_plan_JZ-2020-20mart2017-ENG.pdf
- 8. European Center for Disease Prevention and Control (ECDC). The former Yugoslav Republic of Macedonia assessment of country capacities in communicable diseases surveillance, prevention and control. Technical Assessment Report. ECDC; 2016
- 9. WHO Regional Office for Europe. *Primary Health Care Organization, Performance and Quality in North Macedonia*. Copenhagen: WHO; 2019.
- 10. Ministry of Health of the Republic of Macedonia. Adding more health to life: the road to quality and more efficient primary health care in the Republic of Macedonia 2020–2030. White paper for discussion. Skopje: Government of North Macedonia; 2019.
- 11. WHO Regional Office for Europe. The toolkit for a sustainable health workforce in the WHO European Region. Copenhagen: WHO; 2018. Available at: http://www.euro.who. int/__data/assets/pdf_file/0004/375547/WH11_TK_text_AW-2.pdf?ua=1
- 12. WHO. National eHealth Strategy Toolkit. Geneva: WHO; 2012. Available at: https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-E_HEALTH.05-2012-PDF-E.pdf

Annex 1. List of participants

WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR EUROPE



WELTGESUNDHEITSORGANISATION REGIONALBÜRO FÜR EUROPA

ORGANISATION MONDIALE DE LA SANTÉ BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Strengthening Public Health and the role of the national Institute of Public Health in North Macedonia – Retreat

Ohrid, North Macedonia 27.09.2019 01 - 03 October 2019 Original: English

List of participants

MOH

Sanja Sazdovska, State AdvisorNermina Fakovic. Sector for primary and preventive health care Aneta Angelovska, Public Communication Department Josif Misevski, Pharmaceuticals department Bojan Boskovski, WHO National Counterpart

E-Health Directorate

Zhaklina Chagoroska Goran Kochinski

Institute of Public Health

Shaban Memeti, Director Igor Spiroski, Head of Department of Physiology and Monitoring of Nutrition Dugagjin Osmani, Head of bacteriology and Department for AMR department Golubinka Boshevska, Head of the Laboratory for Virology and Molecular Diagnostics Vjosa Recica, Head of health statistics department Mihail Kochubovski, Head of department of environmental health Gordana Kuzmanovska, Head of Department for Communicable Diseases Control and Prevention Gordana Ristovska, Department of environmental health Elena Kjosevska, Head of Department for Health Promotion, Analysis and NCD Prevention

Public Health Centres

Arben Ziberi, Director, CPH SKOPJE Marija Vrckovska, Social Medicine Specialist, CPH BITOLA Afrim Shehapi, Director, CPH TETOVO Berun Mustafa, Hygiene specialist Katerina Boskovska, Microbiologist Sasho Tockov, Director, CPH OHRID Jovanka Korevesovska, Epidemiologist, CPH OHRID Toni Dimitriev, Director, CPH VELES Aleksandar Grkov, Hygiene department and responsible for public purchasing, CPH Veles Dragica Nikolovska, Director, CPH PRILEP Goce Serafimov, Director, CPH KOCANI Vasil Pendevski, Head of laboratory sector, Board Member, CPH KOCANI Mare Dimitrova, Director, CPH STIP Petre Vitanov, Director, CPH STRUMICA Nake Tufekdziev, Hygiene Specialist, CPH STUMICA

WHO EURO and consultants

Anna Cichowska Myrup, Programme Manager, Public Health Services Division of Health Systems and Public Health, WHO Regional Office for Europe Danielle Agnello, Public Health Consultant, WHO Regional Office for Europe Anne Madsen, Process facilitator, Status Flow (Denmark) Meggan Harris, WHO rapporteur Pia Vracko, Senior Advisor, National Institute of Public Health, Slovenia Quentin Sandifer, Executive Director of Public Health Services and Medical Director, Public Health Wales

WHO CO Skopje

Jihane Tawilah, WHO Representative and Head of WHO Country Office, North Macedonia Margarita Spasenovska, National Professional Officer, WHO Country Office Svetlana Petrusevska, Programme Assistant, WHO Country Office Dragi Tarcugoski, logistics officer, WHO Country Office Filip Filipovski, interpreter Fetih Salih, interpreter

Annex 2. Retreat programme

WORLD HEALTH ORGANIZATION REGIONAL OFFICE FOR EUROPE



WELTGESUNDHEITSORGANISATION REGIONALBÜRO FÜR EUROPA

ORGANISATION MONDIALE DE LA SANTÉ BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Strengthening Public Health and the role of the national Institute of Public Health in North Macedonia – Retreat

Ohrid, North Macedonia 27.09.2019 01 - 03 October 2019 Original: English

Tuesday, 1 October 2019

Day 1: Co-creating a Shared Vision for Public Health in North Macedonia and core functions

08:30 - 09:00 Arrival and Registration

09:00 – 09:15 Welcome and Opening

Official welcome by the Minister of Health, the national Institute of Public Health, and the World Health Organization

Assoc. Dr Venko Filipce, Minister, Ministry of Health, North Macedonia Dr Shaban Memeti, Director, national Institute of Public Health Dr Jihane Tawilah, Head, World Health Organization Country Office, North Macedonia

09:15 – 09:25 Purpose and Objectives of the Retreat

Dr Anna Cichowska Myrup, Programme Manager, World Health Organization Regional Office for Europe Ms Anne Madsen, Process Facilitator, Status Flow, Denmark

09:25 - 09:45 Check-In

09:45 – 10:30 Building the Current public health services in North Macedonia

Group Work: Creating a shared vision and objectives for Public Health Services with Lego Serious Play

Guiding Questions: What characterises the current PHS within the health system? What are the key challenges in the current PHS?

10:30 – 10:50 Coffee break

10:50 – 12:30 Building the Future of public health services in North Macedonia

Lego Serious Play continued

Guiding Questions: What does the ideal future of PHS look like? What characterises the future system? What is our vision for PHS in North Macedonia? What are the overarching goals for achieving the vision?

- 12:30 13:30 Lunch break
- **13:30 13:50 Our Mandate** Presentation: the mandate of the three administrative levels (e.g. MoH, IPH, and CPHs)

Ljubica Tasheva and Sanja Sazdovska, Ministry of Health, North Macedonia

13:50 – 15:30 Visualising our Core Functions: the Institute of Public Health and the regional Public Health Centers

Guiding questions: Which Core functions are the three levels currently performing? What parts of each core function are currently well-executed?

- 15:30 15:50 Coffee break
- 15:50 16:40 Visualising our Core Functions continued
- 16:40 17:00 Check-Out and Closing
- 17:30 18:00 Social walk around Ohrid (optional)

Wednesday, 2 October 2019

Day 2: What Needs to Shift?

- 9:00 9:30 Framing the Day
- 09:20 09:50 Check-In: Working with purpose

Guiding Questions: What am I learning about our purpose? What are we learning about the purpose of each level (MoH, NPHI and CPHs)?

10.00 – 10:50 Identifying shifts needed to bring us closer to our vision

Plenary exercise: Creating a list of shifts, and exploring what actions are needed and where we get stuck in making successful shifts

Guiding Questions: What needs to SHIFT to allow us to work effectively together to achieve our shared vision?

- 11:00 11:20 Coffee Break
- 11:20 12:30 Identifying shifts needed to bring us closer to our vision continued
- 12:30 13:30 Lunch Break
- 13:30 15:30 Deepening our understanding of these shifts and identifying action
- 15:30 15:45 Coffee Break
- 15:45 16:15 Deepening our understanding of these shifts and identifying action continued
- 16:15 16:30 Meta reflections from International Experts

Dr Pia Vracko, Senior Advisor, Department of Health Systems, National Institute of Public Health, Slovenia

Dr Quentin Sandifer, Executive Director of Public Health Services, Public Health Wales, the United Kingdom

- 16:30 17:00 Check Out and Closing
- 19:00 21:00 Social Dinner

Su Hotel, Ohrid

Thursday, 3 October 2019

Day 3: How do we enable the shifts?

- 09:00 09:10 Framing the Day
- 09:10 09:20 Check-In: Leadership and Collaboration activity
- 9:20 10:10 Meta-reflection from the International Experts
- 10:10 10:40 Prioritising topics and 'stuck points'
- 10:40 11:05 Coffee Break

11:05 – 12:40 Identify the way forward on priority Actions and Challenges related to the strategic shifts

Rotating Panel discussion

Guiding Questions: How can we work together to overcome the challenge? Who can support us? What needs to change in the way we collaborate and coordinate to overcome this challenge?

12:40 - 13:00 Next Steps

13:00 – 13:30 Check-Out and Closing

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 North Macedonia Norway Poland Portugal Republic of Moldova Romania **Russian Federation** San Marino Serbia Slovakia Slovenia Spain Sweden Switzerland Tajikistan Turkey Turkmenistan Ukraine United Kingdom Uzbekistan

WHO/EURO: 2021-1603-41354-56303

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 Website: www.euro.who.int