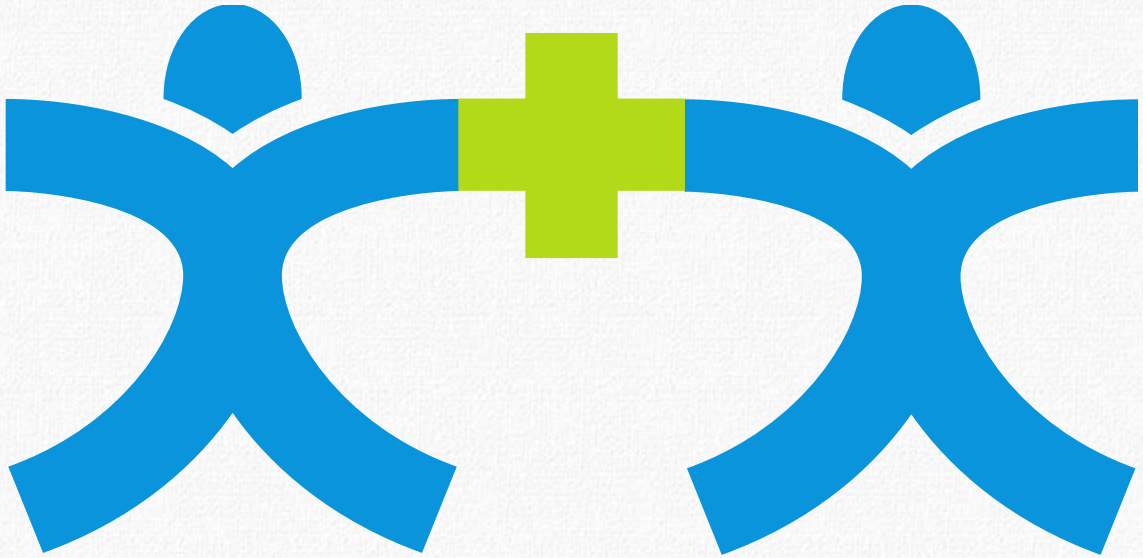

Joint Action Health Workforce Planning and Forecasting

Joint Action results on data for the current workforce

Zoltán Cserháti, Zoltán Aszalós, Eszter Kovács, Réka Kovács, Edmond Girasek, Edit Eke
WP4, EU JA on Health Workforce Planning and Forecasting
Semmelweis University, Health Management Training Centre

JA Closing Event
Mons, May 2016

Joint Action Health Workforce Planning and Forecasting

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Data and health workforce planning

- Providing sufficient number of health professionals with the right skilss is a challenge at local, regional, national, European and global level
- Adequate information on the state of the current health workforce as a starting point for interventions
- Data utilisation for health policy purposes – evidence-based policy making
- Differences across countries – in health workforce situation and data collection mechanisms
- European level cooperation - awareness on gaps and sharing good practices

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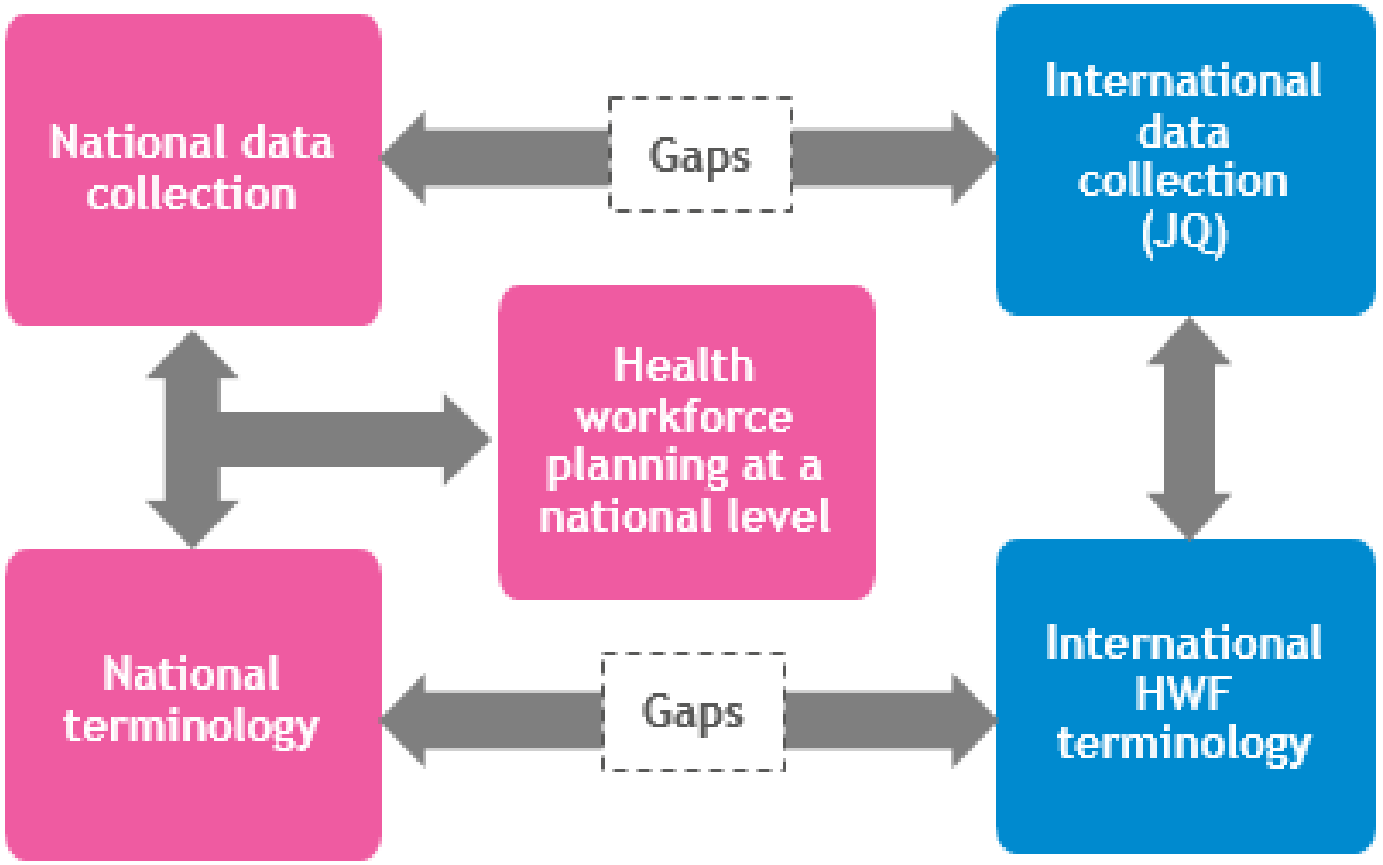
Connection between international and national data collections and terminologies



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Joint Questionnaire on non-monetary health care statistics

- Harmonised tool by the Eurostat, OECD and WHO Europe for annual reporting on health workforce
- Enables the tracking of trends and allows international comparisons to a certain extent
- Health professional groups are defined by the Standard International Classification of Occupations (ISCO-08)
- Data categories:

<table>
<tr><td>Physicians</td><td>Nurses</td><td>Midwives</td><td>Dentists</td><td>Pharmacists</td></tr>
<tr><td colspan="2">Practising</td><td colspan="2">Professionally active</td><td>Licensed to practice</td></tr>
<tr><td colspan="3">Headcount</td><td colspan="2">Full time equivalent (FTE, only in hospital employment)</td></tr>
</table>

- Data collection on international mobility initiated in 2015 – number of foreign health professionals in the total stock and annual inflows, by country of origin

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Data sources at national level

- Health professional registries
- Professional chambers, professional organisations
- Statistical offices
- Health provider reports
- Payroll systems
- Health Insurance Agencies, Social Insurance agencies
- Population registers, population surveys
- Sample surveys

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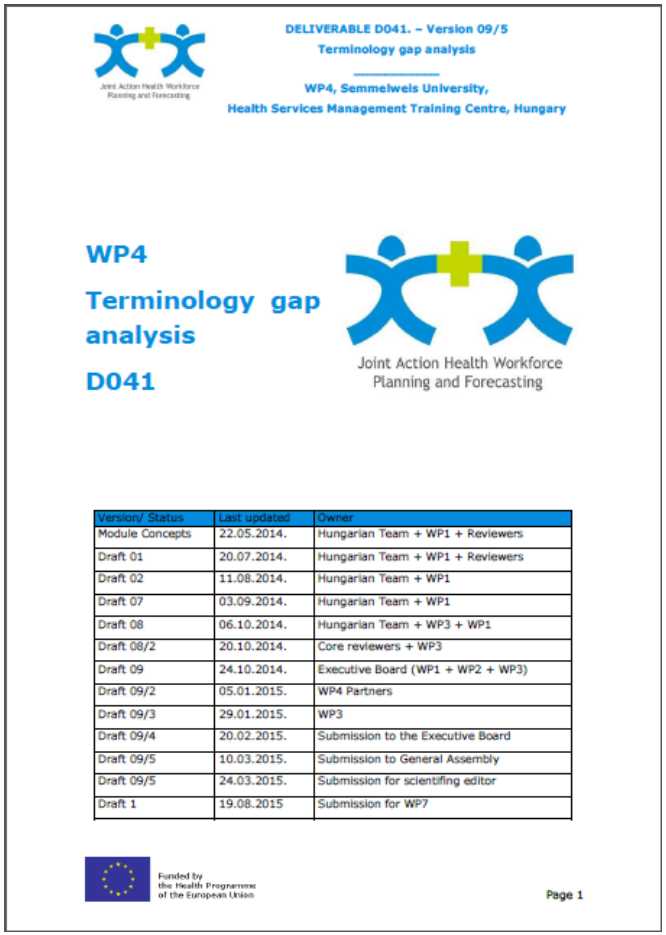
D041 Report on Terminology Mapping:

http://healthworkforce.eu/wp-content/uploads/2015/09/150618_wp4_d041_terminology_gap_analysis_final.pdf



DELIVERABLE D041. – Version 09/5
Terminology gap analysis

WP4, Semmelweis University,
Health Services Management Training Centre, Hungary

WP4

Terminology gap analysis

D041

Joint Action Health Workforce Planning and Forecasting

Version/ Status	Last updated	Owner
Module Concepts	22.05.2014.	Hungarian Team + WP1 + Reviewers
Draft 01	20.07.2014.	Hungarian Team + WP1 + Reviewers
Draft 02	11.08.2014.	Hungarian Team + WP1
Draft 07	03.09.2014.	Hungarian Team + WP1
Draft 08	06.10.2014.	Hungarian Team + WP3 + WP1
Draft 08/2	20.10.2014.	Core reviewers + WP3
Draft 09	24.10.2014.	Executive Board (WP1 + WP2 + WP3)
Draft 09/2	05.01.2015.	WP4 Partners
Draft 09/3	29.01.2015.	WP3
Draft 09/4	20.02.2015.	Submission to the Executive Board
Draft 09/5	10.03.2015.	Submission to General Assembly
Draft 09/5	24.03.2015.	Submission for scientifing editor
Draft 1	19.08.2015	Submission for WP7

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Page 1

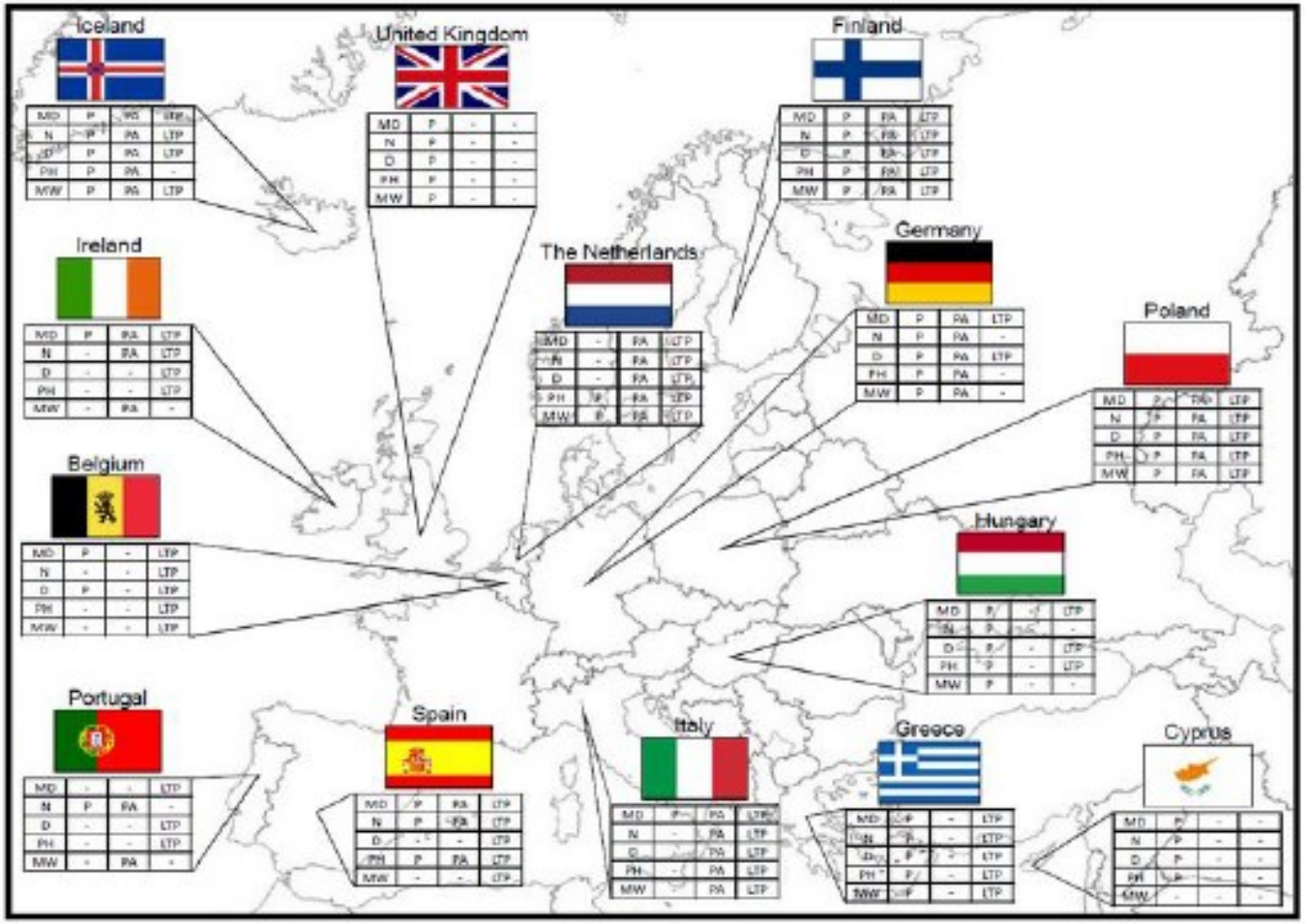
Scope of the Report on Terminology Mapping

(1) identify and analyse the ***terminology and data gaps*** in the JQ data collection

(2) provide recommendations on how Member States can provide ***more reliable data*** for the JQ data collection

(3) Provide recommendations to international data-collecting organisations on how to make the ***JQ more useful*** for the strategic HWF monitoring and planning purposes of Member States

Data availability on activity level categories



Joint Action Health Workforce Planning and Forecasting

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Availability of hospital employment data in headcounts and FTE

	Head Count	Full Time Equivalent
Total hospital employment	**23**	**20**
Physicians	25	20
Professional nurses and midwives	26	19
Associate nurses	17	11
Health care assistants	16	11
Other health professionals	19	15
Other staff	18	14

Source: OECD

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Most significant gaps in data availability

- Historical national system for occupations (e.g. midwives as separate profession)
- Regional organisation of health care system and reporting
- More data sources collecting the same type of data
- Data on „full time equivalents”
- Public and private sector
- Employed and self-contracted health professionals
- Health professionals working in other sector than health care (e.g. nurses in social sector)

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Data collection for national and international use

	International data collection	National use
Purpose of data collection	Comparability, following international and national trends	Monitoring, policy making, planning and evaluation of interventions
Data sources	Central reporting, national data sources in metadata files, „break in series”	Multiple data sources, other purposes than international reporting, history
Professional activity	Three categories (LTP, PFA, PR), licensed to practice definition	Not collected for all three categories, registries – LTP, license renewal
Professional categories	ISCO – occupation based, qualification among criteria	Registries are base on qualifications, national variabilities for nurse categories
Health workforce planning	No planning purposes for international data collection, no planning at international level	Monitoring and planning should be built on data available, system development

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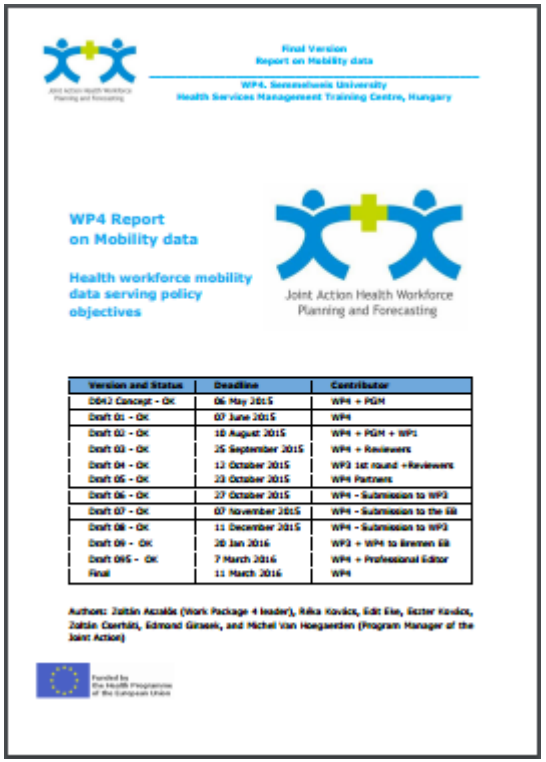
D042 Report on mobility data - Health workforce mobility data serving policy objectives:

http://healthworkforce.eu/wp-content/uploads/2016/03/160127_WP4_D042-Report-on-Mobility-Data-Final.pdf



Final Version
Report on Mobility data

WP4. Semmelweis University
Health Services Management Training Centre, Hungary

WP4 Report
on Mobility data

Health workforce mobility data serving policy objectives

Joint Action Health Workforce Planning and Forecasting

Version and Status	Deadline	Contributor
D042 Concept - OK	06 May 2015	WP4 + PGM
Draft 01 - OK	07 June 2015	WP4
Draft 02 - OK	10 August 2015	WP4 + PGM + WP1
Draft 03 - OK	25 September 2015	WP4 + Reviewers
Draft 04 - OK	12 October 2015	WP3 1st round +Reviewers
Draft 05 - OK	23 October 2015	WP4 Partners
Draft 06 - OK	27 October 2015	WP4 - Submission to WP3
Draft 07 - OK	07 November 2015	WP4 - Submission to the EB
Draft 08 - OK	11 December 2015	WP4 - Submission to WP3
Draft 09 - OK	20 Jan 2016	WP3 + WP4 to Bremen EB
Draft 09S - OK	7 March 2016	WP4 + Professional Editor
Final	11 March 2016	WP4

Authors: Zoltán Aczélné (Work Package 4 leader), Réka Kovács, Edit Ele, Eszter Kovács, Zoltán Czerhát, Edmond Ginsek, and Michel van Hoegaerden (Program Manager of the Joint Action)

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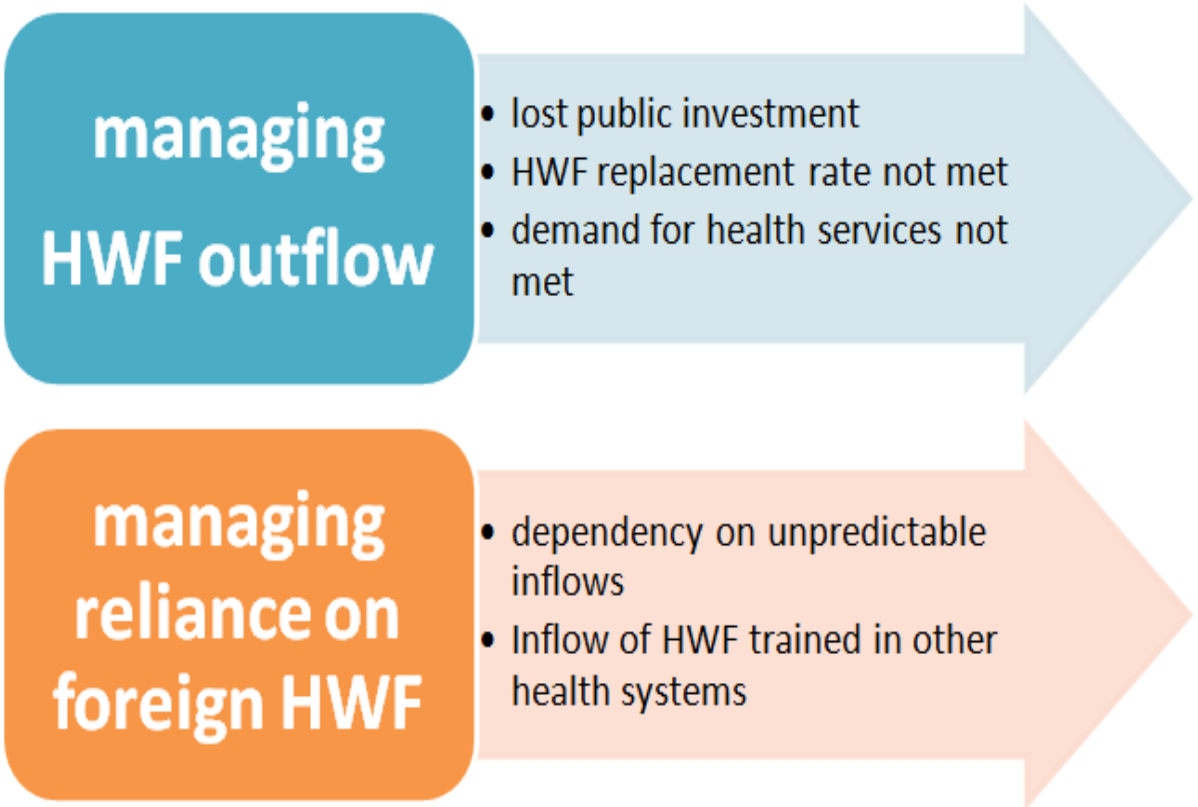
The central mobility policy concerns highlighted by WP4 participants



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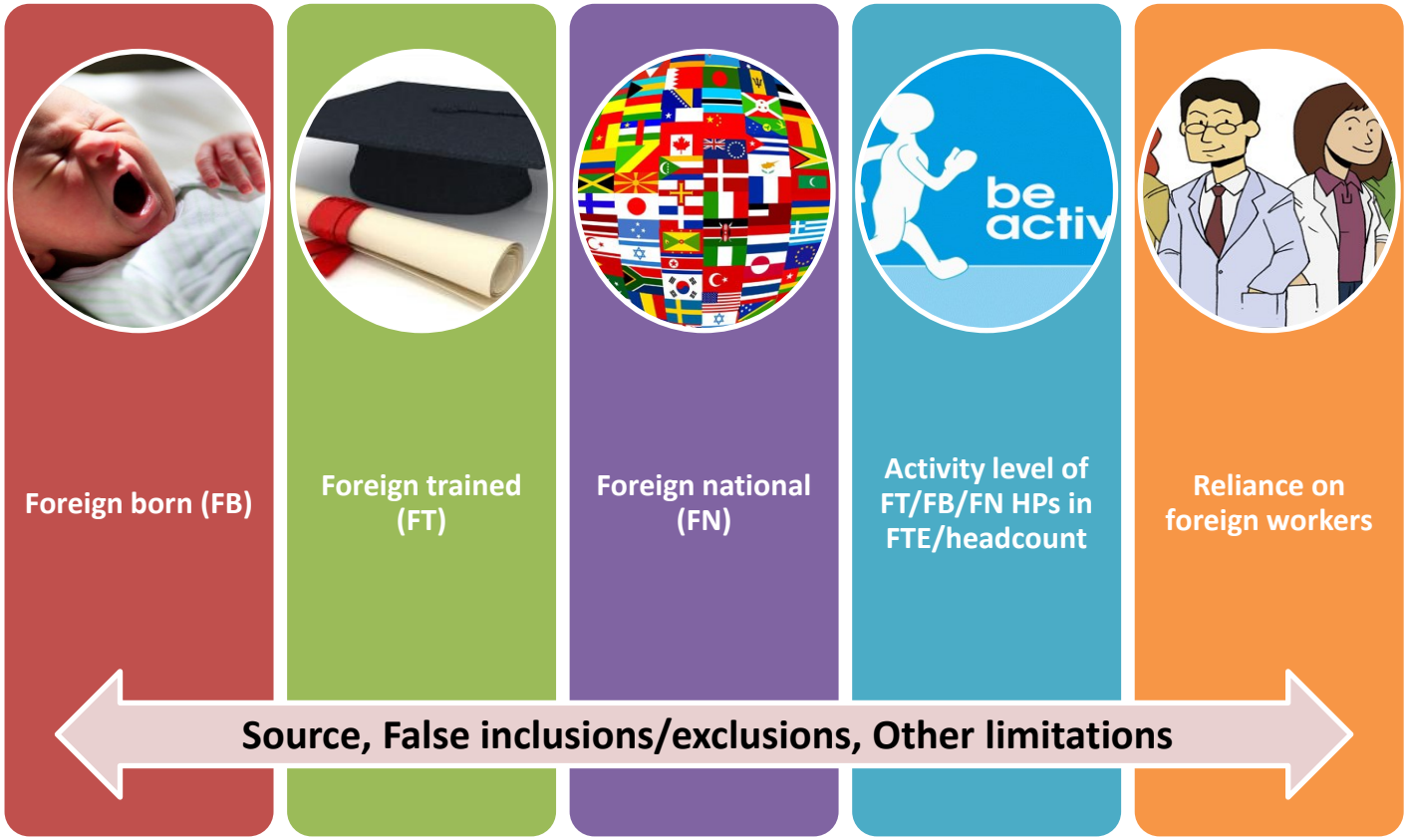
Data categories related to intenational mobility



The recommended national Individual Mobility Data Set

Data category	Data elements
Professional activity	➢ data on health care activities, closest to practising ➢ data on economic activity ➢ quantification of professional activities (FTE)
Mobility status	➢ birthplace ➢ nationality (current) ➢ nationality at registration (or nationality at the time of recognition) ➢ country of first qualification ➢ country of last qualification
Recognition (inflow)	➢ recognised qualifications ➢ date of recognition (for all recognised qualifications) ➢ origin of recognised qualifications (countries)
Intention to leave (outflow)	➢ dates of applications for certificates for working abroad ➢ destination countries in applications for certificates for working abroad
Grouping variables	➢ age ➢ qualifications (all, including specialisations)

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The recommended indicator set for measuring health workforce outflow

Joint Action Health Workforce Planning and Forecasting

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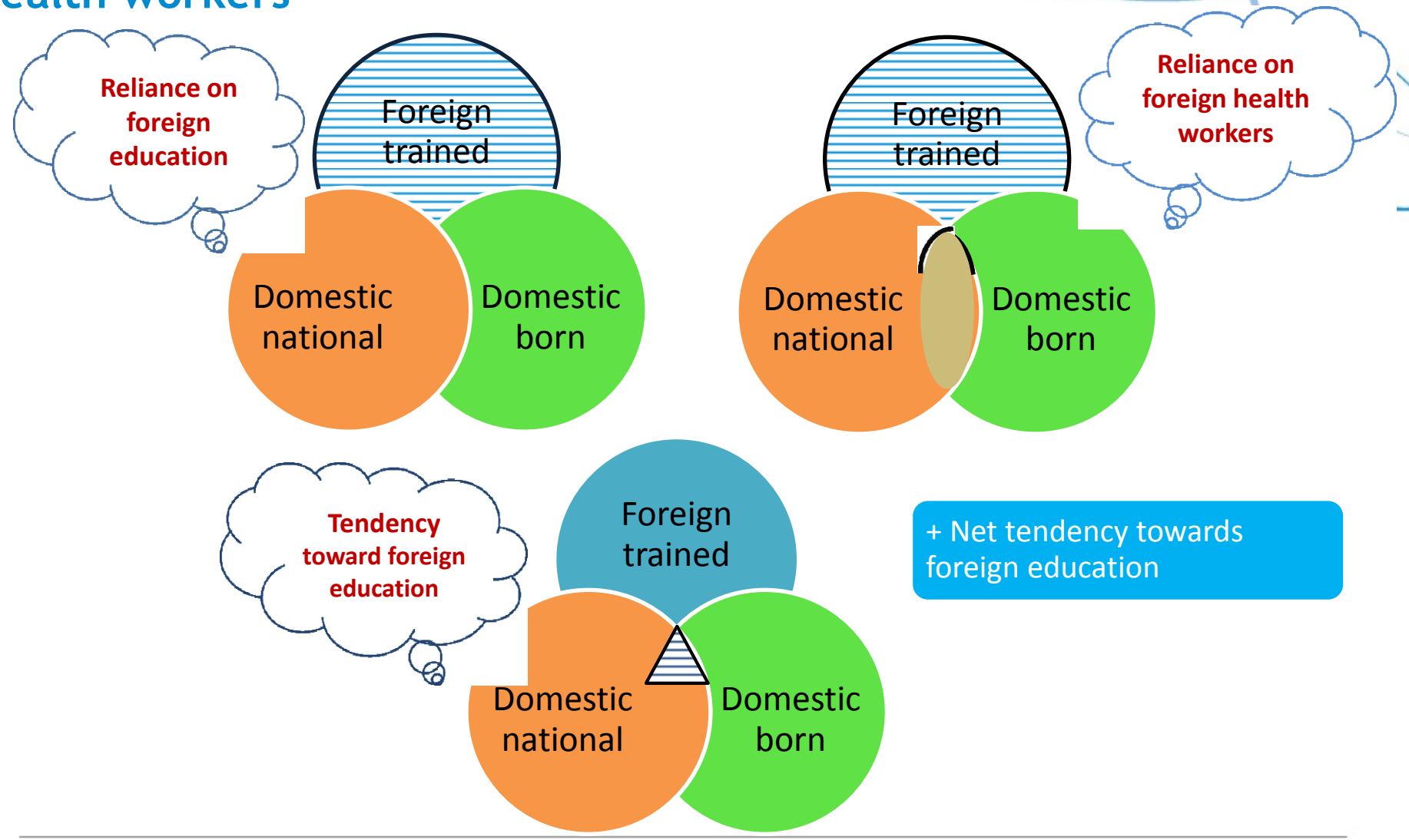
Mobility Indicator Set for measuring the reliance on foreign health workers



+ Net tendency towards foreign education

Joint Action Health Workforce Planning and Forecasting

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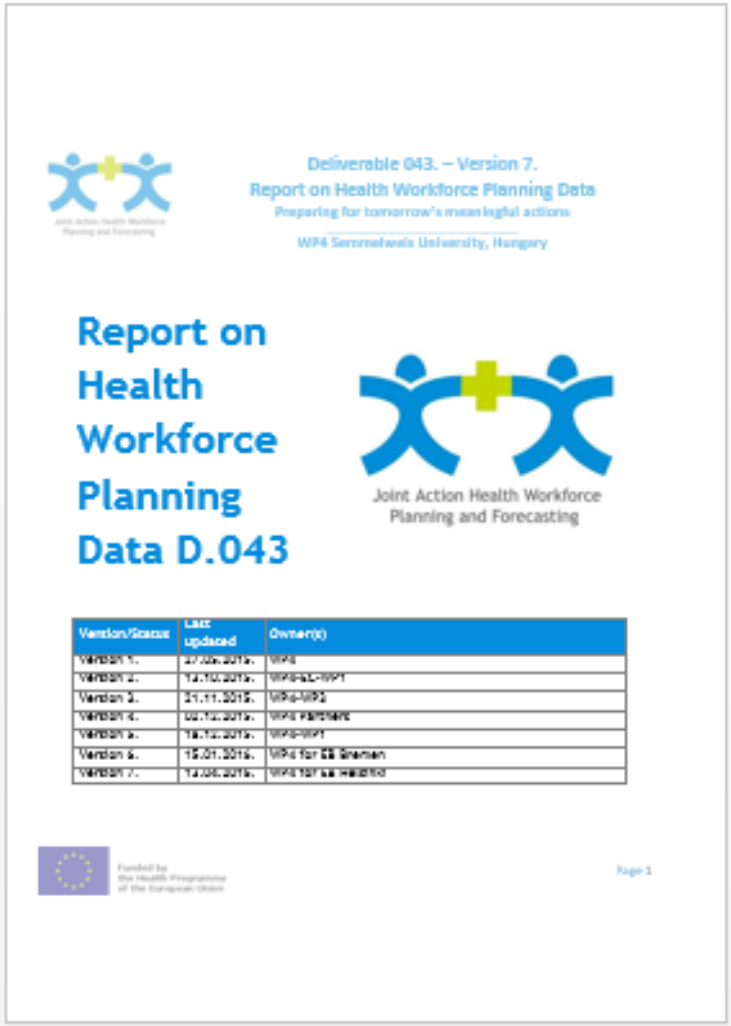
D043 - Report on Health Workforce Planning Data (under publishing)

Focus: A better understanding by MSs of the gaps between data they currently collect or use and the data they should have available for proper HWF planning on national level


Deliverable 043. – Version 7.
Report on Health Workforce Planning Data
Preparing for tomorrow's meaningful actions
WP4 Semmelweis University, Hungary

Report on Health Workforce Planning Data D.043

Joint Action Health Workforce Planning and Forecasting

Version/Status	Last updated	Owner(s)
Version 1.	27.08.2015.	WP4
Version 2.	12.10.2015.	WP4-EuroHOPE
Version 3.	21.11.2015.	WP4-WP2
Version 4.	02.12.2015.	WP4 reviewers
Version 5.	14.12.2015.	WP4-WP1
Version 6.	15.01.2016.	WP4 for EB Erasmus
Version 7.	12.02.2016.	WP4 for EB Helsinki

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Page 1

Joint Action Health Workforce Planning and Forecasting

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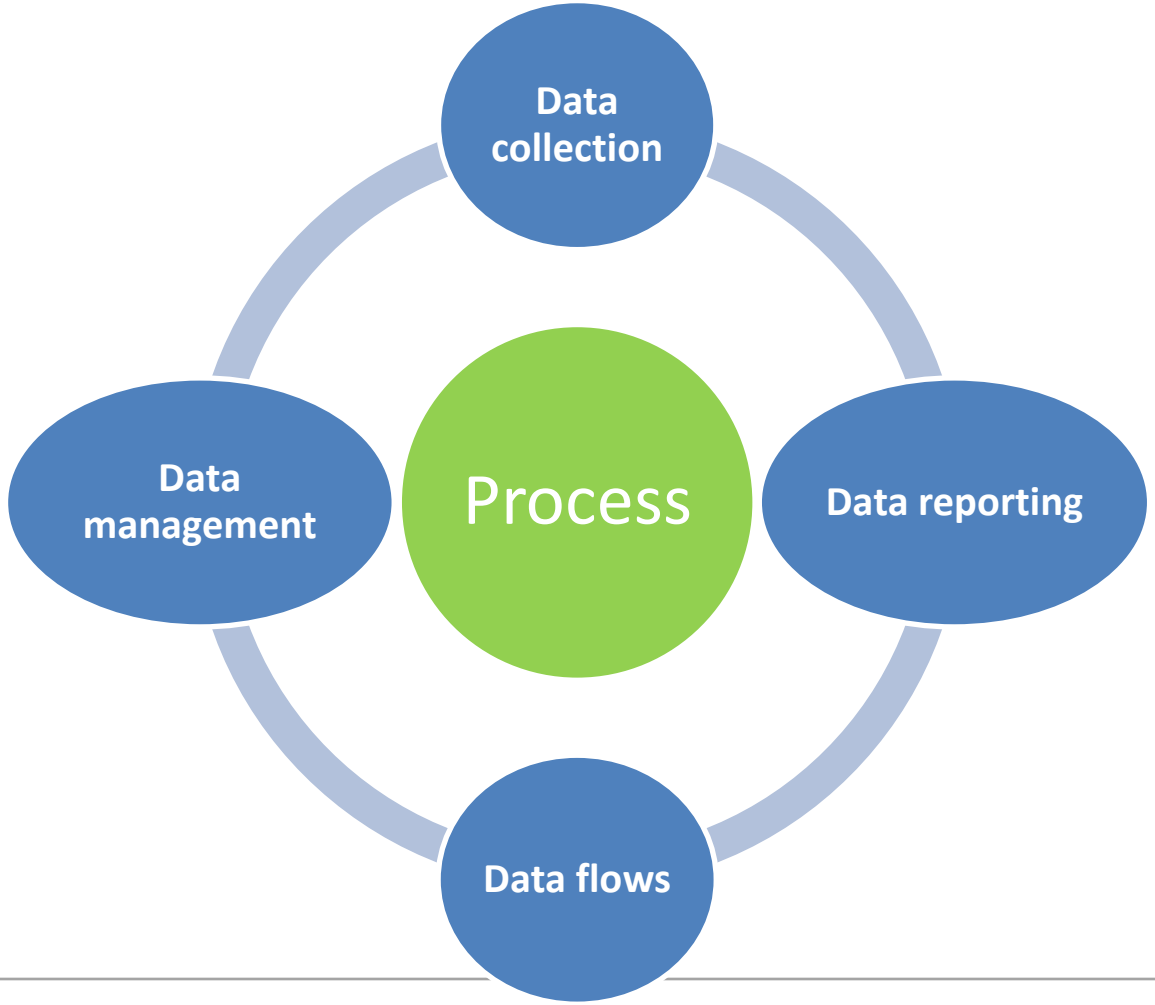
The role of data in the HWF Planning Process



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The most significant data gaps

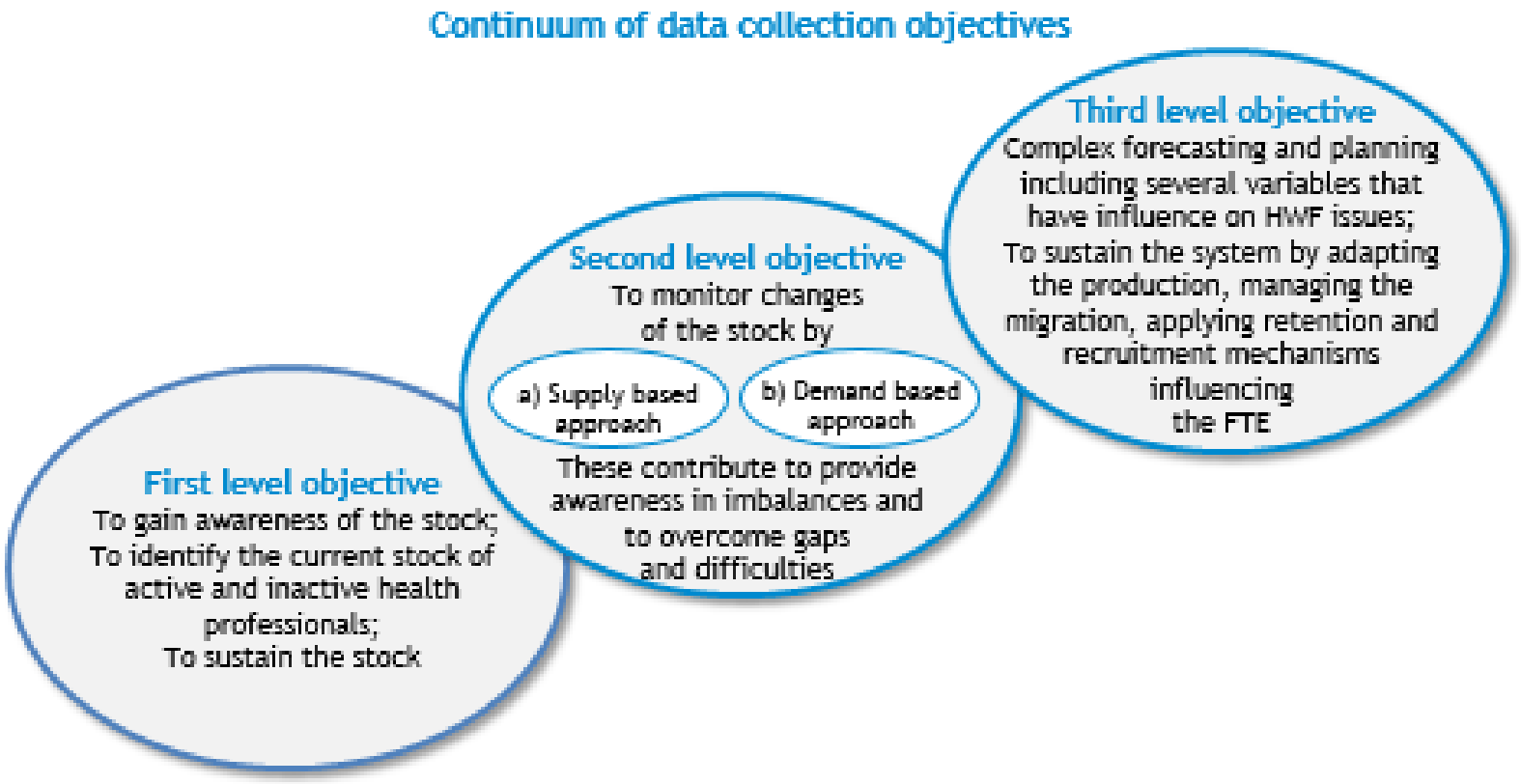
	Top limitation factors identified	Weighted frequency score	Mean	Weighted impact score
1	Non-available data (e.g. FTE or Headcount)	26	3.17	13
2	Lack/Misuse of models/methods/data	24	2.91	9
3	No good quality data (lack of valid, reliable data)	23	2.92	12
4	No use of qualitative data	23	2.92	9
5	No complementation of quantitative data with qualitative data (lack of triangulation)	23	2.92	5
6	No data source linking	22	2.83	3
7	No exact data but estimates/sample based data	20	2.67	2
8	No up-to-date data (timeliness)	18	2.33	10

Addressable or everlasting?

Availability of data categories defined in Minimum Planning Requirements (MDS)

	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						

Continuum of data collection objectives related to health workforce planning



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Toolkit on health workforce planning

- Collection of practical tools, measurement instruments, inventories that are invented, designed for helping countries to learn standard processes of HWF Planning
- The tools are linked with recommendations for overcoming data and process gaps
- 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

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Recommendations and tools for improving data for HWF planning

- „Countries should **improve** and focus on the aspects of **data collection, sharing, and management.**”
- „Efforts on **increasing data quality** should be ensured.”

- **Tool 7. “Maturity level of HWF Planning Data Management” Checklist**
- **Tool 8. Optimal Skill list for HWF planning data specialists**
- **Tool 9. Database maintenance and development tool**

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Optimal skill list for HWF data specialists (Tool 8)

Core Competency	Skill Description
1. Statistics skills	statistics, mathematical statistics, descriptive statistics
2. Analytical, Modelling Skills	data modelling, data processing and analysis, data communication, interpret data, interviewing
3. HR information management Skills, Technology and Data Skills	information technology, manage electronic information
4. Presenting, Reporting, Communication Skills	presenting techniques, presentation, information and communication

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Database maintainance and development tool (Tool 9)

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

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Concluding remarks

- Data gaps are most often originated from the features of national collections, available data sources can determine what types of data are available
- The purposes of data collections for international reporting and for national utilisation are different, data collection can support policy making and health workforce planning at national level
- Mobility data can be improved by linking different data types and defining indicators
- Destination country information (provided by the JQ Migration Module) can support the availability of outflow data Mobilitás kell és nemzetközi kapcsolat
- There is still room for improvement in data availability for completing a dataset defined in Minimal Planning Requirements (MDS)
- Data-related processes and data quality are key factors for enabling health workforce planning

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