



SUPPORT FOR THE HEALTH
WORKFORCE PLANNING AND
FORECASTING EXPERT NETWORK

ASK YOUR QUESTIONS FOR THESE SPEAKERS DURING THE
PRESENTATION:

www.PollEv.com/dataworkshop

Data utilization for planning purposes Results of the Joint Action on European Health Workforce Planning and Forecasting

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OVERVIEW OF DATA ACTIVITIES



THEORY



OVERVIEW OF PRACTICES



PILOTING

WHICH DATA
ARE NEEDED ?

WP5 MINIMAL
DATA
REQUIREMENTS

WHAT DO THE
DATA MEAN ?

WP4
TERMINOLOGY

WHICH
MATURITY ?

WP4 TOOLKIT

QUANTITATIVE
DATA ON
MOBILITY

WP4 MOBILITY

WHERE DO
WE STAND ?

WP4 REPORT
ON 12
COUNTRIES

PILOT

WP5 TRY OUT
ON PORTUGAL

WHERE DO
WE STAND ?

WP5
HANDBOOK ON
7 COUNTRIES

PILOT

WP5 TRY OUT
ON ITALY

PRACTICES
IN USE ON
QUALITA-
TIVE DATA

GUIDELINES
ON
QUALITATIVE

PILOT

WP6 TRY OUT ON
BELGIAN FAMILY
DOCTORS



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Steps of development of the data set

2014

Basic Principles share by JA partners

→ 3 main recommended subsequent stages

1. To recognise the major imbalances (supply vs demand);
2. To analyse these imbalances;
3. To identify possible solutions.



Key planning indicators and related Minimum Data Set (MDS)

2015

Availability of MDS in 12 EU Member States

Data areas	SUPPLY					DEMAND	
	Labour force	Training	Retirement	Migration inflow	Migration outflow	Population	Health consumption
Availability - mean	10.1	7.0	7.0	6.0	2.7	10.3	7.7

2016

Minimum Planning Data requirements - updated version.



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Minimum Data Requirements

What are the
standard minimum
(attainable) goals?

Level 1: Knowing
about the
current stock
(inventory of the
stock)

*The inventory of the
stock is attainable,
even if there's lack of
data*

Level 2:
Assessing the
current situation
(inventory of the
imbalances)

*The international
benchmarking is not a
reliable solution.*

Level 3: Making
future forecasts.

*Parameters and
assumptions can
replace lack of data
collected.*

*It's necessary to
compare different
scenario's outputs.*



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Minimum Data Requirements

What are the data (collected or estimated) necessary and useful?

Level 1: Knowing about the current stock (inventory of the stock)

Supply

Labour Force →

Basic approach (headcount)

Profession / Active-not active

Advanced approach (FTE)

Specialisation / Status of activity



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Minimum Data Requirements

What are the data (collected or estimated) necessary and useful?

Level 2: Assessing the current situation (inventory of the imbalances)

Supply

Labour Force →

Demand

Population →

Basic approach (headcount)

Working geographical area

Age and gender

Advanced approach (FTE)

Specialisation / Status of activity

Health consumption



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Minimum Data Requirements

What are the data (collected or estimated) necessary and useful?

Level 3: Making future forecasts

Supply

Labour Force →

Training Force →

Basic approach (headcount)

Age

Entries / Success rate

Advanced approach (FTE)

Gender / Country of first qualification

Year of enrolment / year of graduation



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Quality data

*The use of **qualitative data** improves the future-oriented HWF planning and forecasting methods*

WHAT TO COLLECT (main future drivers)

1. **Populations**: Population structure / Types and distribution of health conditions / Health inequalities / Health literacy / Patient empowerment [...]
2. **Health care services**: expenditures / IT and health services / Genomics and precision medicine / Location of care by setting [...]
3. **Health workforce**: Ageing health workforce / Multi-professional education / Health IT / Skill mix / Mobility [...]

HOW TO COLLECT

- Identifying experts and stakeholders
- Literature reviews
- Semi-structured interviews including horizon scanning
- Surveys
- Scenarios
- Delphi



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Good practices on HWF planning data in EU

Level 1: Knowing
about the current
stock (inventory of
the stock)

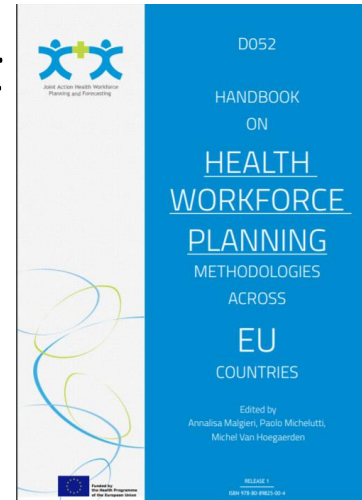
- **Data collection** and **FTE calculation** in the Belgian planning system
- **FTE estimation** in the Dutch planning system
- **Data collection process** in the English planning system

Level 2: Assessing the
current situation
(inventory of the
imbalances)

- **Assessment** and estimation of the current **imbalances**: for general practitioners in Dutch planning system

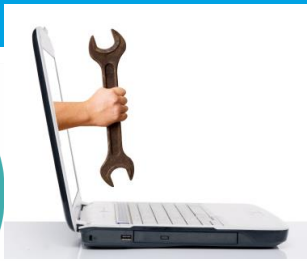
Level 3: Making
future forecasts.

- The “easy and flexible” **forecasting model** in the Danish planning system
- The English approach to the **workforce planning** and forecasting
- Forecasting the HWF **demand** in the Norwegian planning system
- **Budget** constraints and **allocation of resources** in the Spanish planning system



	SUPPLY					DEMAND	
	Labour force	Training	Retirement	Migration Inflow	Migration outflow	Population	Health consumption
Profession	x	X	X	X	X		
Age	x	X	X	X	X	X	x
Head count	X	X	X	X	X	X	X
FTE	X						
Geographic area	X	X	X	X	X	x	X
Specialisation	X	X	X	X	X		
Country of first qualification	X	x	X	x	x		
Gender	x						

	SUPPLY					DEMAND	
	Labour force	Training	Retirement	Migration Inflow	Migration outflow	Population	Health consumption
Profession	12	10	9	8	4		
Age	12	5	7	5	2	11	8
Head count	12	10	10	7	4	11	8
FTE	7						
Geographic area	11	6	7	5	2	9	7
Specialisation	11	8	6	6	2		
Country of first qualification	6	3	3	5	2		
Gender	10						



Toolkit on HWF planning

GAP GROUP 1 Difficulties in national level collaborations <ul style="list-style-type: none">• information and data flow failures• unclear roles and responsibilities of actors• lack of or unclear resources• unclear structure of planning	Go to R1-2-3-4-5 Tool 1-2-3-4-5-6-7
GAP GROUP 2 Methodological challenges <ul style="list-style-type: none">• linking multiple sources• misuse/lack of models and methods• no tracking of shortage-surplus, i.e. mobility• no consideration of supply-demand side	Go to R6-7-8 Tool 8-9-10
GAP GROUP 3 State of data <ul style="list-style-type: none">• quality• availability• timeliness• estimates	Go to R6-7-8 Tool 8-9-10
GAP GROUP 4 Qualitative approach <ul style="list-style-type: none">• collecting qualitative data• completing quantitative with qualitative data	Go to R8-9-10 Tool 11

Identified gaps related HWF processes and data → Recommendations and Practical tools were designed to support development



Toolkit on HWF planning

- Collection of practical tools, measurement instruments, inventories that are invented, designed for helping countries to learn standard processes of HWF Planning
- Provide support in the identification of process bottlenecks, key components of HWF Planning, in addition in formulating appropriate questions, and developing a plan for implementation
- Countries can adapt the toolkit to suit their own circumstances

Tool 9: The Database maintenance and development tool - In order to increase data quality and set up more comprehensive collections of HWF planning data, Tool 9 presents several steps for improving the “State of data” and to overcome data gaps. It summarises the PHASES of improvement and overcoming gaps regarding the “State of data”.

Tool type: Rating scale

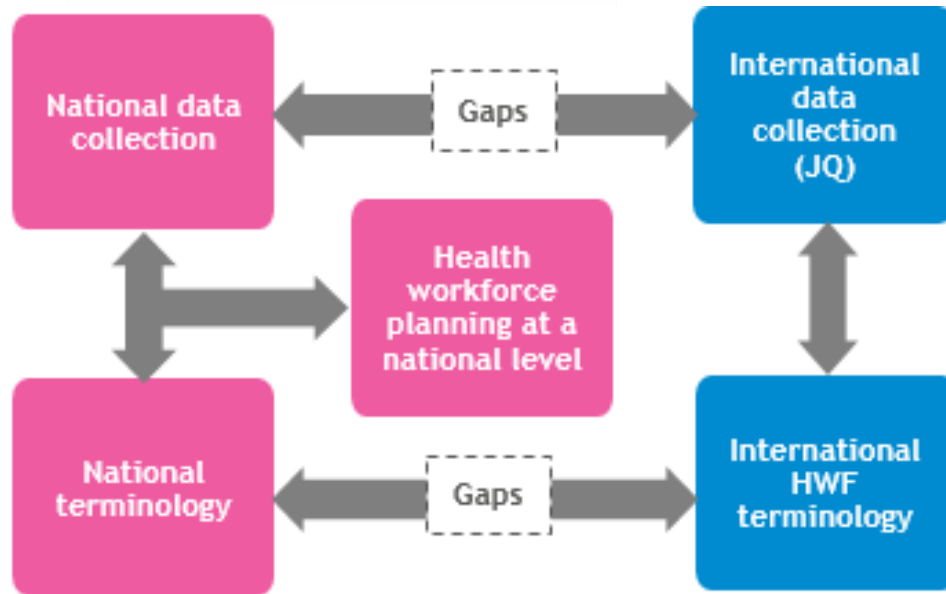
Target group: HWF data collector and analyst, HWF Planning Committee if applicable, institution/authority responsible for HWF planning

Benefit of the tool: aims to improve HWF planning data collections, increase data quality



Test your HWF planning data. Please score your current data process if you have already completed the following, or indicate which PHASE you are in by picking one PHASE in each row

	PHASE 1	PHASE 2	PHASE 3	PHASE 4
Timeliness/Punctuality	No database updated <input type="radio"/>	Annual/Regular updates <input type="radio"/>	Real time/Up-to-date datasets <input type="radio"/>	Integrated Health Information Management System <input type="radio"/>
Availability/Accessibility	No data/Non-accessible data <input type="radio"/>	Aggregated datasets/Yearly time series <input type="radio"/>	Individual data <input type="radio"/>	
Accuracy/Validity /Reliability	No accurate data <input type="radio"/>	Estimates/Sample data/Convenience sampling based <input type="radio"/>	High accuracy <input type="radio"/>	
Completeness/Consistency	No complete/consistent database <input type="radio"/>	Modifying data collections <input type="radio"/>	Triangulated collections data <input type="radio"/>	
Comprehensiveness	No comprehensive data <input type="radio"/>	Data source linking <input type="radio"/>	Single ID integrated data warehouse <input type="radio"/>	



Data terminology

Professional categories
Activity status categories
Amount of activity – FTE

- Available and accurate data on health workforce is essential for health workforce planning.
- National health workforce planning in EU MSs can be based on terminology applied and data available at national level, which can be supported by international health workforce planning guidelines.
- Agreed international terminology is a prerequisite for sharing such planning guidelines and recommendations across MSs.

	RESULT OF GAP ANALYSIS	RECOMMENDATIONS
PROFESSIONAL CATEGORIES	<ul style="list-style-type: none"> Doctors, dentists and pharmacists: occupation based ISCO categories match well with qualifications Nurses and midwives: data gaps due to the national specificities in the system of occupations and qualifications or the interpretation of international terminology 	<ul style="list-style-type: none"> Reporting less but more consistent categories for the nursing workforce is recommended, with inclusion of the qualification defined in 36/2005/EC Directive Midwives should be registered separately from nurses or data for midwives should be extracted from the total number of nurses in reporting
ACTIVITY STATUS CATEGORIES	<ul style="list-style-type: none"> In most countries data in the three activity status categories originate from different sources Available data sources can determine what types of data are available, e.g. registries are better sources for health professionals licensed to practice, while health facility reports for practicing health workforce 	<ul style="list-style-type: none"> Consensus is to be reached on prioritized indicators and on a set of minimum feasible common indicators based on the three activity status categories including an acceptable methodology with respect to data collection For cases when data for a category cannot be collected, agreement on proxy indicators is recommended
AMOUNT OF ACTIVITY	<ul style="list-style-type: none"> The headcount definition is straightforward There are significant differences across countries in Full-time Equivalent measurement 	<ul style="list-style-type: none"> International organisations should cooperate with Member States and their competent authorities to agree upon, announce and promote methodological choices for calculating FTE

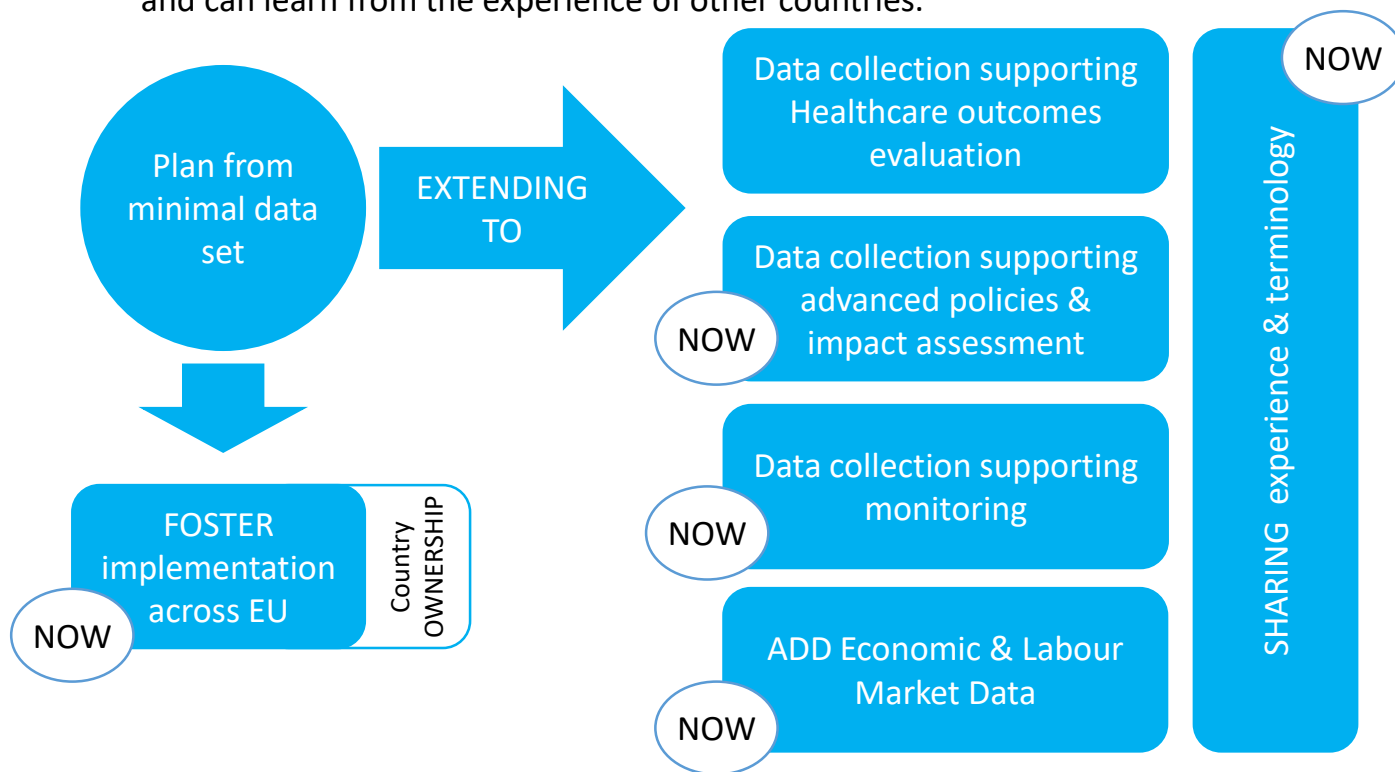


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SUSTAINABILITY

TECHNICAL RECOMMENDATION ON DATA & ANALYSIS

To improve the use and comparability of data in health and care workforce planning and forecasting, governments can be assisted by HWF planning stakeholders through the exchange of data and information and can learn from the experience of other countries.





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Thank you!



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