

Information document

Strengthening public health services across the European Region – a summary of background documents for the European Action Plan



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Strengthening public health services across the European Region – a summary of background documents for the European Action Plan

This Information document summarizes the key findings and recommendations from a series of three studies conducted by the WHO Regional Office for Europe.

The first is a summary of country assessments of public health capacities and services, which indicates that the delivery of public health services should be strengthened by developing and integrating health promotion and disease prevention, with robust health protection services. To further support service delivery, the enablers of public health that require particular attention include governance, workforce development, financing and communication. A focus on public health services to ensure that they address inequalities and the wider determinants of health will help to achieve the overall vision of promoting health and well-being in a sustainable way.

The second study is a preliminary review of organizational models for delivering essential public health operations (EPHOs) and public health services, which shows that currently an average of only 3% of health sector budgets is spent on prevention, despite the fact that an increase in spending is a cost-effective way of improving health outcomes. There is an additional need to ensure sustainable and long-term financing of public health services, including the use of financial incentives or taxes for public health purposes.

The third study is a review of policy tools and instruments for public health, which demonstrates that there must be advocacy for effective tools; for example, there is good evidence of the effectiveness of “best buy” interventions for noncommunicable diseases (NCDs), and tools such as this should be supported. Furthermore, legal approaches are best balanced with intersectoral policies that create environments for healthy living. Strengthening governance is important to ensure effective implementation of laws and accountability arrangements of cross-sectoral working.

These studies support the development of the European Action Plan for Strengthening Public Health Capacities and Services (EAP), and will be presented as background documents at the Regional Committee’s sixty-second session in Malta in 2012.

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The first background document, *Review of public health capacities and services in the European Region*, was written by Jo Nurse, Stephen Dorey, Mary O'Brien, Casimiro Dias, Jordan Scheer, Charmian Møller-Olsen, Maria Ruseva, Jose Martin-Moreno, and Hans Kluge from the WHO Regional Office for Europe.

The second background document, *Preliminary review of institutional models for delivering essential public health operations in Europe*, was written by Bernd Rechel and Martin McKee from the European Observatory on Health Systems and Policies, London School of Hygiene & Tropical Medicine. Other major contributions were made by Jo Nurse, Casimiro Dias, Stephen Dorey, Richard Alderslade, Maria Ruseva, Jose Martin-Moreno and Hans Kluge from the WHO Regional Office for Europe.

The third background document, *Public health policy and legislation instruments and tools: an updated review and proposal for further research*, was written by Carlos Dias and Rita Marques from the National Institute of Public Health, Portugal, and Maria Ruseva, Jo Nurse and Casimiro Dias from the WHO Regional Office for Europe. Other major contributions came from Snezhana Chichevalieva from the South-eastern Europe Health Network, Jose Pereira Miguel from the National Institute of Public Health, Portugal, and Jose Martin-Moreno and Hans Kluge from WHO Regional Office for Europe.

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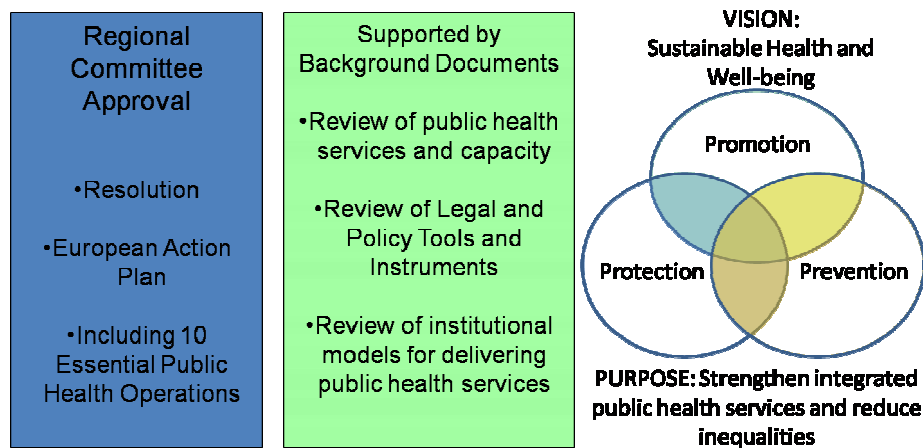
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Background

1. Through resolution EUR/RC61/R2 on strengthening public health capacities and services in Europe the WHO Regional Committee for Europe endorsed the development of an action plan, led by the WHO Regional Office for Europe. This plan is being submitted to the Regional Committee for consideration at its sixty-second session in September 2012, and forms a key pillar of the new European health policy framework, Health 2020.
2. The purpose of the plan is to ensure that public health services are strengthened to respond to the current and emerging public health challenges facing the WHO European Region, posed by ever-changing societies and countries in the 21st century. The aim for public health services is to ensure that they adapt and respond to these changes and reflect the main current and future public health threats and risks according to different settings.
3. Across the WHO European Region, the main challenges facing public health – all of which are exacerbated by the economic crisis – include: inequalities; globalization, migration and urbanization; and environmental degradation and climate change. These factors all influence the health of the European population, resulting in changing disease patterns across the Region, which in turn lead to: changes in lifestyle behaviours; increasing prevalence of noncommunicable diseases (NCDs), emerging and re-emerging communicable diseases; and health emergencies.
4. This report provides an overview of three studies conducted by the WHO Regional Office for Europe: *Review of public health capacities and services in the European Region; Preliminary review of institutional models for delivering essential public health operations in Europe; and Public health policy and legislation instruments and tools: an updated review and proposal for further research*. These studies form a package of documents to support the development of the EAP, and are being presented at the Regional Committee's sixty-second session in Malta in 2012.
5. The overall vision is to support the delivery of the Health 2020 policy framework by promoting population health and well-being in a sustainable way. This will be achieved by strengthening public health services in the areas of health protection, disease prevention and health promotion (see Fig. 1). Ideally, an integrated approach to service delivery will be developed to cover all three areas; for example, by strengthening the primary health care role in public health. The purpose of this work is to strengthen integrated public health services and reduce inequalities across the WHO European Region.

Fig. 1. Health 2020 policy framework

Strengthening Public Health Services and Capacity across the European Region



6. The resolution and EAP to be presented for approval at the sixty-second session of the Regional Committee (see Fig. 1) build on a solid base of evidence, including a review of public health services and capacity assessments in 41 of the 53 countries of the European Region; this will facilitate future prioritization and planning. Two additional studies accompany this: one on institutional models and funding structures and the other on legal and policy tools and instruments that can both support the process and inform the delivery of essential public health operations (EPHOs).

7. The purpose of the EAP is to strengthen integrated public health services and reduce inequalities across the European Region. This will be achieved by strengthening public health services in the areas of health protection, disease prevention and health promotion. Ideally, an integrated approach to service delivery will be developed covering all three areas; for example, by strengthening the role of primary health care in public health. The overall vision of the EAP is to promote greater health and well-being in a sustainable way across the Region.

8. The framework for action resulted in the development of the 10 EPHOs, which form the basis of the EAP (see Box 1).

9. All three studies provide evidence that will be utilized both to support the process and to inform the delivery of both the EAP and EPHOs. Although ten main operations are identified for strengthening public health services, the most effective and efficient method is to deliver services in an integrated way, rather than in vertical programmes. As a result, the EPHOs have been clustered into two groups: the first five EPHOs can be described as core EPHOs – operations that need public health skills and expertise to deliver them – and the last five can be described as enablers.

10. EPHOs 1 and 2 can be subdivided under the heading “public health intelligence”; they are based upon monitoring and surveillance, from which information can be used – in collaboration with research findings from EPHO 10 – to assess and develop “intelligent” decisions for policy-making and planning. In turn, EPHOs 3, 4 and 5 can be described as core public health services in the areas of health protection, disease prevention and health promotion – these are illustrated as overlapping circles to emphasize the importance of developing an integrated approach between these main services (see Fig. 2).

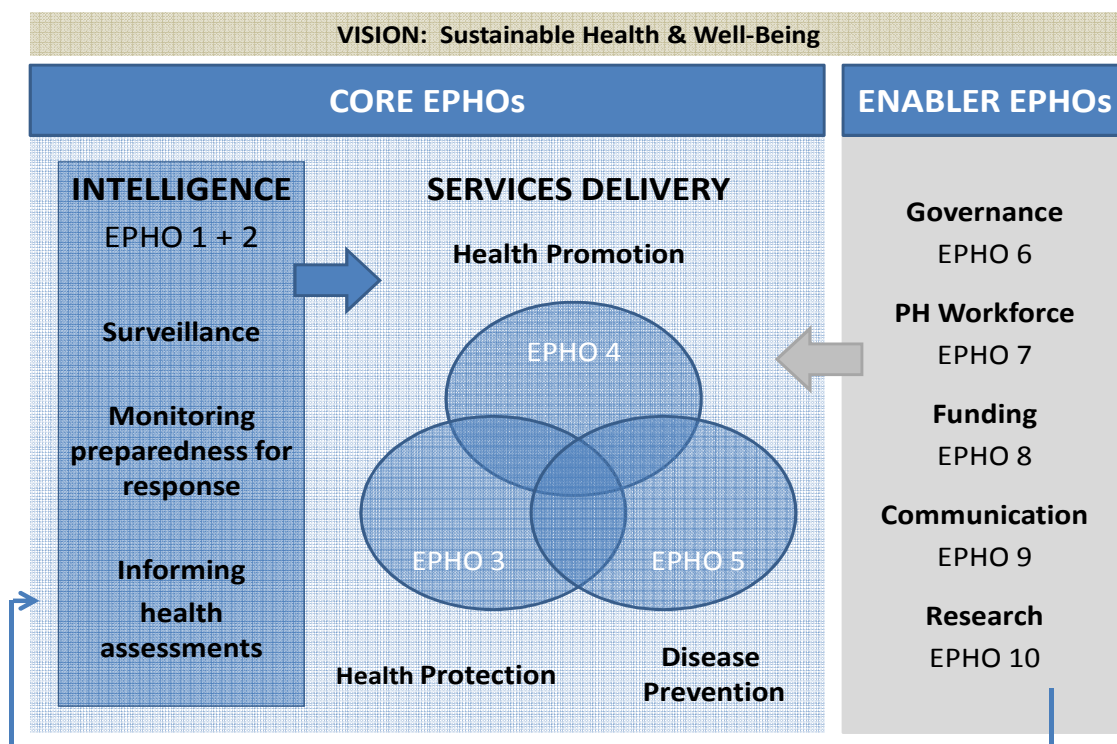
Box 1. The 10 EPHOs (2012)

1. Surveillance of population health and well-being
2. Monitoring and response to health hazards and emergencies
3. Health protection including environmental, occupational, food safety and others
4. Health promotion including action to address social determinants and health inequity
5. Disease prevention, including early detection of illness
6. Assuring governance for health and well-being
7. Assuring a sufficient and competent public health workforce
8. Assuring sustainable organizational structures and financing
9. Advocacy, communication and social mobilization for health
10. Advancing public health research to inform policy and practice

Note: following resolution EUR/RC61/R2 on strengthening public health capacities and services in Europe, the 10 EPHOs which form the basis of the EAP were revised to the above in 2012.

11. The enablers (EPHOs 6–10) indicate more generic skills that are applied to many disciplines to make their delivery more effective. They include strengthening governance, workforce development, financing, communications and research.

Fig. 2. Clustering of EPHOs to deliver public health services



Abstracts

12. Each of the three studies is intended to contribute information regarding public health services to underpin and complement the EAP. The full reports (including references) can be

found at <http://www.euro.who.int/en/what-we-do/health-topics/Health-systems/public-health-services/publications2>. Specific details regarding each study are identified below.

Review of public health capacities and services in the European Region

13. This document aims to provide an overview of the current status of public health services across the WHO European Region, in order to strengthen the development of future public health services and capacities. The information is derived from assessments of public health services in 41 of the 53 countries in the WHO European Region. (http://www.euro.who.int/_data/assets/pdf_file/0010/172729/Review-of-public-health-capacities-and-services-in-the-European-Region.pdf).

14. Across the Region, the strongest public health responses are for surveillance, monitoring, emergency planning, immunization, environmental health and health protection. Weaker areas of response include health promotion and action to address inequalities and the wider determinants of health; surveillance to address NCDs is also weak. Governance, workforce development, financing and communications are also less well developed across the Region; this pattern is found especially in the Commonwealth of Independent States (CIS) countries.

Preliminary review of institutional models for delivering EPHOs in Europe

15. This report summarizes the available information on the different institutional models for delivering EPHOs, draws conclusions on their strengths and weaknesses, and provides recommendations for strengthening them. It also calls for development of an evidence base to shed light on which institutional models or arrangements are more effective than others, and in which conditions. (http://www.euro.who.int/_data/assets/pdf_file/0003/172731/Preliminary-review-of-institutional-models-for-delivering-essential-public-health-operations-in-Europe.pdf).

16. There is a need to ensure sustainable and long-term financing of public health services, including the use of financial incentives or taxes for public health purposes. In addition, enhancement of the organizational model of delivery of public health services that supports a more effective integration of the EPHOs has the potential to improve cost-effectiveness of public health interventions. Strengthening the primary health care role is a key way of integrating service delivery across health protection, disease prevention and health promotion.

Public health policy and legislation instruments and tools: an updated review and proposal for further research

17. This report reviews the current public health policy and legislation instruments and tools in place for delivering EPHOs in the WHO European Region. It provides initial findings on the wide spectrum of legal and policy frameworks at regional and global levels by mapping the available public health tools and instruments across the 10 EPHOs. (http://www.euro.who.int/_data/assets/pdf_file/0020/172730/PH-tools-and-Instruments-rev-ENG.pdf).

18. The main findings are that at the global level legally binding tools and instruments are mainly concentrated in EPHO 3 (health protection) with 306 tools available, EPHO 4 (health promotion) with 31 and EPHO 6 (governance) with 41. This corresponds to more than 90% of the total number of public health tools. However, there were only 2 tools for EPHO 5 (disease prevention), 3 for EPHO 7 (workforce) and 1 for EPHO 8 (organizational structures and financing). No legally binding tools were found for EPHO 9 (communication) and EPHO 10 (research). For EPHO 1 (surveillance) and EPHO 2 (response to health hazards and emergencies), there is a more balanced use of both legally and non-legally binding tools.

19. More evidence is needed on the cost–effectiveness of such instruments and tools. In addition, there is a need for greater advocacy, with a balance of regulation and persuasion, on what already exists – such as “best buy” interventions for NCDs and the WHO Framework Convention on Tobacco Control (FCTC) – as well as a need to strengthen approaches to intersectoral governance.

Review of public health capacities and services in the European Region

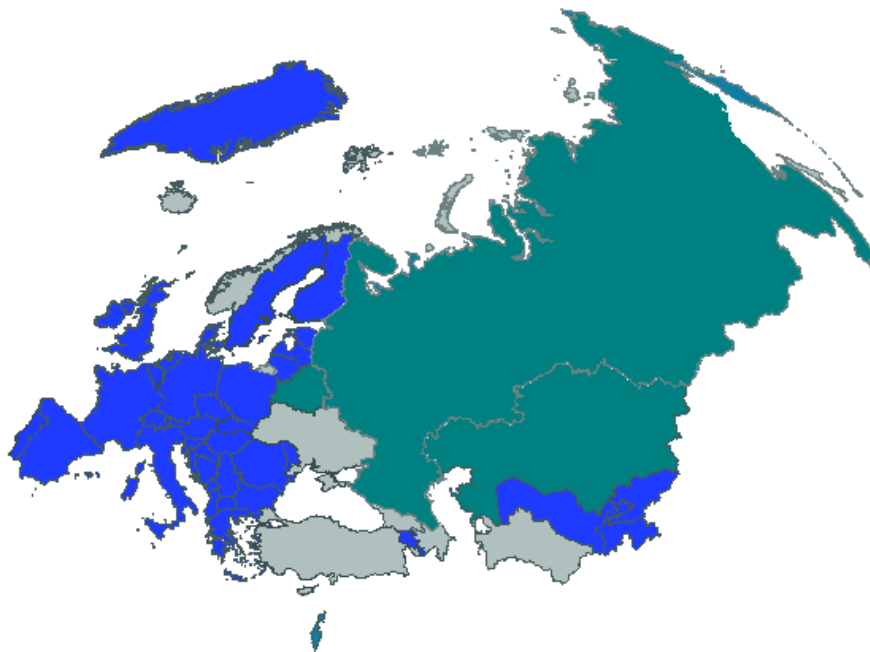
Purpose

20. This document aims to provide an overview of the current status of public health services across the WHO European Region, in order to strengthen the development of future public health services and capacities.

Methods

21. Information for this report is derived from assessments of public health services for 41 of the 53 countries of the WHO European Region. This consists of self-assessment reports from 17 countries performed using the European Region self-assessment tool, as well as findings from a review of public health capacity in the 27 European Union (EU) countries – a study for the European Commission by Maastricht University. A summary of the assessment status in each country is shown in Map 1 below: dark blue indicates a completed assessment (self-assessment, or undertaken by the Maastricht study or the European Observatory on Health Systems and Policies), including 41 countries in total; light blue indicates the four countries where self-assessments are planned or are in progress where no assessment has been conducted before (Belarus, Israel, Kazakhstan and the Russian Federation); and grey indicates that no assessment has been carried out or is currently planned (eight countries – Azerbaijan, Georgia, Iceland, Norway, San Marino, Turkey, Turkmenistan and Ukraine – are yet to commence any assessment).

Map 1. WHO European Region country assessments



Findings

22. The report presents a summary of the main findings by EPHO. These EPHOs were updated during the consultation process to include a new area on advocacy, communication and social mobilization (EPHO 9), which was not fully captured during the assessments.

EPHO1: Surveillance of population health and well-being

- Most countries of the WHO European Region have surveillance systems and registries in place for communicable diseases, environmental hazards and basic demographic and health status data; notable exceptions are in central Asian countries.
- Data linkage and routine surveillance of NCD risk factors and wider determinants – including protective factors and inequalities and lifestyle behaviours – is generally weakly developed across the Region.
- There has been a recent emergence of some communicable diseases – such as malaria and polio in central Asian countries – highlighting the need for good surveillance systems.

EPHO2: Monitoring and response to health hazards and emergencies

- The existence of national crisis management plans and structures for reacting to emergency situations is reported in most self-assessments of public health capacities and services, especially in EU countries.
- These plans are better developed for expected threats (such as influenza) than unexpected emergencies (such as bioterrorism or natural disasters); recent outbreaks suggest that even some of the more resource-rich countries may struggle with public health emergencies.

EPHO3: Health protection including environmental, occupational, food safety and others

- Policy frameworks are in place within all WHO European Region countries for control of communicable diseases, although implementation varies; however, implementation of

policy and legislation to address environmental challenges such as water and air quality is underdeveloped in many countries.

- Legislation is in place in most countries for risk assessment for occupational health, food safety and a number of environmental exposures; however, the technical capacity to conduct risk assessments is not fully developed across the Region.
- Surveillance of antimicrobial resistance is variable across the Region and in many countries national coordinated surveillance is unavailable.

EPHO4: Health promotion including action to address social determinants and health inequity

- The WHO European Region includes examples of some very progressive approaches to health inequality, with strategic approaches to health inequalities found in the United Kingdom and Nordic countries.
- Action to address health inequalities in health promotion strategies is not seen as routine practice, with inclusion or equity in legislation and policy-making being reported by only half of EU countries.
- Despite many individual activities, health promotion is currently underdeveloped in the Region overall, in particular with regard to NCDs and lifestyle risk factors.
- Capacity building is required with general strategy formation, implementation and monitoring, especially in central Asia and eastern Europe, in order to strengthen overall responses.

EPHO5: Disease prevention, including early detection of illness

- Primary prevention – routine immunization programmes are established in some form in all countries, and in most cases are well developed and effective; however, arrangements for delivery of vaccine programmes are underdeveloped in some countries, especially for minority populations, and some CIS countries have witnessed an increase in vaccine-preventable disease following the breakdown of Soviet-era services.
- Secondary prevention – routine screening for many major forms of cancer now exists in many but not all countries; screening programmes are not always evidence-based and systemic health checks for NCDs are not routine in most countries.
- Tertiary prevention – lack of availability and affordability of treatment for early stage cancers is a limiting factor in some countries; staff need training in evidence-based NCD treatment and management approaches and equipment needs updating.

EPHO6: Assuring governance for health and well-being

- In most countries there are clear accountabilities at governmental level for “traditional” public health functions such as communicable disease control and sanitation.
- Good examples of innovative intersectoral structures promoting Health in All Policies (HiAP) approaches do exist, with environmental and mental health being the most common areas for intersectoral collaboration.
- Intersectoral approaches and accountability are often poorly defined for health improvement and promotion across the Region; many programmes are still delivered in a vertical structure.

EPHO7: Assuring a sufficient and competent public health workforce

- University-level public health education has seen a rapid expansion in capacity over recent years; examples exist, mostly in western Europe, of well-defined and regulated

specialist public health training programmes, including multidisciplinary approaches to the public health workforce and systems of continued professional development and accreditation.

- The majority of self-assessments indicate workforce capacity as the major limitation on public health services, and few countries have an overall public health workforce plan.
- Only a small number of countries have a defined postgraduate specialist public health training programme, and most countries do not define core competencies for public health for the public health workforce.
- Leadership capacity in public health was widely reported as being insufficient; this was seen as an issue for political cross-sectoral leadership and for the public health workforce itself.
- Some states noted that the small size of their national population was a barrier to support effective training of a highly specialized and expensive public health staff.

EPHO8: Assuring sustainable organizational structures and financing

- Governments today spend an average of 3% of the health sector budget on disease prevention. On average, EU countries spend a lower proportion of their health budgets on disease prevention (2.8%) than the newly independent states (NIS) of the former USSR (3.3%) and south-eastern European (3.8%) countries, with figures ranging from less than 1% of total health expenditure (in Italy and Israel, for example) to over 8% (in Romania, for example).
- Duration of funding plans is an issue, with many countries having short term and even annual budgets; these are not well suited to preventive health strategies, which often take many years to plan and implement.

EPHO9: Advocacy, communication and social mobilization for health

- This is an area that was not included in the public health self-assessments and was added as an EPHO following the wider consultation process. Consequently, little information is available, although anecdotally this is an area that countries have asked for support on.

EPHO10: Advancing public health research to inform policy and practice

- The public health evidence base is stronger than ever before, although more research is needed on addressing the wider determinants of health, disease prevention and promotion of well-being.
- Much of the information collated cannot be directly translated into policy; links and communication between academic public health and national policy-making are generally not well established.

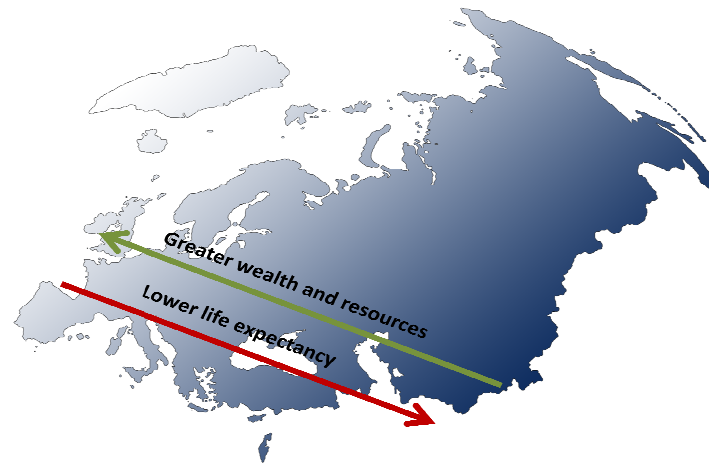
Summary

23. The key findings across the EPHOs are summarized below.

- Across the Region, the strongest geographical coverage and quality is for EPHOs 1–3, including surveillance, monitoring, emergency planning, immunization, environmental health and health protection.
- The less well developed EPHOs include EPHO 4 on health promotion, inequalities and the wider determinants of health; surveillance to address NCDs is also weak – this pattern is found especially in the CIS countries.

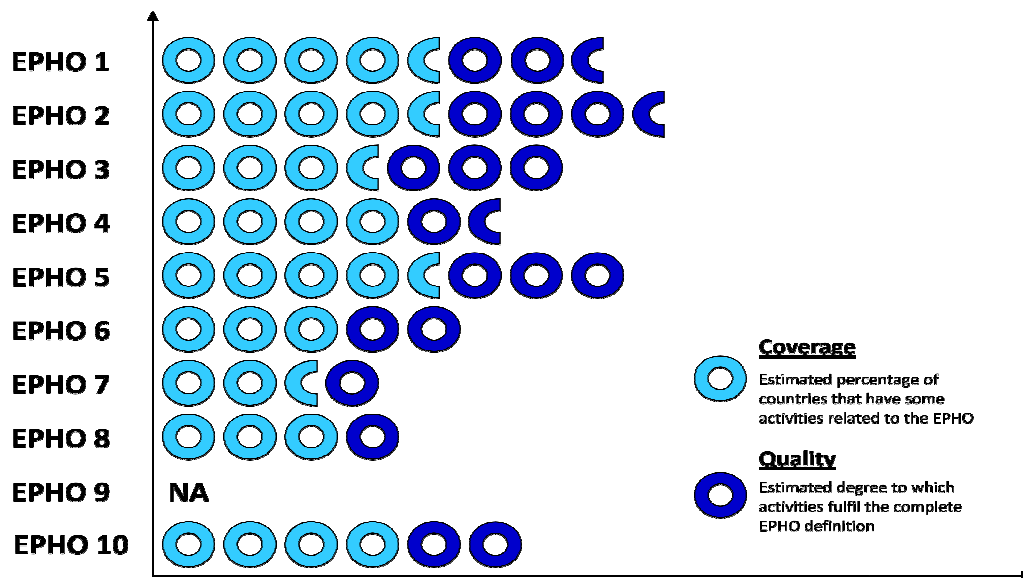
- The enabling EPHOs 6, 7, 8 and 9 are also less well developed across the Region, addressing governance, workforce development, financing and communications – these are generally weaker in the CIS countries.
- Where there are greater health inequalities there are generally less well developed public health services and capacities, illustrating the inverse care law in an approximate line from north-west to south-east across the Region, with central Asian countries experiencing greatest health inequalities and least capacity to address them. This is illustrated below in Map 2, which shows the approximate pattern of health inequalities across the Region and the public health capacities and services to address them.
- The main public health challenges facing the Region need core EPHOs 1–5 particularly to be strengthened; additionally, governance and communication (EPHOs 6 and 9) are considered highly relevant.

Map 2. Approximate geographical gradient across the European Region of strengths and weaknesses in public health services and capacities



24. Overall estimates of the rough proportion or coverage of countries with some activities related to each EPHO and the quality of services meeting the complete EPHO description in all countries were developed, based on the findings of the review. These estimated patterns of coverage and quality are illustrated in Figs. 3 and 4. On the whole, there was greater estimated geographical coverage of some activities related to each EPHO than quality of services provided to meet the full description of EPHOs (see Fig. 3).

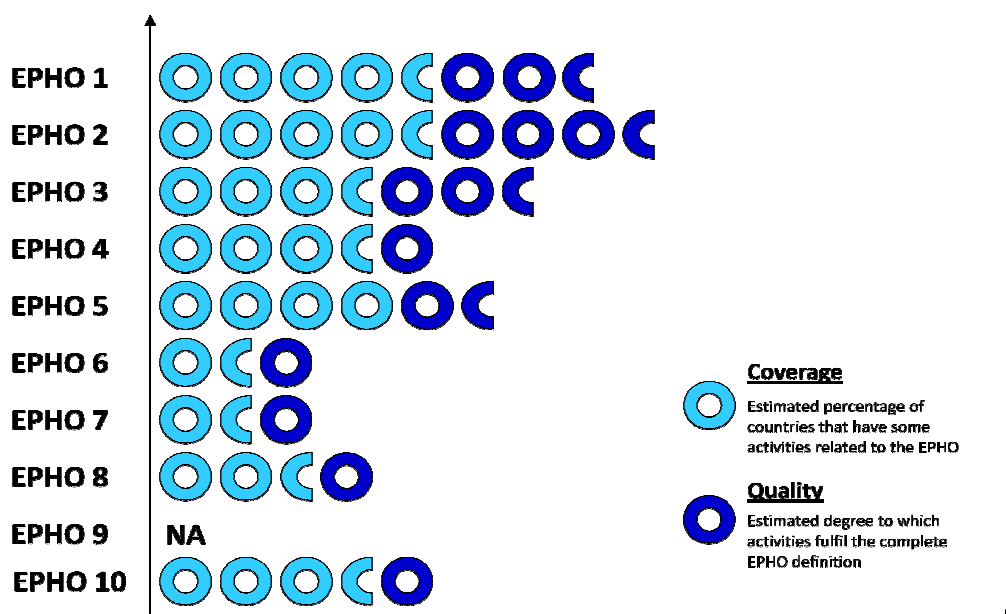
Fig. 3. Estimate of coverage and quality of EPHOs across the WHO European Region



25. Of the core EPHOs, 1–3 and 5 are relatively strong throughout the Region, while EPHO 4 on health promotion and inequalities is weaker.

26. Countries of the CIS have strengths in historic services that mostly relate to EPHOs 1–3 regarding surveillance and monitoring of communicable diseases and environmental health threats, immunization and health protection functions. However, they also – particularly in central Asia – have less well developed core services for addressing NCDs and the wider determinants of health (EPHOs 4 and 5), and generally have less well developed enablers (EPHOs 6–10) than the EU, especially western and northern Europe (see Fig. 4).

Fig. 4. Estimate of coverage and quality of EPHOs in CIS countries



Recommendations

27. All countries would benefit from addressing the following recommendations as there was considerable variation across the Region regarding the quality and coverage of public health services. However, to address inequalities in health across the Region, these recommendations especially need to be addressed in the CIS countries and other Member States where public health services are in the process of being adapted to the new demands and needs of the 21st century.

EPHO1: Surveillance of population health and well-being

Strengthen surveillance systems to inform planning for addressing inequalities, the wider determinants of health and health promotion

EPHO 2: Monitoring and response to health hazards and emergencies

Ensure that laboratories and skills are updated to fulfil International Health Regulations (IHR); develop, evaluate and test emergency plans.

EPHO 3: Health protection, including environmental, occupational, food safety and others

Strengthen health protection by identifying future hazards and weaknesses in current services to inform planning; ensure enforcement of legislation.

EPHO 4: Health promotion, including action to address social determinants and health inequity

Strengthen and develop integrated cross-sector health promotion policies and services to address inequality and the wider determinants of health that are especially orientated towards reducing NCDs and promoting well-being; build capacity on strategy formation and implementation to support this process.

EPHO 5: Disease prevention, including early detection of illness

Ensure a balance of primary prevention (vaccination and health promotion), secondary prevention (screening and early detection of disease) and tertiary prevention (integrated patient-centred disease management); primary health care is a key delivery mechanism for disease prevention.

EPHO 6: Assuring governance for health and well-being

Strengthen governance mechanisms for public health, such as setting up cross-sector governmental committees; appointing a minister of public health; ensuring clear lines of reporting and accountability; monitoring and undertaking performance management; strengthening systems for transparency of decision-making; and ensuring information sharing, consultation and participation.

EPHO 7: Assuring a sufficient and competent public health workforce

Develop public health workforce plans, including the number and range of public health staff needed, training, curriculum development, core competencies, accreditation, leadership skills, mentoring and continued professional development; health professionals and the wider workforce need tailored training programmes.

EPHO 8: Assuring sustainable organizational structures and financing

Establish sustainable funding mechanisms for public health services to ensure long-term planning; design integrated public health organizations and functions to ensure that services are responsive and sustainable – with a “win win win” approach, increase cost–efficiency, maximize health gain and reduce harm to the environment.

EPHO 9: Advocacy, communication and social mobilization for health

This was not an area covered by the assessments; however, during the consultation process for the EAP it was recognized as a key area for strengthening public health responses. Further work needs to be developed on the best approaches for training and application of skills and methods for advocacy, communication and social mobilization.

EPHO 10: Advancing public health research to inform policy and practice

There is a strong evidence base across Europe; however, further work is needed to ensure that future research and findings are focused on upstream prevention and health promotion, and provide straightforward, integrated messages for policy-makers and practitioners.

Key message

Strengthen the delivery of public health services by developing and integrating health promotion and disease prevention with robust health protection services. To support service delivery, the enablers for public health that especially need further development include governance, workforce development, financing and communication. Focus public health services to ensure they address inequalities and the wider determinants of health to achieve the overall vision of promoting health and well-being in a sustainable way.

Preliminary review of institutional models for delivering essential public health operations in Europe

Purpose

28. This document reviews the institutional models in place throughout Europe for delivering EPHOs. It summarizes the available information on the different models, draws tentative conclusions on their strengths and weaknesses, and provides recommendations for strengthening them. Three dimensions are examined: the way public health services and activities are organized, the mechanisms in place for financing public health activities, and public health governance structures.

Methods

29. This report is based on a documentary analysis of English-language sources relevant to the organization of EPHOs in the WHO European Region undertaken in April 2012. Information for this report is derived from assessments of public health services for 41 of the 53 WHO European countries. This consists of self-assessment reports from 17 countries performed

using the European Region self-assessment tool, an assessment review in the 27 EU countries by the European Commission, Maastricht University, and articles published in international peer-reviewed journals and indexed on PubMed/Medline: search terms such as “public health”, “services”, “operations”, “organization” and “Europe” were used in various combinations and preference was given to articles published since 2005.

Findings

30. The review finds a wide diversity in the organization of EPHOs across Europe, affecting governance, provision and financing. While all countries have some basic infrastructure in place for the delivery of public health services at national, regional and local levels they differ in terms of how responsibility is divided among levels, in large part reflecting prevailing administrative structures.

31. Notwithstanding persisting differences among countries, the scope of public health in Europe has slowly evolved in recent decades from a concentration on sanitary supervision and communicable disease control to one on “new” public health, with an increasing focus on health promotion, disease prevention and intersectoral action including interventions outside the health system. Many countries of the CIS have older structures and equipment that need to be modernized and updated. Overall in these countries public health is still lagging behind the discipline as now commonly conceived, and there is a clear need to strengthen public health infrastructures in a strategic and coherent way.

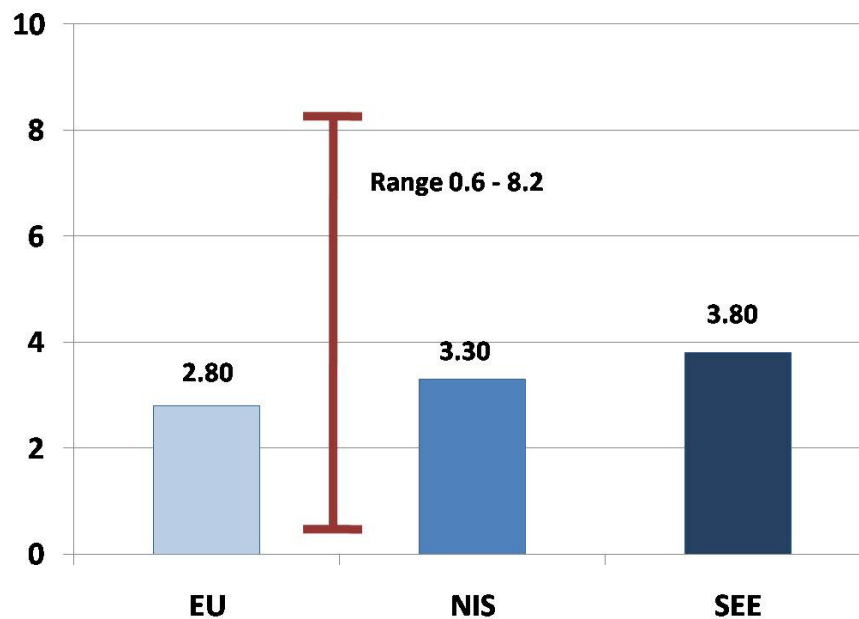
32. Key parameters for assessing the different institutional models for delivering EPHOs across the WHO European Region include financing, responsiveness, efficiency, effectiveness, sustainability, and integration.

Financing

33. The current average estimated spending on prevention by the health sector across the WHO European Region is only 3%. The proportion varies greatly across countries, ranging from 0.62% of total health expenditure in Italy to 8.17% in Romania. On average, EU countries spend a lower proportion of their health budgets on prevention (2.8%) than NIS (3.3%) and south-eastern European (3.8%) countries (see Fig. 5).

34. A lack of financing has been identified as often the most significant barrier to public health programmes and interventions. Lack of stable, sustainable and long-term financing is another challenge in many countries. As a result of the current economic crisis, the financing of public health is in danger in many countries. Many structures for delivering EPHOs in the European Region are already facing substantial cutbacks, and public health programmes and interventions in several countries have been reorganized or scaled down.

Fig. 5. Estimated expenditure on prevention and public health as % of total health expenditure



Source: Derived from global health expenditure database, 2012.

Responsiveness

35. Decentralized governmental structures and decision-making may be more responsive to population needs and expectations. Public health services at the local level are often better informed about and responsive to population health needs. However, a centralized function has the potential to take a more strategic and whole-of-government approach, and to respond to major challenges and risks.

Efficiency

36. Benefits of decentralization may also be outweighed by advantages of size and economies of scale, so that consolidation or regionalization strategies may sometimes be beneficial in coordinating activities and correcting inequities in resources across communities.

Effectiveness

37. The current evidence base on cost-effectiveness in public health focuses primarily on specific health promotion and disease prevention interventions rather than on delivery systems as a whole. However, it can inform assessment of the extent to which those public health interventions that are adopted and implemented within different institutional models are cost-effective.

Sustainability

38. Long-term financing and commitment to the organizational structures for public health are essential to ensuring sustainability. The range of organizations contributing to EPHOs and the scope and nature of their contributions are also crucial. Examples include nongovernmental organizations (NGOs), voluntary or tertiary sector organizations, public health associations and policy think tanks. The sustainability of institutional models can benefit from public health

partnerships and coalitions, as well as the alignment of organizational strategies and financial incentives.

Integration

39. The development of horizontally integrated services is a particular challenge in countries where there are separate vertical public health structures – such as for HIV/AIDS, tuberculosis or substance abuse, as is the case in many countries of central and eastern Europe – or where many government agencies are responsible for different aspects of public health. It may be necessary to develop pragmatic local solutions that transcend sectoral boundaries, although this can be eased or impeded by budgetary mechanisms. The vertical integration of public health services across different levels of care is another challenge, as public health services are partly integrated with curative services and partly organized as separate activities by distinctive institutions. In many European countries, primary care physicians or specialists are increasingly involved in providing the preventive services that were once the near-exclusive domain of public health, but there remains much variation.

Governance

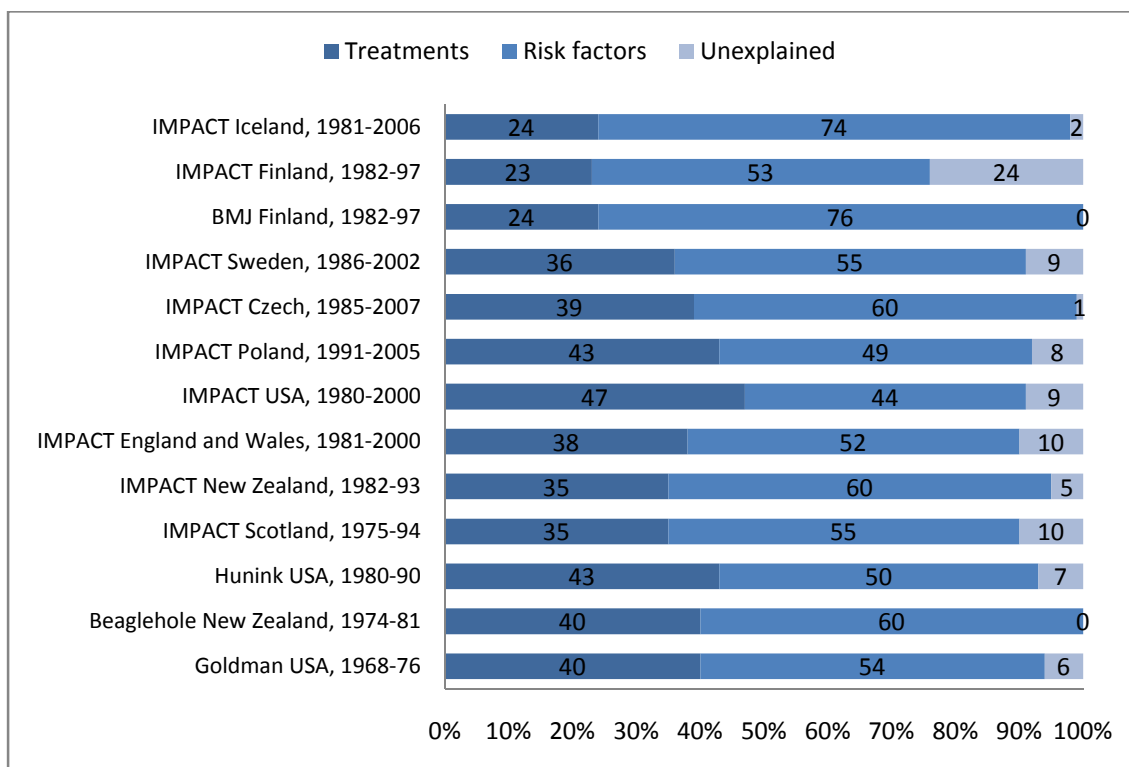
40. Countries in the European Region have adopted intersectoral policies to varying degrees and in varying ways, but the structures and capacity to support them are often weak. Responsibility for public health is almost invariably divided among ministries, often with unclear lines of communication. There are only a few formal structures to support intersectoral working. Joint budgets and delegated funding, although attracting much interest, are also implemented only very selectively.

Summary

41. The key findings of the report are summarized below.

- Currently the average estimated spending on prevention by the health sector across the WHO European Region is only 3%, with EU countries on average spending a lower proportion of their health budgets on prevention (2.8%) than NIS (3.3%) and SEE (3.8%) countries.
- Prevention, in the form of addressing risk factors, has been shown to contribute a 50–74% decline in coronary heart disease (CHD) mortality in a range of high-income countries, whereas medical treatments contribute 23–47% to reduced cardiovascular mortality (see Fig. 6). This demonstrates the importance for countries of ensuring sustainable financing for public health and prevention. Even a small percentage increase of health sector budgets put towards prevention can potentially have a very large impact on reducing mortality and improving health outcomes.

Fig. 6. The contribution of treatment and prevention to the decline in global CHD morbidity



Source: Ford E, Ajani U, Croft J, Critchley J, Labarthe D, Kottke T, Giles W, Capewell S (2007). Explaining the decrease in US deaths from coronary disease, 1980–2000. *New England Journal of Medicine*, 356:2388–2398.

Recommendations

42. While recognizing gaps in evidence, the information collected makes it possible to offer the following recommendations to Member States of the WHO European Region.

Organizational models of delivering and funding EPHOs

- Improve the horizontal and vertical integration of EPHOs to avoid duplication and improve efficiency and effectiveness.
- Ensure a balanced combination of national, regional and local arrangements to create responsive services that are able to identify risks and tackle inequities.
- Ensure the sustainable and long-term financing of EPHOs including, where appropriate, the use of financial incentives or taxes for public health purposes.
- Rebalance the proportion of funding for public health provided by the health sector in addition to contributions from other sectors, and decrease inefficiencies in the system.

Assessment of EPHOs and health needs

- Support objective and comparative assessments of the entire spectrum of EPHOs within Member States.
- Establish and align effective systems for continuous quality improvement of EPHOs with clear lines of accountability.

Prioritization and defining timescales

- Implement formal mechanisms to prioritize activities (such as health targets based on health needs and resources).
- Ensure the establishment and implementation of national health strategies and linked performance assessment for the delivery of EPHOs, standards and targets.

Governance, evaluation and monitoring

- Strengthen regional and local capacities through good governance, clear monitoring and reporting arrangements, and adequate supervision of EPHOs and approaches.
- Where public health activities are devolved to subnational levels, ensure equitable financing and provision.

Intersectoral approach

- Support intersectoral, upstream and integrated approaches to tackle complex public health challenges.

Research

- Support the development of an evidence base to shed light on which institutional models or arrangements are more effective than others, and in which conditions.

Key message

An average of only 3% of health sector budgets is currently spent on prevention, yet an increase in spending is a cost-effective way of improving health outcomes. There is an additional need to ensure sustainable and long-term financing of public health services, including financial incentives or taxes for public health purposes.

Public health policy and legislation instruments and tools: an updated review and proposal for further research

Purpose

43. This document aims to review and map current public health tools and instruments across the EPHOs in order to develop evidence-based policies and tools for future programmes. The review examines three different dimensions: relative advantages of the different types of tools and instruments, gaps in the toolbox for delivering EPHOs, and the effectiveness of these available tools.

Methods

44. This report is based on a wide literature review of English and Portuguese language sources on public health tools and instruments at the regional and global levels. A detailed collection of global and regional documents and policy documents already compiled by WHO was used as the primary source for this review. A recent collection of European legislation by

the National Portuguese Assembly was also used to update this information. The different tools and instruments identified in the literature review were further classified by the 10 EPHOs.

Findings

The relative advantages of different types of public health instruments and tools available

45. A recent report from the WHO Regional Office for Europe highlights four major roles for the law in advancing public health. These are: defining the objectives of public health and influencing its policy agenda; authorizing and limiting public health action with respect to protection of individual rights, as appropriate; serving as a tool for prevention; and facilitating the planning and coordination of governmental and nongovernmental health activities.

46. While for some areas (such as health protection) legally binding tools can reflect higher potential gains, for other areas (such as health promotion) the use of influence mechanisms can be more effective. Furthermore, both definition and enforcement of legally binding public health tools need to be considered when assessing the cost-effectiveness of these tools. It is particularly important to achieve a balanced approach with the different tools. While legislation is enforced through legal systems, national governments try to ensure implementation of national health strategies and policies through a range of monitoring, audit and performance management arrangements often associated with meeting standards.

47. This report concludes that an array of instruments and tools for policy and legislation is available to support the delivery of EPHOs in a wide variety of settings. The number and complexity of tools developed at the global and European levels has increased in recent years, as illustrated by the WHO FCTC and the IHR. While international regulations are non-negotiable, the degree and nature of governance arrangements, including regulation and legal enforcement, will vary across Member States. However, evaluation of these instruments and tools is not widely available; it is therefore difficult to compare the relative advantage of public health instruments and tools in different countries or at a regional level, or to recommend one tool over another.

48. The findings point out that the wide range of instruments available to WHO (including conventions, regulations, recommendations and standards) reflects the variations in deployment of specific instruments by different countries, and note changes in national regulatory frameworks arising from a growth in pluralism and democratization. There is a need to familiarize government and public health agencies with a range of current public health instruments and tools, and to provide guidance on how to deploy them in tackling the major challenges of population health.

Enhancing the effectiveness of public health tools and instruments at Member State level

49. Evidence on the effectiveness of different public health policy and legal instruments and tools is currently limited. This section summarizes examples of data in the main areas where evaluations were found. Overall, further evaluation is needed to inform the future effectiveness of different instruments and tools, including analysis of cost-effectiveness and feasibility of implementation.

50. WHO has identified a set of evidence-based “best buy” interventions that are not only highly cost-effective but also feasible and appropriate to implement within the constraints of health systems. The report on “best buy” interventions for NCDs concludes that there is a set of interventions that have significant public health impact and are highly cost-effective,

inexpensive and feasible to implement. The primary benefit is a reduction in premature mortality from NCDs. Studies have found that implementing a specific set of “best buy” interventions for NCDs in 23 large low- and middle-income countries could prevent 30 million premature deaths between 2006 and 2015, or an average of 3 million per year. Population-based measures for reducing tobacco and harmful alcohol use, as well as unhealthy diet and physical inactivity, are estimated to cost US\$ 2 billion per year for all low- and middle-income countries; less than US\$ 0.40 per person.

51. Approximately 3.8 billion people (55% of the world’s population) are covered by at least one tobacco control measure at the highest level of policy achievement, including 1.1 billion covered by a new policy since 2008. In the WHO European Region, over 244 million people (27% of the population in the Region) became newly covered by at least one tobacco control measure at the highest level of achievement between 2008 and 2010. This has great potential to make remarkable improvements in health. For example:

- just three months after the comprehensive smoke-free legislation was enacted in Scotland, bar workers reported a 26% decrease in respiratory symptoms and asthmatic bar workers showed reduced airway inflammation;
- within the first year of the introduction of the tobacco control law in Turkey there was a substantial decrease of 24.2% in the number of patients with smoking-related diseases.

Addressing gaps in the “toolbox” of available instruments and strategies, including evidence for health policy-making

52. The EPHOs were used as a structure to map different instruments and tools and identify major strengths and weaknesses. The extensive mapping exercised indicates the EPHOs for which public health tools and instruments are available, as well as critical gaps, and highlights six major points (see also Table 1).

- There are 396 different tools for EPHO 3 (health protection) and 300 for EPHO 6 (governance). These two areas reflect more than 75% of the total number of public health tools available, and are particularly developed in EU countries.
- There are 58 instruments and tools for EPHO 1 (surveillance), 37 for EPHO 2 (response to health hazards and emergencies), 70 for EPHO 4 (health promotion), 17 for EPHO 5 (disease prevention), 14 for EPHO 7 (workforce) and 6 for EPHO 8 (organizational structures and financing).
- EPHOs 9 (communication) and 10 (research) have only non-legally binding tools and instruments.
- While countries of the CIS and South-eastern Europe Health Network have historically strong services in EPHOs 1–3, capacity and laboratory equipment have often become outdated, and legislation and policy also need updating.
- At the global level, legally binding instruments and tools are mainly concentrated in EPHO 3 (health protection) with 306 tools, EPHO 4 (health promotion) with 31 and EPHO 6 (governance) with 41 tools. This corresponds to more than 90% of the total number of tools.
- The WHO European Region has a particularly strong record of adopting legal public health measures compared to the global picture. Legally binding public health tools represent one-third of the total number of available tools in the Region: this proportion is more than double the global average.

Table 1. Numbers of legally binding and non-legally binding public health policy tools by EPHO

EPHO	1	2	3	4	5	6	7	8	9	10
Legally binding tools	21	12	306	31	2	41	3	1	0	0
Non-legally binding tools	37	25	90	39	15	259	11	5	5	2
Total number of tools	58	37	396	70	17	300	14	6	5	2

Increasing the effectiveness of evaluation and monitoring of the instruments

53. The review’s conclusion outlines further possible research for evaluation, including analysis of the processes, outcomes and cost–effectiveness of a wider range of instruments and tools. The main gaps identified in the survey of public health policy instruments and tools include a lack of explicit monitoring and impact assessment mechanisms. The population health outcomes and effectiveness of legal interventions might be compared directly with other options. Such an approach should be broad enough to include comparative effectiveness both for different laws and policies and for other types of intervention.

54. Adding a cost component to the assessment of the impact of public health laws and policies allows the identification of a set of strategies with the greatest value for money. A focus on improving both the processes and the health outcomes would allow a dynamic system of accountability. In line with this, standards for the delivery of public health services should be made explicit and their quality ensured through regular scrutiny, inspection or assessment arrangements and accreditation.

Summary

55. The key findings of the report are summarized below.

- There are 396 different tools for health protection and 300 for governance. This is about 75% of the total number of tools available.
- Legally binding tools are mainly concentrated in health protection, health promotion and governance. This represents more than 90% of the total number of legally binding tools.
- There are no legally binding tools for communication and research.
- The evidence of effectiveness of these tools is currently limited, which makes it difficult to recommend one tool over another. However, important evaluations – such as those of the “best buy” interventions for NCDs and the WHO FCTC – provide good evidence on what works.
- The “best buys” present a set of tools and instruments that:
 - have a significant impact on public health
 - are highly cost-effective

- are feasible to implement.

For example, in the area of harmful alcohol use, the best buys include tax increases, restricted access to retailed alcohol and bans on alcohol advertising. Other areas for action are tobacco use, unhealthy diet and physical inactivity.

Recommendations

56. Besides tackling the major gaps in public health tools by EPHO, there is also a need to reach a balance between regulation and persuasion. In fact, the effectiveness of traditional public health instruments and tools – including legislation, sanctions, regulations and taxes – may be limited without additional tools more focused on citizen engagement in behavioural changes. As the WHO report on governance states, “smart governance” is mainly evaluative, with regard not only to the tool being used but also to the choice and use of the tool in the context of a plurality of tools and modes of application.

Advocate for effective tools and apply evidence to different settings

- Advocate for tools with good evidence of effectiveness, such as “best buy” interventions for NCDs, the WHO FCTC and IHR.
- Advocate for tobacco control, including tax increases, smoke-free indoor workplaces and public places, health information and warnings, and bans on tobacco advertising, promotion and sponsorship.
- Advocate for control of harmful alcohol use, including tax increases, restricted access to retailed alcohol, and bans on alcohol advertising.
- Advocate for promotion of healthy diet and physical activity, including reduced salt intake in food, replacement of trans fats with polyunsaturated fats, and raising public awareness of diet and physical activity through mass media.

Strike a balance between regulation and persuasion

- Balance different instruments and tools, such as HiAP, governance, and both legally and non-legally binding tools; for example, toolkits, guidelines, approaches to citizen engagement, advocacy and communication.

Strengthen intersectoral responses and governance

- Develop and employ an HiAP approach to consider the health effects of major legislation, regulations, and other policies that could potentially have a meaningful impact on public health.
- Make use of health impact assessment tools to strengthen health gains in an HiAP approach.
- Strengthen the governance and accountability arrangements of cross-sectoral policy.

Address gaps in instruments and tools

- Consider appropriate instruments and tools, and respond to the relative gaps in the toolkit to support the delivery of the 10 EPHOs.
- Specifically, consider the development of tools for EPHOs 5, 7, 8, 9 and 10 (disease prevention, workforce, organizational structures and financing, communication and research).
- Focus on enhancing the integration of health promotion, health protection and disease prevention by strengthening primary health care.

Strengthen tools for monitoring performance and accountability

- Enhance effective use of time-bound targets and tools for monitoring and evaluating health trends and policy implementation at national, regional and global levels.
- Develop standards for the delivery of public health services and ensure their quality through regular scrutiny, inspection or assessment arrangements and accreditation.

Strengthen evidence

- Create a resource map and gap analysis of a wider range of instruments and tools, including toolkits and guidelines at the national level.
- Based on findings from the systematic review on legal and policy tools, summarize the main types of evaluation report and the key findings on the effectiveness of tools.
- Evaluate the population health outcomes and costs of major legislation, regulations and policies: such evaluation should occur before and after enactment.
- Evaluate the process and feasibility of developing and enforcing legislation and policy.
- Develop research on the cost–effectiveness of public health tools to inform policy-makers of the interventions with higher value for money.
- Enhance methodologies to evaluate the relative effectiveness on health of a range of different instruments and tools.

Key message

Advocate for effective tools – for example, good evidence exists to support “best buy” interventions for NCDs and the WHO FCTC. Legal approaches are best balanced with intersectoral policies that create environments for healthy living. Strengthening governance is important to ensure effective implementation of laws and accountability arrangements of cross-sectoral working.