WP7

Concept of the technical recommendations & recommendations towards policy making D073/D074

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The Joint Action Health Workforce Planning and Forecasting

The Joint Action on Health Workforce Planning and Forecasting is a three-year programme running from April 2013 to June 2016, bringing together partners representing countries, regions and interest groups from across Europe and beyond, but also no EU countries and international organisations. It is supported by the European Commission in the framework of the European Action Plan for the Health Workforce, which highlights the risk of critical shortages of health professionals in the near future.

The main objective of the Joint Action Health Workforce Planning and Forecasting (JA EUHWF) is to provide a platform for collaboration and exchange between partners, to better prepare Europe's future health workforce. The Joint Action aims at improving the capacity for health workforce planning and forecasting, by supporting the collaboration and exchange between Member States and by providing state of the art knowledge on quantitative and qualitative planning. By participating in the Joint Action, competent national authorities and partners are expected to increase their knowledge, improve their tools and succeed in achieving a higher effectiveness in workforce planning processes. The outcomes of the Joint Action, among other things, should contribute to the development of sufficient health professionals, contribute to minimise the gaps between the needs and the supply of health professionals equipped by the right skills, through the forecast of the impact of healthcare engineering policies and of the re-design of an education capacity for the future.

This document contributes to achieving this aim by ensuring that the results, outputs, activities and benefits of the JAHWF are consolidated. It explains the strategy taken on how to achieve this. To sustain the flow of JAHWF outputs and benefits into the future, a number of priority action areas for HWF planning and forecasting have been identified and are elaborated on in a Sustainability Vision. Furthermore, the report brings together all JAHWF recommendations towards policy making for the sustainability of the cooperation on HWF planning, and all JAHWF technical recommendations, which support the usage and integration of the JA tools produced by WP4, WP5 and WP6. Finally, a Sustainability Business Plan is provided with tangible actions and projects that can support and develop the knowledge and EU cooperation on health workforce planning and forecasting.

A first concept of this document was submitted to the Executive Board of the Joint Action on Health Workforce Planning & Forecasting on January 27th, 2016.

Contributors and Acknowledgments

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Glossary

Term	Definition
Affordability	Keeping the costs of healthcare services within the threshold of what is considered sustainable by the population, national government and/or EU definition.
Age groups	A division of the population according to age, in a pre-determined range, used to distinguish differences among populations. Examples: 0-4; 5-9; 10-14; …. 60-64; 65+.
Anticipation	Thinking ahead of an occurrence in order to determine how to handle it, or how to stop it from happening.
Big picture challenge	A fundamental challenge that policy makers are facing across the (healthcare) system. Meeting a big picture challenge requires focused action at the highest level across the health, social care, education and employment sector.
Circular mobility	A form of migration that is managed in a way allowing some degree of legal mobility back and forth between two countries
Cluster	A set of system factors and driving forces, similar to each other and linked through cause and effect relationships, which describe a key focal issue of concern.
Demand (of HWF)	Number of health professionals required to fill in open vacancies. It should ideally be expressed both headcount and in full-time equivalent (FTE), depending on the forecasting purpose.
Driver / Driving force	A factor that causes or might cause changes, measurable movements or trends in the HWF of a health care system.
Events	Occurrences that can impact the healthcare system.
Emigration (outflow)	The act of leaving one's current country, in this context with the intention to practice a profession abroad.
Factors	A circumstance, fact or influence that contributes to a result. Factors are linked to each other through cause and effect relationships. A change to a factor often will influence one or more other factors in the system.
Full-time equivalent (FTE)	Unit used to measure employed persons to make them comparable, as they work a different number of hours per week, in different sectors. The unit is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker of same kind. A full-time worker is therefore counted as one FTE, while a part-time worker gets a score in proportion to the hours he or she works or studies. For example, a part-time worker employed for 24 hours a week where full-time work consists of 48 hours, is counted as 0.5 FTE.
Healthcare production	The output of healthcare services that can be produced from the given combination of human and non-human resources.
Health professional	Individuals working in the provision of health services, whether as individual practitioner or as an employee of a health institution or programme. Health professionals are often defined by law through their set of activities reserved under provision of an agreement based on education pre-requisites or equivalent.
Health workforce	The overarching term for the body of health professionals (trained and care workers directly involved in the delivery of care) working in a healthcare system.
Horizon scanning	A systematic examination of information to identify potential threats, risks, emerging

	issues and opportunities allowing for better preparedness.
Imbalances (major)	The uneven spread of the active health workforce across countries, regions or professions, resulting in *underserved/overserved areas*.
Indicators (key planning)	A quantitative or qualitative measure of a system that can be used to determine the degree of adherence to a certain standard or benchmark
Job retention	The various practices and policies which enable healthcare professionals to choose to stay in their countries to practise for a longer period of time, or to stay in their practice, or even to keep working full time.
Labour force	The total number of people employed or seeking employment in a country or region.
Megatrend	A large, social, economic, political, environmental or technological change that is slow to form and difficult to stop. Once in place, megatrends influence a wide range of activities, processes and perceptions, both in government and in society, possibly for decades. For example, the ageing population megatrend is composed of trends in birth rate, death rate, quality of healthcare, lifestyle, etc.
Migration (inflow)	The act of (either temporarily or permanently) moving into a country, in this context in order to practice a profession.
Minimum data set (MDS) for Health Workforce Planning	A widely agreed upon set of terms and definitions constituting a core of data acquired for reporting and assessing key aspects of health system delivery
Planning process	A process of defining health workforce planning perspectives, based on needs assessment, identification of resources, establishing the priority of realistic and feasible goals, as well as on administrative measures planning to achieve these goals
Planning system	Strategies that address the adequacy of the supply and distribution of the healthcare workforce in relation to policy objectives and the consequential demand for health labour force
Population	A group of individuals that share one or more characteristics from which data can be gathered and analysed.
Population healthcare needs	The requirements necessary to achieve physical, cognitive, emotional, and social wellbeing, at the individual, family, community and population level of care and services.
Professions (within JA scope only)	The professional qualifications of physicians, nurses, midwives, pharmacists, and dentists, included in the Directive 2005/36/EC of the European Parliament and of the Council.
Qualitative information	Information collected using qualitative methodologies to identify and describe key factors in the health workforce system which are likely to affect the supply and demand of workforces.
Qualitative methodologies	Methods used to gather qualitative information on key factors which are likely to affect the supply and demand of health workforces through techniques such as interviews, document analysis, or focus groups. Includes methods to quantify uncertain parameters for forecasting models.
Reliance on foreign health workforce	The share of foreign (trained & born) health professionals within a country's health workforce in a given year, expressed as a percentage of the stock of the workforce
Retirement	Period or life stage of a health care worker following termination of, and withdrawal

	from the healthcare system. It is expressed in the number of healthcare professionals retiring from the labour market.
Scenario	A description of a sequence of events, based on certain assumptions. Scenarios are used for estimating the likely effects of one or more factors, and are an integral part of situation analysis and long-term planning.
Shortage	The negative gap between supply and demand.
Stakeholder	Groups or individuals that have an interest in the organisation and delivery of healthcare, and who either deliver, sponsor, or benefit from health care.
Stock (of HWF)	Number of available practising and non- practicing health professionals in a country, recorded in a registry or database. It should ideally be expressed in headcount and in full-time equivalent (FTE)
Supply (of HWF)	Number of newly graduated health professionals available to fill in open vacancies. It can be expressed in headcount or in full-time equivalent (FTE)
System	A network of interdependent components that work together to try to accomplish the aim of rendering medical and other health services to individuals.
Threat/opportunity	A future event or system state which may occur due to changes in the system. The impact to the system may be viewed as detrimental (a threat) or beneficial (an opportunity); or a combination of both.
Training	The process by which a person acquires the necessary skills and competencies for delivering healthcare, possibly through post-graduate training programmes (in the framework of Continuous Professional Development) in addition to graduate training programmes
Trend	An emerging pattern of change, likely to impact a system.
Universal coverage	A healthcare system that provides effective, high quality and free of expense preventive, curative, rehabilitative and palliative health services to all citizens, regardless of socio-economic status, and without discrimination
Underserved areas	A region or area that has a relative or absolute deficiency of medical personnel or healthcare resources. This deficiency could present itself in shortages of professionals/specialities/skills required to deliver health services
Variables	A characteristic, number or quantity that can increase or decrease over time, or take various values in different situations.
Weak signal	Barely observable trends or events that indicate that an idea, threat or opportunity is going to arise. Sometimes referred to as *early signals*.
"Wild card"	A situation or event with a low probability of occurrence, but with a very high impact in a system. Sometimes they can be announced by a weak signal.
Healthcare Workforce planning	Strategies that address the adequacy of the supply and distribution of the health workforce, according to policy objectives and the consequential demand for health labour (National Public Health Partnership, 2002).
Workforce forecasting	Estimating the required health workforce to meet future health service requirements and the development of strategies to meet those requirements (Roberfroid et al, 2009; Stordeur and Leonard, 2010).

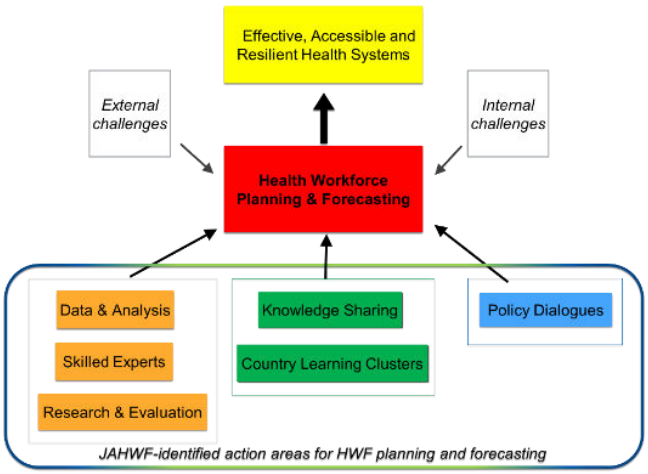
Executive Summary

Aim of the document
This document aims at ensuring that the results, outputs, activities and benefits of the JAHWF are consolidated in the future.

History of EU steps leading to the Joint Action on Health Workforce Planning and Forecasting
The Joint Action on Health Workforce Planning & Forecasting (JAHWF) has been a turning point in EU collaboration on the health workforce, as it made the transition from studies, identification of threats and policy dialogues to actual development of tools and implementation of pilot projects. Looking back at the history of EU steps leading to the Joint Action, it shows that ten years of European investment in HWF strategies have paid off. The JAHWF, as most recent addition to the list, has produced valuable knowledge, resources and opportunities for knowledge sharing on HWF planning and forecasting. As the JAHWF is indebted to the previous EU efforts on the HWF, it aims to incorporate the previous evidence base in its sustainability strategy and walk further down the road to practical realisations.

Sustainability of the Joint Action on Health Workforce Planning and Forecasting
The sustainability strategy of the JAHWF is aimed at ensuring that the results, outputs, activities and benefits of the JAHWF are maintained, both in the short- and long term, after project funding has stopped. It focuses on both policy and technical levels, i.e. it is aimed at technical support and supporting the policy making process. Naturally, both levels build upon each other and the technical content of the JAHWF should feed the policy perspectives. The sustainability of the JAHWF was thoroughly discussed during the *WP7 Workshop on Sustainability Options* in Varna, November 2015. The results of this sustainability dialogue with stakeholders have informed the focus points for WP7. The sustainability strategy is supported by Knoster's Change Model, as this model for complex change may help bring about the changes at MS and European level which are needed to improve and sustain high quality HWF planning and forecasting and cooperation between MSs in the future.

Sustainability Vision of the Joint Action on Health Workforce Planning and Forecasting
To sustain the flow of JAHWF outputs and benefits into the future, a number of priority action areas for HWF planning and forecasting have been identified and are elaborated on in a Sustainability Vision. The Sustainabaility Vision is based on- and building further on the results of the JAHWF and is structured along the lines of the Knoster Change Model. The following priority action areas have been identified, supporting HWF planning and forecasting and ultimately the sustainability of EU health systems:



JAHWF-identified action areas for HWF planning and forecasting

Policy Recommendations

To provide more detail to the Sustainability Vision, this report brings together all JAHWF recommendations towards policy making from other Work Packages in order to support the sustainability of the cooperation on HWF planning. For convenience, all policy recommendations are grouped under five Policy Headlines. These Headlines are based upon the Knoster model, which is a core element of the sustainability strategy of the JAHWF, and they have been validated by WP7 partners in two Consultation Rounds in 2015.

Five Policy Headlines

1. **Incentives**: To ensure the sustainability of the health and care systems in Europe, proactively act on health risks and health workforce imbalances addressing patient needs and safety, and to deliver high quality care that is accessible, effective and affordable, EU/EEA governments would benefit from improving their health workforce planning and forecasting.
2. **Vision**: To improve health and care systems and address health inequities across Europe, it is useful for governments to cooperate at EU/EEA, European level (and international as far as is reasonably possible) so that EU/EEA governments can develop effective health workforce planning supporting sustainable health systems.
3. **Skills**: To provide professional health workforce planning to EU/EEA governments and national and international planning partners, the number of professional analysts skilled in workforce intelligence and other relevant factors (e.g. social, political, educational, …) must be raised appropriate to the needs of MSs
4. **Resources**: To foster knowledge management and economy of scale in health workforce planning, EU/EEA governments, educational bodies, the civil society, employers, professional organisations and international planning partners would need to collaborate and sustain a global expertise and strategic networking on EU/EEA level on new research, essential to continuously develop and evaluate the existing knowledge base
5. **Action plan**: EU/EEA governments can maximise the benefits of health workforce planning by incorporating health workforce dimensions in all action plans and policies impacting health, through development of specific action plans with systematic involvement of the relevant stakeholders, and usage of the available evidence on good practices and effective policy approaches.

Technical Recommendations

To provide more detail to the Sustainability Vision, this report brings together all JAHWF technical recommendations, which support the usage and integration of the JA tools produced by WP4, WP5 and WP6. For convenience, all technical recommendations are grouped under six Technical Headlines. These Headlines are based upon the content and focus of the various JAHWF Work Packages and have been validated by WP7 partners in two Consultation Rounds in 2015.

Six Technical Policy Headlines

1. **Data & Analysis**: Improvements in the use and comparability of data and information in health and care workforce planning and forecasting, can be assisted by HWF Planning Stakeholders supporting data and information exchange between all relevant data providers and learn from experiences of other countries.
2. **Health Systems**: To incorporate health workforce policies in all relevant policies/projects, EU/EEA governments, EU Commission, and HWF Planning partners are encouraged to engage in further research and action programs on the relationship between health systems and their workforce, targeting the improvement of healthcare performance and management, patients' outcomes, working conditions …
3. **Implementation**: To start and advance health workforce planning and forecasting on national and/or regional level, policy makers may benefit from the implementation paths, good practices and case studies laid out by the Outputs (deliverables) of the Joint Action on Health Workforce Planning and Forecasting.
4. **Competence Dimension**: To better consider the competences (knowledge, attitude and skills) required for complex and integrated healthcare provision via integrated and multi-professional care delivery models, EU/ EEA governments and policy partners would be best advised to work towards health workforce planning across professions.
5. **Education & Training**: Improvements in expertise in health workforce planning can be assisted by sharing of knowledge and making available specific and relevant (self-)training for all stakeholders involved in the process, supported by a knowledge repository or other similar tools.
6. **Cross-border Mobility**: To increase the evidence for developing mechanisms to address cross-border mobility issues (e.g. imbalances), EU/EEA governments and planning partners need to work together on common mobility indicators, while respecting EU and national data protection legislation, and information exchange on HWF mobility.

Sustainability Business Plan

To help support the future uptake of the recommendations and develop the knowledge and EU cooperation on health workforce planning and forecasting, a Sustainability Business Plan is provided with tangible actions and projects. The list of proposed next actions and projects is based on the deliverables and work activities of the Joint Action. It was obtained by a mapping technique, used to identify proposals that jointly execute various recommendations and workgroup conclusions. Four categories of actions were distinguished: (1) Studies & Research, (2) EU Level Projects, (3) Knowledge Sharing, and (4) National / Regional projects. For each proposed action, an action sheet is provided which identifies possible partners, products, workload, timing and target groups & potential benefits.

Conclusions

Follows

Structure of the Report

This report presents the sustainability strategy of the Joint Action on Health Workforce Planning and Forecasting (JAHWF). It aims to consolidate the experiences of the JAHWF, so as to have a higher impact of HWF planning and forecasting on policy decision making, now and in the future.

The JAHWF has been a turning point in EU collaboration on the Health Workforce, as it made the transition from studies, identification of threats and policy dialogues to actual development of tools and implementation of pilot projects. The JAHWF is indebted to the previous EU efforts on the HWF and aims to incorporate the previous evidence base in its sustainability strategy, so as to maximise results in the long term. Hence, this Sustainability Report starts by looking back at the origins of the EU Health Workforce policy actions (Chapter 1).

After this short history, the Sustainability of the Joint Action on Health Workforce Planning and Forecasting (Chapter 2) is introduced. This section explains how to understand the sustainability of the JAHWF, how it has been operationalised and what strategy is taken to achieve sustainability of the JAHWF in the short- and long term.

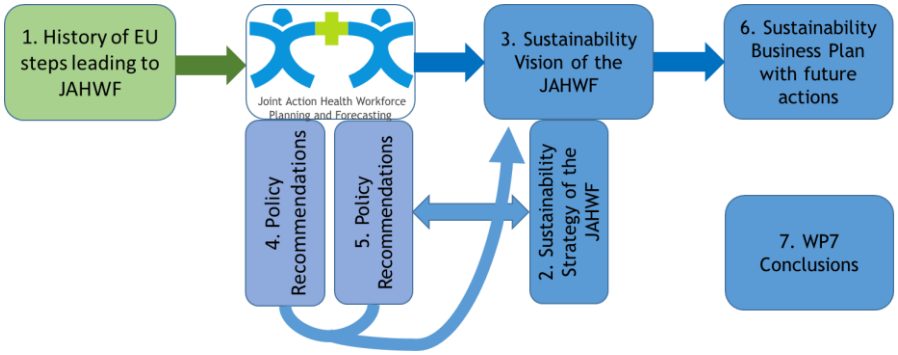
Subsequently, the JAHWF Sustainability Vision (Chapter 3) is presented which is based on- and building further on the results of the JAHWF, and provides directions and a number of priority action areas on how the obtained JAHWF results and benefits might be sustained in the future.

The next Chapters (4 and 5) bring together all recommendations from JAHWF Deliverables in one convenient overview, divided into policy recommendations (*what?*) and technical recommendations (*how?*) so that readers can browse directly to the part of interest. For each recommendation, a link is provided to the relevant JAHWF deliverable on which it is based, so that readers who want more detailed information can access the resource in one click. Recommendations stemming from analyses performed by WP7 (including the WP7 Circular Migration Report, Society Survey, Workshop Reports & Scoping Review) are included in these chapters as well. A methodological justification is provided in Appendix 1.

The report ends with presenting a Sustainability Business Plan for the JAHWF to help support the future uptake of the recommendations as well as the sustainability of JAHWF results (Chapter 6). It contains tangible actions and projects that can support and develop the knowledge and EU cooperation on health workforce planning and forecasting. Finally, the main conclusions of WP7 are presented (Chapter 7).

Reading path for the Sustainability Report

The schematic representation below will help the reader to understand the organisation of the Sustainability Report. Readers may click on the hyperlinks and flow to the connected section.



As can be seen, this Deliverable is structured based on the logic explained above, but its sections can be read separately and in a non-linear fashion as references for specific subjects. Read together, they will provide the reader with a more complete overview on the sustainability of the Joint Action on Health Workforce Planning and Forecasting.

1. History of EU steps leading to the Joint Action on Health Workforce Planning and Forecasting (JAHWF)

The Joint Action on Health Workforce Planning & Forecasting (JAHWF) is a turning point in EU collaboration on the health workforce; stepping from studies, identification of threats and policy dialogues to the actual definition of tools and implementation of pilot projects. While the Joint Action in this sense is a major step in a journey of several years, it is important to also situate it as part of a continuum of awareness raising steps, followed by collection of knowledge and first implementation trials. A sustainability strategy of the Joint Action should walk down the road to further practical realisations, and refer back to the origins of the EU Health Workforce policy actions to measure whether objectives are obtained. To support this process, the table below lines up 10 years of European investment in Health Workforce strategies. It should be noted that this is in not a detailed analysis; most of the summarized information that is presented below is based on quotes from the summaries and conclusions chapters of the listed publications. A summary for each publication was made focused on the HWF planning context, yet without transforming the original messages.

2007 **White Paper** Together for Health: A Strategic Approach for the EU 2008-2013[1]	In order to meet the major challenges facing health in the EU, the European Commission identified "supporting dynamic health systems and new technologies" as one of its key objectives, recognizing that EU health systems are under mounting pressure to respond to the challenges of population ageing, rising citizen expectations, migration and mobility of patients and health professionals. The White Paper also recognizes that the health sector is a major provider of employment and training and a key driver of the expansion of the services sector.
This Green Paper examines the challenges that the European Union must tackle with regard to its health workforce, such as: • Demography, a sustainable health workforce and public health capacity • Ageing population and increase in the number of chronic conditions, causing rising demand for health care • Lack of new health professionals to replace the retiring workforce, and insufficient training capacity. • Existing inequalities in access to care. • Technological developments impacting care provision. Also handicaps to the capacity to establish policies are highlighted : • The importance to plan which specialised skills will be the most	**2008** **Green Paper** On the European Workforce for Health[2]

[1] http://ec.europa.eu/health/ph_overview/Documents/strategy_wp_en.pdf
[2] http://ec.europa.eu/health/ph_systems/docs/workforce_gp_en.pdf

necessary. • Little availability of comparable data or updated information about the health workforce and its mobility. • Increased mobility and migration of the health workforce, with several negative effects on health systems, like brain drain from third countries to the European Union. The Green Paper also proposes several ways forward, including: • strengthening capacity for screening, health promotion and disease prevention; • making *numerus clausus* more flexible in application to health workers; • exchanging good practice on their mobility; • reconsidering the principles of recruiting staff from third countries; • collecting comparable information about health workers; • guaranteeing training for these workers in the use of these new technologies, amongst other skills; • further encouraging entrepreneurs to enter the health sector.	
2008 **EPSU - HOSPEEM** Code of conduct and follow up on Ethical Cross-Border Recruitment and Retention in the Hospital Sector[3]	The European social partners in the hospital sector, via their Code of Conduct, support strategies that promote adequate and high-quality health workforce supply in all countries. EPSU and HOSPEEM encourage and contribute to policies at local, national and European level with the purpose to enhance workforce retention. They acknowledge the possible mutual benefits of migration for workers and employers in source and destination countries, deriving from the exchange of practices, knowledge and experience. Key principles: • High quality health care, accessible for all people in the EU • Registration and data collection • Workforce planning • Equal access to training • Open and transparent information about hospital vacancies across the EU • Registration, permits and recognition of qualifications • Promoting ethical recruitment practices
• No access to final report of Observatory policy dialogues → follows	**2009**

[3] http://www.epsu.org/a/3715

• Open consultation on Green Paper An overwhelming majority of respondents recognises a European dimension for the HWF. Their main concern is the perceived shortage of health professionals, in particular specialist doctors and nurses, now and in the future. Four areas of action were defined: 1. Mapping the health needs of the future and assisting MSs in workforce planning 2. Mapping the skills and competences for the future and assisting MSs in training the workforce accordingly 3. Raising the attractiveness of health professions by improving working conditions 4. Addressing the challenges of global migration and mobility within EU	**European Observatory on Health Systems and Policies** Series of Policy Dialogues on the employment situation of nurses and social care workers in the European Union Changing roles and skills of nurses and social care workers for better coordination of care in Europe Planning for a well-skilled nurses and social care workforce in the EU Migration of nurses in the European Union **European Commission** Report on the open consultation on the Green paper on the European Workforce for Health[4]
2010 **European Observatory on Health Systems and Policies** Investing in Europe's health workforce of tomorrow: scope for innovation and collaboration[5] **WHO** WHO Global Code of Practice on the International Recruitment of Health Personnel[6] **Belgian European Union Presidency Ministerial Conference** Investing in Europe's health workforce of tomorrow: scope for innovation and collaboration[7] **European Health Forum Gastein** Forum on Investing in Europe's health workforce of tomorrow (organised by EC)[8] **Council of the European Union** Council conclusions on investing in Europe's health workforce of tomorrow: Scope for innovation and collaboration[9]	• While health workforce planning is not an exact science, good tools are available to help policy-makers to meet the challenge of future needs. Provided initiative on the quality and comparability of data among member states. • There is a need for more precise health workforce planning because of the mobility of patients and health professionals, the shortage of health professionals, the economic crisis and the emphasis on an efficient deployment of the HWF. • This generates a need for common definitions, comparable data, a knowledge base and a network of professionals in HWF planning. • This should start now in order to provide the right number of health workers, with the right skills, in the right place, with the right attitudes and commitment, doing the right work effectively and efficiently, at the right cost, with the right productivity at the time we need them. • Health workforce planning requires an integrated approach because of the interdependencies of different disciplines

[4] http://ec.europa.eu/health/archive/ph_systems/docs/workforce_report.pdf
[5] http://www.healthworkforce4europe.eu
[6] http://www.who.int/hrh/migration/code/practice/en/
[7] http://www.euro.who.int/en/data-and-evidence/evidence-informed-policy-making/publications/joint-policy-briefs-and-policy-summaries/published-for-the-belgian-european-union-presidency-ministerial-conference-on-the-european-health-workforce
[8] http://www.ehfg.org/681.html
[9] https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/118280.pdf

	and professionals, shifts in tasks and responsibilities. • The impact on the quality of care should be the final criterion for HWF initiatives. • The EU can play an important role in supporting member states in developing HWF planning skills such as sharing good practice, building a network for HWF planners, and providing standards for comparability of data. • There is a need to develop appropriate initiatives to invest in sufficient, motivated and well-skilled health professionals in order to protect the viability and accessibility of the health systems WHO Code to be included The council recognises the interdependency between Member States in the field of human resource policies of the health care sector, especially as regards the mobility of health care professionals, and invites Member States to: 1. strengthen collaboration and exchange of good practice, including on the collection of high- quality and comparable data, to better support the development of Member States' health workforce policies for the future, contributing to equal access to care for all, with particular attention to forecasting future health workforce needs and effective health workforce planning throughout the European Union; 2. raise awareness of the importance of attractive working environments, working conditions and professional development opportunities; 3. stimulate training and education of the health workforce with the aim of further promoting the quality and safety of care; 4. adhere to the WHO Global Code of Practice on international recruitment.
• Current models of nursing resources planning largely omit the quality of nursing staff and of resulting patient care. RN4CAST studied what effects hospital nurse staffing, skill mix, educational make-up and quality of the nurse-work environment have on	2011 RN4CAST[10]

[10] http://cordis.europa.eu/project/rcn/91239_en.html

hospital mortality, failure to rescue, quality of care and patient satisfaction. One of its main conclusions is that nurse staffing cuts to save money might adversely affect patient outcomes. • MoHProf aimed to analyse current trends of mobility of health professionals, physicians and nurses in particular within the EU, from third countries to the EU and vice versa. Main recommendations were to: ▪ Monitoring and managing health workforces ▪ General strategic planning at EU and country level ▪ Learning by doing: knowledge development and exchange at EU level ▪ Fundamental need: self-sustainable health systems ▪ Manage the rural/remote urban split ▪ Assist countries to build and maintain sustainable health systems and strengthen international cooperation ▪ Improve the implementation of the WHO Code on recruitment of health workers	Nurse forecasting: human resources planning in nursing **MoHProf**[11] Mobility of Health Professionals
2012 **Communication from the Commission** Towards a job-rich recovery[12] **Commission Staff Working Document** Action Plan for the EU Health Workforce[13] **Matrix Insight** EU level Collaboration on Forecasting Health Workforce Needs, Workforce Planning and Health Workforce Trends – A Feasibility Study[14]	• Employment in the EU health and social care sectors is growing fast due to population ageing and an expansion of services to better meet quality requirements and rising demand. Maintaining an adequate supply and quality of health services under increased budget constraints is both a social and employment challenge. • EU health systems need to find innovative solutions through new technologies, products and organisational changes which depend on a high quality motivated health workforce of sufficient capacity and with the right skills to meet the growing demands of healthcare. • Member States agreed on the added value of European cooperation to help tackle EU health workforce shortages and invited the Commission to propose concrete actions in the following areas, bearing in mind the Member States competence for organising and delivering healthcare systems: ○ Forecasting workforce needs and

[11] http://cordis.europa.eu/result/rcn/162484_en.html
[12] http://ec.europa.eu/health/workforce/docs/communication_towards_job_rich_recovery_en.pdf
[13] http://ec.europa.eu/health/workforce/docs/staff_working_doc_healthcare_workforce_en.pdf
[14] http://ec.europa.eu/health/workforce/docs/health_workforce_study_2012_report_en.pdf

	improving workforce planning methodologies ○ Anticipating future skills needs in the health professions; ○ Share good practice on effective recruitment and retention strategies for health professionals • European countries face similar challenges when it comes to sustainability of their health systems. These have a clear European dimension and European collaboration can help address them. Scenarios for collaboration under the EU Joint Action on HWF are presented.
The objective of the JAHWF is to help countries move forward on the planning process and to prepare the future of the HWF by creating a platform for collaboration and exchange between MSs. This will support MS and Europe in their capacity to take effective and sustainable measures to address the supply and demand for health workers. The JAHWF works towards: (1) better understanding of terminology (2) better monitoring of the HWF by access to timely data (3) updated information on mobility and migration trends in the EU (4) guidelines on quantitative and qualitative HWF planning methodology (5) increased quantitative and qualitative planning capacity (6) estimation of future skills and competencies needed in the health workforce (7) a platform of cooperation to find possible solutions on the expected shortage of HWF (8) a higher impact of HWF planning and forecasts on policy decision making	**2013** **Joint Action on Health Workforce Planning** Kick-Off
2014 **Joint Action on Health Workforce Planning** Minimal Data Requirements & Guidelines on Qualitative Methodologies	• The JAHWF produces a minimal data set for developing a demand and supply health workforce planning model. A majority of countries does not yet collect these data. The Joint Action pilot projects start studying the best practice to achieve this collection. • Qualitative information complements quantitative forecasting, ensuring that emerging trends with important future impacts for the HWF are taken into account. The Joint Action provides guidelines listing up main methods in use.

European Commission Review and mapping of continuous professional development and lifelong learning for health professionals in the EU[15] **Prometheus II** Health professional mobility in a changing Europe. New dynamics, mobile individuals and diverse responses[16] **Communication from the Commission** On effective, accessible and resilient health systems[17]	• CPD is an ethical obligation for all health professionals to ensure their professional practice is up-to-date. It is pivotal for meeting patient, health service delivery and individual professional learning needs. CPD systems across Europe are highly complex and show different approaches across professions and countries, and no one system is preferable to another. European cooperation to exchange experience and good practices is largely welcomed. • Health professional mobility changes the numbers of health professionals and skill-mix of the workforce, with consequences for health-system performance. Countries must factor in mobility if they are forecasting and planning their workforce requirements. To this end they need clarity on mobility trends and the mobile workforce, and effective interventions for retaining domestic and integrating foreign-trained health workers. • To increase accessibility of healthcare, health workforce planning efforts should develop sustainable solutions at EU level to ensure sufficient numbers of adequately trained health professionals with the right skills to provide care to all who need it.
• Experiences from 7 countries on planning methodologies are gathered within a handbook and EU countries benefit of useful practices to develop a planning system fitting their own health system. • Main differences between data provided by EU countries to international level reporting are listed, providing useful insight on applied practices. The main enhancements recommended are to be applied at Country/Region level. • Various practices related to the international mobility of health professionals within and from outside of EU showed that, despite the free market, actions can be taken within EU to foster the application of the WHO Code of Practice. • Policy actions on retention & recruitment (R&R) are mostly needed to address HWF imbalances between and inside countries. Evidence on R&R and innovative solutions	**2015** **Joint Action on Health Workforce Planning** Handbook of Planning Methodologies Across Europe, Terminology Report & Applicability of WHO Code report **European Commission** Recruitment and Retention of the Health Workforce in Europe study[18]

[15] http://ec.europa.eu/health/workforce/key_documents/continuous_professional_development/index_en.htm
[16] http://www.euro.who.int/en/health-topics/Health-systems/health-workforce/publications2/2014/health-professional-mobility-in-a-changing-europe.-new-dynamics,-mobile-individuals-and-diverse-responses
[17] http://ec.europa.eu/health/healthcare/docs/com2014_215_final_en.pdf
[18] http://ec.europa.eu/health/workforce/docs/2015_healthworkforce_recruitment_retention_annex2_en.pdf

are brought together to inspire policy makers.	
2016 **Joint Action on Health Workforce Planning** Mobility Data Report, Circular Migration Report, Planning Data Report, Future Skills Report & Final Guide **Joint Action on Health Workforce Planning** Pilot Projects and Feasibility Studies. **Joint Action on Health Workforce Planning** Handbook of Planning Sustainability reports	To be defined once approved and published.
Ten years of European investment in HWF strategies have paid off. As most recent addition to the list, the JA has produced valuable knowledge, resources and opportunities for knowledge sharing on HWF planning and forecasting. As a result, the future of HWF planning & policy looks promising. Yet opportunities must be sized and the momentum should not be lost. Therefore, the JAHWF produced a Sustainability Business Plan (see Chapter 7 of this document) with tangible actions and projects that can support and develop the knowledge and EU cooperation on health workforce planning and forecasting.	**2017 and beyond**

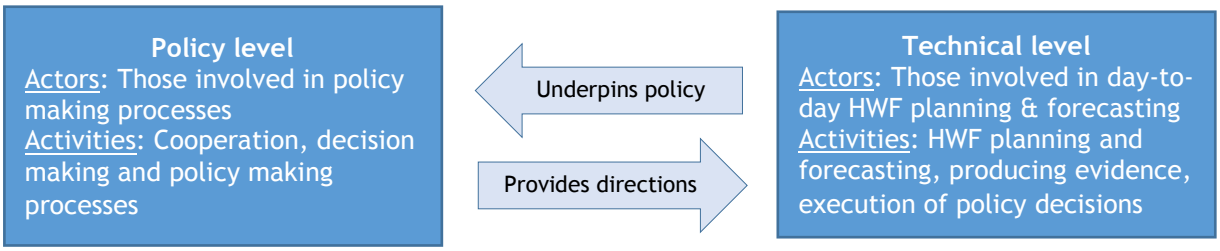
2. Sustainability of the Joint Action on Health Workforce Planning and Forecasting

2.1 Definition of sustainability of the JAHWF

The sustainability strategy of the JAHWF is aimed at **ensuring that the results, outputs, activities and benefits of the JAHWF are maintained** after project funding has stopped. Hence, the focus is on sustaining the flow of JAHWF results, outputs and benefits into the future rather than sustaining the JAHWF itself, even though parts of the Action may be continued at a smaller scale. As sustainability is multi-time scaled, attention will be paid to both **short-term and long-term sustainability-creating actions**. For example, the proposed structure for the Network of Experts can start contributing to sustaining JAHWF cooperation benefits the day after the JAHWF has officially ended. The Sustainability Vision, on the other hand, addresses the need for a new ambitious EU Action Plan for the Health Workforce. This requires more long-term thinking as effects which may help sustain the results of the JAHWF may only be expected in years.

2.2 JAHWF sustainability at policy and technical levels

Sustainability is a multi-level concept[19], made up of various components. The sustainability of the JAHWF focuses on both policy and technical levels, i.e. it is aimed at technical support and supporting the policy making process. During the WP7 Workshop on Sustainability Options (Varna, November 2015), the general feeling among participants was that there is only a fine line between the technical and policy recommendations that were formulated by the various JAHWF deliverables. It was concluded that both levels build upon each other and that the technical content of the JAHWF should feed the policy perspectives. Hence, WP7 integrates these two components to support JAHWF sustainability. The result is this report, which acknowledges the **strong interrelatedness of policy and technical levels in HWF planning and forecasting**, while retaining the distinction between the two levels. For clarity, we provide the following explanations for both levels:



2.3 Operationalisation of JAHWF sustainability through sustainability dialogues

The sustainability of the JAHWF was thoroughly discussed with stakeholders during the WP7 Workshop on Sustainability Options (Varna, November 2015). An inventory was made of how to understand sustainability during the final stages of the JAHWF and how Work Package 7 could

[19] Galpin, T. J., & Whittington, J. L. (2012). Creating a culture of sustainability in entrepreneurial enterprises. *Entrepreneurship, Innovation, and Sustainability*, 67-87.

contribute to achieving this sustainability in the most optimal way. First, all participants answered questions on these issues on an individual basis, after which a plenary discussion took place. The results of this **sustainability dialogue with stakeholders** can be found in the table below.

JAHWF SUSTAINABILITY COMPONENTS	JAHWF SUSTAINABILITY OPERATIONALISATION THROUGH WP 7
How to understand sustainability of the JAHWF?	**How can WP7 contribute to sustainability of the JAHWF?**
A sustainability infrastructure for the results of the JA HWF.	Draft a vision for the future.
Present HWF planning as input to political processes and align it with the broader political context.	Generate clear and effective recommendations to all stakeholders on HWF planning and forecasting, useful for both the EC and for all individual MSs.
Generate political will, support and resources to maintain and deepen cooperation and initiatives that resulted from the JAHWF at EU and national level.	Present results in a way that can be easily used by policy makers.
Sustain the Network of people/experts, at both national and EU level, to share knowledge and learn from each other.	Design a structure- and map what financial resources are needed to maintain the Network.
Application and implementation of the knowledge, methods, techniques and experiences of the JAHWF.	Clarify, consolidate and bring together the results of the other WPs into one cohesive whole – the evidence base of the JAHW – and develop mechanisms to access the tools that were developed (e.g. through the Network).
Availability of data, monitoring, analysis and management of planning processes.	Develop mechanisms to access the tools that were developed.
Continuous research on the HWF planning and forecasting process.	Clarify, for example through the Network, what priority research topics are discerned to be included in the next EU Action Plan.

2.4 Strategy to achieve JAHWF sustainability

Sustainability, once defined and operationalised, does not arise from words and ideas alone. The quest for JAHWF sustainability requires a strategy to achieve its goals. Therefore, key elements of a sustainability strategy were already developed in an early stage of the JAHWF through the *Sustainability Plan* (D071). This Plan contains a detailed description of the sustainability activities in the JAHWF and was developed with- and approved by stakeholders. The *Sustainability Plan* was largely built on the basis of the Knoster Change Model, which forms the starting point for our Sustainability Strategy.

2.5 Knoster Change Model

Knoster's model for managing complex change[20] sets out the five necessary elements for successful change to take place, namely: *vision, incentives, skills, resources* and *action plan*. A change process has to cover all elements for change to take place. If one element is missing, the outcome of the process is likely to be suboptimal. The Knoster Change Model is a useful tool to support the

[20] Knoster, T. (1991) *Presentation at TASH Conference*, Washington DC (Adapted by Knoster from Enterprise Group, Ltd.).

sustainability strategy of the Joint Action, as it may help bring about the changes at MS and European level which are needed to improve and sustain high quality HWF planning and forecasting and cooperation between MSs in the future. For example, looking at the Knoster model, if there would have been no *incentive* for Member States to participate in the Joint Action, it is very likely that they would have resisted participating, no matter how brilliant the JA vision, skills, resources and action plan. This would have severely limited the outcomes and results that the Joint Action could achieve and can achieve in the future. The scheme below shows a version of Knoster's change model adapted for use in the JAHWF sustainability. It is explained in further detail below.

Knoster Change Model adapted for use in JAHWF Sustainability:

Change elements						*Outcomes*
Incentives	Vision	Skills	Resources	Action Plan	=	**Change**
	Vision	Skills	Resources	Action Plan	=	Resistance
Incentives		Skills	Resources	Action Plan	=	Confusion
Incentives	Vision		Resources	Action Plan	=	Anxiety
Incentives	Vision	Skills		Action Plan	=	Frustration
Incentives	Vision	Skills	Resources		=	Treadmill

Knoster Change Model adapted for use in JAHWF Sustainability

As can be seen from the history of EU steps leading to the Joint Action on Health Workforce Planning and Forecasting, which opened this report, investments on HWF strategies have always been driven by the ultimate aim of making Europe's health systems more sustainable. For example the 2014 Communication from the Commission on effective, accessible and resilient health systems[21] mentions 'health workforce planning efforts' as an important part of the EU agenda for effective, accessible and resilient health systems. This is, and has been from the beginning, the core *incentive* for the European Union, the European Commission and EU Member States to invest in HWF strategies. Knoster's model provides us with a framework to analyse the links between achieving sustainable health systems in Europe (*incentive*), the important contribution that HWF planning can make to this (*vision*), and it helps to structure our way of thinking on how to achieve this, now and in the future. It focuses attention on the data, analysis, experts and the research and evaluation that are required (*skills*), the knowledge sharing through experts and country learning clusters which can help EU Member States to learn from each other's experiences and expertise (*resources*) and finally policy dialogues to get things going (*action plan*). Based on the Knoster model and its five crucial elements needed to bring about changes at MS and European level to improve and sustain high quality HWF planning and forecasting and cooperation between MSs in the future, WP7 drafted its Sustainability Vision which will be presented in detail in the next chapter.

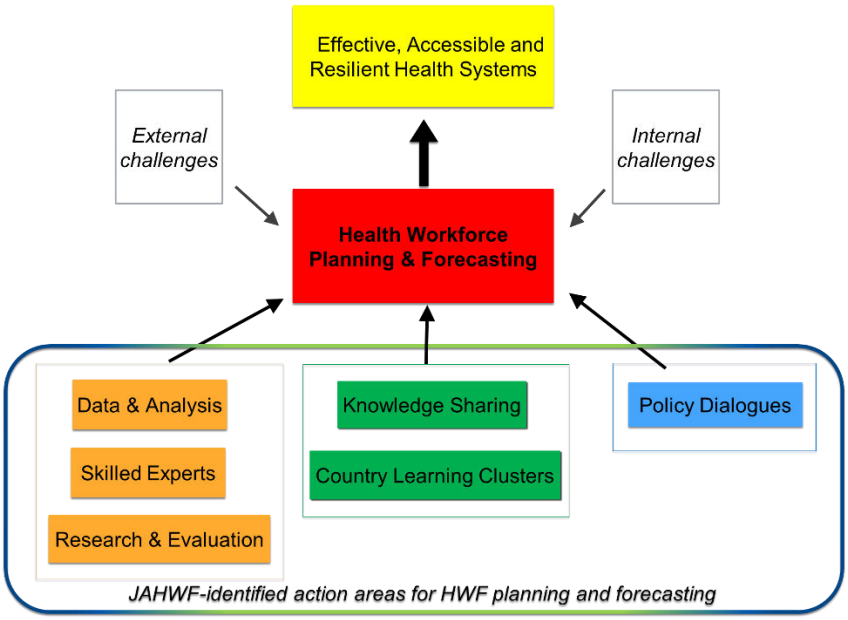
[21] http://ec.europa.eu/health/healthcare/docs/com2014_215_final_en.pdf

3. Sustainability Vision of the Joint Action on Health Workforce Planning and Forecasting (JAHWF)

- Health workforce planning and forecasting are crucial for ensuring *effective, accessible and resilient health systems*.
- The JAHWF has provided EU Member States (MSs) with a valuable platform for collaboration and exchange in this area and has developed tools that support MSs in taking more effective and sustainable measures on national level *health workforce planning and forecasting*.
- This JAHWF Sustainability Vision provides directions on how the obtained JAHWF results and benefits might be sustained in the future.

3.1 How to sustain the Joint Action on Health Workforce Planning and Forecasting?

To sustain the flow of JAHWF outputs and benefits into the future, a number of priority action areas for HWF planning and forecasting have been identified. They are depicted in the figure below, supporting HWF planning and forecasting and ultimately the sustainability of EU health systems.



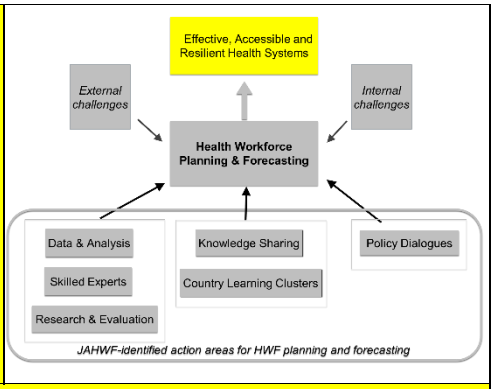
3.2 Priority action areas to sustain the JAHWF results and strengthen HWF planning and forecasting:

- *Data & Analysis*: improve the collection of reliable HWF data among all Member States, and develop advanced data collections and analyses that link back to health system outcomes.
- *Skilled Experts*: have a sufficient number of professionally skilled experts with advanced labour market analysis- and other relevant skills.
- *Research & Evaluation*: further develop the evidence base on the HWF and HWF planning, taking into account the altering landscape in which HWF planning takes place.
- *Knowledge Sharing*: knowledge sharing and the sharing of information and good practices, at EU level and between MSs, can serve as preparatory input for policy dialogues.

- *Country Learning Clusters*: cluster groups of countries that can be expected to learn from each other because they share the same conditions and starting position for HWF planning.
- *Policy Dialogues*: policy dialogues leading to shared HWF and health system objectives, strategies and policies have to take place at both MS level and European level.

All elements of the Sustainability Visison are explained in more detail below, based on the structure of the Knoster Change Model and its five crucial elements needed to bring about changes at MS and European level to improve and sustain high quality HWF planning and forecasting and cooperation between MSs in the future.

Effective, Accessible and Resilient Health Systems

To ensure the sustainability of the health and care systems in Europe, proactively act on health risks and health workforce imbalances addressing patient needs and safety, and to deliver high quality care that is accessible, effective and affordable, EU/EEA governments would benefit from improving their health workforce planning.	**INCENTIVES**	
Technical Headlines (see also Chapter 5):		
• Technical Headline 5.2: To incorporate health workforce policies in all relevant policies/projects, EU/EEA governments, EU Commission, and HWF Planning partners are encouraged to engage in further research and action programs on the relationship between health systems and their workforce, targeting the improvement of healthcare performance and management, patients' outcomes, working conditions …		
Further reading:		
• European Commission (2012). Action Plan for the EU health workforce • Matrix Insight (2012). EU level Collaboration on Forecasting Health Workforce Needs, Workforce Planning and Health Workforce Trends – A Feasibility Study		

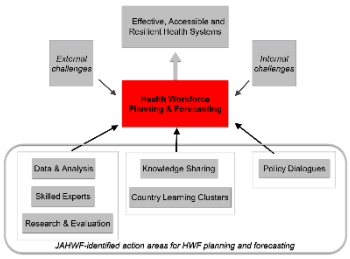
Health systems play a central role in modern societies in helping people maintain and improve their health, and Member States' future ability to provide high quality care will depend on making health systems more effective, accessible and resilient. In achieving this goal, a crucial role is played by a sufficient and adequately trained health workforce. After all, any shortage of certain categories of health workers may create access problems to healthcare and may in the end be paid for by Europe's population through patient outcomes, reflected in morbidity and mortality rates and overall level of population health and well-being[22]. At the same time, a surplus of health workers would involve a waste of human capital. Health care is highly labour intensive and one of the largest

[22] RN4CAST- Nurse forecasting in Europe. www.rn4cast.eu

economic sectors in the EU, accounting for around 17 million jobs (8% of all jobs)[23]. This means that an optimal HWF planning and forecasting system – i.e. the absence of over- and undersupply of health workers – can also improve employment-to-population ratios within EU/EEA countries and spur economic growth.

As European health systems find themselves faced with growing challenges – including an ageing population, rise of chronic diseases, increasing costs and an uneven distribution and shortages of the health workforce[24] – health system reforms are underway in many EU Member States. To effectively address these health system challenges, Member States should structurally include HWF planning and policies in their health system reforms.

Health Workforce Planning and Forecasting

To improve health and care systems and address health inequities across Europe, it is useful for governments to cooperate at EU/EEA, European level (and international as far as is reasonably possible) so that EU/EEA governments can develop effective health workforce planning supporting sustainable health systems.	**VISION**	

Technical Headlines (see also Chapter 5):

- Technical Headline 5.3: To start and advance health workforce planning and forecasting on national and/or regional level, policy makers may benefit from the implementation paths, good practices and case studies laid out by the Outputs (deliverables) of the Joint Action on Health Workforce Planning and Forecasting.
- Technical Headline 5.6: To increase the evidence for developing mechanisms to address cross-border mobility issues (e.g. imbalances), EU/EEA governments and planning partners need to work together on common mobility indicators, while respecting EU and national data protection legislation, and information exchange on HWF mobility.

Further reading:

- D052 Handbook on HWF Planning Methodologies
- D054 Report on WP5 Pilot Projects
- D064 Report on WP6 Pilot Study Experiences

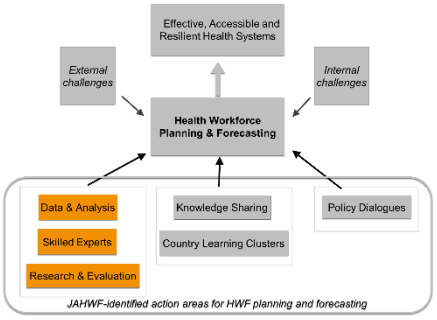
To achieve the ultimate aim of sustainable health systems across Europe, a sufficient and adequately trained health workforce plays a key role. In order to ensure a health workforce of the right size, with the right skills, in the right place, at the right time, a central role is taken by **health workforce planning and forecasting**. The JAHWF has provided EU Member States with a platform

[23] Commission Staff Working Document on an Action Plan for the EU Health Workforce. SWD(2012) 93 final.
[24] See for an overview of external and internal challenges for European health systems also: Action Plan for the EU Health Workforce (2012) and Matrix Insight Feasibility Study on the HWF (2012).

for collaboration and exchange on effective and sustainable HWF planning and forecasting, and various tools have been developed to support this process. The *Handbook on HWF Planning Methodologies* – containing a collection of good practices and theoretical examinations of HWF planning across EU countries – clearly shows the merits of cooperation and knowledge exchange, while the *JAHWF Pilot Projects* have shown the merits of starting an implementation process through the implementation path presented in the Handbook.

To sustain and extend these results in the future, HWF planning and forecasting should be structurally taken into account in all HWF policies. After all, planning addresses only one part of HWF policies and HWF policies in their turn are only one component of health systems, acting in close interaction with other health system policies. Good working and living conditions, for example, are important in health workers' decisions where to locate and may affect the distribution and mobility patterns of the HWF and hence (inter)national inequities. The EU Action Plan on Health Workforce[25] and the European exchange of information on recruitment and retention strategies[26] form good starting points for combining HWF planning and forecasting with wider health system policies.

Data & Analysis, Skilled Experts and Research & Evaluation

To provide professional health workforce planning to EU/EEA governments and national and international planning partners, the number of professional analysts skilled in workforce intelligence and other relevant factors (e.g. social, political, educational, …) must be raised appropriate to the needs of MSs.	**S K I L L S**	 *JAHWF-identified action areas for HWF planning and forecasting*

Technical Headlines (see also Chapter 5):

- Technical Headline 5.3: To start and advance health workforce planning and forecasting on national and/or regional level, policy makers may benefit from the implementation paths, good practices and case studies laid out by the Outputs (deliverables) of the Joint Action on Health Workforce Planning and Forecasting.
- Technical Headline 5.4: To better consider the competences (knowledge, attitude and skills) required for complex and integrated healthcare provision via integrated and multi-professional care delivery models, EU/ EEA governments and policy partners would be best advised to work towards health workforce planning across professions.
- Technical Headline 5.5: Improvements in expertise in health workforce planning can be

[25] Action plan for the EU health workforce (2012). Available at: http://ec.europa.eu/health/workforce/docs/staff_working_doc_healthcare_workforce_en.pdf
[26] Recruitment and Retention of the Health Workforce in Europe (2015). Available at: http://ec.europa.eu/health/workforce/key_documents/recruitment_retention/index_en.htm

assisted by sharing of knowledge and making available specific and relevant (self-)training for all stakeholders involved in the process, supported by a knowledge repository or other similar tools.

Further reading:

- D041 Terminology gap analysis
- D043 Report on HWF Planning Data (including a Toolkit with solutions supporting the daily operation of HWF planning)
- D051 Minimum Planning Data Requirements
- D061 User Guidelines on qualitative methods in health workforce planning and forecasting

Data & Analysis

To thoroughly assess the extent and impact of health workforce challenges and policies, the availability of reliable HWF data is a prerequisite. Yet many countries suffer from a lack of well-structured and reliable HWF data and data collection. The JAHWF has identified main areas for improvement and produced practical toolkits to do so. However, for the future, more advanced HWF data collection and analysis are called for. The JAHWF *Report on Terminology gap analysis* has made a number of recommendations on how to improve data collection via the Joint Questionnaire, while the *Report on HWF Planning Data* summarised the essential elements of systematic, proper and comprehensive HWF planning and related processes. Moreover, a toolkit to enable a basic planning process and forecasting was developed in the *JAHWF Minimum Data Planning Requirements*. This toolkit contains the key planning indicators and the related minimum set of data which EU Member States may adopt.

Yet to further support policy dialogues and evaluate HWF policies and actions, there is a need for further investment in data management, especially in outcome indicators at HWF and health system level. These data should be gathered, monitored and studied at both national and international level, as the EU free market structure requests a focus on the complete picture.

Skilled Experts

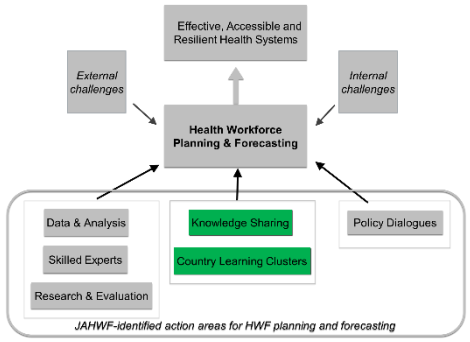
It is of crucial importance to have a sufficient number of professionally skilled experts that are able to conduct required studies, collate and interpret collected data, model the systems and support policy dialogues. For this purpose, labour market intelligence knowledge needs to be complemented with social, political, educational and other relevant skills. To enhance the required expertise in HWF planning and forecasting, European partnerships could help train and equip future experts, for example by providing Masterclasses or Workshops on specific skills for which a large demand was identified through the JAHWF Network of Experts.

Research & Evaluation

European cooperation has helped strengthen the evidence base on some major HWF dimensions, including data collection, skills, planning, retention, recruitment and CPD. Yet this evidence base needs further development as well as adaptation to the altering landscape in which HWF planning takes place, mostly through ongoing research and evaluation activities. For one, the future health workforce will look very different from the one we know now; task substitution, skill mix, technological innovations and new professional roles and professions alter the landscape in which HWF planning takes place. HWF policy makers and researchers are encouraged to incorporate these future trends and threats in their research and evaluations and look beyond the horizon. Qualitative

research designs, currently under-utilised in HWF planning, can be of particular use in this. The *JAHWF User Guidelines on qualitative methods in health workforce planning and forecasting* provides a pragmatic starting point in developing qualitative approaches, while the *Handbook on HWF Planning Methodologies* emphasises the merits and necessity of evaluation research in the area of HWF planning.

Knowledge Sharing and Country Learning Clusters

To foster knowledge management and economy of scale in health workforce planning, EU/EEA governments, educational bodies, the civil society, employers, professional organisations and international planning partners would need to collaborate and sustain a global expertise and strategic networking on EU/EEA level on new research, essential to continuously develop and evaluate the existing knowledge base.	**RESOURCES**	

Technical Headlines (see also Chapter 5):

- Technical Headline 5.2: To incorporate health workforce policies in all relevant policies/projects, EU/EEA governments, EU Commission, and HWF Planning partners are encouraged to engage in further research and action programs on the relationship between health systems and their workforce, targeting the improvement of healthcare performance and management, patients' outcomes, working conditions …
- Technical Headline 5.5. Improvements in expertise in health workforce planning can be assisted by sharing of knowledge and making available specific and relevant (self-)training for all stakeholders involved in the process, supported by a knowledge repository or other similar tools.

Further reading:

- D072 Network of Experts
- Batenburg, R. (2015). Health workforce planning in Europe: Creating learning country clusters. *Health Policy*.

Knowledge Sharing

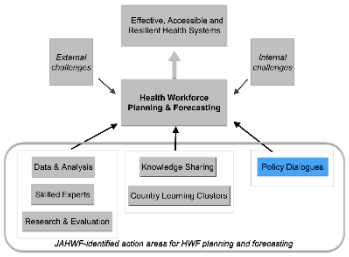
The JAHWF has provided EU Member States (MSs) with a valuable platform for collaboration in the area of HWF planning and forecasting, enabling MSs to take more effective and sustainable measures concerning national level HWF planning. When collaborating, knowledge sharing and the sharing of good practices at EU expert level are some of the most important activities countries can engage in, stimulated by the output of the JAHWF. The *Handbook on HWF Planning Methodologies* for example has described and analysed good practices in HWF planning and forecasting in seven European countries from which other EU Member States may benefit by studying the knowledge gathered and exchanging ideas and experiences. This has already resulted in a number of 'pilot projects' in which the implementation path proposed in the Handbook is implemented and tested.

In addition, the *Network of Experts* that was developed by the JAHWF brings together experts with various levels and fields of expertise related to HWF planning and forecasting and provides a structure to continue collaboration and knowledge sharing after the official ending of the JAHWF. Moreover, by jointly analysing shared information and objectives, discussions on policies can serve as preparatory input for policy dialogues.

Country Learning Clusters

While the importance of the sharing of knowledge and good practices in HWF planning is undisputed, at the same time it should be acknowledged that there is a huge variety in level of HWF planning across Member States – ranging from no HWF planning to specific demand- and supply models being used – as was shown by the Matrix Insight study and the JAHWF. Considering this variety, proposing a 'gold standard' for HWF planning can conflict with meeting the specific needs at national level, and learning from good practices will not be effective if the gap between a country's baseline position on HWF planning and the identified 'good practice' is too wide. In such a scenario, it is more promising to cluster groups of countries that can be expected to learn from each other because they share the same conditions and starting position for HWF planning. This idea of **country learning clusters in HWF planning** as well as an initial framework for clustering countries were presented in one of the papers[27] in *Health Policy*'s special issue on Health Workforce Governance in Europe. To sustain the results of the JAHWF and further support and stimulate Member States in their HWF efforts, there should be a balance between developing 'top-down' approaches in terms of sharing of knowledge and good practices and maturity HWF planning models, and defining relevant and appropriate needs for MSs according to their level of HWF planning. Meetings for specific clusters of countries may for example be organised to sustain the results of the JAHWF in a way that is tailored to the needs of those countries.

Policy Dialogues

EU/EEA governments can maximise the benefits of health workforce planning by incorporating health workforce dimensions in all action plans and policies impacting health, with systematic involvement of the relevant stakeholders, and usage of the available evidence on good practices and effective policy approaches.	**ACTION PLAN**	

Technical Headlines (see also Chapter 5):

- Technical Headline 5.1: Improvements in the use and comparability of data and information in health and care workforce planning and forecasting, can be assisted by HWF Planning Stakeholders supporting data and information exchange between all relevant data providers and learn from experiences of other countries.
- Technical Headline 5.2: To incorporate health workforce policies in all relevant

[27] Batenburg, R. (2015). Health workforce planning in Europe: Creating learning country clusters. *Health Policy,* DOI: ttp://dx.doi.org/10.1016/j.healthpol.2015.10.001.

policies/projects, EU/EEA governments, EU Commission, and HWF Planning partners are encouraged to engage in further research and action programs on the relationship between health systems and their workforce, targeting the improvement of healthcare performance and management, patients' outcomes, working conditions …
Further reading:
• WP4 Report on the applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context • WP7 Report on Circular Migration of the Health Workforce

Health workforce planning is complex, involving multiple stakeholders from various fields. And since planning addresses only one part of HWF policies and acts in close interaction with other health system policies, such as those focusing on health inequities, the scope of relevant stakeholders for HWF planning is extended even further. The JAHWF has brought these stakeholders together and the 55 initial partners have grown into a JAHWF partnership of 81 associated and collaborating partners, including Ministries of Health, Universities, civil society organisations, the European Social Partners in the Hospital Sector, international bodies like WHO Europe, regulatory bodies, European non-profit associations representing national health professional associations, institutes of public health, planning bodies, and so on. Through various *JAHWF Workshops, Plenary Assemblies* and *Stakeholder Forums*, the JAHWF has supported policy dialogues in the field of HWF and provided a platform for discussion, networking and future partnerships.

To further translate the JAHWF exchanges into national policies and develop MS cooperation in the area of health systems, with a central role for the HWF, continuous policy dialogues have to take place at both MS level and European level. These should lead to shared HWF and health system objectives and strategies, for example focusing on tackling health inequities. This is also an important step to be taken on a longer road of implementing the WHO Global Code of Practice, for which the *JAHWF Report on the applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context* provides valuable directions.

While health policy is a national competence according to the EU treaty, limiting the EU's role to subsidizing and coordinating policy dialogues, a new short- and medium term EU Action Plan for the Health Workforce can also play an important role in benefiting MS national level HWF planning and forecasting. Europe needs a plan with ambition, which interfaces with other relevant policies, a plan that goes beyond the mere quantitative planning of HWF and penetrates into all HWF aspects.

4. Policy Recommendations

All JAHWF recommendations formulated by the various JAHWF Work Packages in their final documents and brought together by WP7 have been divided in policy recommendations (presented in this Chapter) and technical recommendations (presented in Chapter 5). Even though there is a fine line between the two and both types of recommendations build upon each other, they are presented separately to better serve the different target audiences. The recommendations in this chapter focus on the policy level. For convenience, they are grouped under five Policy Recommendation Groups. These Groups are based upon the Knoster model, which is a core element of the sustainability strategy of the JAHWF (see Chapter 2), and have been validated by WP7 partners in two Consultation Rounds in 2015 (see Appendix 1 on Methodology).

This Chapter follows a set structure. For each of the five Policy Recommendation Groups, the demonstrated added value of European cooperation and the JAHWF are explained. Subsequently, the recommendations from all Work Packages of the JAHWF which support the policy making process are listed. For each recommendation, the source JAHWF document is provided (hyperlinks will be included at a later stage) so that readers who want more detailed information can easily retrieve this.

4.1 Incentives

To ensure the sustainability of the health and care systems in Europe, proactively act on health risks and health workforce imbalances addressing patient needs and safety, and to deliver high quality care that is accessible, effective and affordable, EU/EEA governments would benefit from improving their health workforce planning and forecasting.

Demonstrated added value of European cooperation and the JAHWF

- Healthcare systems cannot function without a sufficient number of skilled health professionals. To ensure that a country is training enough health professionals with the right skills for the future, health workforce forecasting and planning is crucial. The main benefits are to prevent shortages or oversupplies of health professionals; to better organise the training and education of health professionals and to be able to assess impact of possible healthcare reforms.
- Health system sustainability is one of the issues addressed by the European Economic Semester. The health systems sustainability to fulfil objectives and keep their values is threatened not only by the increasing healthcare needs, growing healthcare expenses and inefficiencies, but also by the lack of health workforce. Cross-border mobility has posed an additional pressure to some countries due to an increased migration to countries with better economic or working conditions.
- In the health care sector, more than in any other labour sector, the human resources are an important resource both because it is a labor-intensive sector and because people's health is, by definition, "not negotiable" and a sensible issue. In every organisation people are one of the

most important strategic resource and therefore, the definition and planning of their requirements are equally important.

- As the training of health professionals is a medium-long period (3 to 10 years) and affects the planning timeframe and the related decision-making process, it is necessary to decide today how many health professionals are needed in ten years' time. In other words, in a "closed" health labour market, the supply takes many years to respond to the variation of the demand.
- Each MS's government has developed its own capacity for analysing, planning and forecasting. However, this capacity will not be sufficient and will not be able to follow mobility trends or suggest timely solutions. Investment is needed in developing a sustainable framework for health workforce intelligence today which will pay off with a more adequate solution for sustainable health force in the EU. Furthermore, the MSs should share the results from the intelligence analysis across EU by means of exchange mechanisms such as e-platforms, web-portals, networking, etc.

Supportive policy recommendations

1. Health workforce planning should be based on five basic principles:
   - Universal coverage, i.e. the health care system will provide assistance to all citizens without excluding poor or rich. This implies that the need of professionals of the whole population of the country has to be considered.
   - Affordability, i.e. the cost of the future health care system has to be kept within the limits of what is considered sustainable for the population.
   - Effectiveness, i.e. in considering the future need of professionals, is it important to bear in mind good production parameters.
   - Imbalances are not an option (according to the affordability of the system, see point 1.2) as they are a threat to the coverage and quality, i.e. it is not acceptable to plan for a number of professionals which would be lower than a number which ensures a good quality.
   - Education and not immigration to meet healthcare needs, i.e. each country has to plan how to cover its own HWF needs; migration is a right for EU citizens but it should not be used systematically as a source to cover the population's need. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

2. The organizations on the political level should improve the acceptance of the JAHWF on the national level, to plan the future needs of the health labour market, to develop the planning strategies and methodologies and ensure its proper implementation. The political level organization should be as well able to support actions on horizon scanning and improve the planning of future structure of medical personnel as well as make sure that there is sufficient money inflow into the health care planning processes. In terms of education, the political representatives should be able to strengthen the link between HWF professionals' needs and training capacity of the universities. **(D023 Stakeholder Analysis)**

3. Member States at strategic level should look beyond the phenomenon of mobility and address its determinants. Source Member States need to take measures to retain health workforce while destination Member States are encouraged to take steps towards self-sufficiency in education and tackling shortages with regards to the principles of ethical recruitment and retention. **(D042 Report on Mobility data)**

4. In order to help Member States prevent imbalances of healthcare personnel – from sending and receiving countries – the activities between the employer and recruitment agencies should be provided within a framework of transparency and ethical and quality cooperation. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context)**

5. It is recommended that MSs examine and take into account how various partners have reviewed workforces thus far and the methods they have used. This existing body of evidence provides good opportunities for learning when MSs consider and plan similar workforce groups for their own national contexts. It is encouraged that international, national and local dialogue occurs more frequently in the future with support of those partners who have made workforce planning advances, have useful evidence and approaches that may assist. The JAHWF pilot studies also provide information on potential adaptations for MSs evaluating the applicability of methods to their specific national contexts. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting)**

4.2 Vision

To improve health and care systems and address health inequities across Europe, it is useful for governments to cooperate at EU/EEA, European level (and international as far as is reasonably possible) so that EU/EEA governments can develop effective health workforce planning supporting sustainable health systems.

Demonstrated added value of European cooperation and the JAHWF

- All European countries are striving for more effective, accessible and resilient health systems. Although there is a great diversity in the types of health system in the European Union and Member States are responsible for the definition of their health policy, allocation of resources and delivery of health services (Article 168 on the Treaty of the Functioning of the European Union, 2009), European cooperation can be useful to exchange best practices and learn from each other's experiences (an example on the health workforce from the JAHWF is the *Handbook on Health workforce planning methodologies across EU countries)* and to scale up research efforts (an example on the health workforce from the JAHWF are the *Policy briefs on future skill needs)*. *Furthermore,* countries need to cooperate bilaterally or multilaterally when dealing with cross-border issues. An example on the health workforce from the JAHWF is that source and destination countries could cooperate to improve labour market intelligence of mobile health professionals, as explained in the *Report on the applicability of the WHO Global Code of Practice on the International Recruitment of Health Professionals in a European Union Context*.
- Many problems are common for all European countries but to a different extent. Although national health and care systems differ in the EU, all member states share the same values

about healthcare – universality, solidarity, equity. These values are the "milestones" in efforts to improve healthcare and to create "people-centred" health system. To realise this common vision for the European healthcare the governments need suggestions about what works to improve health, address health inequalities, ensure the health of future generations, on the one hand, and guarantee the sustainability of improvements, on the other.

- Despite national and European policies and actions, inequalities in access to health services in Europe exist within and between countries. There are many factors determining health inequities, one of which is the health workforce availability and skills. Furthermore, in the EU, the freedom of movement and mutual recognition of qualifications facilitate migration of health professionals, which may increasingly affect some regions (e.g. Italian regions, South-Eastern Europe, etc.). The mobility processes deepen the existing imbalances between the regions and countries and thus, increase the inequalities in access.
- Health workforce factors influence significantly the development of health policies and the implementation of measures and incentives in healthcare. In this respect, health workforce planning efforts can help to achieve sustainability of health workforce in MSs and at European level. Forecasting the future needs of health professionals and their planning is an important prerequisite for the successful implementation of health reforms and the sustainable development of the systems.
- The common values and vision for EU healthcare require joint actions, information exchange, sharing successful practices and knowledge transfer among MSs and at European and international level. Cooperation between governments is crucial for achieving sustainability of health systems through health workforce planning.
- The Joint Action on Health Workforce Planning and Forecasting has showed how European Cooperation can be beneficial for countries by handbooks, guidelines on how to improve health workforce planning as well as analysis on data with recommendations on how to improve data structures. Furthermore, the Joint Action has provided a platform for health workforce experts to exchange knowledge and expertise.

Supportive policy recommendations

1. MSs and EEA should continue to share the common vision, to guarantee the necessary flow of resources for health workforce planning beyond the level of the projects and actively involve the stakeholders (employers, professional organizations, educational bodies, NGOs, etc.) in order to overcome the imbalances of the health workforce. **(D071 Sustainability plan)**

2. The goal setting process of HWF planning should meet the following requirements:
   - Make a comprehensive analysis of the future health needs of the population and of the skills mix needed to deliver planned health services in the future in order to have added value information to set the goals.
   - Identify and address unintended adverse policy interactions before setting the goals.
   - Be sure that different Ministries (Education, Health, Finance, Labour) share and agree on the objectives, so as to increase the chances of reaching the expected results.
   - Set goals that are Specific, Measurable, Acceptable, Realistic and Timed (SMART). **(D052 Handbook on Health workforce planning methodologies across EU countries)**

3. Due to the complexity of the required skills and expertise for health workforce planning, some countries may have difficulties in finding experts and building capacity. Recommended solution is to make the best use of the European Network of experts (set up by the Joint Action on Health Workforce Planning and Forecasting) and the exchange of good practices between EU Member States. (**D052 Handbook on Health workforce planning methodologies across EU countries**)

4. The EU-level can contribute to the development of MS-level HWF planning systems by continuous interactive consultations. The EU-level professional organisations can add diverse perspectives and ensure more reliable and valid data and different levels of cooperation can be advised: Supportive; Active; Consultative; Mutual; Informed; Cooperative; Communicative; Coordinative (**D043, p48**).

5. The EU Commission and Member States are recommended to scope and commence a multi-professional workforce future research programme which builds on the horizon scanning intelligence and assesses the workforce implications of other EU and global research programmes. (**D062 Future Skills and Competences of the Health Workforce in Europe**)

6. National HWF planning strategy should urgently assess the mobility phenomenon and initiate further actions such as:

   - Assess and take into account the impact of international HWF mobility on the health service provision and the country's healthcare system;
   - Set the development paths - in line with the planning objectives - of the HWF national mobility data collection, with a sensitivity to HWF mobility types, and other measurable aspects such as employment status, duration of stay, etc.;
   - Include mobility data in the national planning models and also consider such data when developing planning solutions. Despite uncertainty of future HWF flows, the current accurate information on HWF mobility is to be used for HWF planning;
   - Regularly analyse the efficiency of the national mobility data collection and effectuate the necessary improvements;
   - Establish legislation on mobility data collection, in compliance with EU and national data protection laws. **(D042 Report on Mobility data, Report on circular mobility)**

7. It is recommended that four sets of mobility indicators are adopted by governments to assess mobility processes. The sets to be implemented at national and EU levels are: a national Individual Mobility Data Set, Indicator Set for measuring health workforce outflow, Mobility Data Set for measuring the reliance of foreign health workers and Indicator Set for measuring health workforce balance. Tentative mobility indicator sets have been developed and proposed by the Joint Action on HWP. The measuring of the four sets of mobility indicators can facilitate the mapping of the mobility flows and the mobility processes and initiate further actions to assess the mobility phenomenon in Europe. (Report on Mobility Data D042).

8. Health workforce planning should not be considered an exact science and needs regular updating: Assessing the future supply and demand for doctors, nurses or other health professionals 10 or 15 years down the road is a very complicated task, fraught with uncertainties on the supply side and even more so on the demand side. Projections are inevitably based on a set of assumptions about the future; these assumptions need to be

regularly re-assessed in light of changing circumstances, new data, and the effect of new policies and programs. (OECD, 2013). **(D051 Minimum planning data requirement for health workforce planning)**

4.3 Skills

To provide professional health workforce planning to EU/EEA governments and national and international planning partners, the number of professional analysts skilled in workforce intelligence and other relevant factors (e.g. social, political, educational, …) must be raised appropriate to the needs of MSs.

Demonstrated added value of European cooperation and the JAHWF

- When countries are convinced to implement or improve their health workforce planning, they are advised to invest in their capacity of professional health workforce planners and experts on other relevant factors for HWF planning (e.g. social, political, educational, etc). Health workforce planning requires specific skills, for example on mathematics, statistics, epidemiology, and so on, and these should be developed.
- Health workforce planning and forecasting is essential for the proper planning of tomorrow's workforce, which is a critical factor for improving health systems resilience and sustainability. The education and planning of the appropriate skill mix require long-term horizon scanning, identification of risks and adequate planning of resources by authorities, healthcare establishments and academic institutions.
- Different countries have different experiences with health workforce planning and forecasting: some member states have long traditions in planning and forecasting their health workforce; in others these processes are not adequately practiced often due to lack of skills and knowledge. Furthermore, there is still another group of countries where the evaluation of needed health professionals depends on stochastic factors.
- Whatever the stage of health workforce planning and forecasting an essential prerequisite for the success is a technically solid planning process exercised by experts with appropriate skill mix and understanding of the environment. Planners need to understand the dynamics of the health labour market, to have the competences to use data and information in order to design plausible and feasible scenarios, propose credible plans well aligned on policy goals and at the same time to comprehend the political process of making and implementing strategic decisions.

Supportive policy recommendations

1. It is necessary to invest in the recruitment and the development of skills of the experts supporting the planning system. The minimum planning requirements, suggested by the JAHWF, are:
    - Define and implement a national body that engages state, local, public and private stakeholders and supports the planning process in every stage, with roles and responsibilities clearly defined.

- Establish a subcommittee to develop the planning and forecasting model.
- Identify all the interested stakeholders.
- Strengthen partnership between educational institutions and the health-care delivery system.
- Communicate goals and results of the planning process to the stakeholders and engage them in building the model.

In certain cases a better planning process may require also the establishment of an independent agency for planning, preferably accountable to Parliament rather than to a ministry, to pursue long-term development objectives. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

2. Based on the needs analysis, the following first summary profile of a required skill set for adequate HWF planning and policy has been identified. This set would include skills on: health policy; management; leadership; program planning; data collection and analysis; statistics; labour force intelligence; technology and computers; communication; cooperation (including stakeholder involvement and networking); modeling; epidemiology.

3. Health workforce planning and forecasting is dependent on reliable quantitative and qualitative data and methods. Quantitative projection methods and reliable data on, for example, the number and distribution of health care professionals in a health system must be supplemented by appropriate qualitative methods and data as they can facilitate an in-depth understanding of health workforces and the complex relations surrounding their supply and demand. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting)**

4. The qualitative and quantitative methods can be used for a number of purposes to ensure that an integrated approach to health workforce planning and forecasting is achieved by Member States. Whatever the stage of workforce planning and forecasting in specific national contexts, it is recommended that robust qualitative methods are used to enhance the knowledge and expertise used in health workforce planning and forecasting processes. They may be used, for example, to more fully understand the future direction of a health workforce, to optimise the engagement of different forms of expertise from stakeholders or to sense-check findings. It is encouraged and recommended that these qualitative methods are adapted and deployed as part of robust national processes that Member States use to arrive at informed and transparent decisions regarding the health workforce. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting, D062)**

5. Ultimately qualitative methods are used to inform real world decisions in the field of workforce planning and forecasting for national specific contexts such as, but not limited to, *numerus clausus*. As a result it is a prerequisite that stakeholders and experts are identified and engaged effectively as part of workforce planning and forecasting to enhance the collective intelligence used to arrive at robust decisions using such methods. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting, D062)**

6. Both qualitative and quantitative approaches to health workforce planning have advantages and disadvantages. Individual methods should be chosen based on specific aims in the planning

process and the context of the environment where they are to be applied. **(D052 Handbook on Health workforce planning methodologies across EU countries, D062)**

4.4 Resources

To foster knowledge management and economy of scale in health workforce planning, EU/EEA governments, educational bodies, the civil society, employers, professional organisations and international planning partners would need to collaborate and sustain a global expertise and strategic networking on EU/EEA level on new research, essential to continuously develop and evaluate the existing knowledge base.

Demonstrated added value of European cooperation and the JAHWF

- The health care sector in all EU member states has faced growing common challenges which are likely to have substantial impact on the demand, supply and skill mix of the health workforce and risk undermining the sustainability of the health systems.
- Given the European dimension of the challenges and the importance of collaboration in the field of health workforce it is essential that national governments, regulators, professional organisations, employers as well as the EU and other international bodies take actions and guarantee that the process of health workforce planning and forecasting is further supported by appropriate efforts and resources.
- To extend and sustain the achieved outcomes and to enhance the established collaborative level of expertise, a recommendable next step would be to further develop and consolidate the European Network of Health Workforce Planning Experts (ENHWoPE) established within the current Joint Action as part of the portfolio for further actions.

Supportive policy recommendations

1. The Network of experts can be a leading think tank providing European policy makers with a sound base for policy decisions: up-to-date information, analysis, good practices, experiences, trends and recommendations on Health Workforce development. It should play a proactive advisory role by organising conferences and network meetings as well as promoting intelligence and results through a web portal. While focused on the specific challenges of the European Region, the Network will welcome MSs and international experience and will build the link for a global knowledge management. Viewing health workforce planning as an important part of health systems planning, it affiliates and seeks synergies with the other EU networks and organizations. (D072 Network of experts)

2. The Network involves experts with different levels of competences identified in the documents of the Joint Action on Health Workforce Planning and Forecasting. The European Network will be highly beneficiary for the countries that are not advanced in HWF Planning and for countries that consider themselves as advanced. The experience indicates that those countries can learn

a lot from each other as well as from sharing studies, validation rounds, data, etc. (D072 Network of experts)

3. Appropriate coordination and use of the Network of Knowledge Brokers should continue and be supported at European and national level. The Network of Knowledge Brokers should work in collaboration and coordination with The Network of Experts (established in frame of JAHWF) and other networks for further knowledge exchange, good practices and capacity building. A strong relation with stakeholders should be built to ensure that the results and outputs of the JAHWF are being properly implemented and used. (D023 Stakeholder Analysis , D072 Network of Experts)

4. It is recommended that MSs examine and take into account how various partners have reviewed workforces thus far and the methods they have used. This existing body of evidence provides good opportunities for learning when MSs consider and plan similar workforce groups for their own national contexts. It is encouraged that international, national and local dialogue occurs more frequently in the future with support of those partners who have made workforce planning advances, have useful evidence and approaches that may assist. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting)**

5. The central idea and assertion of the Joint Action documents (User Guidelines on Qualitative Methods in Health Workforce Planning and Forecasting), is that the use of qualitative and quantitative methods improves the relevance of outputs, aids transparency of decision-making and helps to develop a shared vision of the future health workforce for Member States and across Europe. The EU Commission, Member States, Competent Authorities and stakeholders involved in planning the future workforce should take account of this research and actively investigate the implications within their contexts. These methods should be used within national-specific contexts and in further research and collaborative programmes they should be combined with quantitative modelling to project the relative size and uncertainty of workforce supply and demand pressures. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting, D062, D052)**

6. Workforce planning and forecasting is complex due to the intrinsic uncertainty and complexity of factors influencing workforce supply and demand. The JAHWF recommends that the methods used should be updated in response to improvements in (at least) the sophistication of projection models, improvements in understanding of the dynamic processes involved in health workforce planning and better relating outputs of planning processes and forecasting models to strategic decisions regarding health workforces. (D061 User guidelines on qualitative methods in health workforce planning and forecasting)

7. Member States should develop their national data collection and utilization processes by:
   - Encouraging the necessary level of cooperation between stakeholders involved in mobility data collections by allocating time and resources to manage relationships and communication between them.
   - Synchronizing or if possible, linking national mobility related data sources and preparing of a map of mobility data flow and eliminating duplications in data collections should also be considered.
   - Making a better use of other data sources - such as health- and social insurance databases, payroll systems, tax office's databases, etc. - aiming not primarily the collection of

mobility information to better support the examination and assessment of the phenomenon of mobility.

- Appointing a competent national authority - a National HWF Intelligence Centre - to coordinate the flow of information between various stakeholders and cross-validate data from different national sources and to submit mobility data to international level data collections. **(D042 Report on Mobility data, D043)**

8. EU Member States should invest the necessary resources for the operation of the national designated authority for the WHO Code, and communicate and share information on health worker recruitment and migration issues. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context, Report on circular mobility)**

4.5 Action Plan

EU/EEA governments can maximise the benefits of health workforce planning by incorporating health workforce dimensions in all action plans and policies impacting health, through development of specific action plans with systematic involvement of the relevant stakeholders, and usage of the available evidence on good practices and effective policy approaches.

Demonstrated added value of European cooperation and the JAHWF

- A significant and decisive part in the overall efforts to address HWF challenges is played by the MS governments. The national governments are expected to clearly recognize the importance of sufficient and adequate health workforce for the overall performance of the health system together with the complexity of the task to provide such workforce. Furthermore, they need to set the goals for the health workforce planning and establish a well-structured organization to support this process.
- It is important that a national health workforce planning body engaging state, local, public and private stakeholders develops an integrated, comprehensive, national health workforce policy that can be implemented, if all interested stakeholders work together.
- The roles and responsibilities of the people involved in the organization should be clearly defined and the widest participation should be guaranteed throughout the process. Thus, it is essential that interested stakeholders in the health workforce field are identified; a structure to steer interaction with stakeholders (depending on the national context) is created; specific roles and responsibilities are assigned; and the necessary information is shared and disseminated among all stakeholders.
- As health workforce data collection at national level requires a careful cost-effectiveness and feasibility assessment, national stakeholders of HWF planning should define clear HWF planning objectives and the necessary data requirements including mobility data.
- At government level, it is important to establish a mechanism for regular monitoring and evaluation of the progress of implementation of interventions and initiatives for HWF

development and management. The results achieved should be communicated to the government, the public, and the stakeholders. In this process, the ethical and social issues should be taken into account including the engagement of the WHO Code of Practice on international recruitment of HWF, signed by all MSs.

Supportive policy recommendations

1. Health workforce planning requires sharing principles before agreeing on specific objectives. Just the will to preserve certain principles and values, even in the face of complex challenges such as the economic, social and humanitarian crises, makes the health workforce planning meaningful **(D052 Handbook on Health workforce planning methodologies across EU countries, D062, D042, D072)**

2. The action plan for a successful HWF planning and the minimum planning requirements envisaged by the JAHWF require:
   - To communicate the goals and the target to a broader panel of stakeholders;
   - To develops tools (i.e. check lists, guidelines) to evaluate and inform the decision making process on its own planning capacity;
   - To establish a mechanism for the periodic monitoring and evaluation of the progress of implementation of interventions and initiatives for HWF development and management;
   - Finally, to communicate the reached results to the government, the public, and the shareholders but without claiming any positive changes to be due to the planning process. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

3. Effective involvement of stakeholders and experts is essential to health workforce planning and forecasting. Due to the complexity and uncertainty inherent in workforce planning and forecasting a sensible response is to ensure that all of the relevant people are identified and brought into the health workforce planning process, with the central idea that this improves the relevance of outputs, aids in transparency of decision-making and helps to develop a shared vision of the health workforce. Transparency and communication are one of the keys to successful planning systems: both principles, operational objectives, specific target or assumption are to be shared with stakeholders. The stakeholders involvement is thus to be considered as part of the setting goals process. The consensus of stakeholders is necessary. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting, D052 Handbook on Health workforce planning methodologies across EU countries, D072 Network of experts, D023 Stakeholder analysis)**

4. As the trustful involvement of stakeholders is considered essential to the process of scenario building, the following key messages concerning the organisation of the stakeholders involvement are recommended:
   - Identify the interested stakeholders in the health workforce field.
   - Create a structure to steer interaction with identified stakeholders.
   - Assign specific roles and responsibilities within this structure.
   - Establish a subcommittee that tries to implement the planning and forecasting committees wishes into a technical forecasting model.
   - Share and disseminate necessary information among all stakeholders. (D061 User guidelines on qualitative methods in health workforce planning and forecasting, D052 Handbook on

Health workforce planning methodologies across EU countries, D072 Network of experts, D023 Stakeholder analysis, D062)

5. To mitigate the influence of the limiting factors in HWF planning, the HWF planning process and data gaps have been grouped, and **typical gap groups** have been established by the JAHWF focussing on 1) national-level collaborations in the process of HWF planning, 2) methodological issues, 3) HWF planning data and 4) qualitative approaches. Countries are recommended to identify which of the gap groups they face and choose accordingly the appropriate tools and specific recommendations, proposed by JAHWF documents (D043 Report on Health Workforce planning Data, p39-59)

6. Circular migration has to be fostered within the EU in a way that benefits source countries, destination countries, and individual health professionals themselves. Bilateral cooperation tailored to different types/profiles of health professionals could be developed. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context, Report on circular migration)**

7. Ethical recruitment practices have to be sought also at the EU level. Better use of EU cohesion policies and the European Social Fund could support compensating source countries for investments made in training of health workforce. This aspect has to be taken into account when EU Member States decide on the priorities of the operational programmes providing the framework for setting the national spending priorities of EU funding. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context)**

8. All tools and methodologies developed and piloted, as well as evidences created during the JAHWF should be actively promoted and applied by healthcare administrators, national and European policy makers in the daily practices of healthcare workforce planning in order to achieve the sustainability of the health human capital. **(D072 Network of experts)**

5. Technical Recommendations

All JAHWF recommendations formulated by the various JAHWF Work Packages in their final documents and brought together by WP7 have been divided in policy recommendations (presented in Chapter 4) and technical recommendations (presented in this chapter). Even though there is a fine line between the two and both types of recommendations build upon each other, they are presented separately to better serve the different target audiences. The recommendations in this chapter focus on the technical level. For convenience, they are grouped under six Technical Recommendation Groups. These Groups are based upon the content and focus of the various JAHWF Work Packages and have been validated by WP7 partners in two Consultation Rounds in 2015 (see Appendix 1 on Methodology).

This Chapter follows a set structure. For each of the six Technical Recommendation Groups, the demonstrated added value of European cooperation and the JAHWF are explained. Subsequently, the recommendations from all Work Packages of the JAHWF which are aimed at technical support in HWF planning and forecasting are listed. For each recommendation, the source JAHWF document is provided (hyperlinks will be included at a later stage) so that readers who want more detailed information can easily retrieve this.

5.1 Data & Analysis

Improvements in the use and comparability of data and information in health and care workforce planning and forecasting, can be assisted by HWF Planning Stakeholders supporting data and information exchange between all relevant data providers and learn from experiences of other countries.

Demonstrated added value of European cooperation and the JAHWF

- An essentially important prerequisite for the reliability and effectiveness of the monitoring and planning processes is the health workforce data and information.
- The implementation of the Joint Action results by Member States at national level and especially the implementation of data collection in Member States based on the Minimum Planning Data Requirements offer a starting point for enhancing current national HWF data collection practices.
- A Minimum Data Set (MDS)[28] for Health Workforce Planning consists of a core set of standard variables used to build indicators which are generally collected at a national level for reporting and making assessments on key aspects of health system delivery.
- In the long run, these changes in data collection at national level would make it more feasible to add internationally comparable HWF planning data variables to the Joint Questionnaire (JQ). This could potentially provide a useful motivation for in-country data collection; support a

[28] The set of data that is required for a minimum level of national health workforce planning. The Minimum Planning Data Requirements were put forward by Deliverable 051 by Work Package 5 of the Joint Action.

benchmarking system between countries and lead to a self-assessment by national health systems. Improving the availability, quality and comparability of data reported to the Joint Questionnaire - a recognised worldwide data collection tool - is an important task to sustain a common understanding across countries on the different categories of health workforce. This improvement is also needed to have a more accurate picture in order to plan our future health workforce needs so that the future healthcare requirements of the EU population are met.

Supportive technical recommendations

1. The data collection process should meet the following minimum planning requirements:
   - Collect data from different sources setting up communication lines with concerned data managers and institutions.
   - Use updated data to provide an accurate and comprehensive description of the current supply for both the stock and the flow and to give timely descriptions HWF demand.
   - HWF planning is feasible also using only aggregated data. When data are not available use qualitative methodology to gather the information needed and in the meanwhile improve the quantitative data collection process.
   - Measure the current and desired workforce in FTE focusing the analyses in the professionally active workforce.

   A better planning process also requires strong political support in order to establish a legal framework (e.g. data access rights) and to build robust data collection; identification of actual gaps in data collection and a national coordination mechanism to manage, improve and monitor the information system. **(D052 Handbook on Health workforce planning methodologies across EU countries, D043)**

2. In the first stages it recommended to start with the "most" easily available data and only in the next stages working on both improving the data quality and increasing the data quantity (inclusion of additional parameters/sources) on a continuous basis. At that point it could be necessary to design and implement standardized and automated approaches for data collection, analysis and reporting (templates, macros, and statistical programming codes). (D052 Handbook on Health workforce planning methodologies across EU countries, D043)

3. As the process of collecting data is very costly in terms of time, resources, quality control and necessary reiteration of the process, it is necessary to assess the need of each data item before starting the process, balancing the cost of collecting and processing the information and the value of the decision to be made on the basis of that information. **(D051 Minimum planning data requirements for health workforce planning)**

4. Countries should improve and focus on the aspects of data collection sharing, and managemeng by using specific tools like **Maturity of HWF Planning Data Management Checklist** and **Skill list of Data Specialists,** adapted to the national context. Data quality can be ensured by:
   - strengthening registry data (providing anonymisation and data protection for individuals),
   - setting up sufficient data collections and cleansing (regular updates),
   - making use of existing accurate data,
   - conducting additional surveys,

- performing validity and reliability checks through triangulation (duplications in data collections should be eliminated),
- increasing transparency (clear information flow and communication management),
- increasing the interest and motivation of data collections to modify their sets of data required for HWF planning,
- building up a one and only unified data source linking-supported data warehouse. (D043, p54)

5. The organisation of the health workforce planning system should take into account the following three levels of objectives concerning data:
   - First-level objective of HWF planning is the inventory of stock and the replacement of the current domestic HWF.
   - The second-level objective of HWF planning is the identification of imbalances between the existing stock of health professionals (current imbalance), the projection of stock (future imbalance) and the consumption forecast (current and future demand and whether it is resulting in imbalances) in the future. (**D051 Minimum planning data requirements for health workforce planning)**
   - The third-level objectives of HWF planning includes the complete variation of the stock as measured and converted into potential service through the application of real FTE, taking into account the gender and the mobility of the HWF. Demand calculation remains simplified as in the previous level (Population Age, Headcount and Geographical area, optimally combined with Health consumption). (D043, p58)

6. National HWF data collectors and owners (such as ministries of health, professional chambers, health workforce planners and data providers) should work together to achieve better HWF data flow at the national level, thus improving the current JQ data collection. The JQ in the activity status data categories of health workforce ("Licensed to Practice", "Practicing" and "Professionally Active") in both headcount and full-time equivalent (FTE) should be improved. This will allow for a better streamlining in international comparability and serve a better HWF monitoring and planning at national level. As mobility trends are rapidly changing, annual data collection is necessary to ensure that such international mobility data would support policy level decisions at the Member State level. **(D041 Terminology gap analysis, D042 Report on Mobility data, D043)**

7. As the country coverage of the Joint Questionnaire is incomplete, EUROSTAT should request mobility data from the EU countries that are not OECD member states. Countries are advised to collaborate with the identified preferred destinations of their nationals based on the mobility module data of the JQ in order to agree on future research and potential common policies, and to address the losses and benefits of mobility in a sustainable way. Outflow indicators in the source countries and inflow indicators in the destination countries should be compared, in order to estimate to what extent the intention to leave data turned into registration data. **(D042 Report on Mobility data, D043)**

8. A system of feedback from the destination countries to the authorities of the source countries (country of training) about health professionals who become eligible to work (=practising) would

be of great value for the monitoring of mobility. This would allow for the construction of a 'mobility map' for intra-European mobility and mobility from other non-EU countries. The methods for this cooperation should be investigated, while possible examples could be an online tool and the formation of bilateral data exchanges. Pilot projects between countries with considerable bilateral mobility flows should investigate the feasibility of systematic, bilateral information exchanges in order to demonstrate the mutual benefits, thus providing incentives for a more comprehensive exchange of data. **(D042 Report on Mobility data, D043, D061, WP5 Feasibility studies)**

9. Big data base and e-health solutions should be incorporated to enable more efficient HWF planning data gathering and data linking, and the utilisation of interoperable and comparable data sets should be fostered. Building a wider network of information and providing increased connectivity could strengthen the focus on HWF planning data. These initiatives must comply with the necessary data security and privacy regulations. (D042, D043)

10. In light of the expansion of the utilisation of qualitative methodology, qualitative data collections should be incorporated to enable deeper analysis and understanding of quantitative data in HWF planning. Qualitative methods and data could complete the overview, understanding and interpretation of the current HWF situation. (D043, D061, D062)

5.2 Health Systems

To incorporate health workforce policies in all relevant policies/projects, EU/EEA governments, EU Commission, and HWF Planning partners are encouraged to engage in further research and action programs on the relationship between health systems and their workforce, targeting the improvement of healthcare performance and management, patients' outcomes, working conditions …

Demonstrated added value of European cooperation and the JAHWF

- Healthcare reforms in different member states sometimes do not adequately consider the workforce factor. Very frequently, the availability and skills of health professionals are crucial for the successful implementation of changes at national level (e.g. legislative, structural, technological, etc.). Moreover, in the different countries, the working conditions vary and can sometimes be a barrier to gender equity within the medical profession. Moreover, in the different countries, the possibilities for career development.
- Health workforce planning needs to be incorporated within the whole system of health care policy and population health. Additionally, health workforce planning should be incorporated in the following: national economic development and health expenditure growth, significant health reforms or political priorities, EU and national educational policy, establishment of harmonized criteria for productivity and quality of labour, establishment of a common system for licensing and registering practices, establishment of a common model of remuneration and development of a catalog of the health professions, etc.

- If the models and conceptual frameworks used are isolated, or separated from matters relating to other aspects of health care policy and population health and demography or not as comprehensive as they can be, there is a risk of future health workforce situations which are undesirable or unsustainable. This would effectively be reproducing the current system for the future and would result in poor outcomes for the workforce, the health systems and the populations.
- It is necessary to understand both the dynamics of the system, and the drivers which are causing change in the system.

Supportive technical recommendations

1 It is very important that the implementation of the Joint Action methodologies and tools is monitored carefully so that the adoption, improvement and results can be evaluated at different levels and in different health systems. A good framework to monitor the implementation is the Network of experts and its mechanisms for knowledge transfer and training activities, targeting the improvement the healthcare performance, working conditions and patients' outcomes. **(D072 Network of experts, D052, D061)**

2 The variables and the relationships involved in workforce systems should be chosen and used in the planning process with a view of the drivers of change to populations, health care services and health workforces. The future of workforce planning should include multi-professional projections which effectively inform decision making by linking to appropriate policy decisions. These projections should combine qualitative and quantitative approaches. Collaboratively developing our understanding of the questions future workforce planning must address is as important as the ability of future workforce planners to answer them. **(D062 Future Skills and Competences of the Health Workforce)**

3 It is important that the basic assumptions on which the forecasting models are based can be easily reviewed and changed and that the models are, in general, flexible; in order to be updated in particular the effects of significant health reforms or political priorities should be quantified and incorporated into the model. **(D062 Future Skills and Competences of the Health Workforce)**

4 The forecasting process should meet the following requirements:
- Focus the forecast on long-term structural factors and avoid being overly sensitive to cyclical fluctuations.
- Forecast the trend of dependence of the health care system on foreign trained HWF personnel.
- Be able to forecast changing utilization rates because considering the current utilization rates is a good basis but is insufficient for forecasting future needs.
- Include parameters to address the issue of inequitable geographic distribution of the HWF.
- In order to ensure that the dependency is addressed and more workforce needs are identified. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

5. It is very important that the implementation of the Joint Action methodologies and tools is monitored carefully so that the adoption, improvement and results can be evaluated at different levels and in different health systems. A good framework to monitor the implementation is the Network of experts and its mechanisms for knowledge transfer and training activities, targeting the improvement the healthcare performance, working conditions and patients' outcomes. **(D072 Network of experts)**

6. Cooperation between Member States is needed because some of the current problems that planning systems are facing have moved from national level to a, at least, EU level and can therefore only be solved through coordination and cooperation between Member States. For example, for the supply side, the critical issue of international mobility of health professionals and, for the demand side, increasingly in the future, the mobility of the patients. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

7. Mobility within the EU is also related to the question of solidarity and equal access. To support ethical solutions, cohesion policies and other funds have to be used to strengthen training and retention strategies in source countries. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context)**

8. A key concern for horizon scanning in workforce planning should be the systemic risks which could be mitigated over the time. (D064, p.24)

9. Different communities, and any quantifiable workforce planning aspects, can be analysed using horizon scanning and Delphi. This segmentation of stakeholders can be useful where there are distinct demand or supply considerations. This does require the study to be mindful of obtaining recommended numbers of stakeholders to ensure the results are credible.(D064, p.24)

5.3 Implementation

To start and advance health workforce planning and forecasting on national and/or regional level, policy makers may benefit from the implementation paths, good practices and case studies laid out by the Outputs (deliverables) of the Joint Action on Health Workforce Planning and Forecasting (JAHWF website).

Demonstrated added value of European cooperation and the JAHWF

- The Joint Action on Health Workforce Planning and Forecasting aims at sharing knowledge on planning methodologies and actively supporting the Members States in their effort to improve the planning processes.
- The identification and description of good practices will allow finding new opportunities for renewed country level and interregional dialogues. Moreover, understanding each other's methodologies enables EU discussions to take place.

- The JAHWF output aims at demonstrating that planning the health workforce is feasible, adds value in many countries, and sets the roots for implementation within the EU vision of health workforce management, using shared knowledge. They have to be considered first of all as instruments supporting the implementation and improvement of health planning.
- The JAHWF outcomes are addressed primarily to planners engaged in the implementation of a new planning systems and places more emphasis on similarities rather than differences between the various systems.

Supportive technical recommendations

1. A collection of practical tools including protocols, guidelines, checklists, check-sheets, fact-sheets and rating scales is recommended to help countries adapt standardised HWF planning processes:

    - These tools provide support through the identification of process bottlenecks, key components of HWF planning and the stakeholders to be involved and aim to formulate appropriate questions and develop a plan for implementation.
    - The Toolkit helps understanding the current state and existing weaknesses of HWF planning and directs attention to possible points of improvement.
    - The toolkit can be adapted to suit their own circumstances and choose the tools they find the most useful.

Quick tools/instruments are recommended to be designed and developed to help realising national-level collaboration and tackle emerging difficulties. Specific tools can be used such as "Information & Coordination Checklist" and Protocol for information flow and communication managements developed by the JA **(D043, p42).**

2. Two dimensions should be considered in the HWF planning:
    - The targeted quantities for any health profession.
    - The year in which these set quantities have to be accomplished. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

3. From the perspective of the stakeholders the planning process should include the following:
    - Define and agree with stakeholders on planning principles.
    - Turn planning principles into operational objectives, even in case of maintaining the situation "as it is now".
    - Set targets regarding, at least, the amounts of health professionals needed and the year in which these amounts are to be accomplished.
    - Ensure to start the process with an assessment of the current situation on the basis of which to define future goals.
    - Be transparent and communicate principles, assumptions and targets to the stakeholders. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

4. It is recommended that the models start from a current imbalance between supply and demand. The proposed minimum planning requirements are:
    - Forecast both supply and demand, first of all measuring and predicting the demographic variables;

- Involve stakeholders in the description of future demand;
- Provide different scenarios related to different conditions of the supply;
- Calculate the margin of error of the forecasting;
- Take into account the interaction between different health professions and the budget constraints;
- Set at 12 (for nurses) or 18 (for medical doctors) years the minimum time horizon and restrain expectations on shorter terms. **(D052 Handbook on Health workforce planning methodologies across EU countries)**

5. The qualitative methods should be used to describe current workforce situations and systematically investigate different workforce futures. These methods include ways of gathering information on factors likely to affect future health workforces, ways of defining plausible futures and quantifying those futures or uncertain parameters for model-based planning. The recommended qualitative methods specified by JAHWF are applicable regardless of the stage of development of planning and forecasting. **(D061 User guidelines on qualitative methods in health workforce planning and forecasting, D062)**

6. It is strongly recommended to extend the information and knowledge exchange and dissemination of the JAHWF results through the Network of Expert in collaboration with other networks in order to achieve continuation and sustainability of the results. **(D072 Network of Experts)**

7. A handbook of best practices deriving from the experiences and knowledge of Member States is the best tool to support the practical implementation of the WHO Code and could also support the development of intra-EU solutions. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context)**

5.4 Competence Dimension

To better consider the competences (knowledge, attitude and skills) required for complex and integrated healthcare provision via integrated and multi-professional care delivery models, EU/ EEA governments and policy partners would be best advised to work towards health workforce planning across professions.

Demonstrated added value of European cooperation and the JAHWF

- The language of skills and competences is useful when considering multiple health workforces, and their potential activity in the future, because it allows a consideration of what will need to be done rather than trying to work forward from the existing division of roles and responsibilites.

- While the approaches at national level to providing high quality health care may differ, a number of common trends and factors can be identified in all EU countries. These factors affect the specific skills and competences of health professionals, the way they fulfill their tasks and the new employment opportunities.
- An important challenge to which the health workforce must respond accordingly is the dramatically changed patterns of demand caused by the European ageing population. The increasing share of elderly people causes a shift towards chronic and degenerative diseases, the need to develop new integrated care delivery models with a shift from care in hospitals to the delivery of primary care closer to home, further emphasizing the importance of long-term and formal care as well as the specific skill mixes of health professionals and the need to work in wider interdisciplinary teams.
- Another major challenge with possible implications for future imbalances and mismatches is the emergence of new medical appliances, new technologies and diagnostic techniques which impose the requirement of technical expertise in addition to the traditional professional knowledge. The rapid development of distant diagnostics services made possible by the e-health, brings about entirely new working styles and new combinations of skills and competences including technical and e-skills. This affects all healthcare professionals.
- The technological factor not only influences and enriches the professional profiles of the different professional groups but also changes the structure of the workforce, helps address workforce shortages, provides better healthcare coverage in remote areas and creates job opportunities for new types of specialists in the health sector.

Supportive technical recommendations

1. Strategic changes in data categorisation at the international level for the nursing, midwifery and caring professions should be implemented, in order to increase the value of Joint Questionnaire (JQ) reporting. Strategic changes of data categorisation for the nursing, midwifery and caring professions at national and international level:
    - Data suppliers and OECD/WHO/EUROSTAT should agree on reporting less but more consistent categories for the nursing workforce across European countries, to make data more comparable.
    - When drawing boundaries in terms of occupation-based categorisation, the capability and authorisation for independent work could be the dividing line.
    - Reporting on nurses and midwives should be a priority area in every Member State, in order to achieve more accurate international data coverage and to foster HWF planning. Where not yet applied, midwives should be registered separately from nurses or data for midwives should be extracted from the total number of nurses.
    - A distinction between the categories of the nursing continuum and caring personnel should be defined. A clear statement should be elaborated for the classification of “healthcare assistants”, if they are part of the caring personnel or the nursing care continuum. This is especially important as data on healthcare assistants is usually reported in the category of caring personnel, although they perform tasks related to the nursing care continuum. Defining the level of education for healthcare assistants is also relevant. **(D041 Terminology gap analysis, D043, D62)**

2. The data collection in the activity status data categories of health workforce ("Licensed to Practice", "Practicing" and "Professionally Active") in both headcount and full-time equivalent (FTE) should be improved. This will allow for a better streamlining in international comparability and serve a better HWF monitoring and planning at national level. **D041 Terminology gap analysis, D043, D62)**

3. Consensus should be reached on a set of minimum feasible common indicators based on the three activity status categories, including an acceptable methodology with respect to data/information collection. A feasible two-step process could include:
    - defining and agreeing on "ideal" indicators (i.e., indicators that would ideally be available);
    - critically considering and agreeing on proxy indicators (in case of data categories where data is not collected) and accepting the minimum feasible ones. These indicators should prioritised, so that the three activity status categories used by the JQ are the first to receive attention. **D041 Terminology gap analysis, D043, D62)**

4. To increase the use of the results of the JQ, OECD/WHO/EUROSTAT should invest in additional research studies/projects to improve scientific evidence on specific issues, especially:
    - the role of licensing and registering practices, including re-validation measures, in order to explore in detail how these influence the content and relationship of the three activity categories and thus determine comparability;
    - the link between activity status category data and performance, productivity, and efficiency-related terms and indicators. **D041 Terminology gap analysis, D043, D62)**

5. In EU Member States, the sources of the "Licensed to Practice" data category reported to the JQ are mainly, in which registrations are based on qualifications. Registry data (contained in national registries of regulatory bodies or professional organisations) should be used across all Member States for reporting the "Licensed to Practice" category, as long as they include all qualified and/or licensed professionals. This would help to avoid biases caused by data sources with limited access to overall sectoral HWF data. The potential of registries to contain more information than merely a record of qualifications should be used in several HWF planning fields and policies (e.g., in e-health strategies). (**D041 Terminology gap analysis, D043, D62)**

6. EUROSTAT/OECD/WHO could set up an evaluation of best practices on methods of calculating FTE within specific segments of the healthcare sector, such as prevention or rehabilitation, in order to increase the value of comparing FTE data. As the FTE calculation shows many variations, Eurostat/OECD/WHO should cooperate with Member States and especially with their competent authorities to agree upon, announce and promote methodological choices for calculating FTE, (such as minimum activity threshold) in line with the OECD-recommended calculation methods (working time, activity rate, or on a combination of these). This calculation method could then be shared, possibly leading to an international consensus that would also benefit the Joint Questionnaire data collection. (**D041 Terminology gap analysis, D043, D062, D052)**

7. Improvements made in the FTE data categorisation should be based on the consideration that headcount and FTE data are important and complementary categories of information

for both HWF planning and monitoring. At the same time, the relevance of the average values (especially for FTE) is only high for specific sub-groups of the health workforce, while it remains nearly absent for entire groups of professions, given that there the aggregated FTE data blurs the information of a great variety of working patterns. The FTE data categorisation should take full account of labour laws, in particular Directive 2003/88/EC, and ensure that planning recommendations are in line with the legal framework. (**D041 Terminology gap analysis, D043, D062, D052)**

8. Data collection on the health workforce should be able to reflect the increasingly diverse nature of the labour patterns of the health workforce. Health workers increasingly move into and out from statuses or are active in multiple statuses simultaneously, work in the private and/or the public sector, others work in two or three countries, while others are registered in the student-active-retired categories. This is especially relevant for data collection in the "Professionally active" category, as the precise data in this category has high relevance for HWF planning. **(WP4 D041 Terminology gap analysis)**

5.5 Education and Training

Improvements in expertise in health workforce planning can be assisted by sharing of knowledge and making available specific and relevant (self-)training for all stakeholders involved in the process, supported by a knowledge repository or other similar tools.

Demonstrated added value of European cooperation and the JAHWF

- Planning with the aim of matching population healthcare needs with the right health workforce is an ethical, economic and social goal. Models and tools for health workforce planning, which are appropriate in a country may not be necessarily adequate in another country. EU member states need experts with knowledge, skills and capacity to implement and improve HWF planning systems. Hence, improving expertise through training and education is a key element for the success of health workforce planning in Europe.
- The health workforce planning and forecasting should take into account the skills and competence mix in order to develop policy interventions and inform investment decisions in education, training and recruitment to better match demand and supply of health professionals.
- Educational models may face rapid change to respond to new requirements of a very different education and training consumer than the traditional institutions have been faced with before. More remote learning may be enabled by technology, skills development and interactivity. However it will be important not to lose the physical teaching and learning that provide good educational outcomes.
- Curricula may require updating to cover the implications of increased remote contact with patients, and specific training in remote consultations and monitoring. Certain health professionals will need education, training and awareness of risk stratification, personalised medicine and genomics techniques and their impact to their practice.

Supportive technical recommendations

1. Transfer of knowledge developed by JAHWF sould be ensured by a developing and imlementing educational plans in both directions: on one side, training og health profesionals for the new skills and roles in the context of the new health technologies and on the other side, preparing experts in HWF planning at national and EU level. **(WP7 D072, D052, D062)**

2. Cooperation in the field of graduate and postgraduate training in health within and between Member States should be a process that is transparent, planned in due time and regulated on multilateral and multi-stakeholder basis otherwise countries might find themselves in an imbalanced situation within their own healthcare system. **(WP 4 Report. The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context, D072, D052, D062)**

3. Based on the needs, undertaken analyses and the required skill set that is identified by JAHWF, Master Classes and Seminars may be organised around the main and most urgently needed skills for European policy makers, stakeholders, data experts and other (future) professionals dealing with HWF policy and planning. (**D072, D043)**

4. Member States should develop knowledge management considerations including methods of estimations and of non-systematic data collections for both quantitative and qualitative data, in order to improve the quality of data collected. Such estimations and survey based mobility data collections could be more feasible, effective and efficient in some cases, and/or add additional valuable information. This is especially true for collecting "intention to leave" data. **(D042 Report on Mobility data, D072, D043)**

5. All partners at EU/EEA level should invest in activities for language correction, synchronization of documents, terminology and e-based communication and dissemination of results in order to overcome the cultural differences and language barriers in the future communication. **(D023 Stakeholder Analysis)**

6. Regulatory, legal indemnity and revalidation awareness may need to be part of the modern health professionals' future training. The scope of practice, differences they will encounter as well as how they assessed and evaluated will be key areas of training and knowledge. (D043, D062)

7. Any reappraisal of the health professionals' roles within the context of multi-disciplinary teams and regulatory requirements will require education and training strategies to be carefully considered. Increased specialisation and shared skills are becoming more common e.g. doctors and nurse specialists or skilled community mental health nurses in general practice. (D043, Do62)

5.6 Cross-border Mobility

To increase the evidence for developing mechanisms to address cross-border mobility issues (e.g. imbalances), EU/EEA governments and planning partners need to work together on common mobility indicators, while respecting EU and national data protection legislation, and information exchange on HWF mobility.

Demonstrated added value of European cooperation and the JAHWF

- Imbalances in health care systems are reinforced, among other things, by the mobility of health care professionals. Health professionals' mobility changes the composition of the health workforce in both sending and receiving countries as well as a variety of other aspects of health care system performance.
- While most countries acknowledge that HWF mobility has an impact on their national health system, they can hardly evaluate the significance of it at the national level. In other words, they have no evidence concerning the real impact of migration on the national healthcare system. Even when mobility data is available, the methodology to measure and integrate the impact of mobility into the available human resources for health data and HWF planning is missing.
- Cross-border mobility cannot be monitored and managed unilaterally and requires common efforts, common mobility indicators and tools. The development of such common indicators supposes active involvement of experts at different levels (within the JAHWF Network of Experts) with consistent participation of MSs governments, stakeholders and international organisations.

Supportive technical recommendations

1. Individual Mobility Data Set, Indicator Set for measuring health workforce outflow, Mobility Data Set for measuring the reliance of foreign health workers and Indicator Set for measuring health workforce balance are developed and recommended by JAHWF to support national policy dialogue on the brain drain and/or the reliance on foreign health workforce.
    - Mobility status should be collected by the Member States for each of the three inflow indicators - FT, FN, FB. "Foreign trained" should be prioritised as the main inflow indicator, supplemented by data on additional qualifications in order to track this segment of the training mobility phenomenon. If it is possible, the use of a fine-tuned foreign-trained definition is recommended: foreign-trained (for first qualification) excluding foreign-trained health professionals who are both domestic-born and of domestic-nationality.
    - Additional data collection is needed in order to provide a basis for new studies on mobility, such as, for example, on the real occupations undertaken by the mobile HWF in the health systems of the destination countries, and on the skill mix that actually flows with this mobility.
    - In destination countries, the level of reliance on foreign health workforce could be measured by determining the percentage of practising foreign health professionals in FTE

as part of the total number of practising health professionals in FTE. Foreign means in this case foreign-trained (according to first qualification), excluding foreign-trained health professionals who are both domestic-born and of domestic-nationality.

- For source countries that receive limited information from destination countries or from international data collection on HWF leaving the country, using the indicator "annual number of health professionals with intention to leave and becoming inactive" is suggested, in case data is lacking for professional activity outflow is to be estimated from the data on intention to leave, using the number of health professionals requesting a certificate for working abroad for the first time ("first time applicants") without counting foreign[29] health professionals who requested a certificate within a year of graduating.

2. All MSs should invest in IT systems that allow for a warehousing approach (that is both central and distributed) of the minimum mobility data set with a thorough consideration of privacy regulations. Improvement of the common terminology is important to the process. **(D042 Report on Mobility data)**

3. In order to compensate the incomplete coverage of the Joint Questionnaire, EUROSTAT should work out a specific data request on the mobility section of the JQ for the EU countries that are not member states of OECD. The development and dissemination of a basic ToolKit on mobility indicator set collection - in line with Joint Questionnaire data collection - could have an added value, together with supporting its implementation at national level. **(D042 Report on Mobility data, Report on circular migration)**

4. The available sources should be mapped and linked for higher precision data availability with a consideration to national and EU level data protection law. Furthermore, the synchronisation, or the linking of HWF mobility related national data sources, can provide a solution to the frequently scattered nature of mobility data. This objective may be served by appointing a national HWF intelligence centre overseeing the information sources on HWF, including mobility data. Nevertheless, there is no "one size fits all" solution for mobility data collection; every country can build a system matching its own characteristics. **(D042 Report on Mobility data, Report on circular migration)**

5. As mobility of students in graduate training is not part of HWF mobility definition and monitoring, additional HWF mobility indicators to follow training/ education mobility in course of graduate training should be developed. **(D042 Report on Mobility data)**

6. Pilot projects between countries with considerable bilateral mobility flows should investigate the feasibility of systematic, bilateral information exchange between them in order to demonstrate mutual benefits, providing thus incentives for a more comprehensive data exchange. **(D042 Report on Mobility data, D052)**

7. Countries should develop retention policies by creating fair and equitable working conditions. Circular mobility can be beneficial to both source and destination countries. **(WP 4 Report.**

[29] foreign means here having foreign birthplace and nationality at the same time

The applicability of the WHO Global Code of Practice on the International Recruitment of Health Personnel within a European context, Report on circular migration, D052)

6. Sustainability Business Plan

Rationale of the Sustainability Business Plan

The Sustainability Business Plan is built on the deliverables and work activities of the Joint Action on Health Workforce Planning & Forecasting. The actions and projects presented in this Plan focus on sustaining the flow of Joint Action results and benefits into the future. They are aimed at further developing the knowledge and EU cooperation on health workforce planning and forecasting through the development of:

- Essential new research
- Cooperation projects
- Knowledge sharing and sharing of best practices
- Implementation of health workforce planning and forecasting (at national/regional level)

The Business Plan covers health *systems* planning where appropriate and proposes synchronized actions with other relevant EU and national initiatives in the area of health workforce policy. The actions and projects presented in the Business Plan should be supported by a future network of Health Workforce experts.

Whether European funding will be available for any future cooperation is dependent on the added EU value of the European cooperation and the political willingness of Member States as well as the European Union to co-fund future health workforce projects. In this context, the Business Plan is made of a range of actions and project proposals that can be performed independently, focused on the needs of Member States and build up to encompass as much JAHWF recommendations as possible.

Categories of Activities and Funding Mechanisms

Category	Symbol	EU or national funding mechanism
Scaling up Research at EU-level		EU funding for Research and Innovation through Horizon 2020
EU Level Cooperation		Grants for projects (e.g. through the Health Programme)
Knowledge sharing and exchanging best practices		Contracts for expertise (e.g. for the provision of expertise through the Network of Experts)
National / Regional projects		Either national funding or co-funding from the European Structural & Investment Fund

Note: The symbols are temporary – other picture free of rights should be sought by WP2.

Initial list of future actions and projects

The Joint Action proposes an initial list of future actions and projects based on the deliverables, work activities and recommendations it has produced over the last years. Each identified action is linked to one of the four categories of actions as defined above. The proposed actions have been discussed and evaluated at a high level, indicating Member States and stakeholder interest as well as the need for further actions in the area of health workforce policy.

Partner consultation and prioritisation of actions

The list is submitted for consultation (via Survey Monkey) among Joint Action partners and prioritized according to the feedback received. The draft results will be discussed at the Sustainability Workshop in Brussels, March 16, 2016, leading to the final draft for submission to the Joint Action Executive Board.

Actions on Data Collection

No	Action	Relation with JA products & workgroups	Category
#1	Data Compendium	Continuation and development of the recommendations of D041, D042, D043. Extension of D051 and lessons out of D054 Extension of D024 Building on WHO expert group on Health Workforce Accounts	
#2	Mobility Map	Continuation and development of the recommendations of D042. Lessons out of D052 and D054 WHO / OECD / EUROSTAT joint work on non-monetary data	
#3	Recruitment and Retention Determinants	Continuation and development of the recommendations of D042. Extension of D052 and D024. Continuation of the EU study on Recruitment and Retention.	
#4	National Implementation of Data Collection	Implementation of the recommendations of D041, D042, D043. Implementation of D051, D052 and lessons out of D054 Building on WHO strategy on National Health Workforce Accounts and supporting the WHO / OECD / EUROSTAT joint work on non-monetary data	
#5	Data Sharing & Collaboration	Implementation of the recommendations of D041, D042, D043 and extension of the reports through an extended D024.	
#6	Activities of Foreign Trained HWF	Implementation of the recommendations of D042	
#7	Joint Questionnaire Dynamic	Implementation of the recommendations of D042. Building on WHO strategy on Health Workforce Accounts and supporting the WHO / OECD / EUROSTAT joint work on non-monetary data	

#8	EU Balanced Scorecard for Implementation of WHO Code of Practice	Extension from the D042 generic & specific reports, and from D043 toolkit proposal. Building on the WHO reporting. Putting forward the HW4ALL EU initiative.	

Actions on Data Planning

No	Action	Relation with JA products & workgroups	Category
#9	Impact of Salary	Extending D052 beyond the boundaries of its limited scope – looking at the needs expressed in Milano workshop.	
#10	Impact of Working Conditions	Extending D052 beyond the boundaries of its limited scope – looking at the needs expressed in Milano workshop.	
#11	Modelling System Changes	Extending D052 and using the lessons of D062	
#12	Opening the Handbook to the World	Extending D052 beyond the boundaries of its geographical scope	
#13	Roll-out of Planning	Implementing D052 and learning from D054	
#14	Extending the Handbook with Mathematical Forecasting	Extending D052 beyond the boundaries of its limited scope and learning from D054	

Actions on Horizon Scanning & Future Health Systems

No	Action	Relation with JA products & workgroups	Category
#15	Horizon Scanning on eHealth Impact	Extending D062 and synchronizing with EU eHealth vision	
#16	Horizon Scanning on EU Demography Impact	Extending D062 synchronizing with EU priorities.	
#17	Increase HWF Management Knowledge	Implementing the dynamic of the networking on HWF (WP2 & 7) and policy headlines 3 and 5	
#18	Library on Health Workforce Issues	Supporting the dynamic of the networking on HWF (WP2 & 7) and policy headline 5. Extending D024.	
#19	Involve Future Generations	Building on WP7 workshops and research	
#20	Joint Horizon Scanning	Implementing D061 and learning from D064	

#21	EU Health Workforce Forecast	Implementing WP4, 5 & 6 principles, building and EU HWF yearly scorecard	
#22	Research exercise on cross-professions planning and multiprofessional teams and skills mix	Building on WP6 recommendation within D062 on the consequence of skills transfer and integrated care.	

Summary Fiches for all Actions

#1	Data Compendium
A compendium is created, extending and transforming the JA Minimal Data Requirements (WP5) and WP4 deliverables into a comprehensive guide of data - including definitions and usages - which are essential for performing robust and detailed HWF planning, for example enabling the study of the ideal ratio of HWF professionals. Its appendixes map the various ways for collecting those data across the EU, and the standardisations applied. Such a compendium is integrated into the JA Web Portal as a third pillar (data), and targets the 28 members states. A strong cooperation with WHO ensures universality.	
Context	The Joint Action agreed in Milano about various objectives for health workforce planning and also made a tight selection within those leading to the minimal data requirements. Together with the mobility data set brought by WP4, these core data received the focus of the action. Still, many data beyond the minimal data requirements request similar investigation and benchmark, in order to address the extended objectives like the influence of HWF density on the quality of care or the impact of IT on the needs. Also we have created during the JA a repository for both Planning methodologies and horizon scanning studies. A specific sub-site on data is missing where terminology discussions and benchmarking stories could be found.
Partners	Members States competent authorities Professional and Employers organisations WHO, OECD, EUROSTAT ILO, OIM
Products	- Comprehensive guide of all HWF planning data in use in alignment with WHO - Definitions - Benchmarking review - New section of the JA web portal
Workload	2520 m.d. (60 m.d. per MSs + 50% coordination and writing)
Timing	1 ½ y

#2	Mobility Map
Based on the first and second issue of the OECD/WHO/Eurostat report on mobility data and on the JA proposed mobility indicators, the Expert Group on European Health Workforce establishes a proposal of EU-supported policy brief, together with a renewed mobility map across EU. This policy brief will work further on the analyses and policy implications of the first and second issue of the	

OECD/WHO/Eurostat report on mobility data and on the JA proposed mobility indicators.	
Context	The OECD/WHO/Eurostat report on mobility data offers important opportunities to support multi-lateral dialogues by highlighting the main mobility flows between the member states. As per WP4-D052 recommendation, the report is ready to be used as a catalyst of multilateral policy dialogues, provided a second issue confirms the first round collected values and illustrates trends, which is important as mobility is defined as a quick changing context. Together and based on evidence, a network of experts could update the static maps brought together by previous studies (MoHprof & Prometheus) that now dated several years. Using this material, Member States experts could also suggest a regulation framework to accompany the extreme impacts of forecast future migration.
Partners	Network of experts supported by / Members States competent authorities Professional and Employers organisations WHO, OECD, EUROSTAT ILO, OIM
Products	- Renewed Mobility Map
Workload	294 m.d. (5+2 m.d. per MSs + 50% coordination and writing)
Timing	½ y

#3	Recruitment and Retention Determinants
Based on the EU study on Recruitment and Retention of the Health Workforce in Europe, on the Prometheus Report and on the JA mobility data report, further research is conducted on the determinants of health personnel retention, and a database of useful practices is established and integrated within the JA web portal.	
Context	In a free market zone, mobility of specific professional groups cannot be regulated, besides through recognition of competence. Sending countries have to develop retention policies and competitive recruitment schemes if willing to manage the density of the health workforce within their territory. The EU Study on Recruitment and Retention of the Health Workforce in Europe illustrated several good practices across EU. This work could be turned and enhanced into a real database of good practices, including measures of effectiveness and a link with the HWF modelling system. The JA has developed a portal of planning information that would benefit from a repository of good practices in order to become a real innovation promoter.
Partners	Members States competent authorities Professional and Employers organisations
Products	- Full review of retention determinants per country - Full review of retention strategies per country - Database of useful practices
Workload	840 m.d. (20 m.d. per MSs + 50% coordination and writing)
Timing	1 ½ y

#4	National Implementation of Data Collection
EU supports capacity building of national implementation of HWF data collection and planning	

through the provision of expertise by EU experts. Each implementations leads to the extension of the JA handbook by the specific country section.	
Context	Data collection is still an important issue that prevents countries and regions to plan the HWF, mainly due to lack of coordination mechanism and unsynchronized definitions. It is up to each MSs to improve the processes, while the EU experts out of advance countries would add key value by sharing expertise and thinking with the national projects. The handbook section on data, currently missing and suggested as #1, would benefit from each new experience.
Partners	Network of experts supported by / Members States competent authorities Professional and Employers organisations EUROSTAT
Products	- National Data Set - National Data Warehouse - National Statistics
Workload	200 j. consulting per country +/- 100% depending of country complexity
Timing	1 ½ y

#5	**Data Sharing & Collaboration**
EU Members States increase and improve collaboration where applicable to share HWF related information in a cross-country way, and document their useful practices, made available through a data part of the Joint Action web portal.	
Context	WP4 and previous studies have highlighted that most mobility flows are concentrated within a few bilateral country relations, and called for country-to-country level cooperation. Some countries would for sure be able to show the way with very little budget investment. Benelux countries are obvious candidates for such a project.
Partners	Members States competent authorities Professional and Employers organisations EUROSTAT
Products	- According to project
Workload	Not measurable at this time
Timing	Not measurable at this time

#6	**Activities of Foreign Trained HWF**
Further studies are conducted on the activities of the Foreign Trained HWF in the main destination countries to better understand the HWF market dynamic. These studies will build on the work done by Prometheus. The main aim is to understand what *kind* of gaps these foreign trained health workers are filling (i.e. what jobs and tasks do they perform) and what their *contribution* to overall productivity in the destination country is (i.e. how many FTE do they constitute)?	
Context	Mobility is considered as a loss of workforce for the sending countries, but do not necessarily means an equivalent gain for the receiving country. The study of real occupation of moving workforce is a key element for a better understanding of the

	health workforce mobility, adding to the various analysis already performed. It nevertheless request a huge time investment as such study can only be conducted through survey and interviews.
Partners	Members States competent authorities Professional and Employers organisations
Products	- Survey method and protocol - Data set - Comparable results - Policy analytics
Workload	7000 m.d. (200 m.d. per MSs + 25% coordination and writing)
Timing	3 y

#7	**Joint Questionnaire Dynamic**
The Member States that are not currently filling in the OECD, EUROSTAT, WHO data collection, commit to fill it in. The Network of Experts can play a role in this by actively involving JQ Data Correspondents, providing expertise and methodological support.	
Context	The JQ and its module on mobility has proven to be a rich tool, helping the dialogue between sending and receiving countries to take place, as was reported by WP4. All EU member states would benefit from a perfectly filled in JQ and JQ mobility module. Even though all countries, to a greater or lesser extent, possess the required data to obtain this objective, some countries would benefit from an exchange of expertise and methodological support that the Network of Experts could provide.
Partners	Members States competent authorities Professional and Employers organisations WHO, OECD, EUROSTAT
Products	- JQ Qualitatively filled in (incl. mobility module) - JQ filled in by all (incl. mobility module)
Workload	Not measurable at this time
Timing	Not measurable at this time

#8	**EU Balanced Scorecard for Implementation of WHO CoP**
Jointly with WHO Europe, the EU supports the creation of a conceptual model for assessing the implementation of the *WHO Global Code of Practice on the International Recruitment of Health Personnel (WHO CoP)* at MS Level, integrated in a EU level balanced scorecard. By assessing we do **not** understand scoring in a one size fits all calculation. We understand it as presenting country implementation patterns on a visual framework, allowing clustering of countries despite the different health systems.	
Context	Currently, the measurement of the implementation of the WHO CoP is insufficient. Considering the policy character of most engagements in the CoP, and the numeric measures of mobility which should underpin them, the built up of a balanced scorecard is an appropriate tool to improve the monitoring of its implementation. An effort at EU level to develop such a balanced scorecard-tool would increase EU comparability and common reporting to WHO, but also fostering the dialogue within EU.
Partners	Members States competent authorities

	Professional and Employers organisations WHO ILO, OIM
Products	- Data set - Tool - Guidelines
Workload	600 m.d.
Timing	1 ½ y

#9	**Impact of Salary**
The impact of salary conditions on recruitment and retention is studied, and the handbook is extended with these results.	
Context	Salaries are considered as the major parameter for recruitment and retention. While the WP5 handbook provides a first study of the impact of health workforce wages, written by Milena Santric, this analysis needs to be put forward, as the discrepancies of wages and purchasing power across the EU are not reducing.
Partners	Universities ILO One Members States competent authority
Products	- Study - Handbook update
Workload	600 m.d.
Timing	1 y

#10	**Impact of Working Conditions**
The impact of working conditions (incl. optimal number of health professionals per patient) on HWF retention and on patient safety is studied, and the handbook is extended with these results.	
Context	Health workforce planning is mainly seen from the perspective of demand and supply, counting the health professionals as units, while the health professional working conditions are key to assess the qualitative elements of the demand. The link between work conditions and quality of care has been demonstrated, but studies are insufficient for allowing quantification. The major weakness of most of the current methodologies is that needs are calculated on steady density vs. results. Evaluating the needs according to a model of adequate and qualitative work conditions is development that has not been tried yet.
Partners	Universities Professional and Employers organisations ILO One Members States competent authority
Products	- Study - Handbook update
Workload	1800 m.d.
Timing	2 y

#11	Modelling System Changes
The modelling of major important system changes - like changing demography, eHealth, and alternative models of care - is studied through EU experiences, and the handbook is extended with these results.	
Context	The Handbook on planning guidelines is based on the most usual planning objectives and tries to align comparable practices. The handbook does not aim at being exhaustive or focusing on advanced planning features. In further developing the handbook, a next version should include modelling methods which include parameters on the most studied megatrends.
Partners	Universities Professional and Employers organisations Some Members States competent authority
Products	- Study - Handbook update
Workload	1200 m.d.
Timing	1 ½ y

#12	Opening the Handbook to the World
Non-EU experiences are added to the Handbook (e.g. Australia, Canada, Japan, …) in cooperation with OECD.	
Context	The current WP5 handbook studies 7 EU planning methodologies. More knowledge is available worldwide that could increase the value of the Handbook.
Partners	Network of experts supported by / Related country experts
Products	- New release of the Handbook
Workload	600 m.d.
Timing	1 y

#13	Roll-out of Planning
National implementation of planning methodologies with support of EU expertise. The new experiences are added to the WP5 portal.	
Context	All EU Member States might benefit from an implementation path of the WP5 Handbook. The local investment would last 3 years at least per each. The time cannot be compressed, though the performance of the project could benefit from EU wide expertise to overcome the known difficulties and prevent from choosing insufficient strategies.
Partners	Members States competent authorities (or Regional) Professional and Employers organisations Supported by the network of experts
Products	- National/Regional planning system in place - Addendum to the handbook
Workload	Not measurable at this time
Timing	Not measurable at this time

#14	Extending the Handbook with Mathematical Forecasting
The WP5 Portal section is extended with a section specifically on forecasting models and mathematic forecasting analysis methods.	
Context	The current WP5 Handbook doesn't dig into the forecasting model and mathematical formulation of the forecast. The addition of a technical section with discussion of the main options is relevant as the pilot projects and various questions demonstrated.
Partners	Network of experts supported Specialised Universities
Products	- Comprehension math section of the handbook - Strong definition section and reading path
Workload	600 m.d.
Timing	1 y

#15	Horizon Scanning on eHealth Impact
EU Wide horizon scanning addresses the influence of eHealth and related technological evolutions (incl. genomics) on healthcare organization, health workforce quantity, skills and roles. The results are added to the WP6 JA portal.	
Context	The UK is currently the only Member State that performs regular horizon scanning and in-depth review of major professions and health care sector categories. This investment remains unused across most of the EU. WP6 highlights the transferability of most horizon scanning results. A EU wide analysis would foster the acceptability of the results across the MSs and usefully map any potential divergence of opinion within EU widespread expertise. eTechnologies are among the mega-drivers that WP6 highlights.
Partners	Specialised Universities Some National authorities Supported by the Network of Experts
Products	- HS report - Policy analysis - Addendum to Portal
Workload	1200 m.d.
Timing	1 ½ y

#16	Horizon Scanning on EU Demography Impact
EU Wide horizon scanning is performed on the influence of EU demography on healthcare organization, health workforce quantity, skills and roles. Horizon scanning contributes to improving labour market intelligence on future professional roles in the health sector. The results are added to the WP6 JA portal.	
Context	UK is currently the only Member State that performs Horizon Scanning and In depth review of major professions and health care sector categories. This investment is underutilized and such study remains unused across EU. WP6 highlights the portability of most HS results. A EU wide analysis would foster the acceptability of the results across the MSs and usefully map any potential divergence of opinion within EU widespread expertise. The demographic changes and is among the mega-drivers that WP6 highlights.

Partners	Specialised Universities National authorities Supported by the Network of Experts Labour Market and Skills Observatories
Products	- HS report - Policy analysis - Addendum to Portal
Workload	600 m.d.
Timing	1 ½ y

#17	Increase HWF Management Knowledge
The knowledge and expertise on HWF management is promoted and developed throughout Europe	
Context	As discussed during the JA Conference in Rome and within Work Package 7, the need for improved management, using predictive tools and multi-stakeholder dialogue is key to fulfil the planning capacity development committed through the adoption of the WHO Code of Practice. While it is up to the MSs to work this out for themselves, EU wide spreading of HWF knowledge and understanding would help the consciences to lighten, and improve the common understanding of main issues among professional groups, education teams, employers and so on.
Partners	Specialised Universities National authorities Network of Experts
Products	- Active network - Networking events - Training (awareness to advanced)
Workload	Depending on the level of support
Timing	Continuous

#18	Library on Health Workforce Issues
In cooperation with WHO, a World Wide Library on Health Workforce Issues is promoted and managed	
Context	The knowledge brought together by the JA and all future knowledge building would benefit from a library integration for sustainable management and improvement.
Partners	Network of Experts supported by/ Specialised Universities National authorities
Products	- Active knowledge repository
Workload	Depending on the level of engagement
Timing	Continuous

#19	Involve Future Generations
Specific relations with the Health Care students lead to an improved involvement and information of future generations.	

Context	The JA collaboration with students' organization is a first step of involving these representatives at a policy level. There is a potential for further thinking exercise with students' representatives across EU e.g. related to the image of the profession, the students expectations, their view on acquiring skills, … that would better be investigated, delivering studies at EU Level.
Partners	National authorities Students organisations ILO
Products	- Active representation - Communication framework
Workload	Depending on the level of engagement
Timing	Continuous

#20	Joint Horizon Scanning
EU Members States collaborate, where relevant, at cross-country level in horizon scanning. They document their findings and make them available through the JA WP6 portal.	
Context	Various opportunities can be identified for jointly studying specific issues in a structured way, leading to national policy dialogues taking into account the influence on other countries. An example could be the potential Review on Physiotherapy that both France and the French speaking Community of Belgium can jointly perform, aiming at a common understanding of the driving forces, and building a dialogue for a common management of the French speaking supply of physiotherapists.
Partners	Members States competent authorities Professional and Employers organisations
Products	- According to project
Workload	Not measurable at this time
Timing	Not measurable at this time

#21	EU Health Workforce Forecast
As starting point of a yearly process, a new calculation of the EU estimated health workforce needs, existing stock and migrations is made that replaces the current numbers from up to 2020 (estimated in 2012) to up to 2035.	
Context	An internal note of the EU Commission, dd. 2008, based on a few MSs numbers of doctors and nurses, with linear extrapolation to EU-27 and other professions has thrown out the number of 1.000.000 missing health-worker by 2020. There are still many official reference to this internal note today, while both the calculation method and validity date are subject to major caution. EU policy level needs a more accurate calculate, within EU-28, based on the last data and through an EU collaboration using the JA network and definitions.
Partners	Network of Experts supported by / Members States competent authorities Professional and Employers organisations
Products	- Yearly process - Math protocol

	- Calculation results
Workload	First time : 600 m.d.
Timing	¾ y

#22	Research exercise on cross-professions planning and multiprofessional teams and skill mix
Context	WP6 recommended that Health Workforce Planning should consider integrated care and cross-professional teams as a starting point, instead of the traditional profession by profession static planning. Most HWF planning system considers professions independently which is far from the reality. Professions are depending from each other's and the lack of one impacts the distributions of tasks.
Partners	Network of Experts supported by / Specialised Universities Professional and Employers organisations National authorities
Products	- Recommendation for alternative planning model
Workload	600 m.d.
Timing	1 y 1/2

Funding Mechanisms

Horizon 2020

Horizon 2020 is the EU Framework Programme for Research and Innovation (R&I). Its section on Health, Demographic Change and Wellbeing specifically contributes to the sustainability of health and care systems. Its Working Programme 2016-2017 for example included a topic on 'Healthcare Workforce IT skills'. The Horizon 2020 Programme can help provide additional funding to investigate new ways and directions on sustaining the health workforce.

EU Health Programme

The EU Health Programme - aimed at improving the health and well-being of EU citizens and reduce health inequalities through the funding of projects and other actions - has as one of its thematic priorities *to contribute to innovative, efficient and sustainable health systems*. The Health Programme 2014-2020 has as a specific objective to:

Support the sustainability of the health workforce by developing effective health workforce forecasting and planning in terms of numbers, gender equality, scope of practice and the extent to which training matches the requisite skills, including the ability to make use of new information systems and other advanced technologies, monitor mobility (within the Union) and migration of

health professionals, foster efficient recruitment and retention strategies and capacity development, taking due account of issues of dependency and population ageing.

The Health Programme can help ensure EU participation to maintain the dynamic behind the sustainability of the Joint Action on Health Workforce Planning & Forecasting, as it provides potential EU funding to complement national funding.

7. Conclusions

Included once document is finalised.

Appendix I WP7 Methodology on drafting the Policy and Technical Headlines

Policy Headlines

To identify, formulate and structure the Policy Recommendations, a four-step approach was used:

1. First, all JA Deliverables and a variety of other data sources was searched to identify and collect relevant input for the Policy Recommendations.
2. Subsequently, the collected input was analysed, listed and structured under five main Policy Headlines on the basis of the Knoster Change model[30].
3. Thirdly, the five Policy Headlines were validated through three consultation exercises among relevant stakeholders and experts.
4. Finally, the structure and conclusions of the Report with recommendations towards policy making (D074) have been validated by Experts during the final WP7 Workshop in Varna (November 2015).

Data collection

Data collection took place throughout the entire runtime of the Joint Action and a variety of sources both within and outside of the JA framework was used as input for the Policy Recommendations. The most important input came from the findings and conclusions of the deliverables of the Joint Action, most notably from the Work Packages dealing with Data and Mobility (WP4), Planning Methodologies (WP5) and Horizon Scanning (WP6); relevant studies and documents of WHO, OECD and Eurostat; and input by associated and collaborative partners. However, other data sources proved to contain valuable additions as well and enabled us to interpret the Policy Recommendations in a wider HWF relevant context. All data sources and methods that were used to gather input for the Policy Recommendations are listed below.

List of data sources and methods used as input for Policy Recommendations

DATA COLLECTION SOURCE OR METHOD	TYPE OF DATA COLLECTED
Input from Joint Action	
WP4, WP5 & WP6 Deliverables ● WP4 - D041 Report on terminology mapping ● WP4 - D042 Report on mobility data in the EU ● WP4 - D043 Report on HWF planning data ● WP5 - D051 Minimum planning data requirements ● WP5 - D052 Handbook on planning methodologies ● WP5 - D053 (part of D024) Web portal on HWF planning methodologies ● WP6 - D061 User's guidelines on estimating future needs ● WP6 – D062 Report future skills & competencies ● WP6 –D063 (part of D024) Web content on horizon scanning WP6 – D064 Report on WP6 pilot study experiences	Recommendations produced by WP4, WP5 & WP6

[30] D071 Sustainability plan, Joint Action on Health workforce planning and forecasting.

WP4, WP5 & WP6 Workshops	Conclusions from the WP4, WP5 & WP6 workshops
WP7 Workshops ● 3—4 September 2013, Sofia, Bulgaria ● 10—12 February 2014, London, UK ● 7 May 2014, Florence, Italy ● 16—18 August 2014, Lisbon, Portugal ● 23—24 January 2015, Varna, Bulgaria ● 12—13 February 2015, Leuven, Belgium ● 11 November 2015, Varna, Bulgaria	Conclusions from the WP7 workshops
WP7 Interviews with Experts and Stakeholders A limited number of interviews with renowned experts and stakeholders on HWF issues	Expert and Stakeholder views on HWF planning and sustainability
WP7 Society Survey among 7 European Student Associations representing medical, pharmaceutical, dental and nursing students.	European Student Associations' views, aspirations and involvement in HWF planning processes, etc.
WP7 Circular Mobility Report	
JA Executive Board meetings ● 27 September 2013, Leuven, Belgium ● 13 December 2013, Vienna, Austria ● 4 June 2014, Leuven, Belgium ● 4—5 November 2014, Luxemburg, Luxemburg ● 5—6 March 2015, Malta, Malta ● 19—20 November 2015, Budapest, Hungary	
JA Electronic Executive Board meetings ● 21 May 2015 ● 17 August 2015	
JA Stakeholder Forum ● 28—29 January 2014, Bratislava, Slovak Republic	
JA Plenary Assemblies ● 28—29 January 2014, Bratislava, Slovak Republic ● 23—24 March 2015, Madrid, Spain	
Input from sources outside the JA	
WP7 Scoping Review	
Desk Research to identify conclusions from international literature on: ● Good practices for the build-up and maintenance of a platform of experts ● Country policy directions on HWF ● Current implementation level of the EU plan for HWF	
Conclusions from previous relevant studies ● WHO, OECD and Eurostat studies	
Participation in Expert Group on the European Workforce for Health	Feedback from Expert Group members' on WP7 output

Data analysis and structuring of Policy Recommendations

To analyse, list and structure all data collected, we applied the Knoster model of managing complex change . This model, presented in the Sustainability Strategy (D071), is highly useful for implementing change on complex matters, such as HWF planning. During the WP7 Workshop in Leuven (February 2015), the list of all identified policy recommendations was reviewed and, taking the Knoster model as starting point, five Policy Headlines were formulated. Subsequently, a test was undertaken by the Workshop participants to see whether the Headlines were efficient in structuring the recommendations from the JA Report on Terminology Mapping (D041) and could effectively function as repositories for the recommendations from all core JA Work Packages. After this successful test, the first version of the proposed Policy Headlines was finalized.

Validation of the five Policy Headlines

A three-step validation strategy was used to improve and validate the Policy Headlines:

1. As a first step, the first version of the Policy Headlines were presented at the Joint Action Executive Board and Plenary Assembly (23—24 March 2015, Madrid, Spain) for information, comments and suggestions.
2. Secondly, a broad Consultation of the Headlines under all WP7 Partners was organised (May 2015) and responses were received from 18 organisations. Based on the comments and suggestions received, which were consolidated, analysed and processed by the WP7 team, a second version of the Policy Headlines was finalised during the WP7 Workshop in Varna (July 2015).
3. Finally, a second Consultation on the updated version of the Technical Headlines was conducted among members of the EU Expert Group on the European Workforce for Health (September 2015) and responses were received from 9 organisations.
4. Based on the results of the second Consultation, the final Policy Headlines were defined and they are used in this Deliverable.

Technical Headlines

The process of identifying and formulating the recommendations has been evidence-based on the findings and conclusions of the documents delivered by the other work packages of Joint Action - WP4, WP5 and WP6 as well as the input by associated and collaborative partners. In addition, they comply with the expertise and documents of WHO, OECD and Eurostat. The organizing principle of the six headlines of recommendations, presented in this report, is a multi-level concurrence of expert opinion. Its methodological role is to provide the link throughout the whole process of elaborating the WP7 documents and especially between the Sustainability Plan, Policy Recommendations and Technical Recommendations. The identification and the formulation of the six headlines of recommendations is a contribution of WP 7 – Sustainability.

To identify, formulate and structure the Technical Recommendations, a three-step approach was used:

1. First, all JA Deliverables were searched to identify and collect relevant input for the Technical Recommendations.
2. Subsequently, the collected input was analysed, listed and structured under eight main Technical Headlines during a WP7 Working Meeting in Leuven (February 2015).

9. Thirdly, the Technical Headlines were validated through two consultation exercises among relevant stakeholders and experts. This reduced the Technial Headlines from eight to six Headlines.

Data collection

Data collection took place throughout the entire runtime of the Joint Action and a variety of sources both within and outside of the JA framework was used as input for the Technical Recommendations. The most important input came from the findings and conclusions of the deliverables of the Joint Action, most notably from the Work Packages dealing with Data and Mobility (WP4), Planning Methodologies (WP5) and Horizon Scanning (WP6), and input by associated and collaborative partners. All data sources and methods that were used to gather input for the Technical Recommendations are listed below.

List of data sources and methods used as input for Technical Recommendations

DATA COLLECTION SOURCE OR METHOD	TYPE OF DATA COLLECTED
Input from Joint Action	
WP4, WP5 & WP6 Deliverables ● WP4 - D041 Report on terminology mapping ● WP4 - D042 Report on mobility data in the EU ● WP4 - D043 Report on HWF planning data ● WP5 - D051 Minimum planning data requirements ● WP5 - D052 Handbook on planning methodologies ● WP5 - D053 (part of D024) Web portal on HWF planning methodologies ● WP6 - D061 User's guidelines on estimating future needs ● WP6 – D062 Report future skills & competencies ● WP6 –D063 (part of D024) Web content on horizon scanning WP6 – D064 Report on WP6 pilot study experiences	Recommendations produced by WP4, WP5 & WP6
WP4, WP5 & WP6 Workshops	Conclusions from the WP4, WP5 & WP6 workshops
WP7 Workshops ● 3—4 September 2013, Sofia, Bulgaria ● 10—12 February 2014, London, UK ● 7 May 2014, Florence, Italy ● 16—18 August 2014, Lisbon, Portugal ● 23—24 January 2015, Varna, Bulgaria ● 12—13 February 2015, Leuven, Belgium ● 11 November 2015, Varna, Bulgaria	Conclusions from the WP7 workshops
WP7 Interviews with Experts and Stakeholders A limited number of interviews with renowned experts and stakeholders on HWF issues	Expert and Stakeholder views on HWF planning and sustainability
WP7 Society Survey among 7 European Student Associations representing medical, pharmaceutical, dental and nursing students.	European Student Associations' views, aspirations and involvement in HWF planning processes, etc.

WP7 Circular Mobility Report	
JA Executive Board meetings ● 27 September 2013, Leuven, Belgium ● 13 December 2013, Vienna, Austria ● 4 June 2014, Leuven, Belgium ● 4–5 November 2014, Luxemburg, Luxemburg ● 5–6 March 2015, Malta, Malta ● 19–20 November 2015, Budapest, Hungary	
JA Electronic Executive Board meetings ● 21 May 2015 ● 17 August 2015	
JA Stakeholder Forum ● 28–29 January 2014, Bratislava, Slovak Republic	
JA Plenary Assemblies ● 28–29 January 2014, Bratislava, Slovak Republic ● 23–24 March 2015, Madrid, Spain	
Input from sources outside the JA	
WP7 Scoping Review	
Desk Research to identify conclusions from international literature on: ● Good practices for the build-up and maintenance of a platform of experts ● Country policy directions on HWF ● Current implementation level of the EU plan for HWF	
Conclusions from previous relevant studies ● WHO, OECD and Eurostat studies	
Participation in Expert Group on the European Workforce for Health	Feedback from Expert Group members' on WP7 output

Data analysis and structuring of Technical Recommendations

All data collected was analysed, listed and structured during a WP7 Working Meeting in Leuven (February 2015). The result of this analysis was the development of eight main Technical Headlines, under which all technical recommendations developed by the JA HWF could be conveniently situated. Subsequently, a test was undertaken by the participants of the Working Meeting to see whether the defined Headlines were efficient in structuring the recommendations from the JA Report on Terminology Mapping (D041) and could effectively function as repositories for the recommendations from all core JA Work Packages. After this successful test, the first version of the proposed Technical Headlines was finalised.

Validation of the Technical Headlines

A three-step validation strategy was used to improve and validate the first version of the Technical Headlines:

1. As a first step, the first version of the Technical Headlines were presented at the Joint Action Executive Board and Plenary Assembly (23–24 March 2015, Madrid, Spain) for information, comments and suggestions.

2. Secondly, a broad Consultation of the Headlines under all WP7 Partners was organised (May 2015) and responses were received from 18 organisations. Based on the comments and suggestions received, which were consolidated, analysed and processed by the WP7 team, a second version of the Technical Headlines was finalised during the WP7 Workshop in Varna (July 2015). The most important change made was that the number of Technical Headlines was reduced from 8 to 6, as it was felt by participants in the Consultation Round that there was considerable overlap in some of the Headlines.
3. Finally, a second Consultation on the updated version of the Technical Headlines was conducted among members of the EU Expert Group on the European Workforce for Health (September 2015) and responses were received from 9 organisations.
4. After processing the results of the Second Consultation Round, the final version of the Technical Headlines was used in writing this report.

WP7 Sustainability Business Plan

Version/Status	Last updated	Owner(s)
Version 01	26/02/2016	WP7 (to Survey participants)
Version 02		
Version 03		
Version 04		

Sustainability Business Plan

Rationale of the Sustainability Business Plan

The Sustainability Business Plan is built on the deliverables and work activities of the Joint Action on Health Workforce Planning & Forecasting. The actions and projects presented in this Plan focus on sustaining the flow of Joint Action results and benefits into the future. They are aimed at further developing the knowledge and EU cooperation on health workforce planning and forecasting through the development of:

- Essential new research
- Cooperation projects
- Knowledge sharing and sharing of best practices
- Implementation of health workforce planning and forecasting (at national/regional level)

The Business Plan covers health *systems* planning where appropriate and proposes synchronized actions with other relevant EU and national initiatives in the area of health workforce policy. The actions and projects presented in the Business Plan should be supported by a future network of Health Workforce experts.

Whether European funding will be available for any future cooperation is dependent on the added EU value of the European cooperation and the political willingness of Member States as well as the European Union to co-fund future health workforce projects. In this context, the Business Plan is made of a range of actions and project proposals that can be performed independently, focused on the needs of Member States and build up to encompass as much JAHWF recommendations as possible.

Categories of Activities and Funding Mechanisms

Category	Symbol	EU or national funding mechanism
Scaling up Research at EU-level		EU funding for Research and Innovation through Horizon 2020
EU Level Cooperation		Grants for projects (e.g. through the Health Programme)
Knowledge sharing and exchanging best practices		Contracts for expertise (e.g. for the provision of expertise through the Network of Experts)
National / Regional projects		Either national funding or co-funding from the European Structural & Investment Fund

Note: The symbols are temporary – other picture free of rights should be sought by WP2.

List of Future Actions and Projects

Initial list of future actions

The Joint Action proposes an initial list of future actions and projects based on the deliverables, work activities and recommendations it has produced over the last years. Each identified action is linked to one of the four categories of actions as defined above. The proposed actions have been discussed and evaluated at a high level, indicating Member States and stakeholder interest as well as the need for further actions in the area of health workforce policy.

Partner consultation and prioritisation of actions

The list is submitted for consultation (via Survey Monkey) among Joint Action partners and prioritized according to the feedback received. The draft results will be discussed at the Sustainability Workshop in Brussels, March 16, 2016, leading to the final draft for submission to the Joint Action Executive Board.

Actions on Data Collection

No	Action	Relation with JA products & workgroups	Category
#1	Data Compendium	Continuation and development of the recommendations of D041, D042, D043. Extension of D051 and lessons out of D054 Extension of D024 Building on WHO expert group on Health Workforce Accounts	
#2	Mobility Map	Continuation and development of the recommendations of D042. Lessons out of D052 and D054 WHO / OECD / EUROSTAT joint work on non-monetary data	
#3	Recruitment and Retention Determinants	Continuation and development of the recommendations of D042. Extension of D052 and D024. Continuation of the EU study on Recruitment and Retention.	
#4	National Implementation of Data Collection	Implementation of the recommendations of D041, D042, D043. Implementation of D051, D052 and lessons out of D054 Building on WHO strategy on National Health Workforce Accounts and supporting the WHO / OECD / EUROSTAT joint work on non-monetary data	
#5	Data Sharing & Collaboration	Implementation of the recommendations of D041, D042, D043 and extension of the reports through an extended D024.	

#6	Activities of Foreign Trained HWF	Implementation of the recommendations of D042	
#7	Joint Questionnaire Dynamic	Implementation of the recommendations of D042. Building on WHO strategy on Health Workforce Accounts and supporting the WHO / OECD / EUROSTAT joint work on non-monetary data	
#8	EU Balanced Scorecard for Implementation of WHO Code of Practice	Extension from the D042 generic & specific reports, and from D043 toolkit proposal. Building on the WHO reporting. Putting forward the HW4ALL EU initiative.	

Actions on Data Planning

No	Action	Relation with JA products & workgroups	Category
#9	Impact of Salary	Extending D052 beyond the boundaries of its limited scope – looking at the needs expressed in Milano workshop.	
#10	Impact of Working Conditions	Extending D052 beyond the boundaries of its limited scope – looking at the needs expressed in Milano workshop.	
#11	Modelling System Changes	Extending D052 and using the lessons of D062	
#12	Opening the Handbook to the World	Extending D052 beyond the boundaries of its geographical scope	
#13	Roll-out of Planning	Implementing D052 and learning from D054	
#14	Extending the Handbook with Mathematical Forecasting	Extending D052 beyond the boundaries of its limited scope and learning from D054	

Actions on Horizon Scanning & Future Health Systems

No	Action	Relation with JA products & workgroups	Category
#15	Horizon Scanning on eHealth Impact	Extending D062 and synchronizing with EU eHealth vision	
#16	Horizon Scanning on EU Demography Impact	Extending D062 synchronizing with EU priorities.	
#17	Increase HWF Management Knowledge	Implementing the dynamic of the networking on HWF (WP2 & 7) and policy headlines 3 and 5	
#18	Library on Health Workforce Issues	Supporting the dynamic of the networking on HWF (WP2 & 7) and policy headline 5.	

		Extending D024.	
#19	Involve Future Generations	Building on WP7 workshops and research	
#20	Joint Horizon Scanning	Implementing D061 and learning from D064	
#21	EU Health Workforce Forecast	Implementing WP4, 5 & 6 principles, building and EU HWF yearly scorecard	
#22	Research exercise on cross-professions planning and multiprofessional teams and skills mix	Building on WP6 recommendation within D062 on the consequence of skills transfer and integrated care.	

Summary Fiches for all Actions

#1	Data Compendium
A compendium is created, extending and transforming the JA Minimal Data Requirements (WP5) and WP4 deliverables into a comprehensive guide of data - including definitions and usages - which are essential for performing robust and detailed HWF planning, for example enabling the study of the ideal ratio of HWF professionals. Its appendixes map the various ways for collecting those data across the EU, and the standardisations applied. Such a compendium is integrated into the JA Web Portal as a third pillar (data), and targets the 28 members states. A strong cooperation with WHO ensures universality.	
Context	The Joint Action agreed in Milano about various objectives for health workforce planning and also made a tight selection within those leading to the minimal data requirements. Together with the mobility data set brought by WP4, these core data received the focus of the action. Still, many data beyond the minimal data requirements request similar investigation and benchmark, in order to address the extended objectives like the influence of HWF density on the quality of care or the impact of IT on the needs. Also we have created during the JA a repository for both Planning methodologies and horizon scanning studies. A specific sub-site on data is missing where terminology discussions and benchmarking stories could be found.
Partners	Members States competent authorities Professional and Employers organisations WHO, OECD, EUROSTAT ILO, OIM
Products	- Comprehensive guide of all HWF planning data in use in alignment with WHO - Definitions - Benchmarking review - New section of the JA web portal
Workload	2520 m.d. (60 m.d. per MSs + 50% coordination and writing)
Timing	1 ½ y

#2	Mobility Map
Based on the first and second issue of the OECD/WHO/Eurostat report on mobility data and on the JA proposed mobility indicators, the Expert Group on European Health Workforce establishes a proposal of EU-supported policy brief, together with a renewed mobility map across EU. This policy brief will work further on the analyses and policy implications of the first and second issue of the OECD/WHO/Eurostat	

report on mobility data and on the JA proposed mobility indicators.	
Context	The OECD/WHO/Eurostat report on mobility data offers important opportunities to support multi-lateral dialogues by highlighting the main mobility flows between the member states. As per WP4-D052 recommendation, the report is ready to be used as a catalyst of multilateral policy dialogues, provided a second issue confirms the first round collected values and illustrates trends, which is important as mobility is defined as a quick changing context. Together and based on evidence, a network of experts could update the static maps brought together by previous studies (MoHprof & Prometheus) that now dated several years. Using this material, Member States experts could also suggest a regulation framework to accompany the extreme impacts of forecast future migration.
Partners	Network of experts supported by / Members States competent authorities Professional and Employers organisations WHO, OECD, EUROSTAT ILO, OIM
Products	- Renewed Mobility Map
Workload	294 m.d. (5+2 m.d. per MSs + 50% coordination and writing)
Timing	½ y

#3	Recruitment and Retention Determinants
Based on the EU study on Recruitment and Retention of the Health Workforce in Europe, on the Prometheus Report and on the JA mobility data report, further research is conducted on the determinants of health personnel retention, and a database of useful practices is established and integrated within the JA web portal.	
Context	In a free market zone, mobility of specific professional groups cannot be regulated, besides through recognition of competence. Sending countries have to develop retention policies and competitive recruitment schemes if willing to manage the density of the health workforce within their territory. The EU Study on Recruitment and Retention of the Health Workforce in Europe illustrated several good practices across EU. This work could be turned and enhanced into a real database of good practices, including measures of effectiveness and a link with the HWF modelling system. The JA has developed a portal of planning information that would benefit from a repository of good practices in order to become a real innovation promoter.
Partners	Members States competent authorities Professional and Employers organisations
Products	- Full review of retention determinants per country - Full review of retention strategies per country - Database of useful practices
Workload	840 m.d. (20 m.d. per MSs + 50% coordination and writing)
Timing	1 ½ y

#4	National Implementation of Data Collection
EU supports capacity building of national implementation of HWF data collection and planning through the provision of expertise by EU experts. Each implementations leads to the extension of the JA handbook by the specific country section.	
Context	Data collection is still an important issue that prevents countries and regions to plan the HWF, mainly due to lack of coordination mechanism and unsynchronized definitions. It is up to each MSs to improve the processes, while the EU experts out of advance countries would add key value by sharing expertise and thinking with the national projects. The handbook section on data, currently missing and suggested as #1, would benefit from each new experience.

Partners	Network of experts supported by / Members States competent authorities Professional and Employers organisations EUROSTAT
Products	- National Data Set - National Data Warehouse - National Statistics
Workload	200 j. consulting per country +/- 100% depending of country complexity
Timing	1 ½ y

#5	Data Sharing & Collaboration
EU Members States increase and improve collaboration where applicable to share HWF related information in a cross-country way, and document their useful practices, made available through a data part of the Joint Action web portal.	
Context	WP4 and previous studies have highlighted that most mobility flows are concentrated within a few bilateral country relations, and called for country-to-country level cooperation. Some countries would for sure be able to show the way with very little budget investment. Benelux countries are obvious candidates for such a project.
Partners	Members States competent authorities Professional and Employers organisations EUROSTAT
Products	- According to project
Workload	Not measurable at this time
Timing	Not measurable at this time

#6	Activities of Foreign Trained HWF
Further studies are conducted on the activities of the Foreign Trained HWF in the main destination countries to better understand the HWF market dynamic. These studies will build on the work done by Prometheus. The main aim is to understand what *kind* of gaps these foreign trained health workers are filling (i.e. what jobs and tasks do they perform) and what their *contribution* to overall productivity in the destination country is (i.e. how many FTE do they constitute)?	
Context	Mobility is considered as a loss of workforce for the sending countries, but do not necessarily means an equivalent gain for the receiving country. The study of real occupation of moving workforce is a key element for a better understanding of the health workforce mobility, adding to the various analysis already performed. It nevertheless request a huge time investment as such study can only be conducted through survey and interviews.
Partners	Members States competent authorities Professional and Employers organisations
Products	- Survey method and protocol - Data set - Comparable results - Policy analytics
Workload	7000 m.d. (200 m.d. per MSs + 25% coordination and writing)
Timing	3 y

#7	Joint Questionnaire Dynamic
The Member States that are not currently filling in the OECD, EUROSTAT, WHO data collection, commit to fill it in. The Network of Experts can play a role in this by actively involving JQ Data Correspondents, providing expertise and methodological support.	

Context	The JQ and its module on mobility has proven to be a rich tool, helping the dialogue between sending and receiving countries to take place, as was reported by WP4. All EU member states would benefit from a perfectly filled in JQ and JQ mobility module. Even though all countries, to a greater or lesser extent, possess the required data to obtain this objective, some countries would benefit from an exchange of expertise and methodological support that the Network of Experts could provide.
Partners	Members States competent authorities Professional and Employers organisations WHO, OECD, EUROSTAT
Products	- JQ Qualitatively filled in (incl. mobility module) - JQ filled in by all (incl. mobility module)
Workload	Not measurable at this time
Timing	Not measurable at this time

#8	EU Balanced Scorecard for Implementation of WHO CoP
Jointly with WHO Europe, the EU supports the creation of a conceptual model for assessing the implementation of the *WHO Global Code of Practice on the International Recruitment of Health Personnel (WHO CoP)* at MS Level, integrated in a EU level balanced scorecard. By assessing we do **not** understand scoring in a one size fits all calculation. We understand it as presenting country implementation patterns on a visual framework, allowing clustering of countries despite the different health systems.	
Context	Currently, the measurement of the implementation of the WHO CoP is insufficient. Considering the policy character of most engagements in the CoP, and the numeric measures of mobility which should underpin them, the built up of a balanced scorecard is an appropriate tool to improve the monitoring of its implementation. An effort at EU level to develop such a balanced scorecard-tool would increase EU comparability and common reporting to WHO, but also fostering the dialogue within EU.
Partners	Members States competent authorities Professional and Employers organisations WHO ILO, OIM
Products	- Data set - Tool - Guidelines
Workload	600 m.d.
Timing	1 ½ y

#9	Impact of Salary
The impact of salary conditions on recruitment and retention is studied, and the handbook is extended with these results.	
Context	Salaries are considered as the major parameter for recruitment and retention. While the WP5 handbook provides a first study of the impact of health workforce wages, written by Milena Santric, this analysis needs to be put forward, as the discrepancies of wages and purchasing power across the EU are not reducing.
Partners	Universities ILO One Members States competent authority
Products	- Study - Handbook update
Workload	600 m.d.
Timing	1 y

#10	Impact of Working Conditions
The impact of working conditions (incl. optimal number of health professionals per patient) on HWF retention and on patient safety is studied, and the handbook is extended with these results.	
Context	Health workforce planning is mainly seen from the perspective of demand and supply, counting the health professionals as units, while the health professional working conditions are key to assess the qualitative elements of the demand. The link between work conditions and quality of care has been demonstrated, but studies are insufficient for allowing quantification. The major weakness of most of the current methodologies is that needs are calculated on steady density vs. results. Evaluating the needs according to a model of adequate and qualitative work conditions is development that has not been tried yet.
Partners	Universities Professional and Employers organisations ILO One Members States competent authority
Products	- Study - Handbook update
Workload	1800 m.d.
Timing	2 y

#11	Modelling System Changes
The modelling of major important system changes - like changing demography, eHealth, and alternative models of care - is studied through EU experiences, and the handbook is extended with these results.	
Context	The Handbook on planning guidelines is based on the most usual planning objectives and tries to align comparable practices. The handbook does not aim at being exhaustive or focusing on advanced planning features. In further developing the handbook, a next version should include modelling methods which include parameters on the most studied megatrends.
Partners	Universities Professional and Employers organisations Some Members States competent authority
Products	- Study - Handbook update
Workload	1200 m.d.
Timing	1 ½ y

#12	Opening the Handbook to the World
Non-EU experiences are added to the Handbook (e.g. Australia, Canada, Japan, …) in cooperation with OECD.	
Context	The current WP5 handbook studies 7 EU planning methodologies. More knowledge is available worldwide that could increase the value of the Handbook.
Partners	Network of experts supported by / Related country experts
Products	- New release of the Handbook
Workload	600 m.d.
Timing	1 y

#13	Roll-out of Planning
National implementation of planning methodologies with support of EU expertise. The new experiences are added to the WP5 portal.	
Context	All EU Member States might benefit from an implementation path of the WP5 Handbook. The

	local investment would last 3 years at least per each. The time cannot be compressed, though the performance of the project could benefit from EU wide expertise to overcome the known difficulties and prevent from choosing insufficient strategies.
Partners	Members States competent authorities (or Regional) Professional and Employers organisations Supported by the network of experts
Products	- National/Regional planning system in place - Addendum to the handbook
Workload	Not measurable at this time
Timing	Not measurable at this time

#14	Extending the Handbook with Mathematical Forecasting
The WP5 Portal section is extended with a section specifically on forecasting models and mathematic forecasting analysis methods.	
Context	The current WP5 Handbook doesn't dig into the forecasting model and mathematical formulation of the forecast. The addition of a technical section with discussion of the main options is relevant as the pilot projects and various questions demonstrated.
Partners	Network of experts supported Specialised Universities
Products	- Comprehension math section of the handbook - Strong definition section and reading path
Workload	600 m.d.
Timing	1 y

#15	Horizon Scanning on eHealth Impact
EU Wide horizon scanning addresses the influence of eHealth and related technological evolutions (incl. genomics) on healthcare organization, health workforce quantity, skills and roles. The results are added to the WP6 JA portal.	
Context	The UK is currently the only Member State that performs regular horizon scanning and in-depth review of major professions and health care sector categories. This investment remains unused across most of the EU. WP6 highlights the transferability of most horizon scanning results. A EU wide analysis would foster the acceptability of the results across the MSs and usefully map any potential divergence of opinion within EU widespread expertise. eTechnologies are among the mega-drivers that WP6 highlights.
Partners	Specialised Universities Some National authorities Supported by the Network of Experts
Products	- HS report - Policy analysis - Addendum to Portal
Workload	1200 m.d.
Timing	1 ½ y

#16	Horizon Scanning on EU Demography Impact
EU Wide horizon scanning is performed on the influence of EU demography on healthcare organization, health workforce quantity, skills and roles. Horizon scanning contributes to improving labour market intelligence on future professional roles in the health sector. The results are added to the WP6 JA portal.	
Context	UK is currently the only Member State that performs Horizon Scanning and In depth review of major professions and health care sector categories. This investment is underutilized and such study remains unused across EU. WP6 highlights the portability of most HS results. A

	EU wide analysis would foster the acceptability of the results across the MSs and usefully map any potential divergence of opinion within EU widespread expertise. The demographic changes and is among the mega-drivers that WP6 highlights.
Partners	Specialised Universities National authorities Supported by the Network of Experts Labour Market and Skills Observatories
Products	- HS report - Policy analysis - Addendum to Portal
Workload	600 m.d.
Timing	1 ½ y

#17	Increase HWF Management Knowledge
The knowledge and expertise on HWF management is promoted and developed throughout Europe	
Context	As discussed during the JA Conference in Rome and within Work Package 7, the need for improved management, using predictive tools and multi-stakeholder dialogue is key to fulfil the planning capacity development committed through the adoption of the WHO Code of Practice. While it is up to the MSs to work this out for themselves, EU wide spreading of HWF knowledge and understanding would help the consciences to lighten, and improve the common understanding of main issues among professional groups, education teams, employers and so on.
Partners	Specialised Universities National authorities Network of Experts
Products	- Active network - Networking events - Training (awareness to advanced)
Workload	Depending on the level of support
Timing	Continuous

#18	Library on Health Workforce Issues
In cooperation with WHO, a World Wide Library on Health Workforce Issues is promoted and managed	
Context	The knowledge brought together by the JA and all future knowledge building would benefit from a library integration for sustainable management and improvement.
Partners	Network of Experts supported by/ Specialised Universities National authorities
Products	- Active knowledge repository
Workload	Depending on the level of engagement
Timing	Continuous

#19	Involve Future Generations
Specific relations with the Health Care students lead to an improved involvement and information of future generations.	
Context	The JA collaboration with students' organization is a first step of involving these representatives at a policy level. There is a potential for further thinking exercise with students' representatives across EU e.g. related to the image of the profession, the students expectations, their view on acquiring skills, … that would better be investigated, delivering studies at EU Level.

Partners	National authorities Students organisations ILO
Products	- Active representation - Communication framework
Workload	Depending on the level of engagement
Timing	Continuous

#20	Joint Horizon Scanning
EU Members States collaborate, where relevant, at cross-country level in horizon scanning. They document their findings and make them available through the JA WP6 portal.	
Context	Various opportunities can be identified for jointly studying specific issues in a structured way, leading to national policy dialogues taking into account the influence on other countries. An example could be the potential Review on Physiotherapy that both France and the French speaking Community of Belgium can jointly perform, aiming at a common understanding of the driving forces, and building a dialogue for a common management of the French speaking supply of physiotherapists.
Partners	Members States competent authorities Professional and Employers organisations
Products	- According to project
Workload	Not measurable at this time
Timing	Not measurable at this time

#21	EU Health Workforce Forecast
As starting point of a yearly process, a new calculation of the EU estimated health workforce needs, existing stock and migrations is made that replaces the current numbers from up to 2020 (estimated in 2012) to up to 2035.	
Context	An internal note of the EU Commission, dd. 2008, based on a few MSs numbers of doctors and nurses, with linear extrapolation to EU-27 and other professions has thrown out the number of 1.000.000 missing health-worker by 2020. There are still many official reference to this internal note today, while both the calculation method and validity date are subject to major caution. EU policy level needs a more accurate calculate, within EU-28, based on the last data and through an EU collaboration using the JA network and definitions.
Partners	Network of Experts supported by / Members States competent authorities Professional and Employers organisations
Products	- Yearly process - Math protocol - Calculation results
Workload	First time : 600 m.d.
Timing	¾ y

#22	Research exercise on cross-professions planning and multiprofessional teams and skill mix
Context	WP6 recommended that Health Workforce Planning should consider integrated care and cross-professional teams as a starting point, instead of the traditional profession by profession static planning. Most HWF planning system considers professions independently which is far from the reality. Professions are depending from each other's and the lack of one

	impacts the distributions of tasks.
Partners	Network of Experts supported by / Specialised Universities Professional and Employers organisations National authorities
Products	- Recommendation for alternative planning model
Workload	600 m.d.
Timing	1 y 1/2

Funding Mechanisms

Horizon 2020

Horizon 2020 is the EU Framework Programme for Research and Innovation (R&I). Its section on Health, Demographic Change and Wellbeing specifically contributes to the sustainability of health and care systems. Its Working Programme 2016-2017 for example included a topic on 'Healthcare Workforce IT skills'. The Horizon 2020 Programme can help provide additional funding to investigate new ways and directions on sustaining the health workforce.

EU Health Programme

The EU Health Programme - aimed at improving the health and well-being of EU citizens and reduce health inequalities through the funding of projects and other actions - has as one of its thematic priorities *to contribute to innovative, efficient and sustainable health systems.* The Health Programme 2014-2020 has as a specific objective to:

Support the sustainability of the health workforce by developing effective health workforce forecasting and planning in terms of numbers, gender equality, scope of practice and the extent to which training matches the requisite skills, including the ability to make use of new information systems and other advanced technologies, monitor mobility (within the Union) and migration of health professionals, foster efficient recruitment and retention strategies and capacity development, taking due account of issues of dependency and population ageing.

The Health Programme can help ensure EU participation to maintain the dynamic behind the sustainability of the Joint Action on Health Workforce Planning & Forecasting, as it provides potential EU funding to complement national funding.

Joint Action Health Workforce Planning and Forecasting

Network of Experts – release 2
Version – 1.3

D072 NETWORK OF EXPERTS

RELEASE 2

Joint Action Health Workforce Planning and Forecasting

WORK PACKAGE 7

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Catholic University of Leuven, Belgium
National Centre of Public Health and Analyses, Sofia, Bulgaria

Funded by the Health Programme of the European Union

KU LEUVEN

Index

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1. The Joint Action Health Workforce Planning and Forecasting

The Joint Action on Health Workforce Planning and Forecasting is a three-year programme running from April 2013 to June 2016, bringing together partners representing countries, regions and interest groups from across Europe and beyond, but also non- EU countries and international organisations. It is supported by the European Commission in the framework of the European Action Plan for the Health Workforce, which highlights the risk of critical shortages of health professionals in the near future.

The main objective of the Joint Action Health Workforce Planning and Forecasting (JA EUHWF) is to provide a platform for collaboration and exchange between partners, to better prepare Europe's future health workforce. The Joint Action aims at improving the capacity for health workforce planning and forecasting, by supporting the collaboration and exchange between Member States and by providing state-of-the art knowledge on quantitative and qualitative planning. By participating in the Joint Action, competent national authorities and partners are expected to increase their knowledge, improve their tools and succeed in achieving a higher effectiveness in workforce planning processes. The outcomes of the Joint Action should contribute to the development of sufficient health professionals, to the minimization of the gaps between the needs and the supply of health professionals equipped with the right skills, through the forecast of the impact of healthcare engineering policies and the re-design of educational capacity for the future.

This document contributes to achieving this aim by proposing a sustainable construction of a network of knowledge, ensuring the collaboration and exchange between the partners after the contractual end of the action.

This document has been approved by the Executive Board of the Joint Action on Health Workforce Planning & Forecasting on [date].

2. Contributors and Acknowledgements

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The following members of the WP3 evaluation committee have formally evaluated the document: Johanna Lammintakanen, Alisa Puustinen and Andrew Xuereb, under the leadership of Marjukka Vallimies-Patomaki from the Finnish Ministry of Social Affairs and Health.

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[1] See Appendix 5 & 6. for the list of WP7-D072 workshops & participants.

Glossary

Term	Definition
Affordability	Keeping the costs of healthcare services within the threshold of what is considered sustainable by the population, national government and/or EU definition.
Age groups	A division of the population according to age, in a pre-determined range, used to distinguish differences among populations. Examples: 0-4; 5-9; 10-14; …. 60-64; 65+.
Anticipation	Thinking ahead of an occurrence in order to determine how to handle it, or how to stop it from happening.
Big picture challenge	A fundamental challenge that policy makers are facing across the (healthcare) system. Meeting a big picture challenge requires focused action at the highest level across the health, social care, education and employement sector.
Circular mobility	A form of migration that is managed in a way allowing some degree of legal mobility back and forth between two countries
Cluster	A set of system factors and driving forces, similar to each other and linked through cause and effect relationships, which describe a key focal issue of concern.
Demand (of HWF)	Number of health professionals required to fill in open vacancies. It should ideally be expressed both headcount and in full-time equivalent (FTE), depending on the forecasting purpose.
Driver / Driving force	A factor that causes or might cause changes, measurable movements or trends in the HWF of a health care system.
Events	Occurences that can impact the healthcare system.
Emigration (outflow)	The act of leaving one's current country, in this context with the intention to practice a profession abroad.
Factors	A circumstance, fact or influence that contributes to a result. Factors are linked to each other through cause and effect relationships. A change to a factor often will influence one or more other factors in the system.
Full-time equivalent (FTE)	Unit used to measure employed persons to make them comparable, as they work a different number of hours per week, in different sectors. The unit is obtained by comparing an employee's average number of hours worked to the average number of hours of a full-time worker of same kind. A full-time worker is therefore counted as one FTE, while a part-time worker gets a score in proportion to the hours he or she works or studies. For example, a part-time worker employed for 24 hours a week where full-time work consists of 48 hours, is counted as 0.5 FTE.
Healthcare	The output of healthcare services that can be produced from the given

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production	combination of human and non-human resources.
Health professional	Individuals working in the provision of health services, whether as individual practitioner or as an employee of a health institution or programme. Health professionals are often defined by law through their set of activities reserved under provision of an agreement based on education pre-requisites or equivalent.
Health workforce	The overarching term for the body of health professionals (trained and care workers directly involved in the delivery of care) working in a healthcare system.
Horizon scanning	A systematic examination of information to identify potential threats, risks, emerging issues and opportunities allowing for better preparedness.
Imbalances (major)	The uneven spread of the active health workforce across countries, regions or professions, resulting in *underserved/overserved areas*.
Indicators (key planning)	A quantitative or qualitative measure of a system that can be used to determine the degree of adherence to a certain standard or benchmark
Job retention	The various practices and policies which enable healthcare professionals to chose to stay in their countries to practise for a longer period of time, or to stay in their practice, or even to keep working full time.
Labour force	The total number of people employed or seeking employment in a country or region.
Megatrend	A large, social, economic, political, environmental or technological change that is slow to form and difficult to stop. Once in place, megatrends influence a wide range of activities, processes and perceptions, both in government and in society, possibly for decades. For example, the ageing population megatrend is composed of trends in birth rate, death rate, quality of healthcare, lifestyle, etc.
Migration (inflow)	The act of (either temporarily or permanently) moving into a country, in this context in order to practice a profession.
Minimum data set (MDS) for Health Workforce Planning	A widely agreed upon set of terms and definitions constituting a core of data acquired for reporting and assessing key aspects of health system delivery
Planning process	A process of defining health workforce planning perspectives, based on needs assessment, identification of resources, establishing the priority of realistic and feasible goals, as well as on administrative measures planning to achieve these goals
Planning system	Strategies that address the adequacy of the supply and distribution of the healthcare workforce in relation to policy objectives and the consequential demand for health labour force
Population	A group of individuals that share one or more characteristics from which data can be gathered and analysed.

Population healthcare needs	The requirements necessary to achieve physical, cognitive, emotional, and social wellbeing, at the individual, family, community and population level of care and services.
Professions (withing JA scope only)	The professional qualifications of physicians, nurses, midwives, pharmacists, and dentists, included in the Directive 2005/36/EC of the European Parliament and of the Council.
Qualitative information	Information collected using qualitative methodologies to identify and describe key factors in the health workforce system which are likely to affect the supply and demand of workforces.
Qualitative methodologies	Methods used to gather qualitative information on key factors which are likely to affect the supply and demand of health workforces through techniques such as interviews, document analysis, or focus groups. Includes methods to quantify uncertain parameters for forecasting models.
Reliance on foreign health workforce	The share of foreign (trained & born) health professionals within a country's health workforce in a given year, expressed as a percentage of the stock of the workforce
Retirement	Period or life stage of a health care worker following termination of, and withdrawal from the healthcare system. It is expressed in the number of healthcare professionals retiring from the labour market.
Scenario	A description of a sequence of events, based on certain assumptions. Scenarios are used for estimating the likely effects of one or more factors, and are an integral part of situation analysis and long-term planning.
Shortage	The negative gap between supply and demand.
Stakeholder	Groups or individuals that have an interest in the organisation and delivery of healthcare, and who either deliver, sponsor, or benefit from health care.
Stock (of HWF)	Number of available practising and non- practicing health professionals in a country, recorded in a registry or database. It should ideally be expressed in headcount and in full-time equivalent (FTE)
Supply (of HWF)	Number of newly graduated health professionals available to fill in open vacancies. It can be expressed in headcount or in full-time equivalent (FTE)
System	A network of interdependent components that work together to try to accomplish the aim of rendering medical and other health services to individuals.
Threat/opportunity	A future event or system state which may occur due to changes in the system. The impact to the system may be viewed as detrimental (a threat) or beneficial (an opportunity); or a combination of both.
Training	The process by which a person acquires the necessary skills and competencies for delivering healthcare, possibly through post-graduate training programmes (in the framework of Continuous Professional Development) in addition to graduate training programmes
Trend	An emerging pattern of change, likely to impact a system.

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Universal coverage	A healthcare system that provides effective, high quality and free of expense preventive, curative, rehabilitative and palliative health services to all citizens, regardless of socio-economic status, and without discrimination
Underserved areas	A region or area that has a relative or absolute deficiency of medical personnel or healthcare resources. This deficiency could present itself in shortages of professionals/specialities/skills required to deliver health services
Variables	A characteristic, number or quantity that can increase or decrease over time, or take various values in different situations.
Weak signal	Barely observable trends or events that indicate that an idea, threat or opportunity is going to arise. Sometimes referred to as *early signals*.
"Wild card"	A situation or event with a low probability of occurrence, but with a very high impact in a system. Sometimes they can be announced by a weak signal.
Healthcare Workforce planning	Strategies that address the adequacy of the supply and distribution of the health workforce, according to policy objectives and the consequential demand for health labour (National Public Health Partnership, 2002).
Workforce forecasting	Estimating the required health workforce to meet future health service requirements and the development of strategies to meet those requirements (Roberfroid et al, 2009; Stordeur and Leonard, 2010).

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3. Executive summary

Health systems planning and its important component health workforce planning are very complex matters though essential to help policies for a sustainable future of healthcare. Currently, the knowledge of HWF planning still needs to be accumulated and made available. The Joint Action HWF is trying to make these steps.

This knowledge needs experts to apply, develop and disseminate. In its initial phase the Joint Action set up a list of experts and subsequently developed it into a network to foster the talents and the sharing of knowledge and experience.

Within a series of workshops, organised by WP7 team, three levels of experts' competences were identified and approved in order to help the domain of Health Workforce Planning and Forecasting at national and European level. The identified levels of competences are as follows: (1) No Level, meaning that the experience is not relevant for the Network of Experts; (2)Level „EXPERIENCED", meaning the expert is considered as holder of enough experience and knowledge to take a full part in the network, revise papers and provide elements to the common knowledge; (3) Level „MASTER", meaning the expert is considered as a holder of an authority in the field and has proven to be a leader of practice within the network, adding regularly value to the common knowledge.

Criteria were worked out and experts were selected through a self-assessment process including three rounds. During the process of collecting the list of experts within the current Joint Action, the consent of the experts was requested. Only those who formally agreed to be present on the list and who recognized having been informed about the goals and processes of the future network appear on the list. The process of establishing the list was based on the main principles of transparency, legitimate purpose and proportionality.

Furthermore, desk research (feasibility study) was conducted to analyse other existing networks in the fields of human resources, education and health in terms of their structure, organisation and functioning in order to learn from their experiences and possibly collaborate with them in the future.

Mission statement and organisation of the network were proposed and, through discussions with all project partners, were approved by the Joint Action Executive Board. The name of the proposed network is European Network of Health Workforce Planning experts (ENHWoPE) and it includes specialists in Health Workforce Policies sharing knowledge in a Health Workforce Planning perspective. The ENHWoPE will be a leading think tank providing European policy makers with up-to-date information, good practices, experiences and trends on Health Workforce development. It is expected to play a proactive advisory role by organising conference and network meetings as well as by promoting intelligence and results through a reference web portal. The network adds value at EU and country level through an organisation that meets global and local concerns.

The Network, while focussed on the specific challenges of European Region, welcomes the worlds experience and builds the link for a universal management of knowledge. Viewing health workforce planning as an important part of health systems planning, the network affiliates with the other EU networks and seeks synergies. The Network will proactively identify strategic priorities that will drive yearly action plans with the needed flexibility. Based on the priorities, practice leaders will drive the activity programme.

Nevertheless, the network does not cherish the ambition to provide a structural coordination role or regular EU reporting structure, as these activities are dedicated to a formal SANCO supported group and to EuroStat. Still, its members are most likely to support the bodies with their skills and the network may be the ideal partner to share and discuss initiatives, data and reporting for scientific and expertise input. In addition, the network will support the policy makers and the EU Commission to identify and develop policy action to improve the planning capacities across EU.

The Network of Experts is and an already existent and functioning body within the current Joint Action. However, the initial momentum needs to be maintained and stimulated. Additional efforts are required to enhance and further develop the existing Network of Experts. An appropriate way to bridge the gap between the end of the Joint Action on Health workforce planning and forecasting and the next programme period of more substantial investment after 2018 is to preserve and channel the energy and potential by organizing a series of workshops on the evolving processes and practices in the field.

The European Network of Health Workforce Planning Experts will embody and preserve the human potential and capital developed within the framework of the Joint Action and will guarantee the sustainability of its ideas and results.

4. Introduction

The Joint Action on Health Workforce on Planning & Forecasting, funded by the Health Programme of the European Union, is progressing towards the creation of a platform for collaboration and exchange of experts in Health Workforce Planning and Forecasting. This network is urgently needed to help the European Union to identify and address the increasing imbalance of health workforce.

A motivation for the creation of this platform can be found in Appendix 7.

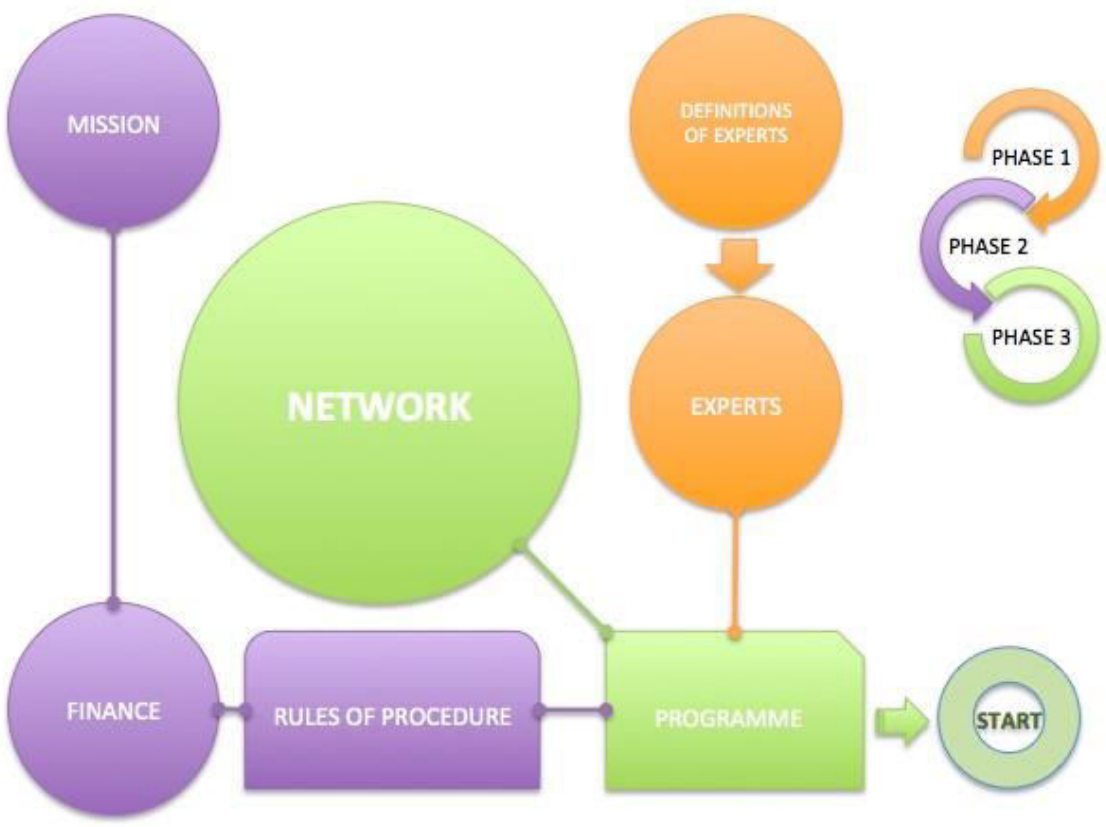
This work is organized in 3 phases:

Phase 1.
We have populated the first list of experts with all the known experts participating in the J.A., but also with the experts highlighted by our major stakeholders.
The first matrix-like list of expert matches names with types of expertise with additional columns highlighting the professions that are mastered by each expert.
Finally, we updated the list after the Conference & Stakeholder Forum.

Phase 2 (current delivery)
We propose the mission statement and the modalities for running the network and its scope associated to a proposal of financing.
We also populated the second list of experts in close collaboration with all stakeholders.
The second matrix-like list of expert is also enriched with curriculum.

Phase 3 .
We will activate the network of experts together with the other WP's and we will review the list and turn it final according to the network dynamics. Due to a postponed date in bringing the portal to life, its set-up to support the network of expert has been postponed to phase 3.

5. Description of the Methodology



Experts, working together, sharing a common aim and supported by some financing and structure, create a network.

5.1 Phase 1

During this phase we did the following:

1. The notion of Expert has been analysed.
2. A definition based on group of competences is proposed.
3. A call to experts is issued.
4. A first list is collated.

Method for building up this first list:

Distribution of the types of experts through competence areas

- Input from WP5 and WP6 – see Appendix 3
- Input from the Workshop in Sofia – session 1 & 2 – see Appendix 4
- Consultations – European Commission representatives and Work package Leaders

Definition of the scope of the first list & method used

The following people were asked to apply as experts in the list

- The invited persons to Joint Actions Events :
    - WP5 Kick-off in Rome – May 16th-17th
    - WP4 Workshop in Budapest – June 13th-14th
    - WP7 Kick-off & Workshop in Sofia – September 3d-4th
    - WP5 Workshop in Milano – September 19th-20th
    - The attendees of the JA Conference & Stakeholder forum held in Bratislava
    - The attendees of the London Workshop (February 10-11th, 2014)
    - The attendees of the Utrecht Workshop (March 6-7th, 2014)
- The Staff of the WP Leaders
- The Knowledge Brokers
- The Team of the associated partners
- Opinion leader on the field of planning and forecasting
- Ministries / Competent authorities of European Union countries and countries non-members of the EU

The request has been issued per mail on an Expert Registration Form (Appendix 7). By applying each Expert agrees with the terms of publicity of the network of experts as of Version 1. The first list was composed by all positive answers **by May 15th 2014**. The answers after 15th comprised the second list.

The method used for populating the first list was self-evaluation as a method used for sorting the experts applying into the different categories (see form).

5.2 Phase 2

The definition of the goals, mission and working of the proposed network has been built up considering a series of workshops:

- Workshop in Sofia – session 1 & 2 – see Appendix 4
- Workshop in Florence – see Appendix 5
- Workshop in Lisbon – see Appendix 6

The collected opinions and results of discussions have then been merged with the investigation of comparable initiatives and financing methods, identified through desk research.

6. Deliverable content – The definition and the list of Experts

6.1 Types of experts

Within the workshop held in Sofia, we agreed that it was quite difficult to create various types of experts, even though there are obvious differences between the people helping to the joint action. We recognize that some persons are skilled in data collection and forecast modelling, others are key policy makers or influencers, still others have an in-depth knowledge of the healthcare systems, education and labour market of healthcare workers, etc.
Therefore, we identified that a future network of experts should merge all the available expertise and make the best use of all skills in order to provide sound decision tools and scientifically based advices to the decision-making level.

We propose to identify areas of competence that all together help the domain of Health Workforce Planning and Forecasting to draw full pictures of future evolutions of the health care sector and help the decision-makers establish the track to follow. All experts should be able to own one or more of these competencies at various level.

We propose to identify only 3 levels of competences.

- No Level, meaning that the experience is not relevant for the Network of Experts;
- Level „EXPERIENCED", meaning the expert is considered as holder of enough experience and knowledge to take a full part in the network, revise papers and provide elements to the common knowledge;
- Level „MASTER", meaning the expert is considered as a holder of an authority in the field and has proven to be a leader of practice within the network, adding regularly value to the common knowledge.

As follows, definitions of criteria will be put forward to allow a self-assessment of an expert position within these levels. These levels being merely informative, reasonable latitude is allowed.

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6.2 Definition of competence area 1

Area of competence 1 is set as :

SET OF COMPETENCES NEEDED TO COLLECT, PROCESS WITH SCIENTIFIC INSTRUMENTS, UNDERSTAND AND MAKE USE OF HEALTHWORFORCE DATA, INCLUDING MODELLING

Definition by type of activities & skills :

Typically, this person is in charge of the data collection at national or regional level, produces analyses through scientifically based methods, builds up or uses forecasting models, defines parameters and collates results. He/she produces statistical analysis and provides reports to health care analysts and policy-makers.

Indicative criteria for self-assessing one's level of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2-year working experience in healthcare data collection with a HWF component; - 2-year working experience in modelling Healthcare systems based on data with a HWF component; - Participation in a study related to Health Workforce Planning, using data and modelling, either as researcher, writer or data manager; - Participation in at least 5 workshops or conferences on Health Workforce at (inter-) national level; - A degree in the field of health, like MD, healthcare management, or in the field of data management, e.g. statistics, sociology, etc.	- 5-year working experience in healthcare data collection with a HWF component; - 5-year working experience in modelling healthcare systems based on data with a HWF component; - Participation to at least 3 studies related to Health Workforce Planning using data and modelling, either as researcher, writer or data manager, and overall manager of at least one of these; - Participation in at least 10 workshops or conferences on Health Workforce at (inter-) national level and at least 3 at international level; - 2 degrees or a doctoral level in the field of health or in the field of data management.

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6.3 Definition of competence area 2

Area of competence 2 is set as :

SET OF COMPETENCES NEEDED TO UNDERSTAND, EVALUATE AND FORESEE FUTURE EVOLUTIONS OF THE HEALTHCARE SECTOR AT NATIONAL LEVEL WITH UNDERSTANDING OF INTERNATIONAL CONTEXT

Definition by type of activities and skills :

Typically, this person is an analyst or a project manager in the healthcare sector, with a broad knowledge of the various interactions. He/she is capable of designing forecasting scenarios and assessing the liability of the forecast results.

Indicative criteria for self-assessing one's level of proficiency :

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2-year working experience in healthcare management with a HWF component; - 2-year working experience in building and evaluating healthcare systems with a HWF component; - Participation in 3 studies or projects related to Health Workforce systems, either as researcher/analyst, writer or project manager; - Participation in at least 10 workshops or conferences on healthcare systems at (inter-) national level; - A degree in the field of health like MD or Law with option healthcare, international affairs.	- 5-year working experience in healthcare management with a HWF component; - 5-year working experience in building and evaluating healthcare systems with a HWF component; - Participation in 5 studies or projects related to Health Workforce systems either as researcher/analyst, writer and overall manager of at least one of these; - Participation in at least 30 workshops or conferences on Healthcare systems at (inter-) national level and at least 10 at international level; - 2 degrees or doctoral level in the field of health, or law with option healthcare, international affairs.

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6.4 Definition of competence area 3

Area of competence 3 is set as:

SET OF COMPETENCES NEEDED TO UNDERSTAND, PARTICIPATE AND POTENTIALY LEAD POLICY MAKING PROCESSES IN THE HEALTHCARE SECTOR, WITH UNDERSTANDING OF THE INTENATIONAL (EU AT LEAST) CONTEXT AND PROCESSES, INCLUDING THE LEGAL ASPECTS.

Definition by type of activities & skills:

Typically, this person has an experience as international representative, a senior union negotiator, or a ministerial position or ministerial adviser. He/she has the capacity to encompass healthcare prognoses with other policies, especially economy, trade, international agreements. This person is skilled in legal aspects.

Indicative criteria for self-assessing one's level of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2-year working experience in healthcare policy making with a HWF component; - 2-year working experience in international coordination of policies with a HWF component; - 2-year working experience in a legal context with HWF component; - Participation in at least 10 workshops or conferences on policy making in the healthcare sector at (inter-) national level; - A degree in the field of health or law with option healthcare, international affairs.	- 5-year working experience in healthcare policy making with a HWF component; - 5-year working experience in international coordination of policies with a HWF component; - 5-year working experience in a legal context with HWF component; - Participation in at least 30 workshops or conferences on policy making in the healthcare sector at (inter-) national level, and at least 10 at international level; - 2 degrees or a doctoral level in the field of health, law with option healthcare, international affairs.

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6.5 Definition of competence area 4

Area of competence 4 is set as:

SET OF COMPETENCES NEEDED TO UNDERSTAND, MANAGE AND EVALUATE POLICIES IN THE FIELD OF EDUCATION OF HUMAN RESOURCES IN HEALTH.

Definition by type of activities & skills :

Typically, this person is fluent in conceiving training strategies, has experience in matching development needs, supporting continuous professional development processes, and/or run training academies. He/she understands the field of education, its challenges and runs educational projects and programmes.

Indicative criteria for self-assessing one's level of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2-year working experience in educational management with a HWF component; - 2-year working experience in building and evaluating education programmes with a HWF component; - Participation to 3 studies or projects related to health workforce education either as researcher/analyst, writer or project manager; - Participation in at least 10 workshops or conferences on education of HWF at (inter-) national level; - A degree in the field of educational management with option health.	- 5-year working experience in educational management with a HWF component; - 5- year working experience in building and evaluating educational programmes with a HWF component; - Participation in 5 studies or projects related to Health Workforce education either as researcher/analyst, writer and overall manager of at least one of these; - Participation in at least 30 workshops or conferences on education of HWF at (inter-) national level and at least 10 at international level; - 2 degrees or a doctorate level in the field of educational management with option health.

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6.6 Definition of competence area 5

Area of competence 5 is set as:

SET OF COMPETENCES NEEDED TO UNDERSTAND, MANAGE AND EVALUATE POLICIES IN THE FIELD OF LABOUR MARKET, ESPECIALLY OF HUMAN RESOURCES IN HEALTH.

Definition by type of activities & skills:

Typically, this person is fluent in conceiving recruitment and human resources strategies, but also labour market analysis. He/she has experience in the various aspects of Labour & Employment strategies, such as retention policies, job attractiveness, salary benchmarking, workforce migration, etc. He/she understands the challenges of the future for the European Labour open market.

Indicative criteria for self-assessing one's level of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2- year working experience in Employment & Labour management and/or HR for health care; - 2-year working experience in recruitment and organisation of workforce programmes with a HWF component; - Participation to 3 studies or projects related to Labour/Workforce dynamic, either as researcher/analyst, writer or project manager; - Participation to at least 10 workshops or conferences on Labour & Employment policies of HWF at (inter-) national level; - A degree in the field of labour sciences of sociology, with a special attention to Health Workforce.	- 5-year working experience Employment & Labour management and/or HR for health care; - 5-year working experience in recruitment and organisation of workforce programmes with a HWF component; - Participation to 5 studies or projects related to Labour/Workforce dynamic, either as researcher/analyst, writer and overall manager of at least one of these; - Participation to at least 30 workshops or conferences on Labour & Employment policies at (inter-) national level, and at least 10 at international level; - 2 degrees or a doctorate level in the field of labour sciences of sociology with option health care.

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6.7 Definition of additional field of expertise per profession in the healthcare

For this first list of experts, the additional fields only relay to the knowledge through a certification or professional practice of the 5 regulated professions.

- Medical Doctor, abbreviated as MD;
- Dentist, abbreviated as D;
- Pharmacist, abbreviated as P;
- Midwives, abbreviated as MW;
- Nurse, abbreviated as N.

The metric is simplified to a binary self-assessment.

6.8 Legal aspect related to the publication of private information

During the Joint Action, the article I.10 of the Grant Agreement applies as well as the REGULATION (EC) No 45/2001 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2000 on the protection of individuals with regard to the processing of personal data by the Community institutions and bodies and on the free movement of such data.

The data collected will allow identifying and contacting the expert.

During the process of collecting the list of experts within the current Joint Action, the consent of the experts will be requested. Only those who will formally request to be present on the list and who will recognize having been informed about the goals and processes of the future network will appear on the list.

The following principles apply:

Transparency

The members of the network will be informed that all the data submitted will be available to the partners of the Joint Action and to both the European Commission and Executive Agency for Health and Consumers.

When a charter of the network is approved by the Executive Board and submitted to the Plenary Assembly, all members of the expert network will be informed and may resign their application. The charter will describe the transparency policy and the request for expert consultation.
A resignation may occur at any time, the data being then deleted.

The members of the network have the right to demand the rectification, deletion or blocking of data that is incomplete, inaccurate or has not been processed in compliance with the charter.

Legitimate purpose

Personal data can only be processed for legitimate purposes. The charter of the network will describe which are the legitimate requests for its expertise and how to contact the individuals that compose the network.

Proportionality

Personal data may be processed only insofar as it is adequate, relevant and not excessive in relation to the purposes for which they are collected and/or further processed.

No other data than those generally requested on a curriculum vitae and a contact form should be requested. No physical peculiarities, beliefs or orientation should be registered. Gender will only be registered for contacting purposes.

6.9 Invitation to apply to be included in the list of experts

A formal invitation has been sent out by the Medical University of Varna in three rounds. The first one was on **27.03 2014,** the second one on 21.09.2014 and the third round on 07.01.2016.

A specific mail address for replying has been created: experts.hwf@mu-varna.bg. The Department of International Programs and Projects at Medical University of Varna is managing the mailbox, the replies and the production of the list.

The invitation consisted of the following documents:

- An invitation letter;
- A Frequently Asked Question list, enabling a better understanding of the demand;
- A response form.

The invitations, sent by rounds, has the following metrics:

	Round 1	Round 2	Round 3	Total
Invited	317	423	513 (427 + 86)	513
Completed registration form	44	42	94	94
Confirmation but no registration form completed	2	10	2	2
Email not deliverable	22	13	23	23
No registration or confirmation received	249	358	386	386

By running the third round of invitations to join The Network of Experts of Joint Action on European Health Workforce Planning and Forecasting in the beginnig of January 2016, we aimed both to receive answers on an updated Experts' registration form and to send e - mails to those experts who haven't sent us any answers so far. This was necessary because we started to receive e-mails from experts that were already in the list, but in the mean time they changed their workplace and field of work. As a result we have 94 experts who have completed the updated form.

7. Deliverable content – The mission of the network

7.1 Desk research – feasibility study

The feasibility study (also referring to previous studies) promotes several ideas about a future network and its scope. The most relevant are considered here. Keywords are in bold.

P22/ The expected results of Prometheus are **the promotion of networks of researchers**, the proliferation of excellence through the **exchange of good practices** as well as the **support of** stronger **policy making** and policy responses to professional mobility.
P33/ ECHIM maintains a **network of national health indicator experts for data collection**, monitored the data flow between Member States and tried to implement the ECHI indicators in the Member States.
P149/ The European Commission could be responsible for defining the composition and financing the experts' group. In order to finance the experts' group, **synergies with existing networks** should be explored. For instance, ... DG SANCO has appointed an Expert Group on Health Information (EGHI), which coordinates the position of Member States in implementing health monitoring and information under the Public Health Programme.
P156/ In order to effectively support the exchange of good practices, **international conferences on methods and tools** should involve two main sets of stakeholders, namely health workforce planners and policy makers. The focus of the discussion should also be adapted according to the profile of participants.
P156/ These conferences could be organised by the EU Joint Action consortium. International conferences could in fact focus on the exchange of good practices on planning methods and tools and, at the same time, they could provide a useful platform to disseminate some of the preliminary results of the EU Joint Action... Alternatively, **regional conferences** could be organised among neighbouring countries or countries that share an interest in **exchanging practices**. ... Finally, it is more likely that conferences would take place on a regular basis if they are **organised in a systematic and centralised manner at European level**.
P167/ A **European Observatory on Health Workforce Planning** could play a key **coordinating and support role**. It could **facilitate** data sharing, support the exchange of good practices on health workforce planning methodology and **assist** Member States in planning future workforce needs and capacity and in developing long-term, comprehensive health workforce strategies. More specifically, the Observatory could **build and manage web portals, organise conferences, identify and manage a network of experts and stakeholders,** which could represent the **scientific pool** for specific experts groups.
P167/ If created, the European Observatory could explore the possibility to **identify and establish short-term or long-term expert groups** with specific focus.... Examples of relevant expert groups, based on the analysis carried out in this report, would include:
- An expert group on definitions and indicators to support health workforce monitoring;
- An expert group on health workforce methods and tools, to support the analysis of demand and supply of human resources for health; and

- An expert group on specific challenges facing health systems and health workforce in particular, to ensure a more comprehensive approach to strategic planning.

The outcomes of the experts groups should be the **publication of reports** summarising the result of their work and the **implementation workshops** involving relevant stakeholders, during which the experts provide more practical explanations of their recommendation

7.2 Workshops

Based on the feasibility study and on the Sofia workshop, 8 potential activities were outlined that a network of experts could consider as part of its scope.

These were the following:

1. A network must meet physically and a secretary must organize seminars and help to train new expert.
2. A network must have local branches, help translation and support local policies.
3. A network must share information.
4. A network must publish (scientific work & experience).
5. A network must be consulted by policy makers.
6. A network is usefully supported by a portal.
7. A network can be a virtual observatory.
8. A network should merge with any existing EU network.

On line 7, the word “virtual” has been added after the Sofia workshop as it seems very unlikely for previous discussions that EU Member States would agree on a new physical structure. This is also reinforced by the mandate of current EU Commission.

The setting of the workshop (adapted World Café system) helped the attendees to discuss all statements in several groups. Individual reports can be considered as a voting system providing a good measurement despite the limited number of attendees.

The summary of the discussion can be found in Appendix 6.

One major scope item “7. A network can be a virtual observatory”, needed an in-depth discussion, mainly on the definition of an observatory and its virtual character. For this reason, two work groups talked them through on the 6th of June 2014 in Lisbon.

As a result of the workshops, we consider that there is room for a network with a useful scope of work that could be turned into a mission statement.

7.3 Proposal for a mission statement

Considering the expression of interest and importance on the scope of a potential network, we conclude that a network could adopt the following mission statement:

The European Network of Health Workforce Planning experts (ENHWoPE) is a network of specialists in Health Workforce Policies sharing knowledge in a Health Workforce Planning perspective.

The ENHWoPE aims at being a leading think tank providing European policy makers with up to date information, good practices, experiences and trends on Health Workforce development. It plays a proactive advisory role by organising conference and network meetings, and promoting intelligence and results through a reference web portal. The network adds value at EU and country level through an organisation that meets global and local concerns.

The Network, while focussed on the specific challenges of European Region, welcomes the worlds experience and builds the link for a universal management of knowledge. Viewing health workforce planning as an important part of health systems planning, the network affiliates with the other EU networks and seeks synergies.

It is important to take note that the network does not ambition to provide a structural coordination role or regular EU reporting structure, as these activities are dedicated to a formal SANCO supported group and to EuroStat. Still, its members are most likely to support the bodies with their skills and the network may be the ideal partner to share and discuss initiatives, data and reporting for scientific and expertise input.

Also, the network will not aim at training newcomers, besides through its activities, as WP7 recommends initiating specific health workforce planning certificate within several Universities.

8. Deliverable content – The organization of the network

This chapter contains two levels of understanding of an organization of a network:

- a high level, across EU, organization;
- a fine structure of the network internal organization.

8.1 Desk research – comparable network

See page 24

8.2 Workshops

One of the items discussed in Florence addresses the structure of the potential network, “2. A network must have local branches, help translation and support local policies.”. The very specific needs of the majority of the countries, the language and culture issues, the variety of topics to handle, the lack of expertise and the need for sharing knowledge and experience balances the need for local networks and the importance of a global network. Therefore, the potential organization has been discussed in Lisbon, starting from the extreme proposals of the hierarchical structure, on one hand, and the practice based structure (see workshop material), on the other hand.

8.3 Possibilities for development and maintanence

There are three variants for the network continuation and maintenance. The analyses of advantages and disadvantages, shown in the following tables give the possibility to assess the goals and the sustainability of the network.

Variant A

Use/utilization of the available resources (without extra funding) for communication among the experts and available experts group.
Uploading of the list of experts on the existing website of the JA.
Setting up a group of experts in Linked-in.
Voluntary maintenance.

Advantages	Disadvantages
Low costs for maintenance	No guarantee for sustainability
Simple organization	The communication will run on an individual private level
Immediate start	Dispersed communication not necessarily coordinated and focused because of the lack of a designated coordinator and not exchanged at EU level
Independent development	Gradual loss of the objectives on the HWP

Variant B

Variant A + opening 1 or ½ FTE to work in the office of the European Commission acting in the role of a Coordinator of the network activities.

Advantages	Disadvantages
Low costs for maintenance	No guarantee for long-term sustainability
Requiring comparatively short time for preparation	Only short-term and small projects can be proposed and handled
Possibility for coordination and network management	Potential withdrawal of the experts from the network
A coordinating person(s) appointed to guarantee	One site governance
Potential	
Plan of activities coordinated at EU level	

Variant C

The following proposal which is long-term with its own structure and organization with regular interactions by means of a platform.

Advantages	Disadvantages
Low costs for maintenance	Heavy structure with complicated interactions
Requiring comparatively short time for preparation	Comparatively high investment for the design and maintenance of the electronic platform
Possibility for coordination and network management	
A coordinating person will be designated guarantee	

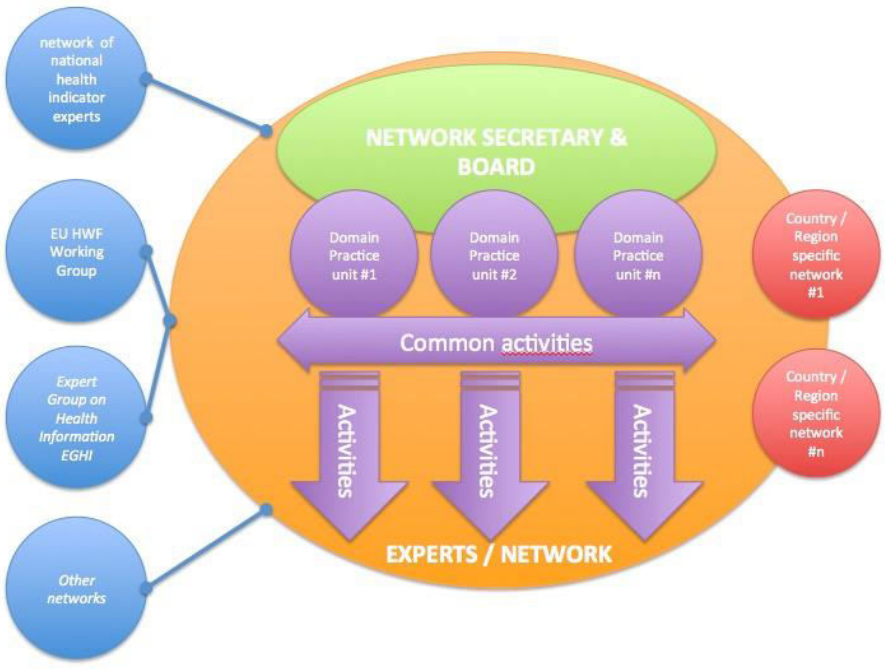
8.4 Proposal of network organisation

A. Overall organisation

Taking into account the variety of planning experiences among the Member States and the lack of sufficient communication and exchange of data and practices, a mixed approach to the organization of the European Network of Health Workforce Planning experts is proposed. The suggested basic structure of the Network has a top level coordination (for the whole network) as well as coordination at the level of specialities (later called "Domain practices"). In addition, national branches are possible for countries willing to enhance the interaction of experts at national level. A regional coordination level is a matter of further decision.

A significant element of the network management and its flexibility is the adoption of a strategic plan on a regular base that would identify the needs of intelligence, the priorities and the main projects. The structure of the network must adapt to the strategic plan, if needed.

This structure can be schematically presented as follows:



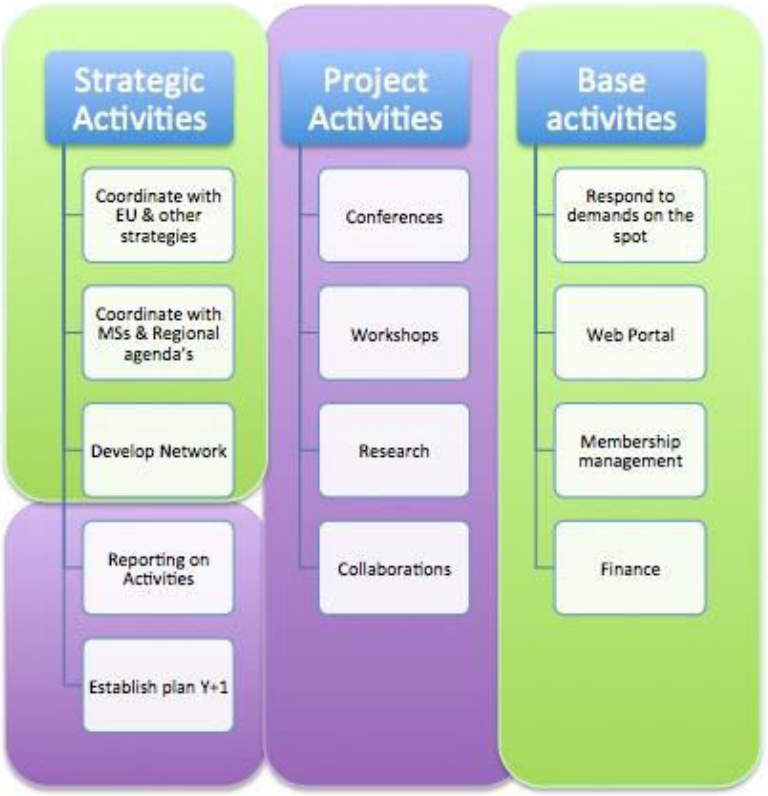


Figure 1: Overall structure of the European Network of Workforce Health Planning Experts (ENHWoPE)

The specific practice domains are not permanent and are to be defined according to the approved strategic programme of the Network and can be updated on a fixed term basis. The

country/region network can involve experts of the Network as well as other experts. The country/region networks can be self-generated and would be encourage to establish formal relations with the European network.

Based on the workshops, professional discussions and previous experience, the experts and teams involved in WP7 have come to the conclusion that special attention should be paid to the development of national and regional branches where needed. This understanding is further enhanced by the variety of national experiences and health workforce planning practices as well as the different stages of their healthcare systems in general.

Another conclusion is that there is more room for the proposed network to add value to the existing networks. A strong collaboration with these should be sought as the aims are complementary and not overlapping although it will act as an autonomous network.

B. The organisation in detail

There is a consensus that the Network needs a small-sized but effective coordination centre (permanent office), as the organisation of the events and knowledge exchange (including the web portal) require continuous professional attention. All other members could be part of the Network parallel to their current employment.

The Network is expected to have a programme of action and annual activity plans motivated by potential public investment and the fast evolution of research, concerns and political requests.

Green background: Activities for the Secretary – Purple background: Activities for the Practice Leaders.

Figure 2. Activities of the European Network of Health Workforce Planning Experts (ENHWoPE)

Three groups of activities are envisaged: Strategic, Project and Basic.

The strategic activities include:

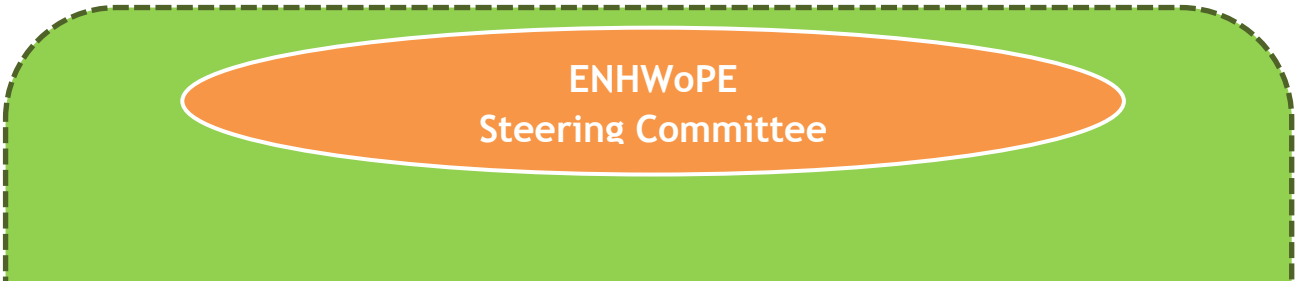
- Coordination with EU and other strategies;
- Coordination with MSs and Regional agendas;
- Developing the network;
- Reporting on activities;
- Establishing plan Y+1.

The project activities are conferences, workshops, research, collaborations,

The basic activities involve:

- Respond to demands on the spot;
- Web portal;
- Membership management;
- Finance.

The scope of the activities and the way they are put into practice depend on the funding framework and mechanism.



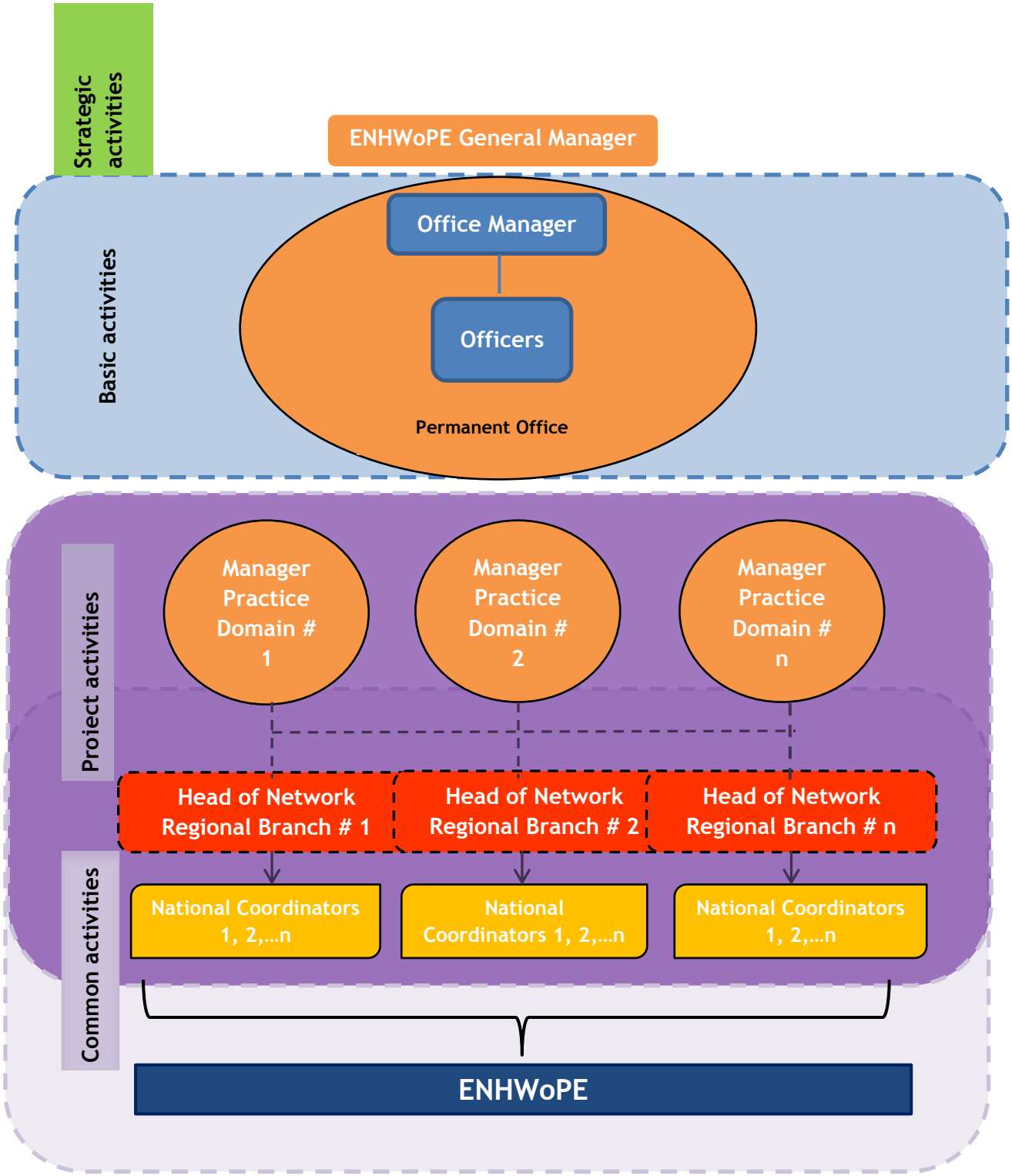


Figure 3. Governance structure of the European Network of Health Workforce Planning Experts (ENHWoPE)

Funded by the Health Programme of the European Union

Figure 3 presents the governance structure of the network and the vertical and horizontal links of interaction.

The governance structure consists of three levels, each with specific tasks and responsibilities: **Steering Committee**, **General Manager** and **Office Manager**

ENHWoPE Steering Committee – top level management body:

- adopts strategic priorities and directions;
- adopts strategic plans;
- evaluates the implementation of the strategic programs;
- validates work plans and budget, etc.

ENHWoPE General Manager – strategic and coordination body:

AS STRATEGIC MANAGER

- coordinates the overall work of the Network;
- elaborates strategic priorities and directions, that are submitted to the Steering Committee;
- prepares work plans and monitors outcomes;
- reports to the Steering Committee;
- takes responsibility of the budget;
- controls on implementation and review performance.

AS OPERATIONAL MANAGER

- coaches the leaders of the network (National coordinator, Practice Manager, …);
- supervises the Permanent Office, etc.

AS STRATEGIC REPRESENTATIVE

- represents the Network;
- ensures the interaction of the network with other bodies;
- seeks collaborations in a global context.

Office Manager –coordination body:

AS OPERATIONAL MANAGER

- manages the Permanent Office activities and people;
- establishes the feasibility and prioritises demands on the spot, then provides a response;
- supports the General Manager in the elaboration of strategic plans, budget, etc.
- ensures the permanent knowledge management.

AS ADMINISTRATIVE MANAGER

- manages the Network's membership;
- takes responsibility of the daily administration and execution of the budget;

- ensures the reporting of the daily activities.

AS PROJECT MANAGER
Is project manager of the Network's events;

Table 1. Permanent Office staff – roles and FTA

ROLE	SUMMARY DESCRIPTION	FTE
COMMUNICATION OFFICER	Overall communication Project work Website Management	0,6 FTE
FINANCE OFFICER	Accounting Management Contract Management	0,5 FTE
EVENT PROJECT OFFICER	Main project support to the event organization Technical assistance	1 FTE
ADMIN OFFICER	Partners management Admin support Reporting support	0,8 FTE
KNOWLEDGE OFFICER	Collection of knowledge Support to Practice Managers Update of the knowledge base of the website	0,5 FTE

MECHANISM OF COORDINATION AND INTEGRATION (SHARING MECHANISM)

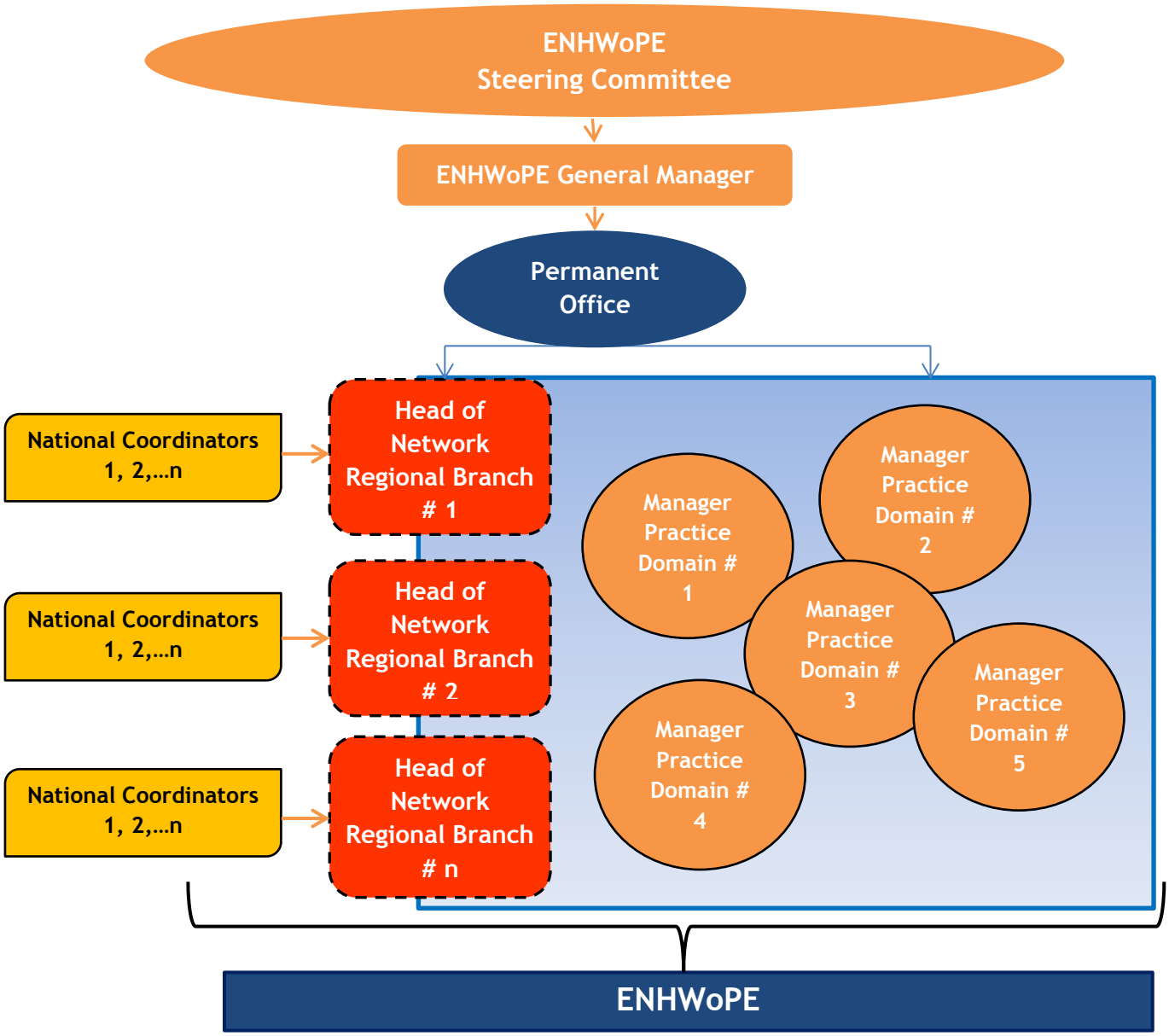


Figure 4. Mechanism of coordination and integration in ENHWoPE (Sharing mechanism)

Figure 4 shows the mechanism for coordination and integration, called "Sharing mechanism", inside the Network of Experts as well as the relations with external bodies, institutions and networks. It provides a collaborative mechanism to Members States allowing them to exchange information, data, good practices, share problems and face challenges. In addition to their regular activities, the National Coordinators will organize regional conferences, workshops, meetings, etc., to address topics for their region.

Cycle and criteria for a network yearly plan

The first plan will be established within the Joint Action framework. The Executive Board of the Joint Action will have to provide the first approval. The first period will take 18 months. Then the plan will be yearly based starting 1st of January.

Cycle

The network is consulted for priorities and specific proposals.
Candidates are identified and selected as Practice Leaders for the coming year.
The college of the Practice Leaders and the Secretary create the Year + 1 plan.

Criteria

A good plan meets the following criteria:

- Budget match;
- SMART objectives (specific, measurable, attainable, realistic, timely);
- All projects related to measured importance among the MSs and Stakeholders;
- Diversity of projects and subjects in order to have at least one event – action per category of expertise skill per year.

9. Deliverable content – The financing of the network

9.1 Desk research – comparable networks

Other networks	Joint action
The Pediatric Environmental Health Specialty Units (PEHSU) are a source of medical information and advice on environmental conditions that influence children's health. PEHSUs are academically based, typically at university medical centers, and are located across the United States, in Canada and Mexico. These PEHSUs form a network that is capable of responding to requests for information throughout North America and offering advice on prevention, diagnosis, management, and treatment of environmentally related health effects in children. Because children's environmental health covers a wide variety of issues, the PEHSU network has experts in pediatrics, allergy/ immunology,	Source of medical information and advice; Raising awareness; Conducting seminars and conferences; Translating health care research into medical practice;

neurodevelopment, toxicology, occupational and environmental medicine, nursing, and other specialized areas. The conferences of PEHSU are funded by the cooperative agreement from the Agency for Toxic Substances and Disease Registry (ATSDR).	
The University Health Network (UHN) is made up of Princess Margaret Cancer Centre, Toronto General Hospital, Toronto Rehabilitation Institute and Toronto Western Hospital. Each hospital retains its identity and name within the Network. A voluntary board of 13 elected members govern UHN together with three members appointed by the University of Toronto, and representatives from various areas of the hospital. Primary funding for University Health Network comes from the Ontario Ministry of Health and Long-Term Care. Other funding sources include patient services, grants and donations from individuals and corporations. The University Health Network is one of Canada's largest teaching hospitals.	Hospital network; conducts leading - edge research and train the next generation of health professionals; Achieving Global Impact;
CDRH NETWORK OF EXPERTS - The Network of Experts is a vetted network of outside scientists, clinicians and engineers who will provide the Center for Devices and Radiological Health (CDRH) staff with rapid access to scientific, engineering, and medical expertise when it is needed to supplement existing knowledge and expertise within the CDRH. This program is designed to broaden CDRH exposure to scientific viewpoints, but not to provide external policy advice or opinions. CDRH has a tremendous internal cadre of scientific expertise, including over 800 scientists, engineers, and clinicians. Despite this internal resource, it is unrealistic to expect CDRH staff to encompass all of the applicable expertise and experience necessary to fulfil our mission, given the rapidly growing variety and complexity of medical devices. In these areas, it is often	Outside experts; scientific, engineering and medical expertise; large number – over 800 scientists

necessary for our experts to gain further scientific understanding from sources outside of the federal government. The Network of Experts will facilitate this exchange. In support of the FDA Transparency Initiative, CDRH is providing additional information to help the public understand its processes and decisions. The new information includes: information about regulatory decisions and the rationales for those decisions, descriptions of regulatory processes and data to support CDRH actions and public health activities	
The South-eastern European Health Network (SEEHN) is a political and institutional forum set up by the governments of Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, the Republic of Moldova, Romania, Serbia and the former Yugoslav Republic of Macedonia to promote peace, reconciliation and health in the region. In 2011, Israel became a 10th member of the Network. WHO/Europe lends technical support to SEEHN's various health projects, after having supplied its secretariat, along with the Council of Europe, from 2001 to 2009. On 1 January 2010, SEEHN took over ownership of the regional cooperation for health and development under the auspices of the Regional Cooperation Council (RCC) and the SEE Regional Cooperation Process. RCC's main purpose is to provide leadership, sustain ownership by the member countries and maintain the concerted health development action launched with the Dubrovnik Pledge (2001), and maintained through the Skopje Pledge (2005) and the Memorandum of Understanding (2008).	Regional collaboration; contribution to EU policies in health and economic growth development; partnership sharing vision and mission for improved public health and wellbeing; demonstrates the economic potential of health
EUROHEALTHNET is a not for profit partnership of organisations, agencies and statutory bodies working to contribute to a healthier Europe by promoting health and health equity between and within European countries. EuroHealthNet	Strengthens public health capacities, adopts new approaches to health promotion; supports the concept of health in all EU policies, programmes and practices; experience of running international network, reputation,

achieves this through its partnership framework by supporting members' work in EU and associated states through policy and project development, networking and communications. Since the EU Treaty included powers and responsibility for public health, health promotion agencies have networked successfully together for a common mission: to improve health between and within European States and to tackle health inequalities. The web platform is supported by the European Union Programme for Employment and Social Innovation.	accountability, stability
CIRI aims to develop case studies, to test innovative pilot projects, to evaluate and to analyse examples of effective and sustainable approaches to health and wellbeing across all groups in society. Case studies and pilot projects are developed in the context of Horizon 2020 or in relation to other funding mechanisms. Links are made to expert bodies from relevant sectors: employment and social affairs, economic sector and in particular with sustainable development and environment. CIRI supports the work of the Social Protection Committee as well as the WHO 2020 well-being targets and indicators 'beyond GDP'. CIRI also links health with other cross-cutting issues: early years, ageing, disabilities, working conditions, poverty and social exclusion.	Network of leading and like-minded researchers who wish to see their evidence considered and used in policy processes; exchange knowledge and collaborate; knowledge transfer in the EU context; updates of H2020 calls concerning health; members are committed to improve the uptake of evidence in policy making process
Health Promotion Europe (HPE) is the core high level network, that brings together bodies at national and subnational level that are publically responsible for health promotion and disease prevention. While it is clear that many diseases afflicting EU citizens are largely preventable, or that their onset can be delayed, spending on health promotion and disease preventions remains at only 3% of total health budges across the EU. Health Promotion Europe therefore aims to identify and implement	

effective health promotion policy and practice, to strengthen the resource base and the impact of health promotion across the EU. Health inequalities and strengthening health in all policies approaches are cross-cutting themes in HPE work.	
THE WHO EUROPEAN HEALTHY CITIES NETWORK consists of cities around the WHO European Region that are committed to health and sustainable development: nearly 100 cities and towns from 30 countries. They are also linked through national, regional, metropolitan and thematic Healthy Cities networks. A city joins the WHO European Healthy Cities Network based on criteria that are renewed every five years. Each five-year phase focuses on core priority themes and is launched with a political declaration and a set of strategic goals. The overarching goal of the current Phase VI (2014–2018) is implementing Health 2020 at the local level. The following two strategic goals of Health 2020 provide the overarching umbrella of Phase VI: improving health for all and reducing health inequities; and improving leadership and participatory governance for health. Both strategic goals reinforce the strong standing commitment of the WHO European Network to addressing equity and the social determinants of health and striving to improve governance for health and promote health in all policies. Phase VI is supported by Health 2020.	Global movement; change of priorities every 5 years; promotion of policies and action for health and sustainable development; generates policy and practice expertise; promotion of solidarity, cooperation and working links between EU and the local authorities
EPHA is a change agent – Europe's leading NGO advocating for better health. We are a dynamic member-led organisation, made up of public health NGOs, patient groups, health professionals, and disease groups working together to improve health and strengthen the voice of public health in Europe. EPHA is a member of, among others, the Social Platform, the Health and Environment Alliance (HEAL), and the EU Civil Society Contact Group. EPHA is	EU platform, brings together public health organizations, health professionals, patient groups, academic groupings; transparent consultation process that enables all members to participate in policy making

funded be project and tender proposals.	
THE EUROPEAN DATA IN HEALTH RESEARCH ALLIANCE brings together academic, patient and research organisations from across Europe. Together, we are committed to ensuring that the Data Protection Regulation allows the seminal research that has taken place for many years to continue by ensuring research is not subject to an obligation to ask specific consent when personal data is used. The Alliance was established by Cancer Research UK, The Medical Sciences Committee of Science Europe, European Public Health Alliance, European Patients' Forum, the Federation of European Academies of Medicine, the Welcome Trust, and the British Heart Foundation. The organisations that support the campaign all appear on this page. The Alliance website is co-funded by the Medical Sciences Committee of Science Europe, Cancer Research UK, the Welcome Trust, and the British Heart Foundation.	Research using personal data; protection of privacy
THE EUROPEAN UNION NETWORK FOR PATIENT SAFETY AND QUALITY OF CARE (PASQ NETWORK) was officially launched in May 2012 in Roskilde, Denmark. The general objective of PaSQ Joint Action (JA) is to contribute to Patient Safety (PS) and good Quality of Care (QC) by supporting the implementation of the Council Recommendations on PS through cooperation between European Member States (EU MSs), EU stakeholders and international organisations on issues related to quality of health care, including PS and Patient Involvement (PI). This will be done by sharing knowledge, experience and good practices with each other, the Commission and relevant European and international bodies, as well as examining transferability of these practices. The main outcome of the JA is the consolidation of the permanent network for PS established under	Consolidation of the permanent network on Patient Safety; engagement with the EU commission; establishment of national PS and quality networks, involving all relevant stakeholders; sharing experience and solutions; implementation and monitoring of good practices; development of a sustainable EU network of relevant MS institutions for voluntary collaboration, involving key EU stakeholders and organizations. They will be selected in each participating MS considering their motivation and experience in the field etc.

EUNetPas. This network reflects on principles of good quality healthcare and on how to ensure EU collaboration on QC (including PS) following the JA grant period, and also to facilitate exchange of good practices on PI for improving PS and related aspects of quality of health care. A selection of good practices is made, with a preference for those that are relevant for most MS. This voluntary exchange of experiences could lead to a peer review system for quality management systems in health care. The primary targets of this Project are EU MS representatives PaSQ National Contact Points (NCPs) and relevant stakeholders: health administrations, health care professionals, patient associations, healthcare organisations. Indirectly, the entire EU population is a potential target; in particular those individuals who are in greatest need of medical care (women, children, the elderly and the disabled).	
EUROPEAN NETWORK FOR HEALTH TECHNOLOGY ASSESSMENT (EUnetHTA) is a network, established to create an effective and sustainable network for health technology assessment (HTA) across Europe that could develop and implement practical tools to provide reliable, timely, transparent and transferable information to contribute to HTAs in members states. The overall strategic objective of the network is to connect public national/regional HTA agencies, research institutions and health ministries, enabling an effective exchange of information and support to policy decisions by the Member States. EUnetHTA consists of a total of 68 organisations (38 Associated Partners and 30 Collaborating Partners) from 28 EU member states plus Norway and Switzerland. As part of the EUnetHTA governance structure, a Stakeholder Forum has been formed to ensure a transparent	

engagement with a broad range of stakeholders: representatives from patient and healthcare consumer organisations, healthcare providers, payers (statutory health insurance) and the industry. The EUnetHTA Joint Action 2 (2012-2015) continued the activities of Joint Action 1 (2010-2012) on October 1, 2012 and will develop a general strategy, principles and an implementation proposal for a sustainable European HTA collaboration according to the requirements of Article 15 of the Directive for cross-border healthcare.	
Other networks	JA
The Pediatric Environmental Health Specialty Units (PEHSU) are a source of medical information and advice on environmental conditions that influence children's health. PEHSUs are academically based, typically at university medical centers, and are located across the United States, in Canada and Mexico. These PEHSUs form a network that is capable of responding to requests for information throughout North America and offering advice on prevention, diagnosis, management, and treatment of environmentally related health effects in children. Because children's environmental health covers a wide variety of issues, the PEHSU network has experts in pediatrics, allergy/ immunology, neurodevelopment, toxicology, occupational and environmental medicine, nursing, and other specialized areas. The conferences of PEHSU are funded by the cooperative agreement from the Agency for Toxic Substances and Disease Registry (ATSDR).	Source of medical information and advice; Raising awareness; Conducting seminars and conferences; Translating health care research into medical practice;
The University Health Network (UHN) is made up of Princess Margaret Cancer Centre, Toronto General Hospital, Toronto Rehabilitation Institute and Toronto Western Hospital. Each hospital retains its identity and name within the Network. A voluntary board of 13 elected	Hospital network; conducts leading - edge research and train the next generation of health professionals; Achieving Global Impact;

members govern UHN together with three members appointed by the University of Toronto, and representatives from various areas of the hospital. Primary funding for University Health Network comes from the Ontario Ministry of Health and Long-Term Care. Other funding sources include patient services, grants and donations from individuals and corporations. The University Health Network is one of Canada's largest teaching hospitals.	
CDRH NETWORK OF EXPERTS - The Network of Experts is a vetted network of outside scientists, clinicians and engineers who will provide the Center for Devices and Radiological Health (CDRH) staff with rapid access to scientific, engineering, and medical expertise when it is needed to supplement existing knowledge and expertise within the CDRH. This program is designed to broaden CDRH exposure to scientific viewpoints, but not to provide external policy advice or opinions. CDRH has a tremendous internal cadre of scientific expertise, including over 800 scientists, engineers, and clinicians. Despite this internal resource, it is unrealistic to expect CDRH staff to encompass all of the applicable expertise and experience necessary to fulfil our mission, given the rapidly growing variety and complexity of medical devices. In these areas, it is often necessary for our experts to gain further scientific understanding from sources outside of the federal government. The Network of Experts will facilitate this exchange. In support of the FDA Transparency Initiative, CDRH is providing additional information to help the public understand its processes and decisions. The new information includes: information about regulatory decisions and the rationales for those decisions, descriptions of regulatory processes and data to support CDRH actions and public health activities	Outside experts; scientific, engineering and medical expertise; large number – over 800 scientists

9.2. Proposal for Network financing

Phase I: Bridging the gap between the end of Joint Action Health Workforce Planning and Forecasting (2016) and the expected call for the next programme period (2018)

The current proposal for a further development of the Network of Experts is linked to **Policy Recommendation 4** ("*To foster knowledge management and economy of scale in HWF planning EU/EEA governments, educational bodies, the civil society, employers and professional organizations would need to collaborate and sustain a global expertise. Further strategic networking at EU/EEA level on new research is essential to continuously develop the existing knowledge base.*") and presents an evolvement of the continuous knowledge transfer enriching the knowledge base of HWF planning at EU and global levels, (e.g. through workshops in 2016 and 2017). The future activities will also be targeted towards the current needs for HWF planning and forecasting depending on the state of their development.

We propose to integrate the EU Expert Group and members of the European Commission into the Network of Experts in order to incorporate the expertise and synchronize the efforts in the field of health planning.

This is an open, permanent and constantly developing interdisciplinary network and will add value to the process of implementing plans and projects with the support of technical and scientific experts groups and networks in all EU member states.

The core of the Network of Experts will comprise five major groups encompassing the whole scope of proposed experts: (1) practitioners from planning agencies; (2) data experts; (3) stakeholders, including professional organisations; (4) educators and academics; and (5) policy-makers.

The Network of Experts will be able to support the activities of different projects across EU through the expertise of the core groups of experts, timely information exchange, research studies and analyses, advanced methodologies, adaptation to various contexts and training in HWF planning and forecasting. It will collaborate with other existing networks.

To extend the Network of Experts and to provide sustainable solutions for its further development we propose to organize three workshops, grouped according to the existing experience in planning and forecasting analysed in JAHWF documents:

(1) **Good Practices in HRH Planning System** - Finland, Belgium, Malta
(2) **Working towards a Successful Planning and Forecasting** - Italy, Portugal, Spain
(3) **Successful Starting of Planning and Forecasting: Education and Training Aspects**- Bulgaria, Hungary, UK and Moldova (proposed as a hosting center of the SEEHN Health Workforce Observatory)

Table 2. Options for additional funding of the European Network of Health Workforce Planning Experts (2016 - 2017)

Field of action	Key action	Activities	Duration	Amount	Participating countries and organizations	Target groups
International collaboration in the field of health workforce planning and forecasting	Sustainable development of the European Network of Health Workforce Planning Experts (ENHWoPE)	Preparing and organizing three workshops for knowledge transfer exchange of good practices, capacity building	2 years	EU contribution 300 000 EUR	All involved members of the European Network of Health Workforce Planning Experts (ENHWoPE), other interested partners	Experts in the field of health workforce planning, health professionals, decision makers on national and international level, educators, researchers, etc.
Program	**Key action**	**Action**	**Duration**	**Amount**	**Eligible applicants**	**Participating organisations**
Erasmus + (expected call in April 2016)	Key Action 2 Cooperation for innovation and the exchange of good practices	Strategic Partnerships in the field of education, training and youth	2 years	Maximum EU contribution :300 000 EUR	Any participating organisation established in a Programme Country can be the applicant. This organisation applies on behalf of all participating organisations involved in the project.	Minimum three independent organisations from at least three Programme Countries.

*** - WP7 Proposed Activities for 2016-2017**

*** - Possible Funding through Erasmus + Program**

Phase II: Sustainable follow-up project of the Joint Action Health Workforce Planning and Forecasting (2018 - 2020 and beyond)

To implement a collaborative partnership model of the Network of Experts, there should be a financial sustainability approach.

Based on experience in participation in similar projects and the envisaged activities for its successful functioning, the cost of the Network of Experts is estimated around 2 090 000 Euro annually depending of MSs involvement in proposed activities. The provisional staff costs are based on calculation of the average cost for the respective positions in the EU. The other costs needed for implementation of strategic and basic activities are average for Europe.

The funding for the proposed business plan is forseen to be provided from 2 different sources for the period 2018 – 2020 and beyond:

1. Health Programme 2014-2020 – 1 090 000 Euro
2. Erasmus+ "Knowledge Alliances" – 1 000 000 Euro

Table 3. Budget proposal for the sustainable developments of the European Network of Health Workforce Planning Experts (2018 - 2020 and beyond)

Funding	Strategic Activities						Basic Activities					Total
	Coordinate with EU and other strategies	Coordinate with MS and Regional agendas	Develop Network	Reporting on Activities	Establish Plan Y +1	Training in Health Workforce Planning	Respond to demands on the spot	Web portal	Membership management	Finance	Coordination of the network	
Personal costs (General manager, Permanent office staff)	GM CO 19200 9360 28560	GM CO 19200 9360 28560	OM KO EPO 19200 18720 31200 69120	OM AO 19200 16640 35840	GM OM 19200 19200 38400		OM AO 19200 16640 35840	KO AO 18720 16640 35360	OM CO 19200 9360 28560	GM FO 19200 31200 50400	GM EPO CO 19200 31200 9360 59760	410400
Regional branches	0	171440	30880	64160		258960	64160	0	0	0	0	330640+ 258960
Travel costs and subsistence allowances	10 000	20 000	0	10 000	100 000	100 000	10 000	0	0	0	300 000	550 000
Subcontracting Costs	0	0	50 000	0	0	0	15 000	200 000	0	10 000	0	275 000
Other costs	40 000		25 000	25 000	40 000	25 000		50 000	30 000		30 000	265 000
Total:	785 60	220 000	175 000	135 000	178 400	383 960	125 000	285 360	58560	60400	389760	2090000

Budget rationale:

Coordinate with EU and other strategies

Staff: General manager – 1 FTE (220 p/d per year) and Communication officer 0.6 FTE (132 p/d per year) = 1.6 FTE (352 p/d per year) -

Other costs: One conference per year: 40 000 Euro (room renting, invitations, catering, translation, technical support)

Travel cost: 1000 Euro/p to participation in strategic meetings

Coordinate with member states and Regional agenda

Staff: General manager – 1 FTE (220 p/d per year) and Communication officer 0.6 FTE (132 p/d per year) = 1.6 FTE (352 p/d per year)

Travel cost: Collaboration, participation in meetings 1000 Euro per person to 10 exchange meetings per year

Develop Network

Staff: Office manager - 1 FTE (220 p/d per year), Knowledge officer 0,5 FTE (110 p/d per year) and Event projects officer 1 FTE (220 p/d per year)

Subcontracting: organization of workshops, meetings, events

Other costs: consumables, communication cost, technical equipment (computer, telephone)

Reporting on Activities

Staff: Office manager - 1 FTE (220 p/d per year) and Admin officer 0,8 FTE (176 p/d per year)

Travel cost: collaboration meetings, dissemination

Other costs: consumables, communication cost, technical equipment (computer, telephone)

Establish Plan Y +1

Staff: General manager – 1 FTE (220 p/d per year) and Office manager - 1 FTE (220 p/d per year)

Selection of good practices, implementation toolbox development

Other costs: organization meeting

Travel costs: 1000 Euro/p participation to meeting

Training in Health Workforce Planning

Staff: 1 FTE (220 p/d per year) – key points and key activities to respond the future needs

Travel costs: 1000 Euro/p participation

Other costs: organization of the meetings

Respond to demands on the spot

Staff: Office manager - 1 FTE (220 p/d per year) and Admin officer 0,8 FTE (176 p/d per year)

data collection, analyses

Travel cost: 1000 Euro/p participation in meetings in 10 EU countries per year

Subcontracting: meetings

Web portal

Staff: Knowledge officer – 0,5 FTE (110 p/d per year) and Admin officer 0,8 FTE (176 p/d per year)

Management of the platform

Subcontracting: IT development for new activities and updates of the platform, maintenance;

Other costs: technical equipment

Membership management

Staff: Office manager - 1 FTE (220 p/d per year) and Communication officer 0.6 FTE (132 p/d per year)

expert research

Other costs: collaboration – membership in different organizations

Finance

Staff: General manager – 1 FTE (220 p/d per year) and Finance officer 0,5 FTE (110 p/d per year) project management

Subcontracting: audit, activities

Coordination of the network

Staff: General manager – 1 FTE (220 p/d per year), Event projects officer 1 FTE (220 p/d per year), Communication officer 0.6 FTE (132 p/d per year)

Management of the network

Other costs: 30 000 Euro for each meeting

Travel: 1000 Euro/p 100 participants for each meeting

Table 4. Matrix of the activities of the European Network of Health Workforce Planning Experts (ENHWoPE) to be funded (2018 - 2020 and beyond)

Project Activities	Strategic Activities						Base Activities				
	Coordinate with EU and other strategies	Coordinate with MS and Regional Agendas	Develop Network	Reporting on Activities	Establish Plan Y +1	Training in Health Workforce Planning	Respond to demands on the spot	Web portal	Membership management	Finance	Coordination of the network
Conferences											
Workshops											
Research											
Collaborations											

Additional opportunities for funding the sustainable development of the European Network of Health Workforce Planning Experts (ENHWoPE) are presented in Table 5.

Table 5. Options for additional funding of the European Network of Health Workforce Planning Experts (2018 - 2020 and beyond)

Program	Key action	Action	Duration	Amount	Eligible applicants	Participating organisations
Erasmus + (expected opening call in February each year until 2020)	Cooperation for innovation and the exchange of good practices	Knowledge Alliances	3 years	Maximum EU contribution: 1 000 000 EUR	Any participating organisation established in a Programme Countrycan be the applicant. This organisation applies on behalf of all participatingorganisations involved in the project.	Minimum six independent organisations from at least three Programme Countries, out of which at least two higher education institutions and at least two enterprises.

10. Perspectives for the evolution of this document

10.1 As a release 2

This document will:

- be handed-over to WP3 for formal review by January 15, 2016;
- be proposed to the Executive Board (January 28 and 29, 2016) as current version, including the updated list of applicants for the list of experts;
- be published as version 2.0 after Executive Board Approval.

10.2 Into a release 3

Version 3.0 presents an extended list of experts and integrates a proposal of formal initiation of the network. This version 3.0 is produced according to the Sustainability Plan (2015-2016). The formal launching will take place at the final event of Joint Action in Brussel, Belgium in 2016.

11. Conclusions

The prime goal of the Joint Action on health Workforce Planning and Forecasting has been to work towards improving the capacity of health workforce planning and forecasting by supporting collaboration and exchange between Member States.

What has initially started as a List of Experts, in the course of the intensive work has evolved into a stable community of specialists, including academic people, practitioners, representatives of different professional organizations and other stakeholders, data experts, policy makers, etc. In the process of developing the documents of the Joint Action and during the numerous discussions professional experience as well as good and less successful practices have been exchanged, new ideas have been advanced, a lot of productive connections and collaboration have been established, international cooperation in the field has been raised to a higher level. This has laid the foundation of a permanent body of expertise, a Network of Experts, which in itself is already a living entity with a great potential.

However, the initial momentum needs to be maintained and stimulated. Additional efforts are required to enhance and further develop the existing Network of Experts. This can be done in stages, given the timeline of the programme period within the European Health Strategy 2020. An appropriate way to bridge the gap between the end of the Joint Action on Health workforce planning and forecasting and the next programme period of more substantial investment after 2018 is to preserve and channel the energy and potential by organizing a series of workshops on the evolving processes and practices in the field. In addition to the already created substantial output of the Joint Action, involving written reports, handbooks, guidelines, summerized tools and models, as well as recommendations, the European Network of Health Workforce Planning Experts will embody and preserve the human potential and capital developed within the framework of the Joint Action and will guarantee the sustainability of its ideas and results.

Appendix 1a - List of experts, in alphabetical order, by field of expertise

№	NAME	FIRST NAME	DATA & MODELING	HEALTHCARE SYSTEMS	POLICY MAKING	EDUCATION	LABOUR & EMPLOYMENT	HC PROFESSIONS
1	**Ailasmaa**	Reijo	Experienced	Master	Experienced	Master	Master	Medical doctor, Dentist, Pharmacist, Midwives, Nurse
2	**Aistleithner**	Regina		Experienced	Experienced	Master		Medical doctor, Midwives
3	Andrioti	**Despena**	Master	Master	Master	Master		Medical doctor, Dentist, Pharmacist, Midwives, Nurse
4	**Batenburg**	Ronald	Master	Master	Master	Master	Master	
5	**Braeseke**	Grit	Master	Master	Experienced	Experienced	Master	Medical doctor, Midwives, Nurse
6	**Buchan**	James		Master	Master	Experienced	Master	Medical doctor, Midwives, Nurse
7	**Burgio**	Alessandra	Experienced					
8	**Carbajo**	Pilar	Master	Experienced	Experienced	Experienced	Experienced	Medical doctor, Midwives, Nurse

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9	**Czasny**	Ines	Master	Master	Experienced			Medical doctor, Dentist
10	**Danova**	Natashka	Master	Experienced	Experienced	Experienced	Experienced	
11	**Da Silva**	Fernando	Experienced	Master	Master	Master	Experienced	Medical doctor, Nurse
12	**Daval**	Bertrand		Experienced		Experienced		Medical doctor
13	**De Pietro**	Carlo	Experienced	Master	Experienced	Experienced	Experienced	Medical doctor, Nurse
14	**De Wever**	Alain	Master	Master	Master	Master	Master	Medical doctor
15	**Dimitrov**	Plamen						
16	**Dimova**	Antonia	Experienced	Master	Master	Master	Experienced	
17	**Dokova**	Aneta	Experienced	Experienced	Experienced	Experienced	Experienced	
18	**Dokova**	Klara	Experienced	Master	Experienced	Master	Experienced	
19	**Drenska**	Elitsa	Experienced	Experienced	Experienced	Experienced	Experienced	
20	**Dunleavy**	Eoin			Experienced		Experienced	
21	**Dussault**	Gilles	Experienced	Master	Master	Master	Master	Medical doctor, Midwives, Nurse
22	**Edwards**	Matt	Master	Master	Experienced		Experienced	
23	**Fellows**	Jhon	Experienced	Experienced				Medical doctor, Dentist, Pharmacist, Midwives, Nurse
24	**Feschieva**	Nevyana	Experienced	Master				
25	**Garel**	Pascal	Experienced	Master	Master	Master	Master	
26	**Getov**	Ilko	Experienced	Experienced	Master	Master	Experienced	Pharmacist
27	**Girasek**	Edmond	Master	Experienced	Experienced	Experienced	Experienced	

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28	**Gorria**	David	Master	Master	Master	Experienced	Master	Physiotherapist
29	**Gouveia**	Ana Paula	Experienced					Medical doctor, Nurse
30	**Grigorov**	Evgeni		Master	Master	Experienced		Pharmacist
31	**Hannu**	Halila	Master	Master	Master	Master	Experienced	Medical Doctor
32	**Hans**	Mathiasen	Experienced	Experienced	Experienced	Experienced	Experienced	Medical Docotor
33	**Hinkov**	Hristo	Experienced	Experienced	Master	Master	Experienced	
34	**Holweg**	Gerlinde			Experienced	Experienced		Medical doctor, Nurse
35	**Ivanov**	Krasimir	Experienced	Master	Master	Master		Medical doctor
36	**Jelamschi**	Nicolae	Experienced	Experienced	Experienced	Experienced		Medical doctor
37	**Katrova**	Lidia	Experienced		Experienced	Master		Dentist
38	**Kerekovska**	Albena	Master	Master	Master	Master	Master	
39	**Khanchandani**	Baiju		Master	Master	Experienced	Experienced	Medical doctor
40	**Kittenberger**	Kerstin		Experienced	Experienced			
41	**Koeva**	Stefka	Master	Master	Master	Master	Master	
42	**Kostadinova**	Todorka	Master	Master	Master	Master	Master	
43	**Kovacs**	Eszter	Master	Master	Master	Experienced	Experienced	Medical doctor, Dentist, Pharmacist, Midwives, Nurse
44	**Kroezen**	Marieke	Experienced	Master	Experienced	Experienced	Experienced	
45	**Lodi**	Andrea	Experienced	Experienced		Experienced		

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46	**Malgieri**	Annalisa	Master	Master				Medical doctor, Dentist, Pharmacist, Midwives, Nurse
47	**Mans**	Linda	Experienced	Experienced	Experienced	Experienced		Medical doctor, Midwives, Nurse
48	**Marcheva**	Anastasia	Master	Master	Master	Experienced	Experienced	
49	**Mazzucco**	Walter	Experienced	Master	Master	Master	Experienced	Medical doctor
50	**Meeus**	Pascal	Master	Master	Master			Medical doctor
51	**Michelutti**	Paolo	Experienced	Master	Experienced			Medical doctor, Dentist, Pharmacist, Midwives, Nurse
52	**Mihalits**	Christiane						Medical Docotor
53	**Mirchev**	Angel	Master	Master	Experienced	Experienced		
54	**Mircheva**	Iskra	Master	Master	Master	Master	Master	
55	**Mönttinen**	Tiia			Experienced	Experienced		Medical Docotor
56	**Moreno**	Sebastian	Master	Experienced		Experienced		Psychologist
57	**Moutafova**	Emanuela	Master	Master	Master	Master	Master	Economist
58	**Nemerenco**	Ala	Master	Master	Master	Master	Master	Medical doctor, Nurse
59	**Notarangelo**	Isabella	Experienced	Experienced	Experienced	Experienced	Experienced	

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60	**Paina**	Ligia	Experienced	Experienced	Experienced			
61	**Pavlova**	Milena	Experienced	Experienced	Experienced	Experienced		
62	**Penova**	Slava	Experienced	Experienced	Experienced	Experienced	Experienced	
63	**Petrova**	Galina	Experienced	Experienced	Experienced	Experienced	Experienced	
64	**Popova**	Mina	Master	Master	Master	Master	Master	
65	**Radeva**	Nikolina	Experienced	Experienced	Experienced	Experienced	Experienced	
66	**Raguz**	Ivan	Experienced	Experienced	Experienced	Experienced	Experienced	Medical Docotor
67	**Rappold**	Elisabeth		Master		Experienced		Nurse
68	**Reiff**	Sascha			Experienced	Experienced	Experienced	Medical Docotor
69	**Roda**	Sara			Experienced			Dentist
70	**Rohova**	Maria	Experienced	Master	Experienced	Master	Experienced	
71	**Romestaing**	Patrick	Master	Master	Experienced			Medical doctor
72	**Ruseva**	Maria		Master	Master	Experienced		
73	**Santric**	Milena	Master	Master	Experienced	Master		Medical doctor, Dentist, Pharmacist, Midwives, Nurse
74	**Sator**	Marlene				Experienced		Medical doctor
75	**Sebastian**	John	Experienced	Experienced	Experienced			Medical doctor
76	**Sercic**	Maja	Experienced	Experienced	Experienced	Experienced		Pharmacist
77	**Slenter**	Viktor	Experienced	Experienced	Experienced	Experienced		Medical doctor
78	**Somekh**	David		Experienced	Experienced			Medical doctor
79	**Stefanov**	Rumen	Experienced	Experienced	Experienced	Experienced		
80	**Sturzlinger**	Heidi	Experienced					

81	**Tesar**	Tomas	Master	Master	Master	Master	Master	Pharmacist
82	**Toncheva**	Sonya						
83	**Ttrebar**	Branko	Experienced	Master	Master	Experienced	Experienced	Medical doctor
84	**Ugenti**	Rossana	Experienced	Experienced	Experienced	Experienced	Experienced	Medical doctor, Dentist, Pharmacist, Midwives, Nurse
85	**Ungureanu**	Marius		Master	Experienced	Experienced		Medical doctor
86	**Valkov**	Aleksander	Experienced	Master	Experienced	Experienced	Experienced	
87	**Van Der Velden**	Lud	Master	Experienced	Experienced	Master	Master	Medical doctor, Dentist, Pharmacist, Midwives, Nurse
88	**Vasic**	Milena	Master	Master	Master	Experienced		Medical doctor, Dentist, Pharmacist, Midwives, Nurse
89	**Vasileva**	Milka	Master	Master	Experienced	Master	Master	Nurse, Milwives, Medical Doctor
90	**Veleva**	Nadia	Master	Experienced	Experienced	Experienced	Experienced	Medical doctor, Dentist, Pharmacist, Midwives, Nurse

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91	**Vladimirova**	Milena	Experienced	Experienced	Experienced	Experienced	Experienced	Medical doctor, Midwives, Nurse
92	**Vodenicharov**	Cekomir	Master	Master	Master	Master	Master	Medical doctor, Dentist, Pharmacist, Midwives, Nurse
93	**Wilkinson**	Jamie	Experienced	Experienced	Experienced	Experienced	Experienced	Pharmacist
94	**Williams**	John		Experienced	Experienced	Experienced	Experienced	Medical doctor

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Appendix 1b - List of experts, in alphabetical order – contact information's

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3	**Andrioti**	Despena	dandrioti@gmail.com	4 542 756 555	www.sdu.dk	Niels Bohrs Vej 9-10 • DK-6700 Esbjerg Denmark	GR, EN
4	**Batenburg**	Ronald	r.batenburg@nivel.nl	0031 30 2729861	http://www.nivel.nl/en/rs-ronald-batenburg-phd	PO Box 1568, 3500 BN, Utrecht, the Netherlands	NL, EN
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33	**Hinkov**	Hristo					
34	**Holweg**	Gerlinde	gg.holweg@minvws.nl	31 631 753 252	http://www.rijkoverheid.nl/ministeries/vws	Ministerie van VWS, directie MEVA, PO Box 20350, 2500 Ej Den Haag	NL, EN,
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47	**Mans**	Linda	Linda.mans@wemos.nl	31 204 352 054	www.wemos.nl	Ellermanstraat 15-O Postbus 1693 1000 BR Amsterdam	NL, EN
48	**Marcheva**	Anastasia	_				BG, EN
49	**Mazzucco**	Walter	presidente@giovanimedici.com; waltermazzucco@gmail.com; walter.mazzucco@unipa.it	393 394 143 758	www.juniordoctors.it	University of Palermo (Italy) Sciences for Health promotion Dep, Via del Vespro, 133-90127 Palermo	IT, EN
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65	**Radeva**	Nikolina	niki.radeva@mu-varna.bg; r_nina@abv.bg	(+359) 876952575	www.mu-varna.bg	3, Bregalnitsa Str., 9002 Varna	BG, EN, FR, RU
66	Raguz	Ivan	ivan.raguz@hlk.hr	385 98 1696366	http://www.hlk.hr/	Tuskanova 37, 10 000 Zagbreb, Croatia	HR, EN
67	**Rappold**	Elisabeth	elisabeth.rappold@goeg.at	43 151 561 242	www.goeg.at	Stubenring 6, 1010 Wien	DE, EN, SP
68	**Reiff**	Sascha	president@juniordoctors.eu	35 699 212 940	www.juniordoctors.eu	Secretariat (EJD c/o Medical Association of Malta), The Professional Centre, Sliema road – Gzira Malta	EN, DE, Maltese, IT

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70	**Rohova**	Maria	mariarohova@abv.bg	359 887 540 863	http://mu-varna.bg/BG/AboutUs/PublicHealth/Pages/MariyaYordanova.aspx	Bulgaria, 9002 Varna, 55 Marin Drinov Str.	BG, EN
71	**Romestaing**	Patrick	romestaing.patrick@cn.medecin.fr	3 224 016 158	www.conseil-national.medecin.fr	180 Boulevard Haussmann - 75008 Paris	FR, EN, IT
72	**Ruseva**	Maria	-				
73	**Santric**	Milena	msantric@med.bg.ac.rs	381-65-888-52-32	www.mfub.bg.ac.rs	Dr Subotica 15, Belgrade	SB, EN, CR, MN, BO, FR
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75	**Sebastian**	John	sjohn@kbv.de	+49 (0) 30/ 4005 1418	www.kbv.de	Herber-Lewin-Platz 2, 10623 Berlin, Germany	DE, EN
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79	**Stefanov**	Rumen					
80	**Sturzlinger**	Heidi	heidi.stuerzlinger@goeg.at	43151561348	www.goeg.at	Stubenring 6, 1010 Wien	DE, EN
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Appendix 2a – Invitation letter

From: Prof. Todorka Kostadinova on behalf of the "Sustainability" team

To: xxxx xxxxx

Medical University of Varna, January 5th, 2016

Dear Colleague,

The Joint Action on Health Workforce on Planning & Forecasting, funded by the Health Programme of the European Union, is creating a platform for collaboration and exchange of experts in the field of Health Workforce Planning and Forecasting.

Common challenges exist across Europe which are likely to substantially impact on the demand, supply and skill mix of the health workforce which risk undermining the sustainability of health systems in the European Union.

This network is urgently needed to help the European Union to deepen understanding of the issues, to identify solutions to address the increasing imbalance of Europe's health workforce.

Attached you will find the leaflet describing the Joint Action.

It is the task of the Joint Action's Work Package 7 – Sustainability to recruit and list the available highly qualified experts, who can share their knowledge.

Previous studies[2] funded by EC, leading to the Joint Action project highlighted the importance of such a network to be included in the preparation of future policy responses decisions.

In the first stage, the network is including known experts keen to be kept informed of the EU developments on Health Workforce Planning and Forecasting, and volunteering to be invited for opinions and sharing of information. These candidates will also enjoy higher networking opportunities and an increase of the potential impact of their current expertise. The Network is including experts with various skills, from technical expertise to policy-making and public processes like employment and education.

We intend to start the network activities at the last stage of the Joint Action (May-June 2016), and build up on those activies both thematically and jointly with other existing networks related to healthcare, education and employment matters throughout Europe.

[2] http://ec.europa.eu/

As an expert in the field, we hope that you might be willing to take part in this network. Therefore, we kindly invite you to participate in this initiative.

Please complete the attached Registration form for the network and send it back to the following e-mail: **experts.HWF@mu-varna.bg**.

Your registration will be handled by the Joint Action project (through the Medical University of Varna, Bulgaria). Your registration does not mean that you commit to any additional work, but that you offer to consider a potential opportunity for yourself, your organization and your country to contribute to health workforce planning processes and to trannsfer knowledge.

This round of request for registration is to be completed by 22nd January 2016. In the meantime, together with the applicant, the Joint Action Programme will put forward a proposal for the design and workplan for the network in construction and will be presented to you by the end of the current JA. The network itself would then officially start by 2016.

Would you need any further information, please do not hesitate to contact us. You may also have a look at our web-site on www.healthworkforce.eu

Yours faithfully,

Prof. Todorka Kostadinova
Work Package Sustainability (WP7)
Joint Action on Health Workforce Planning & Forecasting

Appendix 2b – Expert consent & auto-evaluation form

Personal and professional information		
1.	Name	
2.	Surname	
3.	Position/ Title	
4.	Organisation	
5.	Country	
6.	Contact Address	
7.	Contact Email Address	
8.	Personal Website/ Organisational Website	
9.	Contact Phone number	
10.	Language(s)	☐ Mother language (Native language): ☐ English ☐ Others:
Area of competence you would like to be listed on the network (to fill in the following questions please read the instructions below the table)		
11.	Data & Modelling	☐ Experienced ☐ Master
12.	Healthcare system	☐ Experienced ☐ Master
13.	Policy making	☐ Experienced ☐ Master
14.	Education	☐ Experienced ☐ Master
15.	Labour & Employment	☐ Experienced ☐ Master
16.	HC professions	☐ Medical Doctor ☐ Dentist ☐ Pharmacist ☐ Midwives ☐ Nurse

Further details		
17.	Professional experience	
18.	Other activities (teaching, research, projects, etc.)	

With the following Expert Registration Form I confirm my willingness to participate in the Experts' network of Joint Action on European Health Workforce Planning and Forecasting (EUHWforce) and to share the above list of data and a self-assessment of my skills for the purpose of the project.

I am aware of the purposes of this data collection (see also http://healthworkforce.eu/) and I agree the data become published through the D072 Network of experts in frame of Joint Action activities.

Signature:
Date: xxxx

Appendix 2c – List of Q&A's

JOINT ACTION ON HEALTH WORKFORCE PLANNING AND FORECASTING
LIST OF EXPERTS – Q&A

This list of Questions & Answers aims at supporting the Registration form to become listed on the Joint Action HWF List of Experts.

Which is the Goal of the List?

The Joint Action aims at creating a network of experts to support both EU and Member States in developing capacity in Health Workforce Planning & Forecasting, enabling policy-makers to take evidence and scientific-based decisions.

The list will both be made available to the Member States and many stakeholders like the EU-wide professional organizations in order to help them find the appropriate in-land or foreign expertise. Also, the list will be a distribution list for the future network activities. The members will be encouraged to share their knowledge on a collaborative platform and through collaborative activities and conferences.

What about the choice between 2 levels of expertise?

The list is a list of experts. There is no point in referring low level of expertise, as this information is not useful to the stakeholder. Also, a wide variation of level of expertise is neither relevant nor measurable. Therefore, we propose to adopt an easy 2-level system, with Experienced and Master as definers.

Definition of competence area 1
Area of competence 1 is set as:

SET OF COMPETENCES NEEDED TO COLLECT, PROCESS WITH SCIENTIFIC INSTRUMENTS, UNDERSTAND AND MAKE USE OF HEALTHWORFORCE DATA, INCLUDING MODELLING

Proposed criteria's for self-assessing ones levels of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2 years working experience in Healthcare Data Collection with a HWF component; - 2 years working experience in modelling Healthcare systems based on data with a HWF component; - Participation to a study related to Health Workforce Planning using data and modellisation, either as researcher, writer or data manager; - Participation to at least 5 workshops or conferences on Health Workforce at (inter-) national level; - A degree in the field of Health, like MD, Healthcare management, or in the field of Data management like Statistics, Sociology.	- 5 years working experience in Healthcare Data Collection with a HWF component; - 5 years working experience in modelling Healthcare systems based on data with a HWF component; - Participation to at least 3 studies related to Health Workforce Planning using data and modellisation, either as researcher, writer or data manager, and overall manager of at least one of these; - Participation to at least 10 workshops or conferences on Health Workforce at (inter-) national level, and at least 3 at international level; - 2 degrees or a doctorate level in the field of Health, or in the field of Data management.

Definition of competence area 2

Area of competence 2 is set as:

SET OF COMPETENCES NEEDED TO UNDERSTAND, EVALUATE AND FORESEE FUTURE EVOLUTIONS OF THE HEALTHCARE SECTOR AT NATIONAL LEVEL WITH UNDERSTANDING OF INTERNATIONAL CONTEXT

Criteria's for self-assessing ones levels of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2 years working experience in Healthcare Management with a HWF component; - 2 years working experience in building and evaluating Healthcare systems with a HWF component;	- 5 years working experience in Healthcare Management with a HWF component; - 5 years working experience in building and evaluating Healthcare systems with a HWF component;

- Participation to 3 studies or projects related to Health Workforce systems, either as researcher / analyst, writer or project manager; - Participation to at least 10 workshops or conferences on Healthcare systems at (inter-) national level; - A degree in the field of Health like MD, or Law with option Healthcare, International affairs.	- Participation to 5 studies or projects related to Health Workforce systems, either as researcher / analyst, writer and overall manager of at least one of these; - Participation to at least 30 workshops or conferences on Healthcare systems at (inter-) national level, and at least 10 at international level; - 2 degrees or doctorate level in the field of Health, or Law with option Healthcare, International affairs.

Definition of competence area 3

Area of competence 3 is set as:

SET OF COMPETENCES NEEDED TO UNDERSTAND, PARTICIPATE AND POTENTIALY LEAD POLICY MAKING PROCESSES IN THE HEALTHCARE SECTOR, WITH UNDERSTANDING OF THE INTENATIONAL (EU AT LEAST) CONTEXT AND PROCESSES, INCLUDING THE LEGAL ASPECTS

Criteria's for self-assessing ones levels of proficiency:

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2 years working experience in Healthcare Policy making with a HWF component; - 2 years working experience in International coordination of policies with a HWF component; - 2 years working experience in a legal context with HWF component; - Participation to at least 10 workshops or conferences on policy making in the Healthcare sector at (inter-) national level; - A degree in the field of Health, or Law with option Healthcare, International affairs.	- 5 years working experience in Healthcare Policy making with a HWF component; - 5 years working experience in International coordination of policies with a HWF component; - 5 years working experience in a legal context with HWF component; - Participation to at least 30 workshops or conferences on policy making in the Healthcare sector at (inter-) national level, and at least 10 at international level; - 2 degrees or a doctorate level in the field of Health, Law with option Healthcare, International affairs.

Definition of competence area 4

Area of competence 4 is set as:

SET OF COMPETENCES NEEDED TO UNDERSTAND, MANAGE AND EVALUATE POLICIES IN THE FIELD OF EDUCATION OF HUMAN RESOURCES IN HEALTH

Criteria's for self-assessing ones levels of proficiency :

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2 years working experience in Education management with a HWF component; - 2 years working experience in building and evaluating Education programmes with a HWF component; - Participation to 3 studies or projects related to Health Workforce education, either as researcher / analyst, writer or project manager; - Participation to at least 10 workshops or conferences on Education of HWF at (inter-) national level; - A degree in the field of Education Management, with option Health.	- 5 years working experience in Education management with a HWF component; - 5 years working experience in building and evaluating Education programmes with a HWF component; - Participation to 5 studies or projects related to Health Workforce education, either as researcher / analyst, writer and overall manager of at least one of these; - Participation to at least 30 workshops or conferences on Education of HWF at (inter-) national level, and at least 10 at international level; - 2 degrees or a doctorate level in the field of Education Management with option Health.

Definition of competence area 5

Area of competence 5 is set as :

SET OF COMPETENCES NEEDED TO UNDERSTAND, MANAGE AND EVALUATE POLICIES IN THE FIELD OF LABOUR MARKET, ESPECIALLY OF HUMAN RESOURCES IN HEALTH.

Definition by type of activities & skills :

Typically, this person is fluent in conceiving recruitement and Human Resources strategies, but also Labour market analysis. He/She has experience in the various aspects of Labour & Employment strategies, like retention policies, job attractiveness, salary benchmarking, workforce migration, ... He/she understands the challenges of the future for the European Labor open market.

Indicative criteria's for self-assessing ones levels of proficiency :

EXPERIENCED	MASTER
At least 2 of those criteria must be met	**At least 3 of those criteria must be met**
- 2 years working experience in Employment & Labour management and/or HR for health care; - 2 years working experience in recruitment and organisation of workforce programmes with a HWF component; - Participation to 3 studies or projects related to Labour / Workforce dynamic, either as researcher / analyst, writer or project manager; - Participation to at least 10 workshops or conferences on Labor & Employement policies of HWF at (inter-) national level; - A degree in the field of Labor Sciences of Sociology, with a special attention to Health Workforce.	- 5 years working experience Employment & Labour management and/or HR for health care; - 5 years working experience in recruitment and organisation of workforce programmes with a HWF component; - Participation to 5 studies or projects related to Labour / Workforce dynamic, either as researcher / analyst, writer and overall manager of at least one of these; - Participation to at least 30 workshops or conferences on Labor & Employement policies at (inter-) national level, and at least 10 at international level; - 2 degrees or a doctorate level in the field of Labor Sciences of Sociology with option Health care.

The experts will be able within a **future** platform of collaboration to add a CV to their name, enabling a more detailed presentation.

May I be listed in multiple skills?

Obviously, all experts may apply for multiple categories if relevant, with various levels of expertise.

Why are there only 5 areas of expertise?

All experts have a different background and know more about a different country context. The list of experts, at least the first issue, must remain simple to use. We therefore identified the five main areas of expertise needed. Additional areas may be added in the future, if needed. The areas are broad enough so we believe most of the experts known to date will fit in.

How to measure the level of expertise?

It is not the goal of the Joint Action to measure scientifically the level of expertise of each applying expert. This measure is not really feasible though. As we trust the experts to apply and provide sound experience and expertise to the Member States and to the various stakeholders, we also trust them in self-evaluating their level of skills.

Self-evaluation is therefore the method chosen, and the self-evaluation will not be disputed.

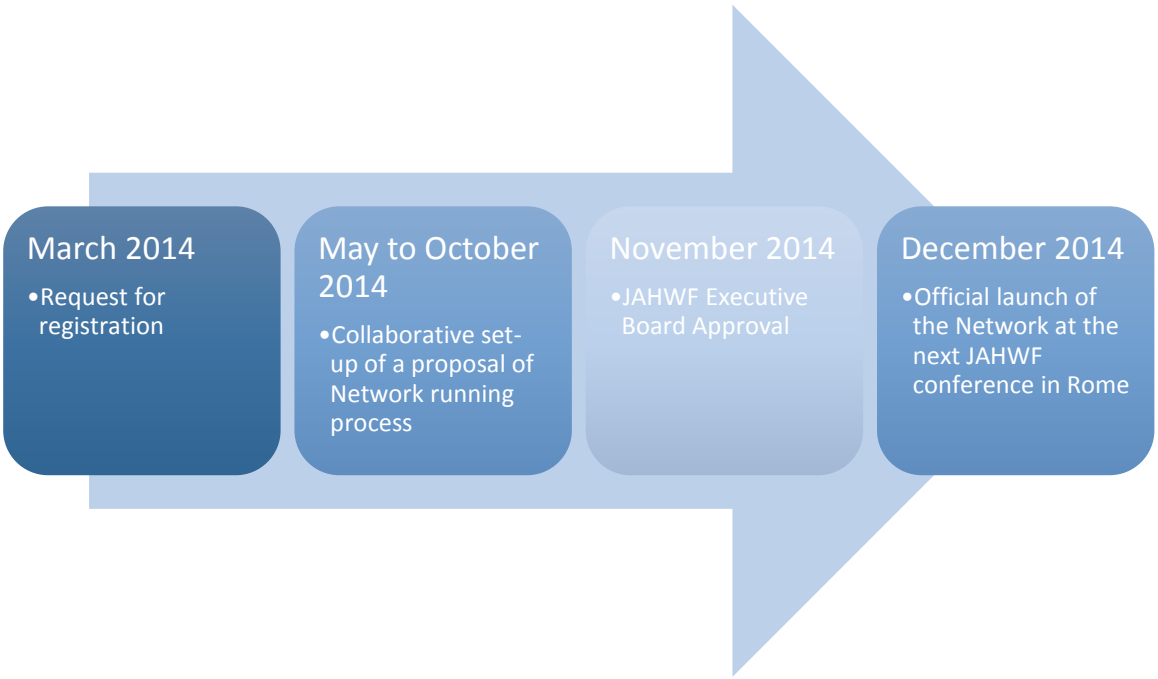
Also, adding CVs and implementation of the network portal in the future will enable the experts to develop further their capacity, track the evolution, and allow EU and Members States to locate the appropriate experts.

Why are they supporting criteria for evaluating the expertise level?

The proposed criteria, which are not mandatory, are proposed to support the decision-making in the self-evaluation process, also helping to obtain a more homogeneous self-evaluation pattern. We know that there will be various special cases which will not fit in, but these criteria are not rules, just tools.

What is the timeline for the creation of the Joint Action Network of Experts

The timeline is as follows:



The presentation of the List of Experts at the plenary assembly of the Joint Action may be found here: www.healthworkforce.eu

What about the other mechanisms for hiring experts set in place at EU Commission / Agency Level

The current invitation to register to the Joint Action network is independent from any other official European Commission calls for experts within the framework of EU funding programmes.

The Joint Action network is not exclusive. The information regarding the network of experts will be exchanged through the following e-mail address: **experts.HWF@mu-varna.bg**.

Appendix 3 – Input from the technical work packages

Joint Action on Health Workforce Planning & Forecasting

Work Package 7 – SUSTAINABILITY

EXPERT PROFILE – WORKSHOP SESSION 1 – WP5_IT INPUT

History of the document:

WP5_IT was requested to provide the following information/documents

-The last expert profile for your work package (WP5-Methodology expert) as you presented it;

-The competence grid of these experts, translating the profile into a matrix profile.

-Their best proposal of tools implemented or to be implemented to help this network to be actively managed.

Answer

WP5 intend to use experts in three different moments: in identifying minimum dataset requirements, in reviewing and assessing existing planning procedures and models, to develop and review the cookbook. For WP5 purposes an expert is a person who have developed and/or managed model-based planning methodologies or, in alternatives, who have analysed / reviewed model-based methodologies (for example from OECD or Matrix). She/he has also to take into account the outcomes of the planning process and have tried to improve / adapt the planning/forecasting model on the base of those outcomes. Preferably, she/he is well known within her/his Country and by the stakeholders.

- Here the "ideal" matrix profile:

- Experiences: to have managed a HWF planning and forecasting system (model-based) in a EU country or to have developed a HWF based-model system in a EU country. Level: for, at least, 3 years.
- Technical knowledge: knowledge of HWF planning and decision making processes and of the actors (stakeholders) involved in her/his own country. Level: in-depth. Knowledge of HWF planning methodologies in the different EU and not EU countries. Level: basic.
- Organizational skills: skills of analysis, benchmark and synthesis. Level: high.

This "ideal" profile will likely be declined in different categories: for different professions (at least, physicians and nurses), for different regional areas (in countries with a decentralized HWF system, for example Germany), for major stakeholders (especially in big countries, for example Spain).

- Proposal to help the experts' network to be actively managed:

- Determining the networking goals (specific and manageable);
- Sharing the responsibilities with the experts;
- Keeping the experts up-date on the progress to achieve the goals;
- Recognizing the individuals efforts and contributes to achieve the goals;
- Recognizing the status of "expert" involving them in "learning activities" (such as conferences, seminars, etc.).

Tools: web platform, regular meetings.

Work Package 7 – SUSTAINABILITY

EXPERT PROFILE – WORKSHOP SESSION 1 – WP6_CfWI INPUT

History of the document:

WP6_CfWI was requested to provide the following information/documents

-The last expert profile for your work package (WP6-Forecasting expert) as you presented it;

-The competence grid of these experts, translating the profile into a matrix profile.

-Their best proposal of tools implemented or to be implemented to help this network to be actively managed.

Answer

Individual competence grid for WP6 experts

	Individual
Behavioural competence	**Interpersonal skills** Works collaboratively with WP6 to challenge and review outputs from WP6. Acts as a source of guidance and information and is able to credibly promote the work of WP6 to senior contemporaries.
Technical competence	**Techniques** Raises matters of concerns, risks and issues for the work package.
Contextual competence	**Domain expertise** Specialist subject matter expertise on horizon scanning and health workforce planning at a level that is able to support the strategic direction of the horizon scanning work package (WP6) and ensure outputs are able to support the planning of future workforce. This includes: · A credible academic record; · Published work in health workforce planning and/or

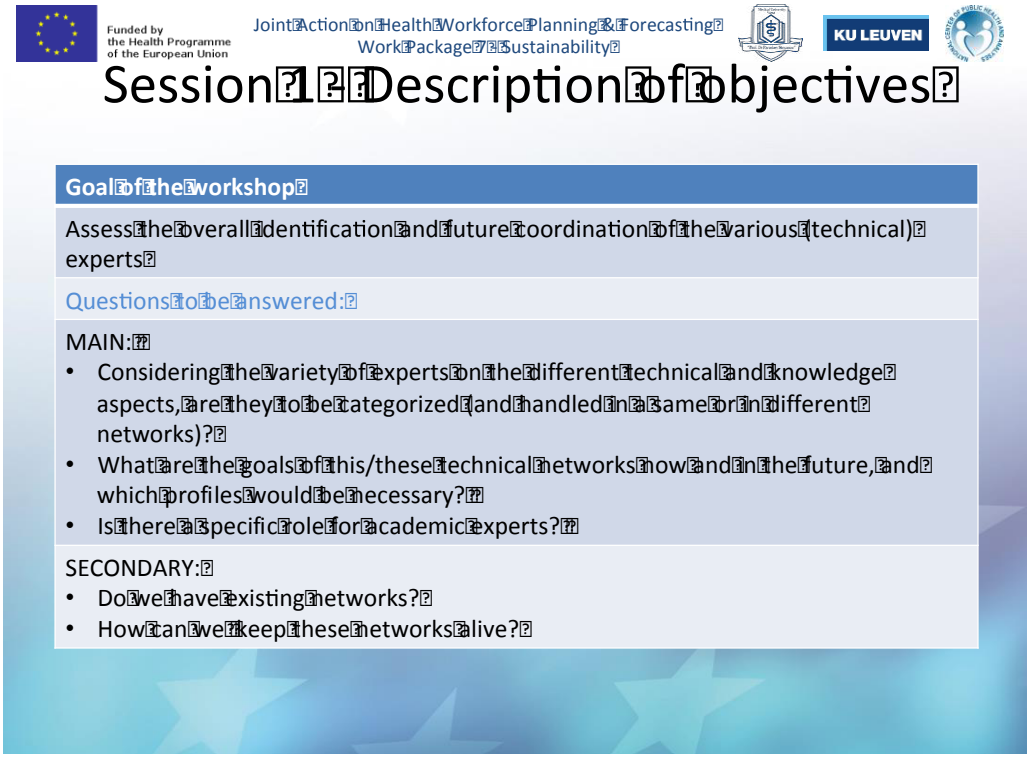
	horizon scanning · Breadth of expertise in HWF planning, with a particular interest in long-term or strategic thinking.

Tools implemented or to be implemented to assist in the active management of the network

Teleconferences (a maximum of four meetings per annum) and individual meetings with the identified experts to:

· Contribute to the strategic direction of WP6
· Review templates
· Promote the work package
· Act as a source of guidance and information
· Raise matters of concern

Appendix 4 – Session conclusion of Sofia's workshop



Goal of the workshop
Assess the overall identification and future coordination of the various (technical) experts
Questions to be answered:
MAIN: • Considering the variety of experts on the different technical and knowledge aspects, are they to be categorized (and handled in a same or in different networks)? • What are the goals of this/these technical networks now and in the future, and which profiles would be necessary? • Is there a specific role for academic experts?
SECONDARY: • Do we have existing networks? • How can we keep these networks alive?

#	Decision / Conclusion
1	We recognize a difference between technical & policy experts requesting difference in networking.
2	We recognize that there are between 4 and 6 types of technical experts – the proposed subdivision, with some corrections, is a good start to propose categories for the first list of experts due to be delivered by March 2014.
3	We will populate the first list of experts with all the known experts participating in the J.A., but also with the experts highlighted by our major stakeholders. The stakeholder analysis is a powerful tool to help us populate the second delivery of the list of experts.
4	The first matrix-like list of experts will match names with types of expertise as per #2, and additional columns highlighting the professions that are mastered by each expert.
5	We identified that whatever the shape of the network(s), one of its/their tasks is to provide support to policy makers network, helping policy being made at EU and at national level.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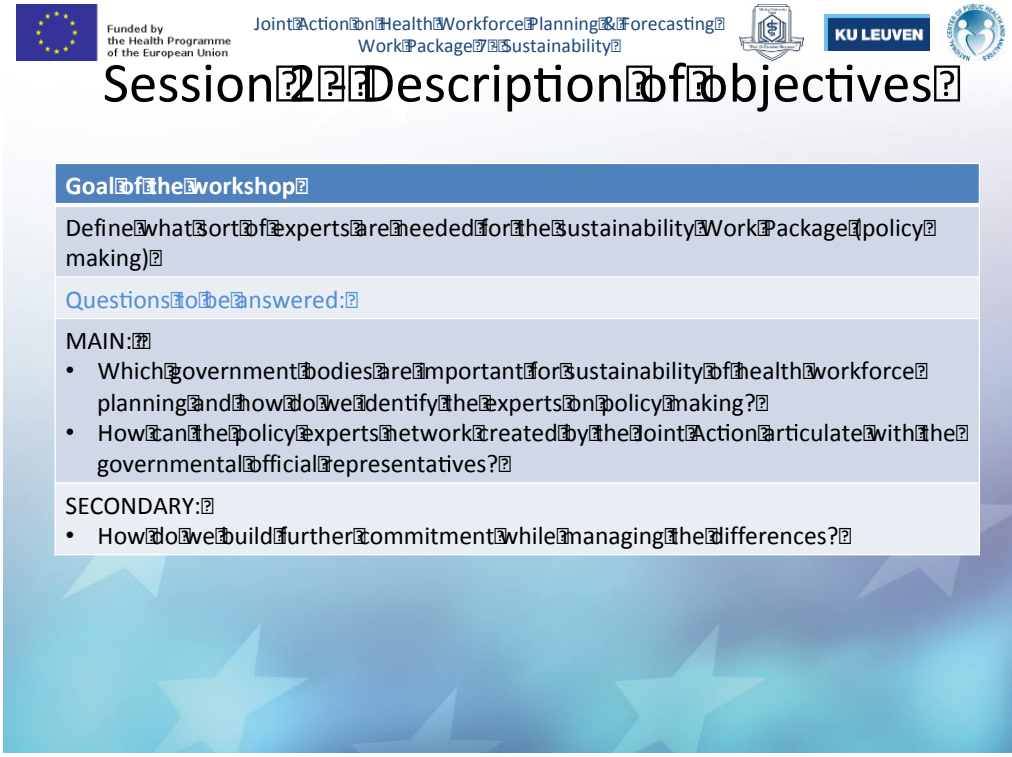
Joint Action on Health Workforce Planning & Forecasting
Work Package 7 – Sustainability
KU LEUVEN
Session 1 – Technical Experts
| Decision / Conclusion
6 | Considering the results of the workshop, we recognize that network(s) of technical experts are useful to address 2 more dimensions of needs:
- Provide data / Evidence based evaluation of policy / Observatory role
- Knowledge Management / Sharing & Internal Consultancy all through EU
7 | We tend to recommend to have only one network of technical experts, with a strong management allowing each category to be addressed on its own topics on a regular base.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Joint Action on Health Workforce Planning & Forecasting
Work Package 7 – Sustainability
KU LEUVEN
Session 2 – Description of objectives
Goal of the workshop
Define what sort of experts are needed for the Sustainability Work Package 3 (policy making)
Questions to be answered:
MAIN:
• Which government bodies are important for sustainability of health workforce planning and how do we identify the experts on policy making?
• How can the policy experts network created by the Joint Action articulate with the governmental official representatives?
SECONDARY:
• How do we build further commitment while managing the differences?

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Joint Action on Health Workforce Planning & Forecasting
Work Package 7 – Sustainability

Session 2 – Policy Experts

#	Decision / Conclusion
1	It has been identified that the role of policy experts is to: - prepare/validate the recommendations of the JA - to follow-up the recommendations of the JA
2	The role (and mandate) of the EU Expert group on HWF and its relation with a potential network of policy experts should be analysed.
3	The usage of policy experts within WP7 is scheduled according to the phase of JA. (Focus on awareness, dissemination, decision making, implementation, ...)
4	The preferred ways of gathering a network of policy experts are also variable according to phase & goals: • Platform type • Conference, seminar type • Policy dialogue type
5	« Profiles » can be helpful for organizations, government boards for identifying right delegates: commitment, expertise, power/influence/mandate

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Joint Action on Health Workforce Planning & Forecasting
Work Package 7 – Sustainability

Session 2 – Policy Experts

#	Decision / Conclusion
6	It has been pointed out that for many participants there is no clear distinction between technical and policy experts and that roles are changing. (*note: Michel Van Hoegaerden will produce an appendix based on HR theory and giving an easy definition of positions & roles*)
7	It has been pointed out that even though there might be a difference in profile, a network would benefit from including both technical & policy experts.
8	It has been concluded that having a mandate is most important for policy experts.

Appendix 5 – Workshop in Florence

WP7 WORKSHOP

7th May 2014, FIRENZE

GOAL OF THE WORKSHOP: WP7 has the task to create a network of European experts on planning & forecasting on Health Workforce, in order to help EU & Member States to progress in this matter. Definition of what the network will do and how this could happen

KEY RESULTS: Collect as many good ideas as possible!

SET-UP: Variance of World Café

- Set of Topics
- Discussions by changing groups of 3 to 4 / 15 to 20 min per topic, with a coffee or a tee
- Feedback by all on a sheet of questions in the end by each participants

GROUP 1: Michel Van Hoegaerden, Prof. Todorka Kostadinova, Pascal Meens

GROUP 2: Gerlinde Holweg, John Williams, Heinz Rothgang

GROUP 3: Zuzana Matlonova, Miloslava Kovacova, Alisa Puustinen, Johanna Lammintakanen, Mariano Votta

GROUP 4: Assoc. Prof. Zheni Staykova, Assoc. Prof. Natashka Danova, Assoc. Prof. Emanuela Moutafova, Slava Penova

THEMES OF THE WORKSHOP

1. Do you agree with this statement?
2. Which added value do you regard compared to current situation?
3. What would be your requirements as experts about it?
4. How feasible is this?
5. Do you know similar best practices?

THEME 1: A network must meet physically and a secretary must organize seminars and help to train new expert

- Physically meetings should be arranged at least every 6 months – twice per year
- Should find cost effective ways of meeting as arranging a conference is costly
- There should be working of getting involved everyone in the meetings, so as to exchange experience and be productive
- A specific topic should be raised on each meeting of the experts
- Online trainings - it is too expensive to train new experts on national and local level
- The role of the network could a training of new expert – a way of enlarging the network itself

- External experts could be asked to join the network meetings
- Virtual meetings, online conferences, skype sessions, webex meetings, etc.
- Very important (not necessarily physically though) to set the goal of the network, set up rules, coordinate (secretary)
- Not necessarily. Depends on the predefined goals, target issues etc.
- Not secretary but other colleagues already involved in the network
- No. But how to make the expert list attractive and better than a commercial consultancy agency
- Yes, but concrete output and well prepared secretary topics
- A network should meet physically at least twice a year but a secretary may be superfluous
- No secretary, yes a coordinator. WP4 + WP6 should communicate
- No, it's nice, but not a must. Experts should meet expert without train

THEME 2: A network must have local branches, help translation and support local policies

- Network building program (for example 3 years)
- A lot of thematic of specific professions
- The difficulties of having a network with different languages could be overcome by creating sub networks at national levels
- Local branches: to organize a council of experts, universities, scientific organizations, representatives from young generations
- A question could be raised of how the countries with different regions be treated – as different countries or as a whole country (for example Italy)
- Local medias, local policy
- Pilot projects policy, which aims to use good practises
- Don't like the wording "local branches", not necessarily are they needed as every country involved might not have an expert
- Depends on the role, mission and goal of the network
- Are there enough experts in every country and every specific area to do this
- Everything is connected. You cannot isolate
- Yes – clusters, but free/open to join
- Local policies should be influenced, but local branches are not essential.
- Interesting thing is international comparison, but local application with HMP local planning is not sufficient because of mobility
- It depends on the main goal of the network

THEME 3: A network must share information

- To share information in the web
- To have a report of all FAQs
- A need of experts of various fields of expertise
- To share information through educational and training meetings
- To create a common e-mail of experts network
- To share good practices
- The communication language will be English, but there could be national translators of the information
- Totally agree, but you don't need an expert for this. National contact point would do
- Important, but totally dependent on the goal of the network
- How to include "practical" information in the network? Different data sources
- Yes, but how to attract attention in the overloaded world of information.
- Forum + moderator
- Definitely, but how?
- Yes – best practices + products is first process
- Yes. Which kind of information? The network can only survive if it's producing relevant information

THEME 4: A network must publish (scientific work & experience)

- Publishing is the only way of sustain the information in the current situation
- To be published in national and international scientific journals
- Publishing the way to sustain the information flow
- The network should have a common tool for sharing the information
- Periodical publications of the various organizations
- To be uploaded on the web sites of the institutions
- To be shared in the scientific conferences (reports, posters, etc.)
- To organize workshops and to issue policy briefs
- The publications could educate the next generation of experts
- The network should always published reports of its activity
- The should also publish all the available literature
- The network will be promoting the work by publishing
- This is not the main tasks. Scientific publishing not mandatory. Probably more like statements, guidelines
- Various forms of publications e.g. summaries can be produced
- Yes! But depends on your goal: who to influence?
- Yes, own publication of the network (with scientific writer)
- Not necessary, except for policy and progress documents

- Publication is interesting for participants in the network and also participants if and only if it is of high quality and influences policies.
- Not mandatory, if so, with pragmatic and integrated approach.

THEME 5: A network must be consulted by policy makers

- The political will guarantees the sustainability of Joint Action
- The network should encourage politicians and experts to be proactive
- The experts and the politicians should consistently synchronise their ideas so as to avoid working it different directions
- The good collaboration between policy makers and experts will guarantee the sustainability of project and will be effective evidence based on political decision
- An external opinion of the country will be more valuable
- Both policy makers and network experts need to be incentivized
- important, but difficult in practice
- If this is one of the tasks then permanent relationships must be proactive
- Credibility + neutral --> then the policy makers will contact voluntary --> how to make it attractive
- Yes, but not the first objective and not at the beginning (first – be credible)
- We should propose, inform and follow up.
- Yes. My motive/their motive. Specific process/professions/countries
- How can experts be motivated to participate? Whom to address if the network is very big?

THEME 6: A network is usefully supported by a portal

- To create a portal of network experts, who are to organized: virtual trainings, and online meetings, where they should share the good practice and information
- The portal is the next step of the development of the project
- The portal could be a closed forum or a small web site
- The portal will enable the experts to communicate in a better way
- It will ensure an effective communications among the experts
- The structure of the portal should be close area for the different types of experts
- An efficient way should be found to make the people active in the portal
- The portal will comprise the following: statistical data, qualitative data, quantitative data, analyses, share of policy making, good practice
- Portal is important supportive tool to nourish the network

- Define who will be the users of the portal, how it will provide cutting edge and attractive information
- Essential part/ platform for the network to function
- Some kind of portal is useful
- Yes, but how to attract people?
- Yes, obviously (+secretary)
- As in a closed forum.
- Definitively yes, in order to be a virtual but non invisible network.

THEME 7: A network can be a virtual observatory

- The practice need one and the same methodology including system of indicators to scan the situation of human resources
- To compare the different countries and be based on the extrapolation of Health Workforce mobility in modern statistical ways
- To enrich the analysis of the healthcare system
- Very useful for the decision makers
- Human nature needs regular face to face meetings. Virtual observatory gives low level or no incentives
- The concert itself is hard to define
- No, a lot of observatories already. With what goal to observe?
- Won't work. Not alone!
- Observatories already exist. No need.
- Countries have different demands. This must be accounted.

THEME 8: A network should merge with any existing EU network

- The network could be a subsection of the observatory
- It is important to have focus, but some networks should be incorporated
- Exchange of information and results between the different network experts through methods discussed in theme four
- Share different experiences
- Different methodologies guarantee different opinions and produce different results
- It is important for the sustainability of the network to merge with the existing networks with the same/ similar scope and goal
- Networks should be identified. Not merging but affiliation
- Advisable to analyze if similar networks exist
- Usually collaborate at least, network should have a focus on humans

- Learning from each other. What is the profit?
- Yes, principal but merge with lobby? Who is funding?
- In association with existing networks, more than merging.
- No other networks. Funding?
- Depends on what other networks are doing. The theme HWPF should be represented. Merging makes sense if there is a theme in other networks with a theme close to ours but not identical.

Appendix 6 – Workshop in Lisbon

Joint Action on European Health Workforce Planning and Forecasting

Lisbon Workshops – WP5 18 June 2014

6.1 Group #1: Expert and Stakeholders

Michel Van Hoegaerden – JA Program Manager

Which are the in-countries experts and stakeholders (from countries with whom collaborated) experiences:

1. Human resources and training for HWF planners
2. Legislative boundaries or changes
3. Involvement of stakeholders
4. Selected planning models
5. Data availability and professions in scope

Turn them into lessons for Italy and Portugal.

Participants	
BE_FPS	Michel Van Hoegaerden
DE_UNI-HB	Melanie Boeckmann
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STAK_CPME	Birgit Beger
STAK_EFN	Alessia Clocchiatti
STAK_HOPE	Isabella Notarangelo
STAK_PGEU	Luís Rhodes Baião

Through a preliminary vote, the sequence of discussion of the various items has been decided.

6.1.1 Involvement of stakeholders

The stakeholder characteristics

Even though the willingness to participate among the stakeholders is very high, their technical knowledge of the policy field might be limited, since European umbrella organisations would have to liaise with the national organisation to identify experts, while at national level expertise can be restricted to a small number of experts who have to be recruited first. Most of the stakeholders'

(national) members' representatives have this mandate on top of a professional activity. Therefore, consulting the stakeholders implies producing a clear documentation.

Stakeholder consultation takes time. The respective organisation takes charge of the further consultation of its (national/regional) members and needs time for a dissemination and feedback process. This has to be built in any project with international and national stakeholder involvement.

The difference of culture between the international stakeholders, and also between the national/regional stakeholders must not be underestimated.

Organizing the dialogue

Dialogue is very important. Even though formal meeting can be meaningful, both trust and understanding are created and sustained through face-to-face contact, round tables, and especially speaking time for everybody. Stakeholder involvement is not a one-side information activity.

It is highly recommended to create a dialogue with all 5 professions and, especially for Portugal with the dentists (private), since there is no history of such relation. Furthermore, as the longer-term ambition should be the planning of health care systems, other professions than the 5 within the Joint Action scope should be kept informed and maybe involved.

It is very important to engage in a feedback process. Every query and every involvement should lead to feedback in order to keep the involvement dynamic. Often, the reluctance to disseminate transparent feedback information and the launch of surveys / questions without feedback creates frustration among the stakeholders.

The project management must be aware of these constraints and the framework needed for enabling the stakeholders to deliver.

In large projects with many stakeholders implied, the risk of duplication is high. The feedback process should be regular but also scheduled as an important risk mitigation method. The current dynamic and management of the Joint Action is seen very positively to that extent. A stakeholder communication officer position may have to be considered within the project.

By means of the structure needed for the stakeholders to meet, exchange and be involved, it has been highlighted by several participants that the Belgian model of Planning Commission with formal Plenary and open Sub-groups looks very appropriate.

Identifying the stakeholders

The Stakeholder analysis and a list of contacts from previous project are important tool to identify all the relevant stakeholders. It is preferable to contact too many stakeholders than too few.

The pilot projects imply important benefits for the education system. It is therefore "mandatory" that the competent authorities for Education (Ministry / Universities / Schools of nursing / …) would be invited and would participate in the projects.

Any other related Ministry should also be kept informed and asked to co-operate (Labour, …).

The importance of local authorities and local management is stressed as the knowledge of the operational situation is greatest among the people who are very close to patients.

Especially for IT, the regional level must be continuously mirrored in the various parts of the project. It is recommended that there is communication with the local stakeholders.

Even though it could be easier to start by addressing only the public sector, it would be a mistake not to involve the private and the social sector within the projects, as the benefits are both at health system and health economy level.

6.1.2 Human resources and training for HWF planners

Composition of the team

The importance of the continuous relation with the many stakeholders might imply the need for a communication and knowledge officer.

The project team also requires IT, secretary skills and management.

The most important requirement is that within the team responsibilities are assigned and taken. There is a fear that the administrative / civil servant team may initially lack sufficient knowledge of the sector to be able to run this project. The Stakeholders offer their contribution as training agents.

The opportunity of outsourcing a part of the process/project has been discussed.

Indeed, there are examples of successful deployment of such solution (CfWI (UK) – Norwegian sub-contracting of data collection – NIVEL (NL), …)

Positive views

- ✓ Good experience in Norway.
- ✓ There are day-to-day tasks that do not need in-depth subject.
- ✓ Influence from other businesses can be positive.
- ✓ There is already a shortage of resources in the public sector.

Negative views

- ✓ No in-depth knowledge.
- ✓ No feeling of the culture.
- ✓ No public service sense.
- ✓ Weak responsibility.
- ✓ Language.
- ✓ Influence from other businesses can be negative.
- ✓ In house training can occur.

PT team certainly do not see it positively, because of the constraints in the law of subcontracting in the public Administration.

6.2.1 Results

The Group agrees on the following final suggestions. → *See the file* flip chart results group #2

1. It is not possible to fully join objective #3, but it is possible to start a planning and then correct data and modalities.
2. In order to planning it is necessary:
   → Define a minimum set of correct data
   → know the real need/lack of personnel
   → Involve at a regional level the Universities and at a national level the Ministry of Education (MIUR)
   → Unify the needs with training ability
3. Activities must start immediately and go on together.
4. It is necessary to create as soon as possible a contact with training organisations.

7. Recap & Closure

Michel Van Hoegaerden

The Programme Manager emphasis the very valuable interaction between the participants of the Joint Action and stresses his willingness to keep such collaboration, which is an excellent predecessor for the future network of experts. He cheers the valuable participation of the stakeholder and underline that today's strategy to build a project together in maximum transparency is fruitful.

As next steps, the Programme Manager insists en the future workshop on mobility (WP4) foreseen in October in Budapest, and on the Joint Action conference under the Italian Presidency early December.

Filomena Parra da Silva

The organiser thanks participants for their valuable contributions and discussions throughout the three days of workshops, particularly taking into account the next steps of the Joint Action's work.

Ragnar Gullstand

Ragnar Gullstrand thanks, on behalf of the WP5 leader, Giovanni Leonardi, for the excellent contributions delivered during the day. In particular the willingness to enhance further value to the Handbook by adding some arguments presented by the WP7 workshop the day before and by helping the Italian and Portuguese Pilot projects to better focus on the scope, the priority and the timing. The Italian team will soon come back to the volunteers for their involvement in the Handbook. The Portuguese and the Italian teams will now have a better base for developing the planning of their projects.

Appendix 7 – Literature review

Extract of the MATRIX Study (EU level Collaboration on Forecasting Health Workforce Needs, Workforce Planning and Health Workforce Trends – A Feasibility Study – 29 May 2012) :

"On 7 December 2010, the Council issued a statement inviting the European Commission to include an EU Joint Action in the 2011 work plan of its Second Programme of Community Action in the Field of Health 2008-2013. This EU Joint Action would provide "a platform for cooperation between Member States on forecasting health workforce needs and health workforce planning in close cooperation with Eurostat, OECD and WHO"10. "

"7.2.1 Experts Group on Planning Methods and Tools

The mapping of health workforce planning methodologies (Section 6.2.2) suggests that the extent and success of health workforce planning, in terms of models and tools to balance demand and supply of human resources for health, vary considerably across countries. This appears to be due to two main problem drivers:

- the lack of financial and technical resources in some countries; and
- the limited access to methods and tools.

Objectives

International cooperation could be envisaged in order to tackle in particular the second of these problem drivers. International institutions and some national authorities have recognised this[143] and have invested resources to identify and exchange good practices on the analysis of demand and supply of health workforce. At the international level, WHO has identified, collected and made available on its website methods and tools to estimate the supply of and demand for human resources for health. However, interviews with national level stakeholders suggested that the accessibility and use of these methods and tools is still limited and that only few experts are aware of the WHO toolbox.

In order to complement these efforts and improve the accessibility of methods and tools for health workforce planning, an experts group on planning methods and tools could be created as part of the EU Joint Action. The main tasks of the experts group would be:

1. to increase accessibility to existing models and tools;
2. to facilitate the introduction and implementation of methods and tools at the national level;

[143] Interviews with stakeholders in Finland, Spain, Lithuania, Hungary, Slovenia, the UK

and

3. to ensure the sustainability of the exchange of good practices.

Content

Firstly, the experts group could review and assess all existing workforce planning methods and tools that can inform policy making. In this sense, it would also play a quality assurance role, to identify and shortlist only the good practices. Secondly, the expert group could develop guidelines or learning packages to outline the possible implementation of the tools at the national level. Finally, the experts could work more closely with national health workforce planning authorities and policy makers to help them introduce and use the short-listed models. This fix term projects with experts would however have to be financed through national budgets, as needed. In addition, in order to ensure the sustainability of its results, this project must be endorsed by national government that eventually will finance the implementation and use of the tools.

The group should be composed of academic experts, economists or statisticians that have been involved in the development of existing good practice models. It could be assigned a fixed term project to review the models and develop the guidelines. In addition, the experts should seek the support and collaborate with experts at WHO, who have already identified and reviewed existing models.

Benefits

It is possible to identify three main reasons why this type of collaboration could be beneficial:

- Quality assurance: the experts group would be in charge of reviewing existing practices, according to specific criteria. This would allow them to identify models and tools that can be widely considered good practices. In addition, they would be able to identify some of the shortcomings of other existing models. This evaluation might also be useful for national health workforce planning authorities that have developed the model or that are using it.
- Accessibility: the experts group would identify good practice models and work on their dissemination across countries. Guidelines and learning sets developed by the experts group would allow national health workforce planners to develop an improved understanding of the models and their functioning. This would help addressing the issue of limited access to models and tools.
- Capacity building: academic experts, economists or statisticians that are part of the group could then work on fixed term projects to support national authorities in the implementation of the tools. In this function, they would support capacity building in specific countries and help countries develop technical capacities to use health workforce planning models.

Limits and Risks

The main challenge to the implementation of this scenario for collaboration is related to its appointment and financing. Like in the case of the expert group on indicators (see Section 8.1.2), there are two possible alternative means of financing:

a) The EU Joint Action consortium could be responsible for the appointment and financing of the experts group. In order for national authorities to agree to finance this type of collaboration, sufficient stakeholders buy-in needs to be generated in the early stages of the EU Joint Action. In particular, national authorities need to understand that unless planning tools are available, national health workforce planners will not be able to foresee future shortages in human resources for health and address these challenges accordingly. This would ultimately undermine the sustainability of national healthcare systems. As discussed in limited number of countries can currently rely on methods and tools to develop projections on the demand and supply of human resources for health. However, as discussed in Section 6.3, it appears that many European countries could easily introduce more sophisticated planning methods and tools. Moreover, the exchange of good practices promoted through this scenario for collaboration could actually help avoid any additional cost related to the development of new planning methods and tools.

b) The European Commission could be responsible for the appointment and financing the experts group. Like in the case of the expert group on indicators, synergies with existing networks could be explored. A technical group on health workforce planning models and tools could be envisaged as part of EGHI.

In addition, it is important to consider the fact that some of the methods and tools used for health workforce planning are commercially provided by profit making companies and consultancies. For this reason, shortlisting certain tools might have commercial implications that would need to be considered.

Finally, in order to ensure the success of this scenario for collaboration, the work of the experts group should be complemented by other instruments, in order to ensure full and sustainable accessibility to the tools. Platforms through which the experts group could disseminate the results of their research and do capacity building should also be envisioned."

The next scenarios for collaboration could help overcome the limits of the experts group.

	Scenario 4: Experts Group on Planning Methods and Tools
WHAT?	A group of European experts that: • Identifies a set of methods and tools for health workforce analysis • Builds capacity at the national level on the use of methods and tools
WHY?	• Quality assure good practice models • Increase accessibility to existing models and tools; • Build capacity • Ensure the sustainability of the exchange of good practices
WHERE?	European level

WHO?	Group of academic experts, economists or statisticians with experience in developing and using health workforce planning models
HOW?	Joint Action Consortium/European Commission to identify and appoint group of experts, which reviews models and develops guidelines or learning packages

Document Change Log

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		Network & Standard introduction		
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