



Work Package 5 Meeting
 Rome, 16th and 17th of May 2013



Planning system and planning model

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Joint Action on European
Health Workforce
Planning and Forecasting



Objectives of the WP5

- ▶ Mapping the actual use of:
 - planning methods to govern the Health Workforce market;
 - quantitative forecasting models for a systematic assessment of future workforce needs.
- Condensing the best planning methods and forecasting models in a cook–book to be used by member states and a minimum data set for forecasting.
- Experimenting the methods and the models in two countries.
- ▶ Health professions in focus are doctors, nurses, pharmacists, dentists and midwives (the five health professions covered by the Recognition of Professional Qualifications Directive).



Milestones and Deliverables of the WP

1. **Minimum data set (for planning and forecasting)**
2. **Exchange of good practices (web-platform)**
3. **Defining and experimenting guide lines on HWF planning (“cookbook” to be used in two countries, Portugal and Italy)**



A. Planning system

1. Definition of the profession and sources of information
2. The objectives of the planning system (determine outcome indicators)
3. Planning procedures (define planning model and process indicators)
4. National and regional legislation
5. Actors and organization of the planning process
6. Measuring the actual situation today (indicators)
7. Set reference values (indicators, bench-mark)
8. Forecasting (time horizon, frequency)
9. Determine actions for reaching the reference values
10. Resources for planning
11. Measure benefits of planning (outcome indicators)



Professionals studied (ISCO-08 Definitions) 1

- ▶ **Physicians** **2211 Generalist medical practitioners**
- ▶ **2212 Specialist medical practitioners / surgeon**
- ▶ but not (2250 Veterinarians)
 (2240 Paramedical practitioners)
 (3256 Medical assistant)
 (3258 Emergency paramedic)

- ▶ **Dentists** **2261 Dental practitioner**
- ▶ **2261 Dental surgeon / oral & maxillofacial surg**

- ▶ **Nurses** **2221 Nursing professionals**
- but not (3221 Associate professional nurse)
 (5321 Nursing aide (hospital))

- ▶ **Midwives** **2222 Midwifery professionals**
- but not (3222 Associate professional midwife)

- ▶ **Pharmacists** **2262 Pharmacists**



Professionals included (ISCO-08 Definitions) 2

- ▶ Planning can be done separately for each profession but it is also possible to take into account possible skill mix between professions
 - nurses <-> physicians
 - nurses <-> other professionals in health and social work
- ▶ We suggest that we create a full picture that includes all professionals and then develop the professionals we are most interested in.
- ▶ ISCO does not present a definition of the specialities.



Example of an initial over-view for planning

per 1000 population	Australia	France	Germany	Sweden	UK
Employment in health and social work	44.3	40.8	44.8		50.8
Total employed in healthcare	33.7		42.3	35.2	29.9
Total employed in hospital	21.5	18.6	10.4	24.4	22.2
Practising physicians	2.5	3	3.4	2.9	1.8
General practitioners	1.1	1.5	1	0.6	0.6
Practising specialists	0.8	1.5	2.2	2.2	1.5
Practising nurses	10.7	6	9.6	8.4	4.5

Source: Bloor Report march 2003

Example of classification of Specialists (Ireland)

Table 1: Assessment of gap between the future supply and demand for different health occupations in Ireland, under a baseline scenario and an alternative scenario for medical specialists, 2008-2020

Occupation	Baseline scenario (Population Growth only)		Alternative Scenario (National Taskforce Targets for consultants)	
	Density per 100,000 (2008)	Assessment of gap, 2009-2020	Density per 100,000(2020)	Assessment of gap, 2009-2020
Medicine (internal)	15	Oversupply	23	Shortage
Obstetrics and Gynaecology	3	Oversupply	5	Shortage
Paediatrics	3	Oversupply	5	Oversupply
Pathology	5	Oversupply	7	Oversupply
Surgery	11	Oversupply	16	Shortage
Anaesthesia	8	Oversupply	11	Shortage
Radiology	5	Oversupply	7	Shortage
Emergency Medicine	1	Oversupply	2	Oversupply
Psychiatry	10	Oversupply	15	Shortage
General Practitioners	58	Shortage		

Source: OECD Review of 25 Health Workforce Planning Models



Example of classification of Nurses (Ireland)

Occupation		Baseline scenario (Population Growth only)	
		Density per 100,000 (2008)	Assessment of gap, 2009-2020
Nurses and Midwives	Specialists in public health medicine	1.5	Shortage
	Nurses & Midwives	1 265	Shortage
	General	943	Shortage
	Children's	38	Oversupply
	Psychiatric	156	Oversupply
	Intellectual disability	40	Oversupply
	Midwives	38	Oversupply
	Public health nurses	50	Oversupply



Objectives for a HWF planning systems (ex.)

Objectives	Outcome Indicators
Create overall balance between supply and demand for health professionals on medium terms.	Existence of shortages and surpluses.
Create geographical balance on medium terms.	Existence of geographical shortages and surpluses.
Create balance per speciality on medium terms.	Existence of shortages and surpluses per speciality.
Create balance of migration on medium terms.	Existence of shortages and surpluses between immigration and emigration.
Improve qualifications of health services ad employers.	Rates of recruitment, retention, return and early retirement.
Improve che health care workers performance.	Rates of number of patients / patient episodes treated.

Source: Planning human resources in health care



Indicators

- ▶ Properties
 - Specific (measure exactly the result)
 - Mesurabile (in order to track the result)
 - Attainable (so that the result can be compared against a realistic target)
 - Relevant (to the intended result)
 - Timebound (indicates a specific time period)

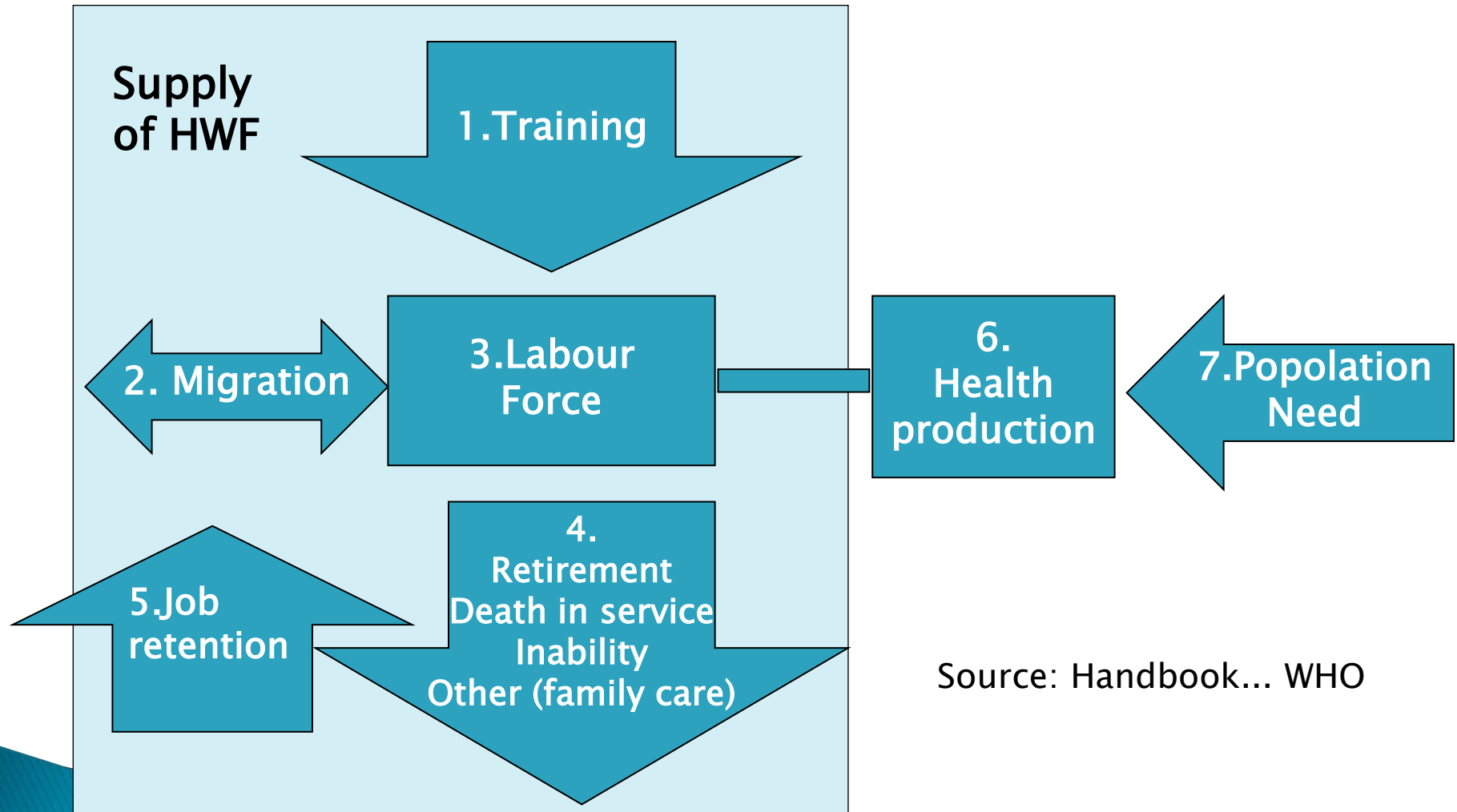


Practical experiences of planning systems

	What done?	Problems met?	Problems solved?
Coverage (health professionals)			
Sources used			
Outcome indicators			
Model and process indicators			
National and regional legislation			
Actors and organization of the planning process.			
Indicators for measure todays situation			
Reference values			
Forecasting (data, time horizon, frequency)			
Actions to reach the reference values			
Resources of planning			
The planning results (outcome indicators)			



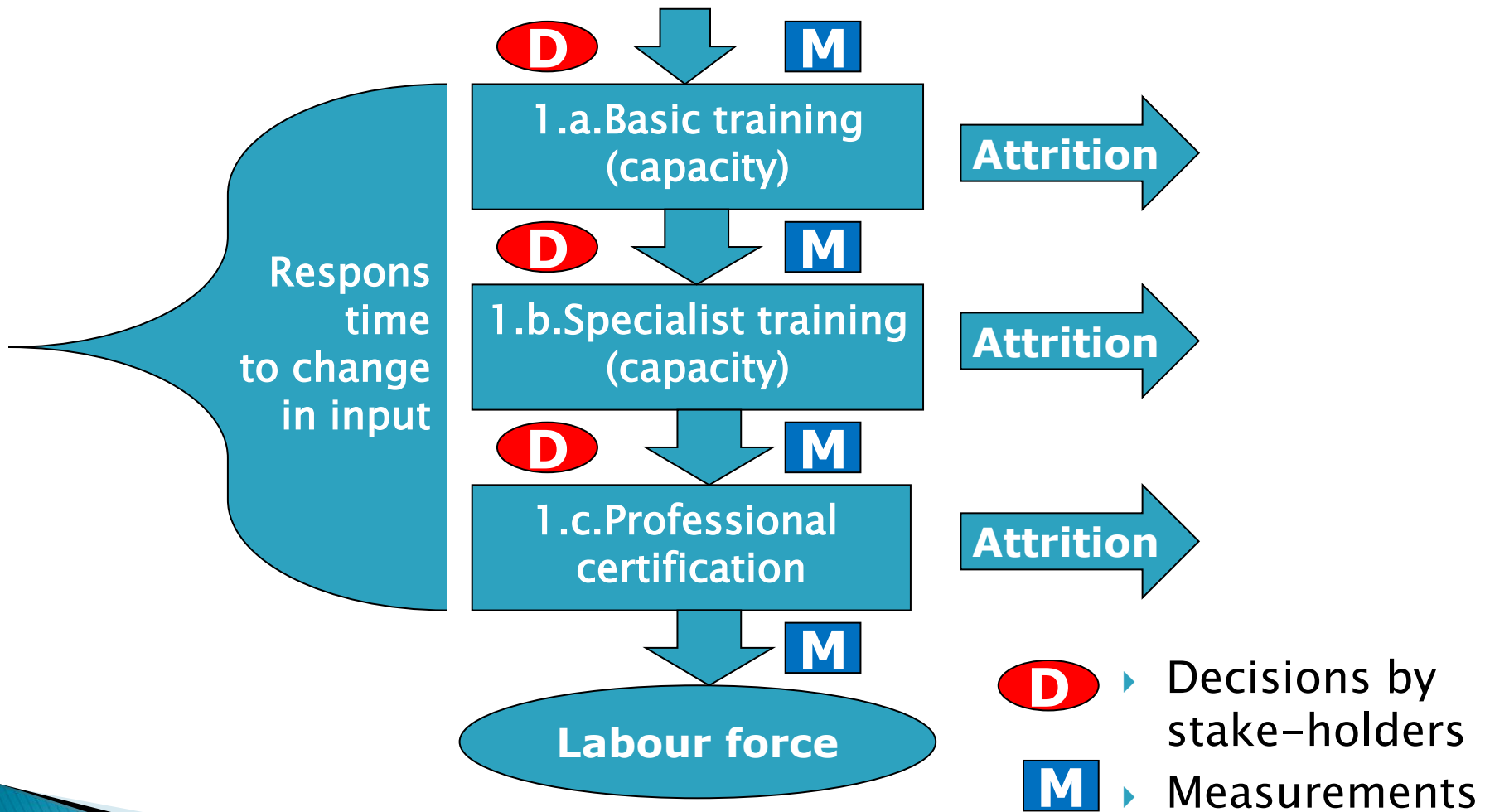
Elements of the planning model



Source: Handbook... WHO



1. Training





1. Training: decisions – Physicians

Phase	Decision	Stake holders
1.a. Basic training	Capacity	University
(6 years in Italy)	Need	–Regions –Med. associations –Ministry of University –Ministry of Health
	N° intake	University
1.b. Specialist training	Capacity Finance restriction	University Min. of Finance
(5 years in Italy, 3 years for general practitioners)	Need	–Regions –Med. associations –Ministry of University –Ministry of Health
	N° intake	University



1. Training: measures – Physicians

Phase	Measure	By whom	N° (Italy)
1.a. Basic training	Capacity	University	
	N° intake	University	10.000 / year
	N° examin.	University	7.000 / year
1.b. Specialist training	Capacity	University	
	N° intake	University	4.500 specialists 1.000 general.p.
	N° examin.	University	5.500
1.c. Professional cert.	N° certifications	University	5.500

In Italy the basic training is increasing but not yet the specialist training,



2. Migration





2. Migration: decisions – Physicians

Phase	Decision	Stake holders
2.a. Immigration	Approval of title	Ministry of Health
2.b. Emigration		

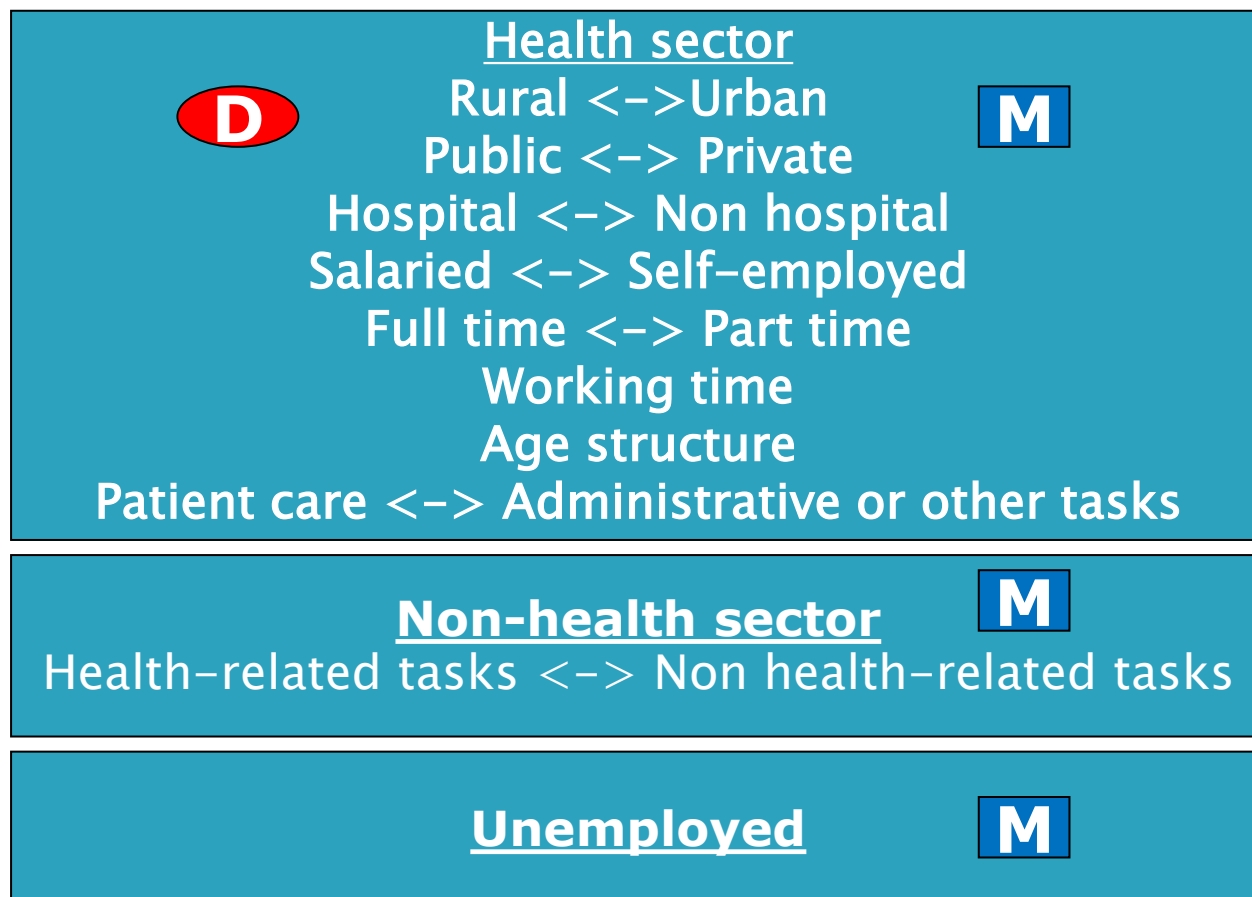


2. Migration: measures – Physicians

Phase	Measure	By whom	N° (Italy)
2.a. Immigration	N° approvals	Min. Health	100
2.b. Emigration	N° of approved request for european certification.	Min. Health	600 Not a good measure



3. Health labour force





3.Labour force: decisions– Physicians

Phase	Decision	Stake holders
Public – private	Assumptions in public sector	Regions Single health organization
Hospital– non hospital	Key indicators Regulations	Min. of Health Regions
H per week	National legislation	Min of Health
	National contracts	Unions Min

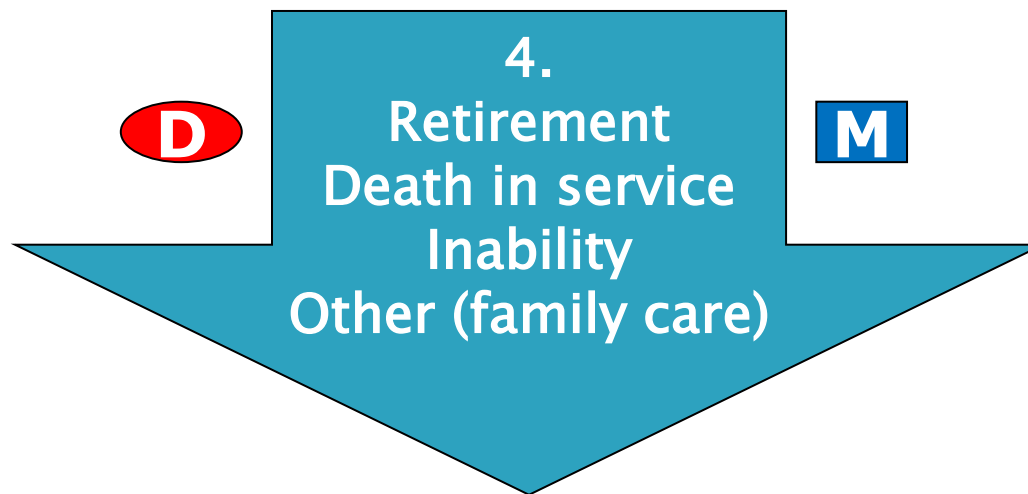


3.Labour force: measures– Physicians

Phase	Measure	By whom	N° (Italy) (2011)
Public sector, salaried	Head counts	Min. Finance	109.00
Public sector, self-employed	Head counts	SISAC	90.000
Private hospital	Head counts	Min Health	34.000
Self-employed private sector	Head counts	calc	52.000
In specialist training	Head counts	calc	25.000
Total	Head counts	Associatio n of cat.	310.000



4. Outflow of the labour force





4.Outflow: decisions– Physicians

Phase	Decision	Stake holders
Maximum retirement age	National legislation	Min of Health
Contracted retirement age	National contracts	Unions Min



4.Outflow: measures– Physicians

Phase	Measure	By whom	N° (Italy 2011)
Public sector, salaried	N° retired	Min. Finance	3.400 (will increase the coming years)
Public sector, self-employed	N° retired		2.700 (estimated, will increase the coming years)
Private sector	>=70 years old	Empam, social security physicians	?
Total			5.000 physicians had 65 years



4.Outflow: measures– Physicians 65 years

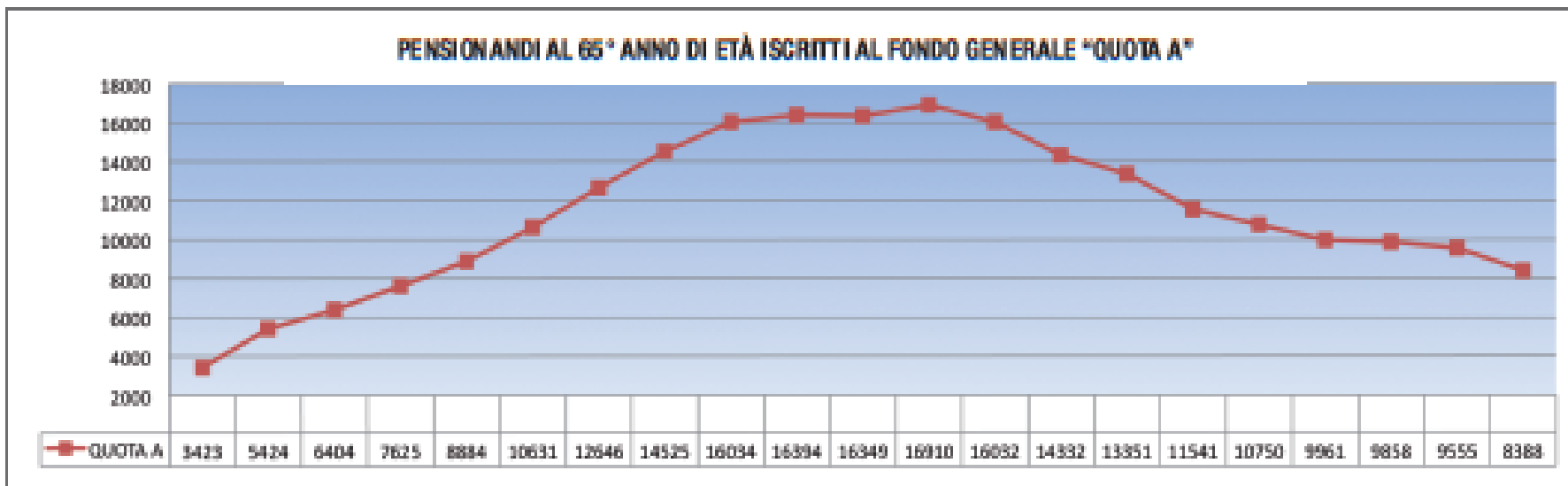


Figura 1.5.1

2010

2021

2030

▶ Source ENPAM Medical social security institute.



5. Job retention

D

Attractiveness of the job
Other factors to facilitate return

M



5. Job retention: decisions– Physicians

Phase	Decision	Stake holders



5. Job retention:measures– Physicians

Phase	Measure	By whom	N° (Italy) (2011)



6. Health production

D

Capacity
Productivity
Budget restraint
Delivery models (primary / hospital)
Health care utilization

M



6. Health production: decisions – Physicians

Phase	Decision	Stake holders
Productivity improvements?		

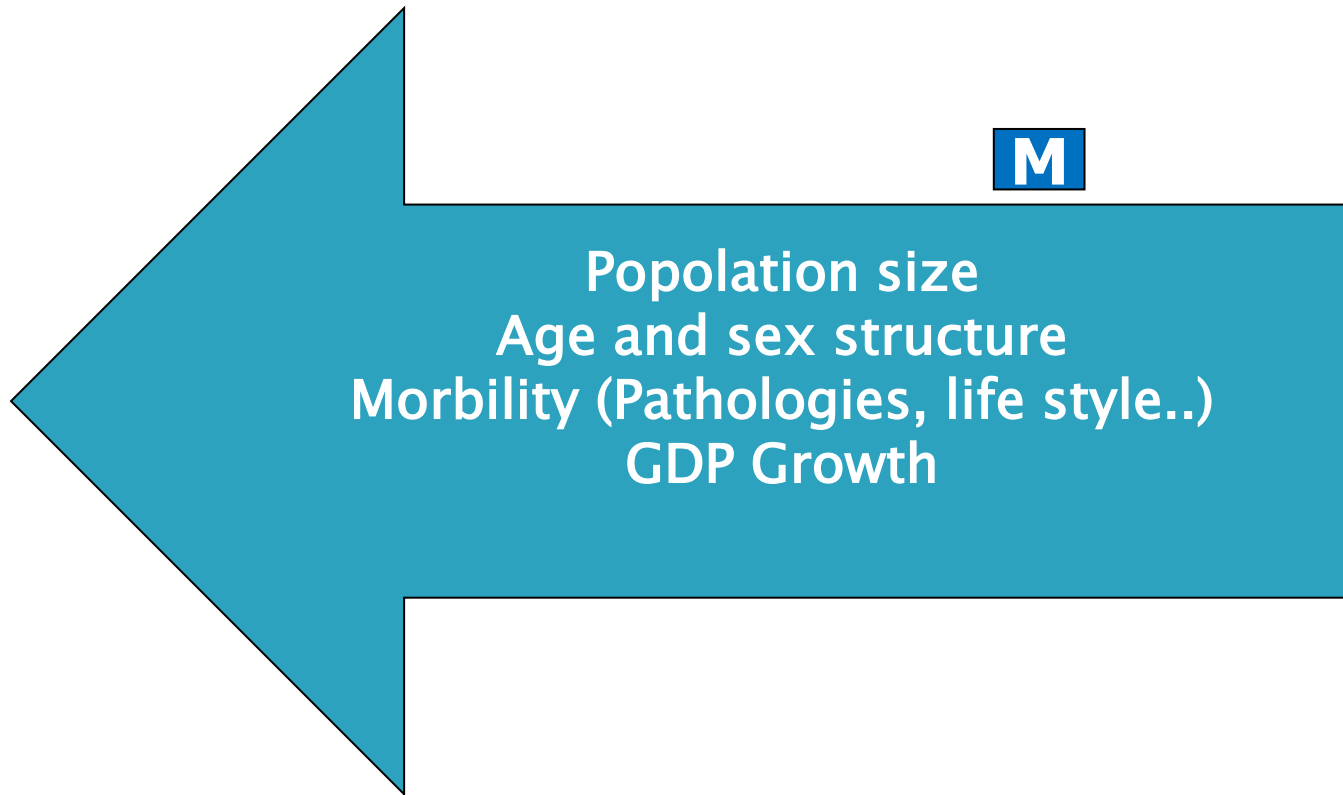


6. Health production: measures – Physicians

Phase	Measure	By whom	N° (Italy) (2011)



7. Population need





7. Population need: decisions– Physicians

Phase	Decision	Stake holders



7. Population need: measures– Physicians

Phase	Measure	By whom	N° (Italy) (2011)



Advice from OECD

- ▶ "...health workforce projection models continue to evolve and must be continuously tested and revised. This is easier, when health workforce planning is an ongoing activity rather than an on-off exercise«

- ▶ "keep the demand-side of the model fairly simple.
 - Demand model based simply on the maintenance of the baseline physician-to population ratio or nurse-to-population ratio over the entire projection period (in head-counts or FTE).
 - Demand model taking into account the evolution of the population structure and its related impact on demand, based on current utilization rates."



Country experiences

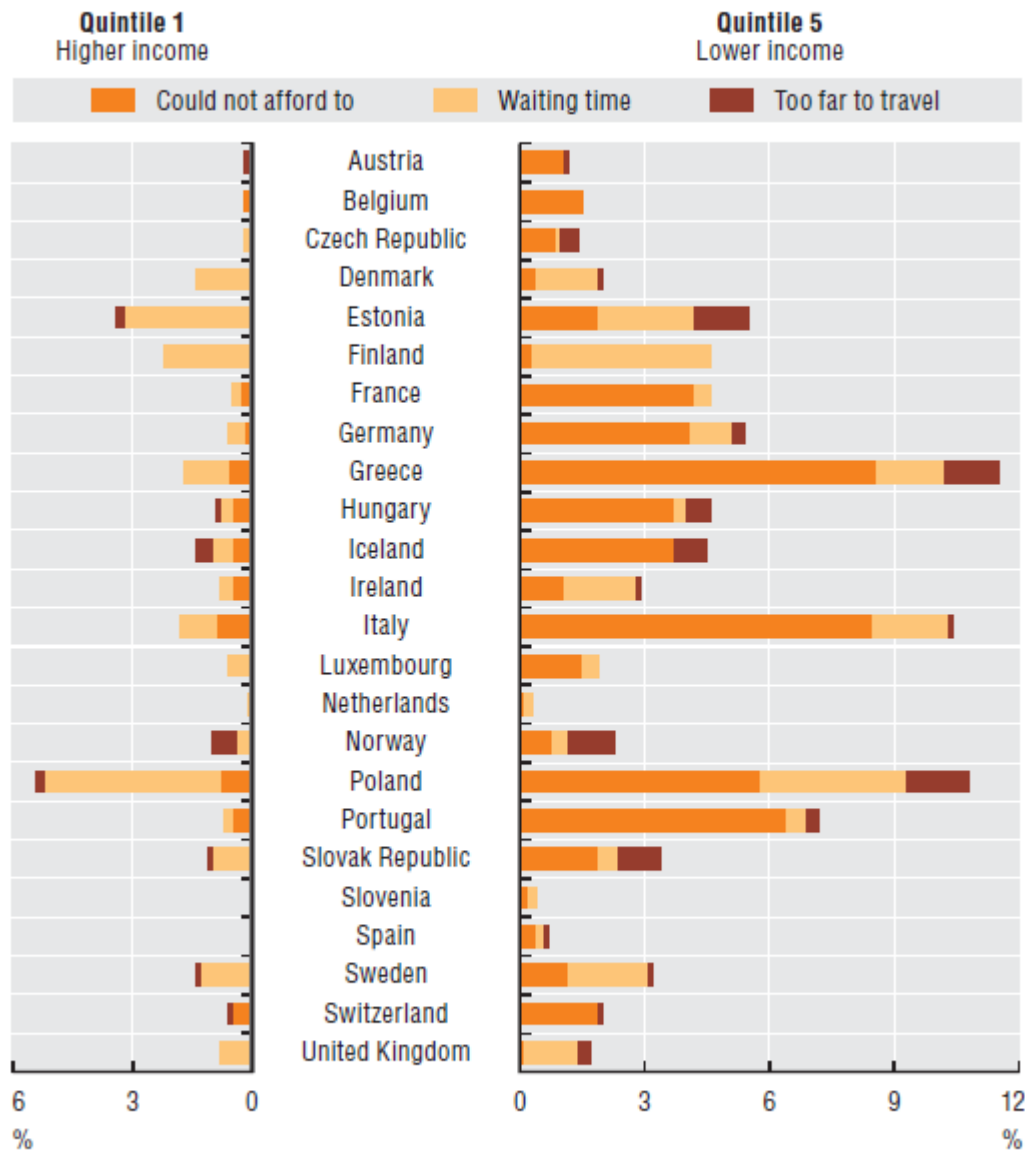
Countries	OCSE	Feasibility (124)	partner
Belgium	PHY	Supp, Dem	ass
Denmark	PHY	Supp	coll
Estonia (EE)		Supp	
Finland	ALL	Supp, NEED	ass
France	PHY, NUR		
Germany (DE)	PHY, NUR	Supp, Dem	ass
Ireland (IE)	PHY, NUR,OTH	Supp, Dem	coll
Italy	22 HWF occup		ass
Lituania (LT)		Supp, NEED	
Malta (MT)		Supp	
Netherlands	PHY, DENT	Supp, NEED	ass
Norway (All)	ALL	Supp, NEED	
Spain (ES)		Supp	
Sweden		Supp	
United Kingdom	PHY	Supp, NEED	



Index of need

- ▶ What is really measured?

6.1.1 Unmet need for a medical examination, selected reasons by income quintile, European countries, 2009



Source: EU-SILC.



THANK YOU