



European
Commission



Report of the
**EXPERT PANEL ON EFFECTIVE WAYS OF
INVESTING IN HEALTH (EXPH)**

on

**Definition and Endorsement of Criteria to identify
Priority Areas when Assessing the
Performance of Health Systems**



EXPERT PANEL ON EFFECTIVE WAYS OF INVESTING IN HEALTH
(EXPH)

Definition and Endorsement of Criteria to Identify Priority Areas
When Assessing the Performance of Health Systems

The EXPH adopted this opinion at its 4th plenary of 27 February 2014

About the EXPert Panel on effective ways of investing in Health (EXPH)

Sound and timely scientific advice is an essential requirement for the Commission to pursue modern, responsive and sustainable health systems. To this end, the Commission has set up a multidisciplinary and independent Expert Panel which provides advice on effective ways of investing in health ([Commission Decision 2012/C 198/06](#)).

The core element of the Expert Panel's mission is to provide the Commission with sound and independent advice in the form of opinions in response to questions (mandates) submitted by the Commission on matters related to health care modernisation, responsiveness, and sustainability. The advice does not bind the Commission.

The areas of competence of the Expert Panel include, and are not limited to, primary care, hospital care, pharmaceuticals, research and development, prevention and promotion, links with the social protection sector, cross-border issues, system financing, information systems and patient registers, health inequalities, etc.

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http://ec.europa.eu/health/expert_panel/experts/working_groups/index_en.htm

ABSTRACT

The development of a framework and set of criteria to identify priority areas when assessing the performance of health systems in Europe presents an important opportunity to optimise the use of existing health system performance indicators in providing timely and robust information for policy interventions.

As part of the reflection process to pursue modern, responsive and sustainable health systems and by mandate of the Council Working Party on Public Health at Senior Level, Sweden is co-ordinating a Sub-group on measuring and monitoring the effectiveness of health investments. The Sub-group has produced a short paper on possible criteria to identify areas that should be prioritised for making comparisons and assessment on effective ways in investing in health.

The advice of the Expert Panel is requested to provide guidance on the parameters, criteria and testing of the model prepared by the Sub-group. The Expert Panel does not seek to provide a definitive judgement on which framework/model should be adopted for Health System Performance Assessment. The Opinion of the Expert Panel highlights some of the key technical and general issues that need to be considered by the Sub-group at this stage of their work, and provides some general guidance concerning its further development.

Keywords: health systems performance, assessment, framework, criteria, EXPH, EXpert Panel on effective ways of investing in Health, scientific opinion

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EXECUTIVE SUMMARY

A Sub-group of the Working Party on Public Health at a Senior Level has prepared a short paper on the development of a framework and set of criteria to identify priority areas when assessing the performance of health systems in Europe. The Expert Panel has been requested to provide guidance on the parameters, criteria and testing of the model prepared by the Sub-group.

In view of the early stage of development of this work, the Expert Panel does not seek to provide a definitive judgement on which framework/model should be adopted or which specific criteria should be used. The Opinion of the Expert Panel is based on a response to the Sub-group's paper and outlines a number of the key technical and general issues that need to be considered by the Sub-group at this stage of their work. General guidance concerning the further development of the work is provided including the following key points.

A clear conceptual framework defining the parameters of the health system to be assessed should be developed, which will then inform a set of dimensions and the selection of robust performance indicators. This would facilitate a stepped approach to the model development and testing. A refined analytical framework, based on usable, reliable and valid indicators building on existing WHO, OECD and EU initiatives, could then be developed and supported by analysis tools. A consultation process on implementation of the framework could be instigated on a pilot basis with selected Member States and and/or on a pan-European basis in relation to testing one or two of the areas selected.

The successful development and implementation of the framework needs to take into account a number of methodological and practical considerations that have been identified in the international literature to date and these are outlined for consideration. The active engagement of the intended end users of the framework will be important in developing a feasible set of tools that are credible and usable by decision-makers in the European context. A number of practical possibilities are outlined for consideration by the Sub-group.

1. BACKGROUND

As a part of the reflection process to pursue modern, responsive and sustainable health systems and by mandate of the Council Working Party on Public Health at Senior Level¹, Sweden is co-ordinating a Sub-group on measuring and monitoring the effectiveness of health investments. The Sub-group will deliver a final report to the Senior Level Working party in 2014.

The Sub-group has produced a short paper on possible criteria to identify areas that should be prioritised for making comparisons and assessment with a European perspective on effective ways in investing in health (Working Group, 2012b). The model presented in the paper is still at an early draft stage and it is intended that further criteria/dimensions may need to be added. The Sub-group wish to further develop this model and to test it on one or more concrete and well-defined areas, preferably including one or more chronic diseases. The advice of the Expert Panel is requested to provide guidance on the parameters, criteria and testing of the model.

2. TERMS OF REFERENCE

The Expert Panel on effective ways of investing in Health (EXPH) is requested to:

1. Provide its views on the framework as prepared by the Working Party Sub-group. In doing so, the Expert Panel is asked to:
 - i) review the criteria used
 - ii) identify weaknesses which will need to be addressed and make recommendations on ways to address them
 - iii) identify additional elements which have not been taken into account or are not properly represented and make recommendations for their inclusion
2. Identify the next steps that ideally should be undertaken to test the framework in real life situations at Member State and at EU level. In doing so, the Expert Panel should provide guidance on the methodologies and approaches which will need to be taken in order to test the framework.

¹ A co-operation mechanism between the Council and the Commission, to address, define and oversee EU health-related issues as well as make political commitments and fulfil them at the national level.

3. OPINION

Introduction

The report of the European Council Sub-group of the Working Party on Public Health at a Senior Level focuses on the development of a framework and set of criteria to identify priority areas when assessing the performance of health systems in Europe. This initiative is to be welcomed as it presents an important opportunity to optimise the use of existing health system performance indicators in providing timely and robust information for policy interventions. It is important that this initiative builds on existing work completed by the EU, WHO, OECD and others, which has focused efforts on improving the availability, comparability and relevance of health system performance indicators.

In view of the early stage of development of this work, it is important to state that the Opinion of the Expert Panel is based on a response to the short paper (Working Group, 2012b) that has been prepared by the Sub-group. The Expert Panel do not seek to provide a definitive judgement on the criteria to be used or indeed which framework/model should be adopted for this purpose. In view of the time constraints, we endeavour to highlight some of the key technical and general issues that need to be considered by the Sub-group at this stage of their work, and provide some general guidance concerning its further development.

3.1. Question 1 - Views on the Framework as prepared by The Working Party Sub-group

3.1.1. Review of the criteria used

The Sub-group proposes in its document "Possible criteria for selecting prioritised areas for comparison and assessment" two main **criteria**:

- impact in three dimensions (health impact, economic impact, equity impact), and
- "methodological criteria", related with the viability of implementation or feasibility of measures to improve system performance.

The decision-makers could select prioritised areas for intervention using these two criteria.

The Sub-group has selected various **dimensions** for each criterion and various **indicators** for each impact dimension.

There have been a number of different frameworks and methodologies developed for Health Systems Performance Assessment (HSPA) by EC, OECD, WHO, European Observatory etc., and reference is made to a review of existing international literature in this area by the Sub-group (Working Group, 2012a). The preference for one model over another depends on the purpose of the performance assessment and the characteristics of the organization involved (see Smith et al., 2012; Arah et al., 2003; Durán et al., 2012).

In the Sub-group paper being considered here, the purpose is to support policy action by helping policy makers to select interventions and policies in response to different health problems, and to decide the allocation of resources considering different priorities and demands, with a short, medium or long-term perspective. If it is intended that this tool be useful to decision-makers, it has to be easy to apply and, at the same time, it has to add value to the decision-making process. This tool should, therefore, offer a perspective of the possible impacts of the decisions being considered, and a basis for comparison with other experiences in different contexts. In other words, the tool should be able to answer the following questions:

- Which HSPA dimensions should be taken into account by decision-makers when prioritising a policy?
- Which aspects should be monitored before, during and after the intervention?
- Are there other comparable experiences from other regions or countries, in the area/policy analysed?

It is envisaged that this tool is not intended to offer a “formula” with a final indicator for “cost-effectiveness” or other aspects of performance of different systems or policies, but rather offers a framework for thinking, helping the decision makers to take a broad perspective embracing the key aspects of HSPA in their decision-making process.

The development of such policy analysis tools based on HSPA data could be supported at EU level by developing **networks of motivated and trained experts** in the use of these tools at different levels of government and stakeholders in Member States.

Should such policy analysis tools be developed successfully, the EU could add value by creating **databases** containing analyses of the impact and feasibility of different policies (“evidence based policymaking”), in a similar approach to that developed by WHO-CHOICE (www.who.int/choice/en).

3.1.2. Weaknesses that need to be addressed

The purpose of the circulated document (Working Group, 2012b) is described as being to present some criteria to select priority areas for health system comparison and assessment. The first section focuses on areas where potential interventions may have the largest impact and then presents some indicators for assessing impact on health status, economic outcomes and equity. Therefore, this first section of the document is focused not on criteria per se (e.g. measureable valid and reliable data from diverse populations; feasible and relevant to policy etc.) but rather on a set of possible indicators for assessing health, economic and equity impacts.

The second section refers to ‘Methodological Criteria’, however, this section focuses mainly on certain dimensions of health systems performance such as feasibility of action, responsiveness, stewardship etc. As a result, the methodological criteria for assessing these dimensions are not addressed in the document.

The summary grid for evaluation of criteria presented as Figure 10 in the document (Working Group, 2012b) contains a mixed range of indicators of a very different nature e.g. Eurostat data on causes of death, alongside more qualitative information on existence of experimental solutions.

These indicators relate to **different levels at which measurement** and decision making processes take place. It is one question to ask whether one **health system** is performing as well as another; it is quite another to ask what **policies** might improve it, with the latter requiring much more detailed information on context. In that sense, a difference between a monitoring and comparative framework for health systems needs to be distinguished from a framework to decide on which particular policies to implement. The latter may require different and often more detailed information. The integration of these different types and quality of data, therefore, will need very careful consideration in terms of producing a coherent framework for comparing data and synthesising findings, as well as a clear definition of its purpose and aim. Investing in priority areas identified from system comparisons may not, for instance, necessarily result in the most cost-effective policies to improve public health in different countries.

It is important to identify **“what works” and “at what cost does it work”** in each health system. In other words, indicators should be chosen to make it possible to assess efficiency in the use of resources. The drivers of improved performance may differ from health system to health system. Any general “tool” needs to have flexibility in its conceptual framework to accommodate these differences.

A significant weakness that needs to be addressed in this paper is the absence of a **coherent conceptual framework** that would provide the basis for establishing and analysing a set of robust criteria for selecting priority areas and associated indicators. It is possible that this has been agreed by the Sub-group based on their review (Working Group, 2012a) and has been outlined elsewhere. However, without the inclusion of a clear conceptual framework in the document, the criteria outlined are without a clear rationale and lack coherence.

A conceptual model would help clarify the relationship between health system inputs, processes, outputs and impacts as well as contextual factors influencing policy change mechanisms and the ways in which policy changes should be prioritized and evaluated. Once the underlying conceptual basis is established, a clear set of principles and a rationale can be provided to guide the operationalization of the framework in terms of populating the content and selecting the performance dimensions and criteria for their assessment. Such a framework would also guide the testing and analysis of the framework in terms of how well it can be applied in terms of both its generic and selected use in the European context.

In developing a theoretical framework, it is also important to acknowledge the **shift of focus** in health care systems from mobilisation of resources, to different ways of organizing those resources, towards a focus on outcomes of health care systems. Linking this shift in focus to health outcomes with initiatives to empower service users, the possibilities to collect and analyse data sets, and scientific developments in personalized health care, marks a significant change in the whole field of comparative health care systems.

As the framework is intended to support policy making, the feasibility of its use by decision-makers is an important consideration alongside its more technical merits and quality. In developing and testing the framework, it will, therefore, be important to consult and **engage actively with the intended end users of the framework** concerning the development of a feasible framework and analysis tools that are usable and credible in the context of Member States.

Recommendations for addressing the weaknesses:

- Identify an underlying theoretical or **conceptual basis for the framework**, building on existing initiatives by WHO and OECD.
- Provide a **clear definition of the health system** whose performance is to be assessed and compared.
- The framework should guide the examination of the various dimensions and levels of health systems performance and identify the indicators and analytical tools needed for their implementation in the policy context, building on existing international and European work in this area. This may well require a “phased framework” to address the different aims addressed in this report.
- A consistent use of terminology is recommended in the paper regarding terms such as performance domains, dimensions, indicators, criteria, and methodology, in line with the international literature.
- Given the focus on informing policy and decision-making, the contextual factors and dynamics that influence the mechanisms for change in the performance/policy environment will also need to be addressed in the framework.
- Impact on health inequities should be included in the framework as an overarching high-level outcome in view of its importance in the European context.
- A robust set of criteria need to be identified, building on existing work, which can provide a comprehensive means of assessing the suitability of each candidate priority area or dimension and its associated indicators.
- On indicators, a useful distinction can be between health indicators and “leading” indicators –that may provide early warnings of policy impacts.
- The possible health impact indicators need to reflect the full spectrum of what we understand population health to be. This means including *health* indicators as well as standard *illness* indicators of mortality and morbidity, and including the full spectrum of interventions necessary for population health improvement:
 - The indicators selected should build on existing data sources such as the ECHI short list and other comparable data sources as identified in EC, WHO and OECD initiatives

- The model needs to include a clear focus on interventions, including health promotion and prevention as well as treatment and rehabilitation, with the goal of improving population health and reducing health inequities
- Inclusion of population indicators of mental health and wellbeing would increase the relevance of this model
- In view of the priority of healthy ageing of the population in Europe, consider the inclusion of quality social care provision indicators within the health system, as well as information on (provision of) informal care
- In terms of future planning of health systems, consider using available indicators of youth health e.g. use of WHO multi-country studies such as HBSC, COSI and other such comprehensive data sets available in many European countries.

3.1.3. Recommendations for inclusion of other elements

Existing frameworks have identified a number of dimensions and related indicators for assessing the performance of different aspects of the health system. The choice of particular dimensions and criteria for the selection of core indicators is to a great extent dependent on the core objectives of the framework or model in question. Though not intended to be a comprehensive guide to indicator criteria assessment, we outline below some possible further elements for inclusion.

Impact Criteria:

To complement the analysis on health outcomes, the Framework needs to include a group of performance dimensions related to health care system processes and contextual factors that influence the system's performance.

Analysis of health system processes, in addition to outcomes, is essential as very often the effects on the outcomes can be expected only in the medium or long term (Marmot, WHO 2013a). The dimensions used to analyse processes (in the health care system) could be based on the Council Conclusions on the common values and principles in European Union health systems (EU, 2006).

Contextual factors operating outside of the health services also need to be taken into account.

Dimensions related to Outcomes

A number of dimensions could be included such as: health (equity in health), responsiveness, health risk factors, and economic impact.

The first dimension is health outcomes, with an accent on equity. The conclusions on common values and principles stated that EU health systems “aim to reduce the gap in **health inequalities**” (EU, 2006). “The health sector needs to incorporate tackling health inequalities into the mainstream of their own core policies” (EU, 2013).

The second dimension is **responsiveness**. It is stated also in the “conclusions on common values” that all health systems in the EU aim to offer patient-centred health care responsive to individual need. The WHO includes “responsiveness” as an important goal of health systems (Valentine, 2010).

The third dimension is “**population health risk factors**”. Specific dimensions could be identified in order to highlight the importance of the promotion of healthy lifestyles and supportive environments as a pre-condition for health. This dimension can be seen as an intermediate outcome, ultimately translating into health outcomes.

The fourth dimension is “**economic impact**”. The term economic impact may refer to several aspects. The first one, directly related to interventions, is the impact on resource use, health care expenditures and financial constraints. The second aspect is related to broader societal costs and benefits. We support a broad interpretation of relevant costs and benefits, including those outside the health care sector. It needs to be stressed that health is a value in itself. Moreover, health contributes to economic growth (EC, 2013a; Usher, 1973; McKee et al., 2009; Figueras et al., 2009; Figueras and McKee, 2012; Suhrcke et al., 2012; Jamison et al., 2013). Broader societal costs and benefits, such as those related to informal care and increased productivity (e.g. reduction of absenteeism) need to be considered as well (Hoefman et al., 2013; Krol et al., 2013). A third aspect relates to the economic impact of health expenditures and financial protection of individuals. Uncovered health expenditures can bring financial hardship and financial barriers can reduce health care use, potentially contributing to socio-economic differences in health and poverty traps. Financial protection, through some form of ‘insurance’ (pre-payment with risk pooling), increases human welfare (Moreno-Serra et al 2013).

We differentiate this dimension (economic impact), from other dimensions, i.e., the costs of the policy intervention (included in “feasibility criterion” as “costs/affordability”) and the financing of the system (included in “solidarity” dimension where we observe health expenditures and sources of financing).

Dimensions related to the Common Values (Health Care System).

These dimensions could include, for example, the four Common Values adopted by EU Member States: universality, solidarity, equity and high quality services.

Universality meaning “that no-one is barred access to health care”. If we ask “who is entitled”? The answer is that every citizen has the right to access adequate health services. (This raises important questions regarding the definition of adequate health services, which lie beyond the scope of the current Opinion, and are briefly indicated in “access to good quality care” dimension) Indicators for universality include “percentage of the population covered by health insurance”, the scope of the insured services, etc. In some models this aspect is included under “access”.

Solidarity, from each according to capacity, “is closely linked to the financial arrangement of our national health systems and the need to ensure accessibility to all” (EU, 2006). It is a key dimension, but usually it is not clearly identified and measured. It entails “fair financing”, which can ensure risk solidarity (simply put that the healthy support the sick) and income solidarity (simply put that the rich support the poor). Income solidarity can be achieved through the financing mechanisms, for instance by having some type of income dependent or even progressive contribution to the health care system. Risk solidarity can be ensured by mandatory pre-payment and risk pooling, for instance through mandatory health insurance. (In this dimension we include “income solidarity”, whilst risk solidarity is included in Universality dimension: who is entitled?).

Questions surrounding ensuring and sustaining solidarity within the health care sector are important, especially in times of limited economic growth and crises. This is especially the case in those countries that have been severely affected by economic crises, where fiscal constraints may result in measures potentially undermining solidarity, thus affecting the accessibility and affordability of health care for certain groups (Mladovsky et al., 2012; Reeves et al., 2013a). This should be closely monitored. Parts of this dimension are included in “access”, “costs”, “resources”, or “fair financing” in other frameworks (Murray et al., 2000a; WHO 2000; Wagstaff 2010).

“**Equity**” dimension is often broken down into equity in health care use (or delivery) and equity in financing. “Equity in health care use” is related to ‘to each according to need’ – which can be measured by comparing the share of health care use to the share of health needs in different groups (based on ethnicity, income, gender, age, social status etc.). The equity dimension measures the distribution of services: “to whom?” In other models this dimension is included under the label of “access”.

Equity in financing is often related to the notion of ‘from each according to ability’ – which can be measured as contributions to the health care sector as a percentage of income for different income groups. (We include this aspect in “solidarity” dimension).

“**Access to good quality care**” dimension refers to the basket of health care to which citizens are entitled (in the public financed health care system), and the quality of these services. In addition to the range of services that are included (type, quantity, quality) it also includes what kind of providers are giving the services (type, quantity, quality). Other papers include parts of this dimension in Quality (OECD, EU), in Coverage (WHO), or in Resources (EU).

Context Criteria:

Dimensions related to context need to be incorporated into the Framework. These include demographic, social and economic conditions, cultural factors, and other non-health care determinants of health that impact on population health and wellbeing. Determining the relative influence of health systems on health outcomes from the impact of the broader determinants of population health, especially living and working conditions, education etc., will be an important challenge. In addition, the time lags between policy changes

and their impact on health outcomes, including possible unintended consequences, will also need to be taken into account.

Feasibility Criteria:

Here (under "methodological criteria") the Sub-group included a sort of "check list" of aspects before adoption of policies: possibility of intervention (knowledge), political agenda, reaction time and stewardship.

It could be interesting to add three aspects: costs of the implementation (affordability), support/opposition (acceptability) and monitoring capability (see Appendix I).

It would also be important to reinforce the concept of "**evidence based policymaking**", the knowledge part –what works, how much it matters, and what can be changed effectively. This is a key aspect for improving the decision making process, and for selecting performance indicators to provide information for health policy. The Commission could support Member States "**sharing experiences, best practices and expertise** in understanding and adequately responding to society's growing and changing health needs, particularly due to ageing population, and designing health sector investments effectively and efficiently" (Council Conclusions 2011/C 202/04).

The implementation of this "tool" could provide a useful evidence-based information for policymakers, Member States, and the Commission.

Choosing Indicators

For each dimension various indicators could be used. For the purpose of this "tool" we suggest selecting a limited number of indicators based on existing sources such as the European Community Health Indicators (ECHI). In later phases, depending on the level of the system analyzed, or for specific studies related with specific problems, this indicator set could be expanded.

In Appendix I a set of possible indicators and "feasibility" variables are proposed that could be collected and compared at European, national and/or regional level. When appropriate, the indicators could be presented by income level, education, gender and age.

The majority of these indicators are available. The indicators for "solidarity", "economic impact" and "responsiveness" have to be collected in a more homogeneous and systematic way.

The indicators have to be appropriate (robust, reliable and valid) to measure the different aspects. It is also important to ensure "their feasibility, comparability across countries and in time as well as their validity" (Smith et al., 2012). There are various indicators that can be applied to various performance dimensions. The important thing here is to have a broad perspective and a comprehensive picture of the health system and its possible impacts.

In this respect, we recommend the inclusion of positive indicators of population health as well as negative indicators of mortality and morbidity. For example:

- Healthy Life Years – EU Structural Indicator
- Perceived health status - self-rated health (ECHI)
- Population health risk factors – smoking rates, alcohol rates, fruit and vegetable consumption and physical activity levels (ECHI)
- Levels of overweight and obesity in children and adults (ECHI)
- Self-reported positive mental health and wellbeing (Eurobarometer)

Indicators of the availability and implementation of health promotion and prevention interventions, for example:

- policies on environmental tobacco smoke exposure (ECHI)
- policies on healthy nutrition and practices on healthy lifestyles (ECHI)
- integrated programmes in settings, including workplace, schools, hospitals and health services (ECHI)
- breastfeeding initiation rates (ECHI)
- vaccination and screening coverage (ECHI)

It is important also to examine the trends (short, medium and long term perspective), and to compare the different indicators between countries and regions.

The source for each indicator has to be clearly established.

Levels of analysis

It could be useful to consider different levels of analysis.

It has to be considered if performance is measured at the level of the whole system, or for parts of it: for example, defined by groups in the population with particular needs, such as those defined by disease or other factors. It would also be important to state if the purpose of performance indicators is for comparisons between systems, for example, between countries, or for the purpose of a specific policy assessment such as improving care for cancer patients.

A **global or generic perspective**, considering the impact of measures or policies in the health system as a whole, or in large areas of the system, at regional/national/European level (such as, reducing/increasing coverage; reducing/increasing pharmaceutical prices; reducing/increasing health budget; reducing/increasing benefits package; co-payment system etc.)

A **specific perspective** on specific dimensions and topics of HSPA, considering the impact of measures or policies in one aspect or “area” of the health system (Health promotion programme in the area of cancer; “depression in the workplace”; telemedicine for self-care in diabetes; tobacco regulation; etc.)

The indicators for the generic perspective could be monitored permanently, producing useful, consistent, comparable and timely available information.

The indicators for the specific perspective should be selected in each case. If intended to guide policy change, detailed evaluations are required including the effects and costs of the policy change.

At the same time, it could be possible to select additional indicators for specific analysis at a **National or Regional level**.

3.2.Question 2 – Guidance on the methodologies and approaches which will need to be taken in order to test the Framework

Next steps to test the model

The development and operationalization of a framework to support policy has the potential to improve the systematic use of health systems performance information in the European context and to strengthen understanding of how this information can be used to identify and galvanize actions for change in the policy environment.

The following steps are recommended to the Sub-group in completing work on the Framework:

1. A coherent conceptual framework is critical to the systematic development and testing of the model. This first step in terms of model development needs to be finalised.

A clear conceptual framework defining the parameters of the health system to be assessed and identifying one or two overarching high-level outcomes such as Healthy Life Expectancy (HLE) and Reduction in Health Inequities (e.g. reduced HLE within and between countries) could be developed, which will then inform a set of dimensions and the selection of robust indicators. This would facilitate a layered/stepped approach to the model development and testing with the capacity to drill down into underlying levels of data from mortality and morbidity data being cross-related to population health and risk factor data (health related behaviours) and then cross referenced to country/regional level indicators of policy implementation and potential interventions. For example, specific health conditions such as the levels of CVD/diabetes could be examined in terms of country/regional level statistics on death from cardiovascular disease, related to morbidity data on CVD, underpinned by population data on level of risk factors such as smoking, etc. and then interpreted in the context of implementation of a country level NCD action plan, cardiovascular health policy, smoking regulation, nutrition policies, ministry level stewardship etc.

2. A refined analytical framework, based on usable, reliable and valid indicators building on existing initiatives, could then be developed and supported by analysis tools.

A consultation process on implementation of the Framework could be instigated on a pilot basis with selected Member States and and/or on a pan-European basis in relation to testing one or two of the areas selected.

The successful application and implementation of the model/ framework needs to take into account a number of technical and general issues that have been identified in the literature on developments to date. See for example, the questions posed by McKee (2001) in discussing the 2000 World Health Report. Drawing on McKee's paper, the following issues need to be considered in the next steps of model development:

- Determining the extent to which the Framework will be based on empirical evidence and/or technical considerations and to what extent it will reflect a particular underlying political philosophy. There is a need to consider the values and principles underlying the health care systems in the European context and as a consequence the values that will underpin the development of a set of common performance criteria for selecting priority areas and their consequent political implications.
- The importance of face validity in ensuring the acceptability of HSPA methods by intended users. This issue points to the need to engage decision-makers and policy-makers in the process of framework and tool development at an early stage.
- Linking performance measures to the definition of the health system that is to be used. This includes articulating the extent to which the health system includes activities outside the personal health care system and the distinction between the impact of wider population health determinants and the health services per se (narrower issues of clinical care and cure). Provide a clear definition of the health system as used in the Framework and consider the extent to which it is possible to relate population health outcomes more directly to the health system, i.e., taking into account complex causal pathways and the web of health determinants leading to disability and premature death, and the time lags between policy interventions and outcomes.
- Address the issue of data availability across countries. In building on available data, the Framework will need to consider how both the quality of existing data and the issue of missing data will be dealt with.
- Health levels and distribution – consider the relative merits of different measures of health inequality given available data sources and the contextual nature of the socio-economic determinants of health.
- Consider the most appropriate methods to be used in measuring the different dimensions of concepts such as responsiveness level and distribution, fair financing, stewardship etc.

- Is a composite index combining such disparate measures as health outcomes, financing and feasibility of interventions possible? Will it be useful in supporting improved decision-making by policy makers? The practical application and usability of the Framework and related tools by policy makers is an important consideration alongside that of its technical and methodological quality. In the next steps in developing this work, the Sub-group are encouraged to engage with both scientists and policy makers in the process of developing and testing the Framework to ensure that both scientific and practical considerations are taken into account.

Improved understanding of the perceived goals of health care systems, including aspects of mental health, long term care, wellbeing, productivity and the required inputs and processes, is essential in establishing a comprehensive framework. Improved understanding of how different elements (which may sometimes be at odds – e.g. financial sustainability and universal access to good quality care or even health maximization versus reduction of health inequalities) are weighted at (different) policy levels is crucial as well, also in relation to differences in health care systems across Europe. Ways in which to relate costs of the system to its performance need to be established. A number of practical possibilities are outlined for consideration in Appendix II.

4. LIST OF ABBREVIATIONS

COSI	Childhood Obesity Surveillance Initiative
CVD	CardioVascular Disease
EC	European Commission
ECHI	European Community Health Indicators
EU	European Union
EXPH	EXpert Panel on effective ways of investing in Health
HBSC	Health Behaviour in School-aged Children
HLE	Healthy Life Expectancy
HSPA	Health Systems Performance Assessment
NCD	NonCommunicable Diseases
OECD	Organisation for Economic Co-operation and Development
WHO	World Health Organization
WHO-CHOICE	CHOosing Interventions that are Cost Effective

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APPENDICES

APPENDIX I - POSSIBLE INDICATORS FOR THE MEASUREMENT OF DIMENSIONS

A number of possible indicators are outlined below for Impact and Context, and variables for Feasibility (see also the accompanying table and figures). The majority of the indicators are regularly obtained at EU level (Eurostat).

A. IMPACT CRITERIA

A. 1. IMPACT ON OUTCOMES

A.1.1.HEALTH EQUITY

The main goal of Health Systems is health recovery, health maintenance and health improvement. We have to pay attention to the inequalities in health at the same time that we are improving average health of the population: reduce the difference in health status between richer and poorer individuals or regions.

These indicators, when possible, have to be disaggregated by income group (higher, lower, average), age, gender, level of education, etc. In this way it will be possible to measure the Equity/inequity in health.

-Life Expectancy at Birth

Source: Eurostat

-Healthy Life Years: life expectancy from which the expected number of years lived with long-term activity limitation is subtracted. It is a measure of disability-free life expectancy that indicates how long people can expect to live without limitations in the activities people usually do.

Source: Eurostat (online data code: hlth_hlye)

-Self-Reported health: reflects people's overall perceptions of their own health, including both physical and psychological dimensions. EU-SILC

Source: Eurostat (online data code: hlth_silc_01)

-Psychological well-being:

Source: Eurostat (European Health Interview Survey)

A.1.2.POPULATION HEALTH RISK FACTORS

-Daily Smokers:

Source: Eurostat (online data code: hlth_ls_smka)

-Overweight: reported overweight and obese persons.

Source: Eurostat (online data code: hlth_ehis_st1)

-Alcohol consumption:

Source: Eurostat

-Levels of Physical Activity:

Source: Eurostat

-Fruit and Vegetable Consumption:

Source: Eurostat

A.1.3. RESPONSIVENESS

The World Health Organization considered "responsiveness" as an important goal of Health Systems.

Responsiveness measures non-technical aspects of users' views. It is a measure of the acceptability of health care processes and systems from the users' perspective (Valentine N et al, 2010).

Different tools have been designated to measure responsiveness (Multi Country Survey, WHO 2000; World Health Survey, WHO 2002).

In different countries, surveys have been carried out to measure responsiveness using different questionnaires (e.g. Health Care Barometer in Spain, MSSSI). It would be useful to develop a questionnaire at European Union level, in coordination with OECD and WHO. The surveys measure different aspects (information, accessibility, respect, comfort, etc.).

-Self perceived acceptability of Health Systems: measuring the opinion of the population regarding the performance of health systems.

Other indicators:

-Self perceived acceptability of Health Care Processes: measuring the opinion of the population regarding their personal experience when using health services.

It is possible to obtain information from a sample in the general population. It is also possible to survey opinions of patients after receiving attention (at the hospital, primary health centre, pharmacy, emergency services, etc.).

A.1.4. ECONOMIC IMPACT

Health Systems have an impact on the economy. The consequences of a better health status are ability to work, to communicate, to care for other people, to cooperate, lower sick leave rates, increasing general employability and productivity, social cohesion, etc. If a population maintains a good level of health then the employability will increase, and the number of people on sick leave will decrease.

Different approaches have been developed to estimate the economic impact of health, and of health interventions (Usher 1973; McKee 2009; Figueras 2009, 2012; Suhrcke 2012; Jamison 2013).

-Sick leave: Labour Force Survey (2007): Persons reporting that their most serious work related health problem resulted in sick leave of more than one month in the past 12 months.

Productivity

-Full income: - measures of economic Value of additional Life Years.

Other possible indicators:

Social cohesion. (Eurobarometer)

Costs of social protection (payments for sick, injured, prematurely retired, etc.).

A.2. IMPACT ON THE DIMENSIONS OF COMMON VALUES

In order to select criteria to identify priority areas when assessing the performance of health systems, we have to consider not only the Health and Responsiveness Outcomes (for *what?*), and the economic impact (*benefits*), but also the Processes, the different elements that form the health care system, and the balance between them.

Who is entitled? (population covered, universality). What are the guaranteed benefits (and of what quality)? (high quality services). From whom do the resources come, and How much is needed? (solidarity). To whom are the services oriented? (equity).

It is important to examine how policies or programmes will affect the EU common values. The impact on solidarity, equity, universality and access to high quality services has to be evaluated in order to assess the health system performance, and should be included as criteria to identify priority areas.

The health system has to be considered as the equilibrium between different variables. If we intervene in one aspect, we have to measure the possible impact in the other important variables. It would be possible to have 100% of people entitled, but with a very poor package of benefits (low quantity or quality). It would be possible to have high coverage, and a reasonable package of benefits, but with an unfair financial system (proportion of contributions with more weight in low and middle classes than in the richest).

It is possible to have a fairly financed health system but with an unequal distribution of services, with proportionally higher access barriers for the weakest and poorer. All these aspects are interconnected and it seems important to have a comprehensive view.

In other Frameworks (WHO, OECD, and Joint Assessment Framework on Health of the Social Protection Committee) the different aspects of health systems are described through different dimensions and indicators:

Access: including coverage (universality), fair financing (solidarity), distribution, (equity) and benefits, using such indicators as coverage; out-of-pocket expenditure; waiting lists, etc.

Quality: including different indicators about the quality of services, effectiveness, safety, responsiveness...

Resources: doctors, hospitals, etc.; activities; costs...

Equity: including inequities in both health and health services...
etc.

Each Framework has advantages and disadvantages.

A.2.1.UNIVERSALITY

Who is entitled? Health system coverage. Universality means that no one is barred access to health care. All the people are entitled to receive health services, publicly financed, through the respective national regulations.

Percentage of population covered (entitled to whole benefits package, public funded): government/social insurance coverage
Source: Eurostat

-Vaccination coverage
Source: Eurostat

A.2.2.SOLIDARITY (financial protection, fairness)

From whom? Solidarity is the financial arrangement to ensure accessibility to all. The concept of solidarity in health care implies that some people with higher income accept to share their money with people with lower income in order to financing health services for all. "From each according to ability". Unequal contribution from unequal wealth (the wealthier paying a higher proportion of their income than the poorer).

-% of Public Health Care Expenditure related to Total Health Expenditure
Source: Eurostat

- % of Public Health Expenditure related to GDP
Source: Eurostat

-Structure of taxes: fiscal/social security contributions (%total; %labour; %capital; %consumption in relation with GDP)
Source: Eurostat. Taxation trends in the European Union, 2013.

-Tax fraud, tax evasion, tax avoidance (% in relation with GDP)
Source: European Commission.

Other possible indicators:
Cost-sharing; OOP expenditure; ...

A.2.3.EQUITY

To whom? Equity relates to equal access according to need (regardless of ethnicity, gender, age, social status or ability to pay). Who is treated? How have we to prioritize the use of limited resources? "To each according to need"; "equal access for equal need".

A fair distribution of health resources means that people with more need should receive more attention. People with disability or mental health conditions, poor people, people living in rural areas, low educated people, migrants, marginalised groups etc. have higher health risks and greater difficulties in accessing the health services. It is necessary to prioritize programmes oriented to people with higher health needs.

There are different indicators to monitor inequalities in the distribution of health resources.

-Unmet need for treatment: self-reported unmet needs for medical examination for reasons of barriers of access (too expensive, too far to travel, or waiting lists).
Source: EU-SILC

-Waiting Times, Waiting Lists in different parts of the health system:

time to get a GP appointment

time to get to a specialist

time that a patient has to wait from the moment when the doctor recommended the "intervention" (surgery, diagnostic procedure, etc.) till the moment when the patient receives it

evidence on delayed discharges from hospitals due to absence of available continued or community care etc.

Source: OECD; national/regional statistics.

A.2.4. HIGH QUALITY AND SAFETY HEALTH SERVICES

What kinds of services, programmes, interventions, etc., are available through the public health system?

A large number of indicators have been developed in the field of health care quality and safety. A few of these could be selected in offering a general perspective.

-"Benefits package": description of the benefits included in the public services (accessible to the majority of the population): prevention, promotion, treatment, rehabilitation, palliative services. Primary health care, hospital care, emergency services, ambulances, pharmaceuticals, etc...

Or, perhaps easier: Services explicitly excluded.

Source: Health Systems in Transition (HiT) Country Profiles series, European Observatory on health systems and policies); EUCOMP1 (EUCOMP2).

-Amenable mortality: premature deaths that should not occur in the presence of effective and timely care.

Source: OECD; Nolte and McKee; Tobias and Yeh.

-Infant mortality:

Source: Eurostat.

-Avoidable admissions: uncontrolled diabetes hospital admission rates.

Source: OECD Health Data

B. CRITERIA: FEASIBILITY

Actual possibility to intervene to modify and improve the situation.

B.1.KNOWLEDGE, EVIDENCE BASED INTERVENTION (“possibility of intervention”)

Gaps between knowledge and practice (research, specific)

Existence of tested solutions (good examples, specific)

Large variations between countries (good examples, general)

B.2.REACTION TIME

-Calendar (time needed for implementation)

-Effects/visibility (time needed to assess impact)

B.3.STEWARDSHIP

Administrative and political capacity. Leadership, inside the health sector and in other sectors (Health in All Policies)

B.4.POLITICAL AGENDA

Electoral programme, social concerns, crisis, International Institutions recommendations/ conditions, etc.

B.5.COSTS/AFFORDABILITY

It is important to consider the cost of the program for selecting priority areas for investment. There could be decisions that need relevant investments (e.g. equipment, personnel, etc.) while others involve low direct economic cost (e.g. anti-tobacco strategies and legislation).

The costs of a programme have to be considered in the context of the economic situation of the country (GDP/inhabitant; expansion/ recession/ stagnation; private and public debt; etc.).

B.6. ACCEPTABILITY: SUPPORT/OPPOSITION

This criterion takes into account the support or the opposition that a certain policy is going to raise.

There have been important processes of reform that have provoked strong opposition. Other policies, on the contrary, have had enthusiastic support.

What will be the reaction from Professionals, Patients, Associations, Public Opinion, Political parties, Affected Industries (tobacco, pharmaceutical, financial, health insurance, agricultural sector...)?

B.7.MONITORING CAPABILITY (information system)

This aspect considers the availability of the necessary information to monitor the starting point, the processes and the outcomes. It highlights also the importance of transparency.

Identification of problems (needs/demands) in defined population (target).

Measuring start points, outputs and outcomes.

Sharing/Reporting data and information: transparency.

C. CONTEXT

-GDP per inhabitant

Source: Eurostat

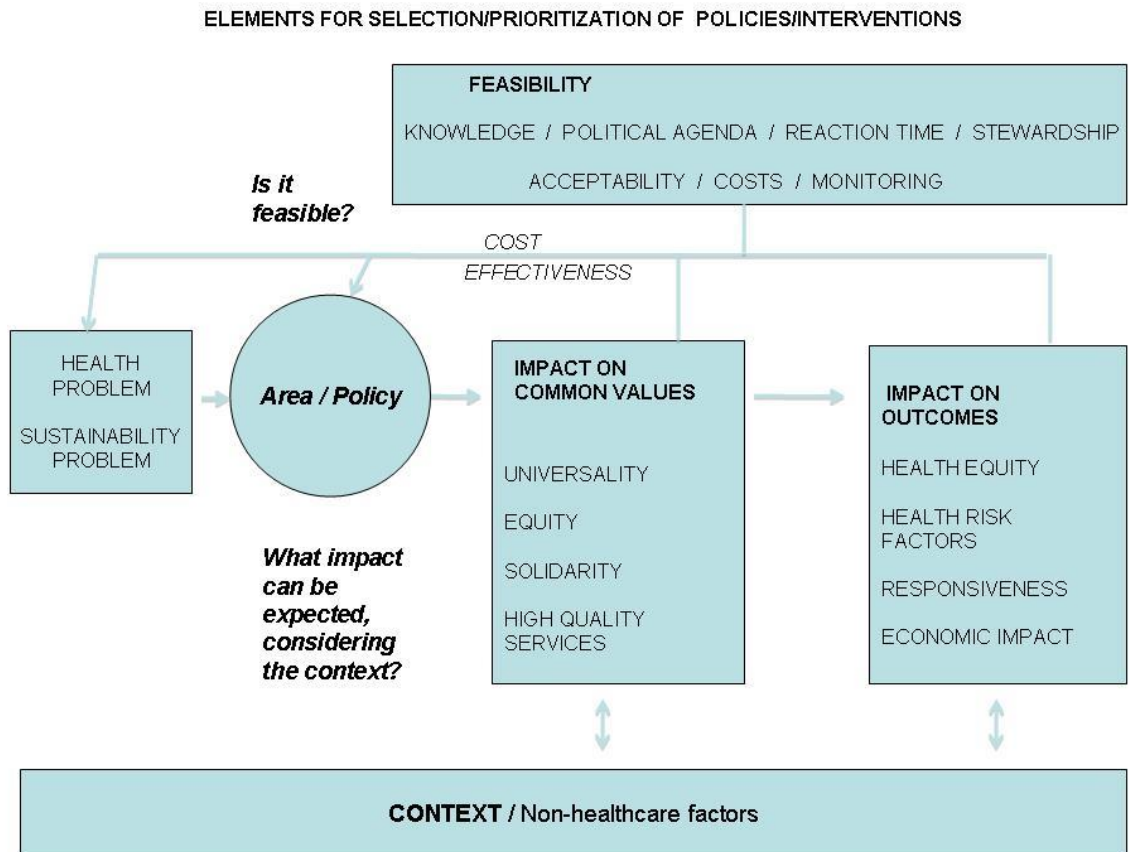
-GINI coefficient

Source: Eurostat

-GDP growth

Source: Eurostat

Figure 1

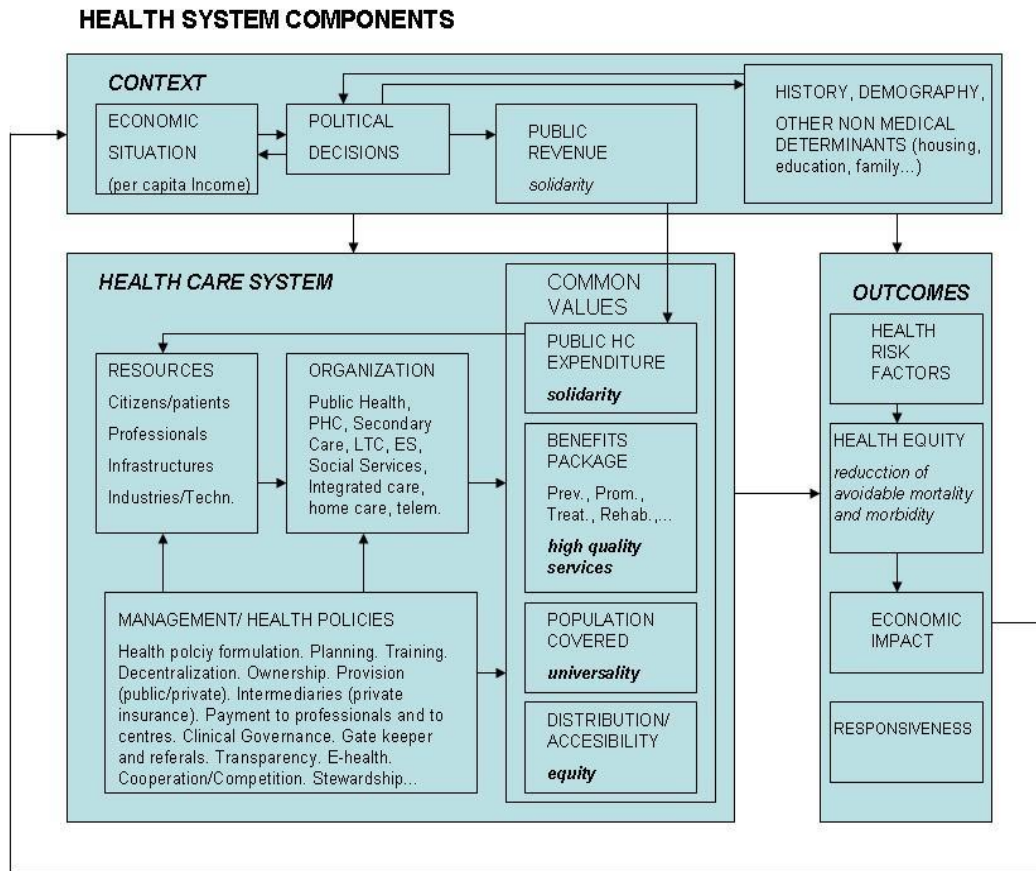


Criteria to assess the performance of health systems

Table 1: ELEMENTS FOR SELECTION/PRIORITIZATION OF POLICIES/INTERVENTIONS

A.1. "IMPACT ON OUTCOMES"	A.2. "IMPACT ON COMMON VALUES"	B. "FEASIBILITY"
<p>Health Impact</p> <ul style="list-style-type: none"> -Life Expectancy at Birth -Healthy Life Years -Self perceived health -Psychological well-being <p>Health Risk Factors</p> <ul style="list-style-type: none"> -Daily smokers -Overweight -Alcohol consumption - Physical activity -Fruit & Veg. consumption 	<p>Universality (coverage)</p> <ul style="list-style-type: none"> -% of population covered by government/social insurance -vaccination coverage 	<p>Knowledge</p> <ul style="list-style-type: none"> -Evidence Based interventions
<p>Responsiveness</p> <ul style="list-style-type: none"> -Self perceived acceptability of health system 	<p>High quality and safety services (benefits)</p> <ul style="list-style-type: none"> -Package of benefits -Amenable mortality -Infant mortality -Avoidable admissions 	<p>Acceptability (Support/ Opposition)</p> <ul style="list-style-type: none"> -Public opinion -Professionals -Industries -Patients associations -Political Parties
<p>Economic impact</p> <ul style="list-style-type: none"> -Sick leave -Full income (VLY+GDP) 	<p>Solidarity (fair financing)</p> <ul style="list-style-type: none"> -PHC exp /GDP -% Public expenditure /total Health care Expenditure -Structure of taxes 	<p>Costs (Affordability)</p> <ul style="list-style-type: none"> -Total costs of the programme, initiative, or system
	<p>Equity (fair distribution)</p> <ul style="list-style-type: none"> -Unmet need for treatment -Waiting Times/Lists 	<p>Political Agenda</p> <ul style="list-style-type: none"> -Electoral Program -Government Program -European Agenda
		<p>Reaction time</p> <ul style="list-style-type: none"> -To implement -To assess impact
C. "CONTEXT"	<p>Addressing the non-health care/social determinants of health</p>	<p>Stewardship</p>
<ul style="list-style-type: none"> -GDP/capita -GINI coefficient -GDP growth 		<p>Monitoring capability</p> <ul style="list-style-type: none"> -Requirements to measure and monitor starting point and achievements. -Reporting/Transparency

Figure 2



APPENDIX II - "TESTING" THE FRAMEWORK

Before testing the Framework empirically, it seems crucial to consult with relevant stakeholders. This is a first test of the Framework in terms of its acceptability for the intended end users, i.e. policy makers.

Filling the Framework with relevant data will reveal how feasible it is to fill each of the cells, the quality of the data available etc. It can then be determined whether any striking differences are observed across the different dimensions and indicators. This could be a first step in determining priority areas. The next step could then be to see whether policy induced change could be monitored across the dimensions. Possible areas for testing are described below by way of example.

SELECTION OF AREAS FOR "TESTING"

In order to test the framework a number of topics or areas could be selected (3-4) with different characteristics.

-Health problems or problems related with the sustainability of the System.

-Policies, Areas for intervention, Organizational model.

Policies recently implemented: measuring impact (retrospectively). Apply the Framework and review the obtained results.

Policies to be implemented: prepare the information system. Apply the Framework and review the new results in one/two years.

In the Sub-group document ("possible criteria...") there are a few examples of "area of intervention" and/or "measures aimed to tackle the area of intervention": introduction of new medical technologies; adoption of new organizational models; innovative financing schemes; the construction of a hospital; the reduction of pharmaceutical prices.

In the same document, when describing the impact criteria, the Sub-group uses the term "policy interventions".

Other examples of "areas" to be tested through the framework: mental health promotion programmes; legislation on tobacco control; training of patients/families (self-management of chronic conditions); home care programmes; diabetes prevention programmes; telemedicine; e-prescription and dispensation; coordination of social and health care services; controlling use of technology; road safety measures; payment systems; clinical governance; gate keeper function; public financed-private managed balance, etc.

EVALUATION COMMITTEE

To test the Framework an Evaluation Committee could be created in each Member State/Region where the tool is going to be tested. The Committee would be composed of key stakeholders such as policy makers and health administrators and staff responsible for the implementation of the policy; scientific experts and independent associations; service users and patients associations. The members of the Committees should receive appropriate information about the Framework, its purpose, and the methods by which it will be employed.

APPLICATION OF THE FRAMEWORK:

The Committee could be engaged in analysing different health problems (for example: lung cancer), and related policies or interventions (for example: tobacco legislation).

One, or more, specific indicator(s) could be added for each specific policy.

When possible they will use quantitative measures. If this is not possible they will use qualitative approaches.

FEASIBILITY: +/-

Is it feasible? The Committee will analyse feasibility dimensions. The different options can be ordered from lower feasibility to higher feasibility, considering the available evidence. (For example, is there support for tobacco legislation? is there opposition to its implementation? How much does it cost? Have we previous experience, knowledge? etc.).

IMPACT: +/-

Which impact can we expect from the implementation of the policies, considering the context? The Committee will analyse the dimensions related to Outcomes, Processes, and Context, taking into account the available evidence from EU Member State experience and the scientific literature.

The different options can be ranked from lower impact to higher impact by the Committee members.

The establishment of a monitoring system will offer new information after the implementation of policies.

PRIORITIZATION

The Committee will offer a prioritization of areas or policies after comparing the cost and the effectiveness (feasibility and impact) of different options.

EUROPEAN LEVEL

The Sub-group will analyse the proposals from the national committees, obtaining conclusions about the applicability of the Framework, and the coherence of the conclusions. It could be complemented with a questionnaire submitted to national/regional decision-makers asking for their opinion about the Framework.

USING THE ASSESSMENT TOOL

It is not only a question of having good reports, or databases, or frameworks, it is also a question of the willingness and the ability to use them.

There are numerous reports and databases available, but many times policy-makers do not use them in their day- to-day decision-making process. This may be due to lack of time, not having access, or not being convinced as to their usefulness.

It is important to design strategies to motivate key stakeholders to use the common Framework, policy tools and resources oriented to improve decision-making processes.

It could be useful to organize in a more systematic way the necessary training and motivational activities for decision-makers at national and regional level, demonstrating the available tools and stimulating the use of common frameworks, such as the one discussed in this paper, aimed at improving the cost-effectiveness of health systems and policies.

Perhaps it would be worth considering the creation of networks and partnerships through seminars and meetings of regional health managers supported by the EU in order to promote the sharing of tools and experiences, as well as common perspectives. "Target" groups for this purpose (training and motivation) might even be members of parliament related with health (European, national, regional), top civil servants from health administrations, leaders of service user organizations, health industries, and specialised journalists.

