# JA Health Workforce Planning and Forecasting

# D.051 – Release 1 MINIMUM PLANNING DATA REQUIREMENTS

# WP5 Deliverable D.051



# Italy Ministry of Health & Agenas

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#### **MINIMUM DATA SET**

#### 1. Management summary

The healthcare sector constitutes one of the most significant sectors in the EU economy with an important employment potential due to an ageing population and increasing demand for healthcare.

Despite this, the sector faces major challenges:

- an aging workforce and too few new recruits to replace retirees
- significant employee turnover in some fields due to demanding working conditions and relatively low pay
- the need for new skills to deal with innovative technologies and with the rise in chronic conditions such as diabetes and heart disease among the elderly.

One of the actions pointed out in the action plan for EU health workforce (1) is improving health workforce planning and forecasting also because the degree to which European countries currently face health workforce planning varies considerably (feasibility study). The planning process needs a good set of data in order to produce reliable results. Improving health workforce planning and forecasting goes through the identification of a set of key indicators and a process of measuring through the collection of the related data.

At the moment there is no agreement at the international level on minimum data requirements for health workforce planning (feasibility study).

A **joint action on workforce planning,** funded under the 2012 Health Programme is intended to create a European platform to share good practice and to develop methodologies on forecasting health workforce and skills needs (ref). One of the objectives of the joint action on workforce planning is to identify a Minimum Data Set for Health Workforce Planning. The Joint Action is focused on the five "regulated" type of professionals: P, N, MW, PH DEN (Directive x).

A Minimum Data Set for Health Workforce Planning consists of a core set of standard indicators which are used, generally, at a national level, for the collection and reporting on key aspects of health system delivery, including current workforce/staffing resources and future Health workforce needs. This can enable the comprehensive analysis of supply, requirements and adequacy in professional-based workforce planning (WHO – 2008).

This document contains the results of a shared process involving thirty-seven EU partners of the Joint Action (European member states as well as stake-holder organizations) (see appendix x).





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The key planning indicators and the related minimum set of data presented in this document are the necessary tool kit to reach the scope of a basic planning model which is to recognize the major problems of HWF, to analyze these problems and to identify possible solutions.

To draw future scenarios and implement the found solutions (and gather the data to deliver those scenarios to the decision makers who decides on the implementation) will be the scope of an advanced model and, thus, a possible prosecution of the Joint Action.

### 2. Introduction of the concept of minimum data set (MDS)

In the various European Countries health systems are very different. Even the use of human resources, both on the whole and for single groups of professionals, has a large variability. When comparing the States of Western Europe it is surprising to see the stability over time of the differences between the individual states that depends on traditions and organization of the health system itself. The new Member States (MS) that have entered into the European Union during the last fifteen years also have different traditions and organizations.

The planning of human resources in health must take into account these differences and respect the autonomy of each MS. On the other hand, the free movement of workers within the EU requires to consider, dealing with HWF planning, the EU market as a unique system with common elements in each MS.

The system of planning and forecasting is motivated by the possibility to improve the decision making. It is thus necessary to identify a set of key indicators that are instrumental to health workforce planning by defining a conceptual model (Meta model).

#### 2.1 The conceptual model

The Meta model contains all relevant elements of a planning system and of a planning model that can be used to map the different situations in each country. The model distinguishes between the Planning process that produces a policy proposal and the Forecasting model as part of the planning process that will produce the data necessary for formulating the policy proposal.

The elements of the planning process are:

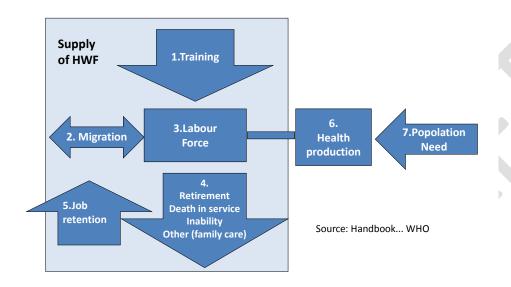
- the objectives of the planning system (set of outcome indicators)
- the measure of benefits of planning (outcome indicators)
- any national and regional legislation;
- actors and organization of the planning;
- the organizational resources for planning;
- the model of forecasting / simulation;
- a set reference values (targets for the planning process);
- the decision on key forecasting elements (time horizon, frequency);
- the actions for reaching the reference values;





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The forecasting model contains seven categories belonging to two areas (supply of HWF and demand of HWF):



As you can see, the conceptual model contains explicit reference to coverage, objectives of the planning and the decisions to be taken, path of activation, type of planning model (supply/demand based), technical results (output), decision making process in which the output is used, specific indicators used to monitoring the process and planning results (outcome indicators). This meta model is important as it stresses the need to focus on the Decisions that will be taken (by policy makers) as a result of the programming. It also put the data collection and the forecasting methods in a setting composed of Planners, Stake Holders and Experts.

Based on this conceptual model it is possible to identify a "HWF minimum purpose of planning" and to define a related forecasting "basic model".

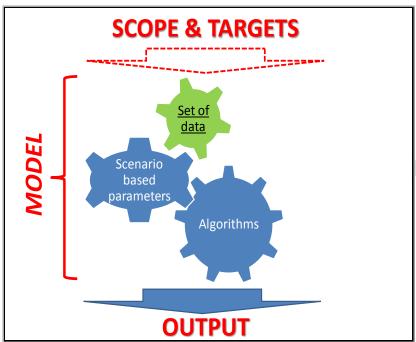
#### 2.2 A forecasting basic model

The forecasting model necessary to offer decisions makers a shared opinion of a probable situation in the future can be described by the following figure.



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#### Forecasting model



The figure evidences the need of precise targets for the forecasting model. The model is composed by a set of data as input, a certain number of scenario based parameters and algorithms. The output is expressed (measured) by the indicators defined by the planning process. The necessary set of data (in green in the figure) depends on the targets and on the indicators.

The Work Package 5, as part of the Joint Action on workforce planning, has defined the set of data that is "necessary and sufficient" for a basic forecasting model, thought of as a starting point for the countries that are to develop a planning process of Health Work Force.

Thus the forecasting model, based on the *necessary and sufficient*, i.e. *minimum*, set of data, will be simple and repeatable, as OECD pointed out:

"Health workforce planning is not 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."

As showed in the previous figure, at the beginning of the planning process there are the scope and the targets of planning. So, to identify the key planning indicators of a basic forecasting model we need first of all, to define the scope and, subsequently, setting the targets (HWF minimum purposes).





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The Work Package 5 partners and experts, introducing a priority scheme with the objectives and targets that are necessary to include in a basic model, decided that **the scope** of this basic forecasting model is to recognize the major problems of HWF, to analyze these problems and to identify possible solutions. This scope was split into two stages:

- 1. the first, named 1.a., is to assess the current situation
- 2. and the second, named 1.b., is to identify the solutions.

Theoretically, the scope of a HWF planning process is also to draw future scenarios and implement the found solutions (and gather the data to deliver those scenarios to the decision makers who decides on the implementation). But that was considered the scope of an advanced model and, thus, not included in the Minimum Data Set.

As for the scopes, and connected to them, the targets of the forecasting model were listed. For stage 1a the identified target is:

o to identify high level shortage vs. overall evaluation demand of healthcare.

For stage 1b the identified targets are:

- o to identify major costs aspects of HWF
- to make a first evaluation on impact of shortages on quality;
- to monitor overall coverage;
- to identify detailed shortage;
- to identify if in land production meets the needs;
- o to monitor geographical variances of coverage.

On the base of the information that could be included in a forecasting model, a set of key planning indicators has been defined in order to monitor each of the above mentioned targets (both stage 1a and stage 1b). Consequently, a list of data, that were *necessary and sufficient* (minimum), was selected in order to create those indicators.

### 3. MDS definitions and requirements

#### 3.1 Some basic principles

The Minimum Data Set presents in this document are founded on some basic planning requirements.

- Universal coverage.
- 2. Affordability.
- 3. Effectiveness.
- 4. Shortages are no options as it is a threat to the coverage and quality.
- 5. Education and not immigration to meet Healthcare needs.





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#### 3.2 What is a minimum data set?

An Health Workforce Planning System consists of a core set of key indicators which are used, generally, at a national level, for the collection and reporting on key aspects of health system delivery, including current workforce/staffing resources and future Health workforce needs. This can enable the comprehensive analysis of supply, requirements and adequacy in professional-based workforce planning (WHO – 2008). The data are for planning as well as to promote coordination and collaboration between stakeholders at the national and European level.

A minimum data set is a minimum number of data items that has to be present as an input to a decision making process in order to be able to reach a certain goal. The decision making process in this case is the planning for the future need of health work force.

The process of collecting data is very costly in terms of time, of use of scarce resources, of quality control, of the necessary reiteration process etc. Thus it is necessary to contemplate the need of each data item before starting the process, balancing the cost of the information and the value of the decision to be made on the bases of that information.

The Health Workforce MDS for planning is focused on physicians, pharmacists, dentists, nurses and midwives.

Main elements of the key planning indicators:

- target (i.e. why we plan),
- title of the indicator,
- numerator and denominator,
- formulas that consist of algorithms, scenario based parameters and set of data.
- rationale for why.

The set of data used in the formulas for the key planning indicators, necessary for the Minimum Purpose of Planning, is the Minimum Data Set (MDS).

#### Main elements of MDS are:

- area (supply or demand),
- category (for example stock, immigration, etc)
- characterization (for example type of profession, specialty, age, etc).

# 3.3 Consensus and Limitations

The key planning indicators and the minimum data set presented in the next sessions (4 & 5) reflects the priorities agreed on by the Work Package 5 Partners within the EUHWF Joint Action framework and the feedback from the MDS workshop held in Milan, the  $19^{th}$  and  $20^{th}$  of September (see Minutes in Appendix  $n^{\circ} X$ ).

In particular, the Minimum Data Set represents the minimum indicators that WP5 partners agree are required to be collected in order to meet workforce planning objectives.





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The Minimum Data Sret is not intended to provide (or replace) a country-level workforce planning system. Suggestions for supplementary information are also given so that the MDS can be adapted or developed, if required, to support in-country workforce planning.

### 4. Key planning indicators

{the draft 2 of this document will present at this point a short description of the below listed indicators. The draft 2 will also contain, for each of the key planning indicators, a description that will explain why the indicator is important / rationale}

Below the key planning indicators are overall presented. To have the details of formula see Appendix 7.1.

#### Key planning indicators to monitor the HWF targets of stage 1a

| Target                        | Indicator                           | Stratify by        |
|-------------------------------|-------------------------------------|--------------------|
| -Identify high level shortage | 1. Coverage of future demand (high  | Type of profession |
| vs. overall evaluation        | level)                              |                    |
| demand of Healthcare          | Numerator: Future supply "inland" + |                    |
|                               | Future supply from abroad           |                    |
|                               | Denominator: Future demand          |                    |

#### Key planning indicators to monitor the HWF targets of stage 1b

| Target                       | Indicator                           | Stratify by                      |
|------------------------------|-------------------------------------|----------------------------------|
| -Identify major cost aspects | 2. Relative future cost             | Depends on the                   |
| of HWF;                      | Numerator: Future health cost       | responsibility for the health    |
| -First evaluation on impact  | Denominator: Current health cost    | costs. If it is the country, the |
| of shortages on quality      |                                     | indicator will not be            |
|                              |                                     | articulated further.             |
| -Monitor overall coverage    | 3. Coverage of future demand,       | Type of profession.              |
| -Identify detailed shortage  | detailed                            | Single specialty within the      |
| -Identify if in land         | Numerator: Future supply inland +   | type of profession.              |
| production meets the needs   | Future potential supply from abroad |                                  |
| -First evaluation on impact  | Denominator: Future demand          |                                  |
| of shortages on quality      | 4. Coverage of needs by foreign     |                                  |
|                              | professionals                       |                                  |
|                              | Numerator: N° of professionals with |                                  |
|                              | foreign first qualification.        |                                  |
|                              | Denominator: Total n° of            |                                  |
|                              | professionals.                      |                                  |





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| Target                | Indicator                             | Stratify by                  |
|-----------------------|---------------------------------------|------------------------------|
| -Monitor geographical | 5. N° of professionals per inhabitant | region within the country    |
| variances of coverage | Numerator: N° of professionals        | articulated by macro-area in |
|                       | Denominator: population               | order to separate the        |
|                       | 6. N° of professionals per weighed    | greater municipal areas (for |
|                       | inhabitant                            | example Province in Italy,   |
|                       | Numerator: N° of professionals        | Department in France ecc).   |
|                       | Denominator: population weighed by    |                              |
|                       | the cost per age group (basic index:  |                              |
|                       | average of EU countries)              |                              |

### 5. Minimum data set

{the draft 2 of this document will present at this point a short description of the below listed data}

Here are listed the data necessary and sufficient (minimum) to create the indicators in figure 2 and 3.

### Information needed for measuring the indicators - Minimum Data Set 1a

| Areas                        |       |               | Su      | pply       | )           | Demand     |
|------------------------------|-------|---------------|---------|------------|-------------|------------|
| Category<br>Characterization | Stock | From training | Retired | Emigration | Immigration | Population |
| type                         | х     | х             | х       | х          | x           |            |
| age                          | х     | х             | х       | х          | х           | X          |
| Head count                   | х     | х             | х       | х          | х           | Х          |

### Information needed for measuring the indicators - Minimum Data Set 1b

| Areas                          |       |               | Su      | pply       |             | Demand     |
|--------------------------------|-------|---------------|---------|------------|-------------|------------|
| Category Characterization      | Stock | From training | Retired | Emigration | Immigration | Population |
| Туре                           | х     | х             | х       | х          | х           |            |
| Age                            | Х     | х             | х       | х          | х           | Х          |
| Head count                     | х     | х             | х       | х          | х           | Х          |
| FTE                            | х     |               |         |            |             |            |
| Geographical area              | х     | х             | х       | х          | х           | х          |
| Specialization (where applied) | Х     | х             | х       | х          | х           |            |
| Country of first qualification | х     | Х             | Х       | х          | х           |            |





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{the draft 2 of this document will contain a discussion based on the WP5 partners feedbacks, on the MDS / is it necessary and sufficient? Are there any differences between the following three groups: Physicians and dentists, Nurses and Midwives, Pharmacists?





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#### 6. Appendices

#### 6.1 Appendix n.1 - Definition of each indicator

### **6.1.1** Coverage of future demand, high level

Numerator: Future supply inland + Future supply abroad

Denominator: Future demand **Articulated by:** Type of profession

**Numerator: Future supply** 

Future supply inland= current stock + from education - retired

Future supply abroad = + immigration - emigration

**Current stock**: Current number of professionals (headcount) that are currently producing health care stratified by type (5 types) and age.

**From education**: Forecast of number of professionals (headcount) that will be produced by the education system during the period. The first years will be using the students in training and subsequently will be used the actual training capacity.

**Retired:** Forecast of number of professionals (headcount) that will retire each year using the actual probability according to the existing laws.

**Immigration:** Forecast of number of professionals (headcount) that may arrive calculated using the average of the last years.

**Emigration:** Forecast of number of professionals (headcount) that may leave calculated using the average of the last years.

### **Denominator: Future demand**

Future demand =  $HWF_{px}=k_p * HCT_x where$ 

 $HCT_x = ( HC1_0*Pop1_x + HC2_0*Pop2_x + HC3_0*Pop3_x)$ 

HWF<sub>px</sub>: The demand of a specific profession "p" (headcounts) in the year x.

 $k_p$ : The constant that connect the total health production with the demand for a specific profession.

 $HCT_x$ : The total health consumption in year x.(1)

HC1<sub>0</sub>: The pro capita consumption of age group 1 in year 0 (basic year)

HC2<sub>0</sub>: The pro capita consumption of age group 2 in year 0 (basic year)

HC3<sub>0</sub>: The pro capita consumption of age group 3 in year 0 (basic year)

Pop1<sub>x</sub>: The population of age group 1 in year x.

 $Pop2_x$ : The population of age group 2 in year x.

 $Pop3_x$ : The population of age group 3 in year x.

(1) **Note:** it is important to check the sustainability of the total health consumption in year x compared with the current consumption.





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#### 6.1.2 Relative future cost

Numerator: Future health cost
Denominator: Current health cost

Articulated by: Depends on the responsibility for the health costs. If it is the country, the indicator

will not be articulated further, otherwise it has to be further detailed.

**Numerator: Future health cost** 

 $HCT_x$ : The total health consumption in year x.

 $HCT_x = (HC1_0*Pop1_x + HC2_0*Pop2_x + HC3_0*Pop3_x)$ 

HCT<sub>x</sub>: The total health consumption in year x.

HC1<sub>0</sub>: The pro capita consumption of age group 1 in year 0 (basic year)

HC2<sub>0</sub>: The pro capita consumption of age group 2 in year 0 (basic year)

HC3<sub>0</sub>: The pro capita consumption of age group 3 in year 0 (basic year)

Pop1<sub>x</sub>: The population of age group 1 in year x.

 $Pop2_x$ : The population of age group 2 in year x.

 $Pop3_x$ : The population of age group 3 in year x.

**Denominator: Current health cost:** 

HCT<sub>0</sub>: The total current health consumption.

 $HCT_0 = (HC1_0 * Pop1_0 + HC2_0 * Pop2_0 + HC3_0 * Pop3_0)$ 

HC1<sub>0</sub>: The current pro capita consumption of age group 1

HC2<sub>0</sub>: The current pro capita consumption of age group 2

HC3<sub>0</sub>: The current pro capita consumption of age group 3

Pop1<sub>x</sub>: The current population of age group 1.

Pop2<sub>x</sub>: The current population of age group 2.

Pop3<sub>x</sub>: The current population of age group 3.





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### 6.1.3 Coverage of future demand, detailed

Numerator: Future supply inland + Future potential supply from abroad

Denominator: Future demand

Articulated by: Type of profession, specialty within the profession, geographical area

**Numerator: Future supply** 

Future supply inland= current stock + from education - retired

Future potential supply from abroad = + immigration - emigration

Current stock: Current number of professionals (headcount) that are currently producing health care

stratified by type (5 types) and age.

**From education**: Forecast of number of professionals (headcount) that will be produced by the education system during the period. The first years will be using the scholars in training and subsequently will be used the actual training capacity.

**Retired:** Forecast of number of professionals (headcount) that will retire each year using the actual probability according to the existing laws of the country.

**Immigration:** Forecast of number of professionals (headcount) that may arrive calculated using the average of the last years.

**Emigration:** Forecast of number of professionals (headcount) that may leave calculated using the average of the last years.

#### **Denominator: Future demand**

Future demand =  $HWF_{px}=k_p*HCT_x$  where

 $HCT_x = (HC1_0*Pop1_x + HC2_0*Pop2_x + HC3_0*Pop3_x)$ 

HWF<sub>px</sub>: The demand of a specific profession "p" (headcounts) in the year x.

 $k_p$ : The constant that connect the total health production with the demand for a specific profession.

 $HCT_x$ : The total health consumption in year x.(1)

HC1<sub>0</sub>: The pro capita consumption of age group 1 in year 0 (basic year)

HC2<sub>0</sub>: The pro capita consumption of age group 2 in year 0 (basic year)

HC3<sub>0</sub>: The pro capita consumption of age group 3 in year 0 (basic year)

 $Pop1_x$ : The population of age group 1 in year x.

Pop2<sub>x</sub>: The population of age group 2 in year x.

 $Pop3_x$ : The population of age group 3 in year x.

(1) **Note:** it is important to check the sustainability of the total health consumption in year x compared with the current consumption.





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#### 6.1.4 Coverage of needs by foreign professionals today and in the future

**Numerator:** N° of professionals with foreign first qualification.

**Denominator**: Total n° of professionals.

Articulated by: Type of profession, specialty within the profession, geographical area

Numerator: N° of professionals with foreign first qualification.

Current stock of professionals with foreign qualification: The part of the current stock with with

country of first qualification <> current country of activity.

Future stock of professionals with foreign qualification: The part of the future stock with country of

first qualification <> current country of activity..

**Denominator**: Total n° of professionals.

**Total current stock**: Current number from indicator 3.

Total future stock: Numerator of indicator 3

#### 6.1.5 N° of professionals per inhabitant

Numerator: N° of professionals Denominator: population

Articulated by: Type of profession, specialty within the profession, geographical area

Numerator: Actual number of professionals

Actual number of professionals: From indicator 3

Future number of professionals: From indicator 3

**Denominator:** population

Actual population: Number of population (without weighting)

Future population: Number of population (without weighting) from a reliable institute of forecasting.

#### 6.1.6 N° of professionals per weighted inhabitant

Numerator: N° of professionals

Denominator: weighted population

Articulated by: Type of profession, specialty within the profession, geographical area

Numerator: Actual number of professionals

Current number of professionals: From indicator 3

Future number of professionals: From indicator 3

**Denominator:** population

 $\hbox{\it Current population: Number of inhabitants weighted by the health consumption for each age group}$ 

(average current EU countries).

Future population: Number of population from a reliable institute of forecasting weighted by the

health consumption for each age group (average actual EU countries).





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6.2 Appendix n.2 - Minority opinions [TO BE DEFINED]

appendix with the minority opinions and why they were not taken into account.





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# 6.3 Appendix n.3 – Glossary

| ITEM                             | DEFINITION  |
|----------------------------------|---|
| Population size                  | Number of inhabitants in the Country or Region considered   |
|                                  | at the reference date (Source: National Institute of Statistics)  |
| Gender                           | Male/Female   |
| Age                              | Population by age groups (ie: 0-4; 5-9; 10-14;60-64;65+)  |
| Full time equivalent (FTE)       | Unit to measure employed persons in a way that makes them comparable although they may work a different number of hours per week.   |
|                                  | 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. A full-time person 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 20 hours a week where full-time work consists of 40 hours, is counted as 0.5 FTE |
| Group of professionals           | Physicians, nurses, midwives, pharmacists, dentists   |
| Stock of professionals           | Current number of professionals practicing (providing services directly to patients) in the Country/Region  |
| Primary care                     | Family doctor-type services delivered to individual patients  |
| Specialized care                 | Specialist medical or nursing services not included in primary care   |
| New professionals from education | Annual number of professionals who complete education (basic or specialist) and licensed to practice  |
| Immigration                      | Annual number of licensed and recognized professionals entering in the Country  |
| Number of professionals retired  | Annual number of professionals retiring from labour market  |
| Emigration                       | Annual number of practicing professionals exiting from the Country  |
| Short term                       | 1- 3 years  |
| Medium term                      | 4- 9 years  |
| Shortage                         | Negative gap between supply and demand  |





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# 6.4 Appendix n. 4 - Table of references

| N# | Title   | Author   | Year      |
|----|---|--|-----------|
| 01 | Commission feasibility study on EU level collaboration on forecasting health workforce needs, workforce planning and health workforce trend  http://ec.europa.eu/health/workforce/key_doc   | Matrix Insight Ltd, in collaboration with the Centre for Workforce Intelligence (CfWI) - for EC                  | 2012      |
| 02 | Health Workforce Planning in OECD Countries:<br>A Review of 26 Projection Models from 18<br>Countries   | Tomoko Ono, Gaetan Lafortune,<br>Michael Schoenstein.<br>OECD Health Working Papers,<br>No. 62, OECD Publishing. | June 2013 |
|    | http://www.oecd-ilibrary.org/social-issues-migratoecd-countries_5k44t787zcwb-en   | cion-nealtn/nealtn-workforce-planr   | ning-in-  |
| 03 | WHO human resources for health minimum data set.  | WHO Library Cataloguing (in Publication Data)  | 2008      |
|    | http://www.who.int/hrh/documents/hrh_minimu   | ım data set.pdf  |           |
| 04 | Draft guidelines on monitoring the implementation of the WHO Global Code on the International Recruitment of Health Personnel.  Part II – Regular national reporting instrument – Section 2: Quantitative information – Minimum Data Sets | OECD-WHO   |           |
|    | http://www.who.int/hrh/migration/section_2_qu   | iantitative.pdf  |           |
| 05 |   |  |           |
| 06 |   |  |           |
| 07 |   |  |           |





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### 6.5 Appendix n. 5 – WP5 general description

#### 6.5.1 WP5 scope

Work Package 5 (WP5) scope is to promote and support the use of quantitative model-based planning methodologies (both supply-side and demand-side) based on what is in use today or shortcomings in EU countries and a "good practices" evaluation.

Health professions in focus are doctors, nurses, pharmacists, dentists and midwifes (the five health professions covered by the Recognition of Professional Qualifications Directive).

#### 6.5.2 WP5 actions

The WP5 specific Objective is to "define guidelines on quantitative HWF planning methodology and increased quantitative planning capacity".

|     | •                    | 3 1 ,  |               |
|-----|----------------------|--|---------------|
| N#  | Title                |  | WHEN          |
| 3.1 | Minimum data set (N  |  |               |
|     | MILESTONES 5.1       | Agreement on the minimum data set                                | October 2013  |
|     | DELIVERABLE D.051    | Minimum planning data requirements                               | November 2013 |
| 3.2 | Exchange of good pr  | actices  |               |
|     | MILESTONES 5.2       | Experts group conference on HWF planning methodologies           | January 2014  |
|     | DELIVERABLE D.052    | /ERABLE D.052 Report of good practices in planning methodologies |               |
|     | DELIVERABLE D.053    | Web portal on HWF planning methodologies, with WP2               | January 2015  |
| 3.3 | Defining and experin | nenting guide lines on HWF planning (cookbook)                   |               |
|     | MILESTONES 5.3       | Validation of the cookbook                                       | March 2015    |
|     | MILESTONES 5.4       | Startup of the Pilot studies                                     | June 2015     |
|     | MILESTONES 5.5       | NES 5.5 Finalization of the cookbook                             |               |
|     | DELIVERABLE D.054    | Report on WP5 pilot study experiences                            | March 2016    |

#### 6.5.3 WP5 team members

WP5 is managed by Italy. The WP5 Team Leader is Giovanni Leonardi, General Director Health Professions and Human Resources at Ministry of Health.

There are two italian organizations covering the competencies of WP5: the Ministery of Health (MoH) and the National Agency for Regional Healthcare (AGENAS), their roles, within the project, were divided accordingly. Their primarily responsibilities are:

|             | МоН                                |
|-------------|------------------------------------|
| - Results   | of WP5                             |
| - Raprese   | ent the Italian knowledge broker   |
| - Relation  | nships with international contacts |
| - Dissemi   | nation to Italian stakeholders     |
| - Pilot stu | ıdy project                        |

| AGENAS                                  |
|---|
| - Project management                    |
| - Methodology of research               |
| - Budget and reporting management       |
| - Logistics and organization of meeting |
| - Operational secretariat               |





# WP5 Italy Ministry of Health / Agenas

Italy is supported by WP5 Partners, diveded in Associated and Collaborative, which together make up the team. They are:

| Associated partners |            |                         |
|---------------------|------------|-------------------------|
| Country             | Acronym    | Name                    |
| Belgium             | BE_FPS     | Pieter-Jan Miermans     |
| Bulgaria            | BG_NCPHA   | Nastashka Danova        |
| Bulgaria            | BG_NCPHA   | Milena Vladimirova      |
| Bulgaria            | BG_NCPHA   | Plamen Dimitrov         |
| Bulgaria            | BG_MUV     | Nikolina Radeva         |
| Finland             | FI_MOH     | Reijo Ailasmaa          |
| Germany             | DE_UNI-HB  | Melanie Boeckmann       |
| Germany             | DE_UNI-HB  | Heinz Rothgang          |
| Greece              | EL_NSPHJ   | Despena Andrioti        |
| Hungary             | HU_SU      | Eszter Kovacs           |
| Hungary             | HU_SU      | Edit Eke                |
| Hungary             | HU_SU      | Edmond Girasek          |
| Iceland             | IS_MOH     | Valgerdur Gunnarsdottir |
| Netherlands         | NL_CAPORG  | Victor Slenter          |
| Netherlands         | NL_MOH     | Leon Van Berkel         |
| Poland              | PL_MOH     | Aleksandra Kotowicz     |
| Poland              | PL_MOH     | Bartosz Baran           |
| Portugal            | PT_ACSS    | Ivo Rui Santos          |
| Portugal            | PT_ACSS    | Filomena Parra da Silva |
| Portugal            | PT_ACSS    | Ana Paula Gouveia       |
| Portugal            | PT_ACSS    | Gustavo Ferreira        |
| Slovenia            | SI_IVZ     | Rade Pribakovic         |
| Spain               | ES_MOH     | Pilar Carbajo           |
| Spain               | ES_MOH     | Mercedes De Jorge       |
| Spain               | ES_MOH     | Sebas Martin            |
| Europe              | STAK_AMREF | Giulia De Ponte         |
| Europe              | STAK_EFN   | Silvia Gomez            |
| Europe              | STAK_EFN   | Cecilia Sironi          |
| Europe              | STAK_EFN   | Paul de Raeve           |
| Europe              | STAK_HOPE  | Isabella Notarangelo    |
| Europe              | STAK_PGEU  | Patricia Munoz          |
| Europe              | STAK_PGEU  | John Chave              |

| Collaborating partners |            |                           |  |
|------------------------|------------|---------------------------|--|
| Country                | Acronym    | Name                      |  |
| Belgium                | BE_FP      | Peter Willemé             |  |
| Denmark                | DK_DHMA    | Anders Haahr              |  |
| Germany                | DE_KBV     | Filip J. Lassahn          |  |
| Ireland                | IE_DoH     | Gabrielle Jacob           |  |
| Italy                  | IT_AIC     | John Williams             |  |
| Moldova                | MD_MoH     | Eugenia Berzan            |  |
| Moldova                | MD_MoH     | Nicolae Jelamschi         |  |
| Serbia                 | RS_MoH     | Milena Vasic              |  |
| Serbia                 | RS_UNI-BG  | Milena Santric Milicevic  |  |
| Europe                 | STAK_ENMCA | Tanja Schubert            |  |
| Europe                 | STAK_ENMCA | Marie Colegrave-Juge      |  |
| Europe                 | STAK_ENMCA | Generic Mail              |  |
| Europe                 | STAK_UEMO  | Marie-Christine Bonnamour |  |
| Europe                 | STAK_IOM   | Benedict Roumyana         |  |
| Europe                 | STAK_IOM   | Giuliana Urso             |  |
| Europe                 | STAK_OECD  | Michael Schoenstein       |  |
| Europe                 | STAK_OECD  | Tomoko Ono                |  |
| Europe                 | STAK_WHO   | Galina Perfilieva         |  |