



# WORKING TOWARDS A FUNCTIONING WORKFORCE DATA COLLECTION AND REPORTING SYSTEM

OECD Experience with Joint Questionnaire on  
Health Workforce (OECD/EUROSTAT/WHO-EURO)



# Background and aim of Joint Questionnaire

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- Started in 2010, extended in 2013 (health care activities) and in 2015 (health workforce migration)
- Overall aim: Collect internationally comparable data to monitor key aspects and trends in health workforce (and other resources and activities of health systems)
- Aim of joint data collection:
  - Reduce data collection burden on national authorities
  - Improve consistency of data in international databases



# Content of the Joint Questionnaire on Health Employment and Workforce Migration



## Health employment and education

- Physicians
- Midwives, nurses and caring personnel
- Dentists, pharmacists, physiotherapists
- Hospital employment
- Graduates



## Health workforce migration

- Stock of foreign-trained doctors
- Annual inflows of foreign-trained doctors
- Stock of foreign-trained nurses
- Annual inflows of foreign-trained nurses



# General approach to Joint Questionnaire

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- **62 countries receive the Joint questionnaire each year:**
  - 28 EU countries + 7 EU candidate countries and EFTA countries
  - 18 other countries in WHO-Europe region
  - 9 OECD countries outside Europe (Australia, Canada, Chile, Israel, Japan, Korea, Mexico, New Zealand, US)
- **Based on international standard classifications:**
  - SHA: International Classification of Health Accounts (ICHA)
  - ISCO-08: Broad coverage of occupations in all sectors, but limited breakdown in some areas (e.g., specialist doctors)
- **Flexibility to take into account specific information needs of different organisations**
  - e.g., Eurostat includes additional modules to collect more data for more categories of doctors and employment at subnational level



# MODULE ON HEALTH EMPLOYMENT AND EDUCATION



# Data collection in Joint Questionnaire based on three concepts of workforce attachment

## Practising

- Providing services directly to patients

## Professionally active

- Practising
- Working in health system as administrators, managers, researchers, teachers, etc. (excluding direct contact with patients)

## Licensed to practice

- All health professionals who are licensed to practice, including practising or non-practising (e.g. unemployed, retired, working abroad)



# Data availability by occupation & concept

## “Practising”, “professionally active”, “licensed”

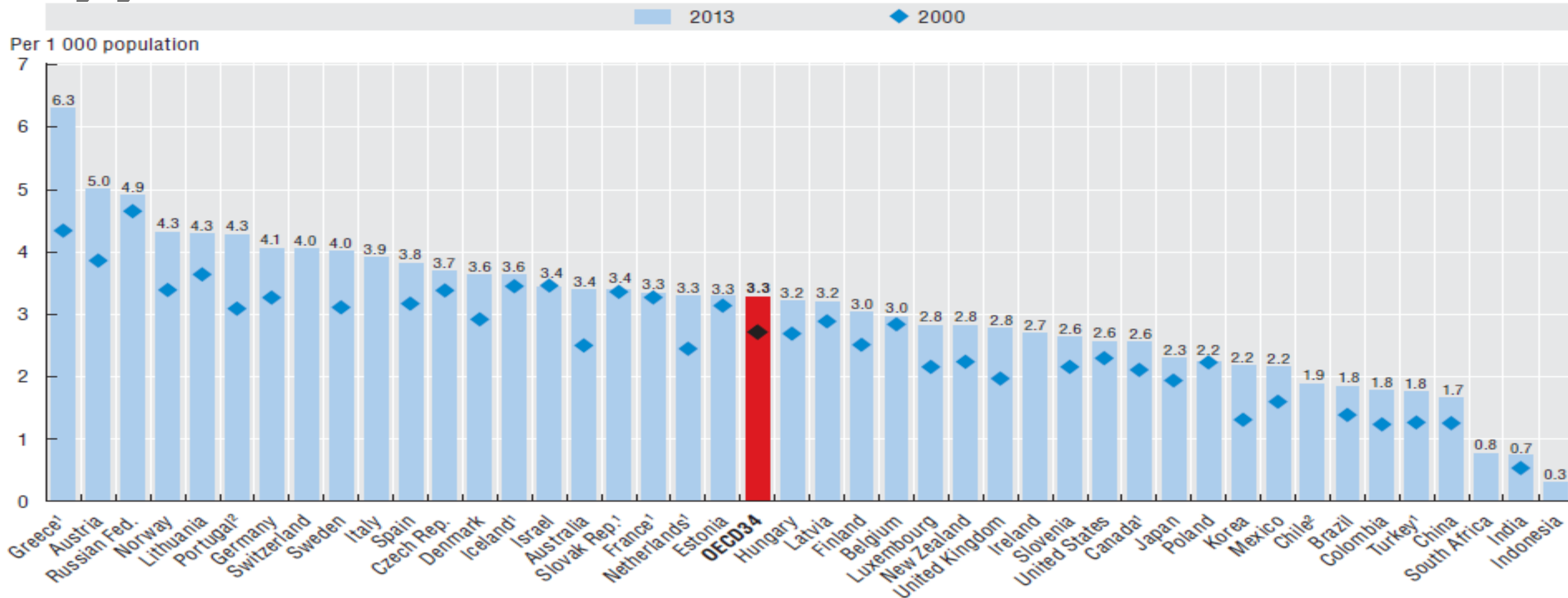
Number of OECD countries (out of 35) reporting at least one data point over 2013-2015

	<b>Practising</b>	<b>Professionally active</b>	<b>Licensed to practice</b>	<b>Overall</b>
Physicians	29	24	26	<b>35</b>
Midwives	22	19	20	<b>31</b>
Nurses	25	23	22	<b>35</b>
Caring personnel	19	11	-	<b>23</b>
Dentists	22	19	23	<b>35</b>
Pharmacists	25	21	21	<b>34</b>
Physiotherapists	32	-	-	<b>32</b>



# The number of physicians per capita has increased between 2000 - 2013 in nearly all OECD countries and selected middle income countries

Practising doctors per 1 000 population, 2000 and 2013 (or nearest year)



1. Data include not only doctors providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc. (adding another 5-10% of doctors).

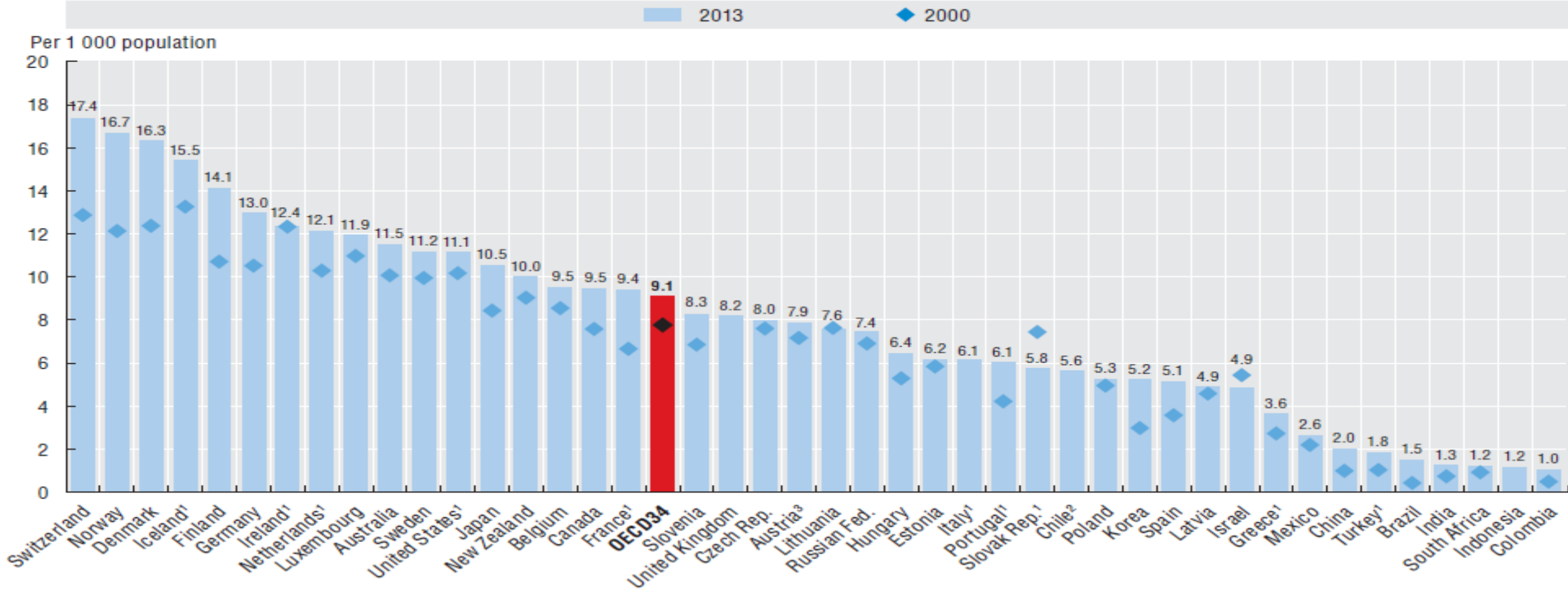
2. Data refer to all doctors licensed to practice (resulting in a large over-estimation of the number of practising doctors in Portugal, of around 30%).





# The number of nurses per capita has also increased in nearly all OECD countries, and in selected middle income countries

Practising nurses per 1 000 population, 2000 and 2013 (or nearest year)



1. Data include not only nurses providing direct care to patients, but also those working in the health sector as managers, educators, researchers, etc.

2. Data in Chile refer to all nurses who are licensed to practice (less than one-third are professional nurses with a university degree).

3. Austria reports only nurses employed in hospital.

Source: OECD Health Statistics 2015, OECD



# Persisting issues in data collection

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- **Data gaps:**
  - Progress in filling some data gaps, but not all countries able to submit data for all variables
  - Should we move to calculate estimates to fill key gaps?
- **Data specifications:**
  - How far to go in collecting data for different categories of doctors?
  - How best to collect data for “physicians in training” (interns and residents? (with fully-qualified doctors or separately?))
  - How far to go in collecting data for different categories of nurses?
  - How far can we go in moving from head counts to FTEs?



# NEW MODULE ON HEALTH WORKFORCE MIGRATION



## Aim of this new module

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- Monitor trends in inflows (immigration) and outflows (emigration) of doctors and nurses across countries
- Data can be used to analyse impact of recent policy and economic developments on migration patterns:
  - Economic crisis that started in 2008
  - Adoption of WHO Global Code in 2010
  - Other national policies designed to reduce emigration or manage migration (e.g., bilateral agreements)



## Scope and approach to data collection

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- Focus on migration of doctors and nurses
- Focus on place of training (foreign-trained, where first diploma was obtained)
- Collect *immigration* data from destination countries by all countries of origin (based on professional registries, physician/nurse surveys or other sources)
- Include both total “stocks” and annual “flows”
- Describe *emigration* patterns through *aggregation of immigration* data
- Collect time series where possible (from 2000 onwards)



# Data availability for foreign-trained physicians and nurses

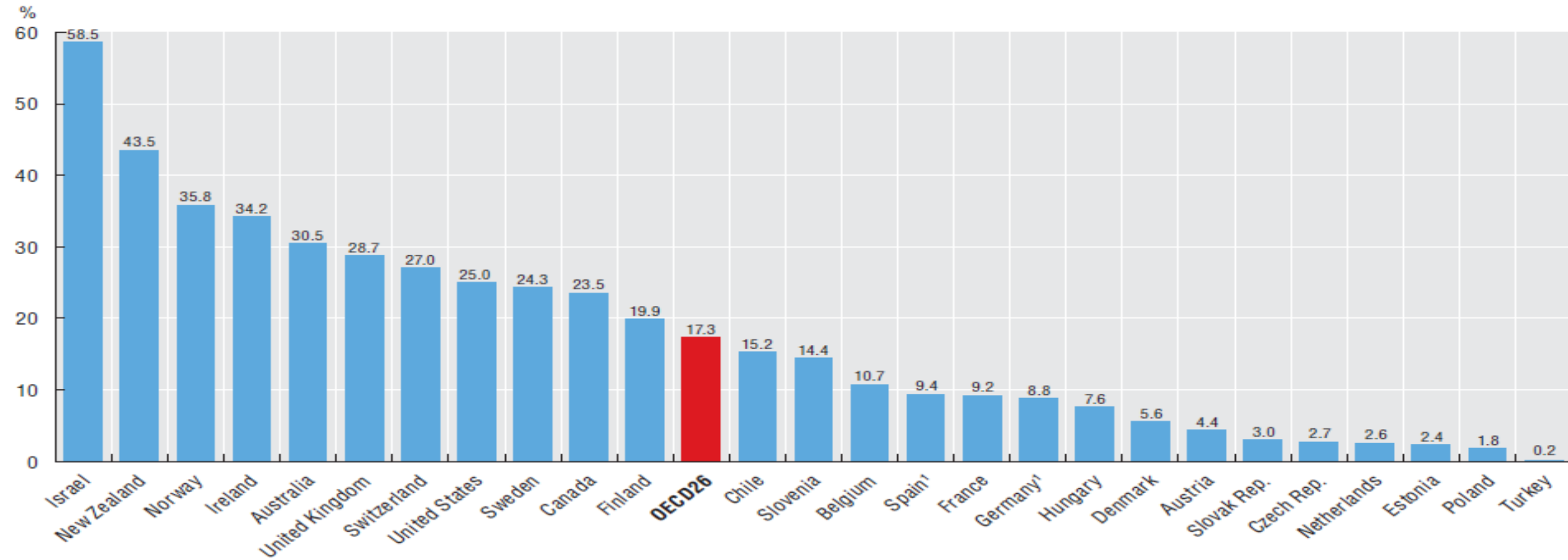
Number of OECD countries (out of 35)  
reporting at least one data point over 2013-2015

		<b>Doctors</b>	<b>Nurses</b>
<b>Stock</b>	Total foreign-trained	22	19
	Of which native-born	9	6
	Breakdown by country of origin	21	17
<b>Inflow</b>	Total foreign-trained	19	17
	Breakdown by country of origin	18	15



# Share of foreign-trained doctors varies widely across OECD countries

Share of foreign-trained doctors in OECD countries, 2013 (or nearest year)

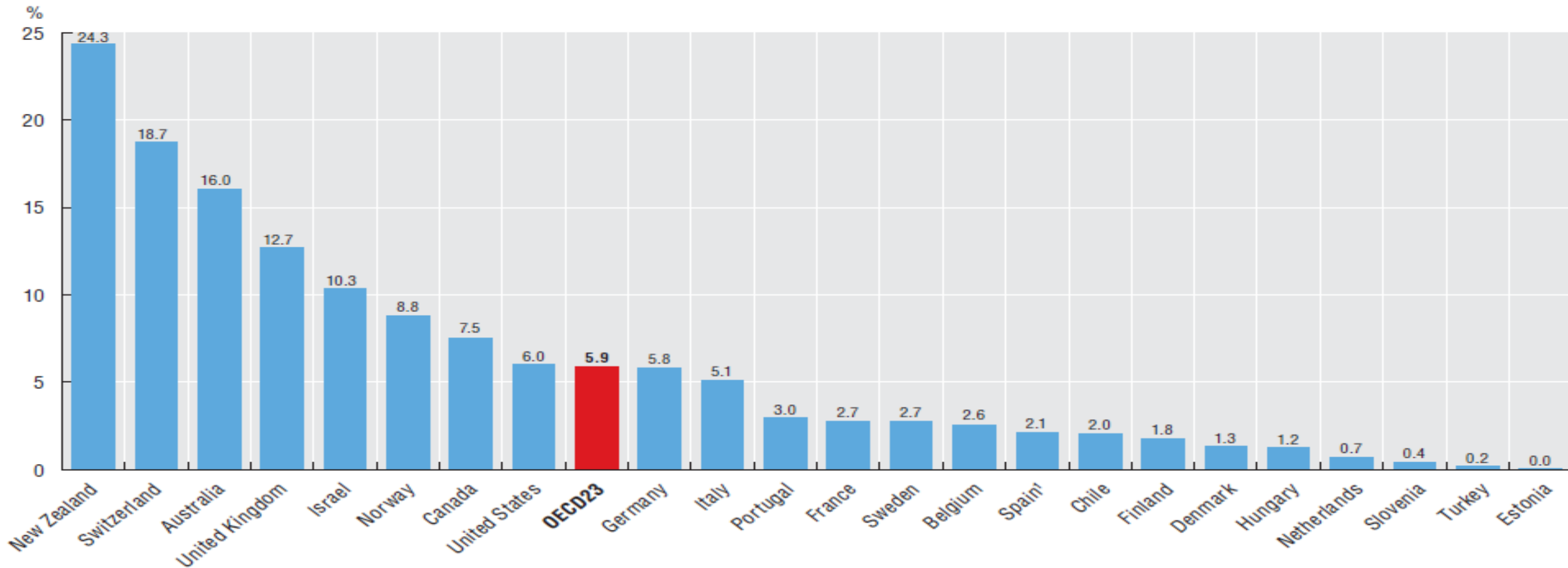


1. In Germany and Spain, the data is based on nationality (or place of birth in Spain), not on the place of training.



# Share of foreign-trained nurses lower than foreign-trained doctors (but absolute number is higher)

Share of foreign-trained nurses in OECD countries, 2013 (or nearest year)



1. Data for some regions in Spain relate to foreign nationality or place of birth, not the place of training.





# Main countries of origin of foreign-trained doctors working in the United Kingdom (top 20)

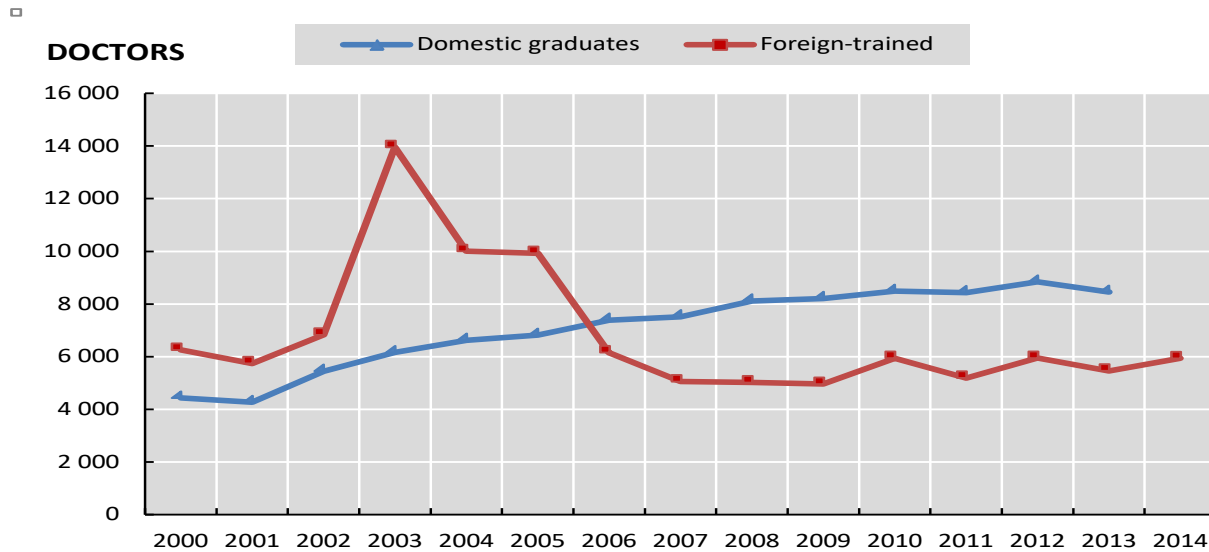
	2008	2009	2010	2011	2012	2013	2014
<b>Total number of doctors</b>	146 834	153 497	155 448	158 577	160 748	169 601	172 561
<b>Domestically-trained doctors</b>	99 817	104 913	104 657	108 152	110 341	116 359	119 171
<b>Foreign-trained doctors</b>	43 885	45 775	45 771	45 983	46 192	48 734	48 766
- of which native-born but foreign-trained	2 175	1 977	1 905	1 816	1 758	1 700	1 632
<b>Unknown place of training</b>	3 135	2 811	5 019	4 439	4 222	4 512	4 625
<b>Share of foreign-trained doctors</b>	29.9%	29.8%	29.4%	29.0%	28.7%	28.7%	28.3%
<b>India</b>	17 503	17 738	17 517	17 285	16 941	17 378	16 833
<b>Pakistan</b>	3 956	4 311	4 544	4 731	4 868	5 200	5 275
<b>Nigeria</b>	1 790	1 950	1 989	2 041	2 137	2 205	2 189
<b>Ireland</b>	2 046	2 007	1 926	1 883	1 860	1 916	1 859
<b>Egypt</b>	1 396	1 470	1 538	1 561	1 569	1 674	1 718
<b>South Africa</b>	1 595	1 620	1 551	1 500	1 455	1 470	1 424
<b>Sri Lanka</b>	1 356	1 222	1 481	1 421	1 333	1 353	1 354
<b>Germany</b>	1 381	1 421	1 400	1 360	1 335	1 374	1 347
<b>Iraq</b>	1 329	1 403	1 395	1 380	1 340	1 408	1 343
<b>Greece</b>	537	609	632	667	839	1 070	1 162
<b>Italy</b>	495	600	587	622	691	836	930
<b>Romania</b>	273	344	423	563	618	763	848
<b>Poland</b>	666	723	733	735	730	775	831
<b>Spain</b>	543	551	549	557	605	714	767
<b>Sudan</b>	429	470	517	536	572	679	729
<b>Czech Republic</b>	319	416	424	456	504	574	616
<b>Bangladesh</b>	396	430	454	474	498	530	536
<b>Australia</b>	593	601	590	546	527	501	497
<b>Hungary</b>	227	277	286	345	399	463	496



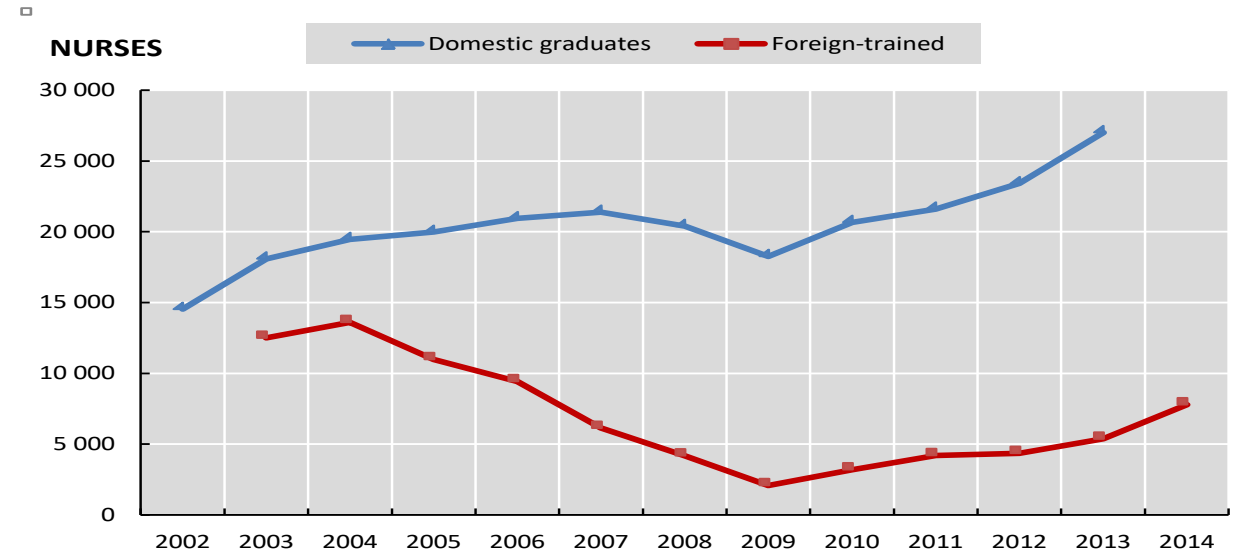
# Comparing annual inflows of foreign-trained doctors and nurses with domestic graduates

## United Kingdom

### Doctors



### Nurses



Source: OECD/Eurostat/WHO-Europe Joint Questionnaire 2015



# All countries are both source and destination countries: Example of emigration from UK

## Doctors trained in the United Kingdom working in other OECD countries

	2007	2008	2009	2010	2011	2012	2013
Australia							4230
Austria	6	5	4	5	6	8	10
Belgium	38	42	45	47	49	52	55
Canada	2146	2137	2138	2091	2193	2170	2161
Chile							
Estonia	2	2	2	2	2	2	2
Finland			27	32	36	41	
France					82	84	80
Germany	133	136	139	147	155	159	166
Ireland					691	617	655
Israel	155	158	159	162	167	173	173
Netherlands	39	40	43	44	44		
New Zealand	1983	2156	2268	2492	2574	2614	2639
Norway		109	116	107	113	113	115
Spain					67		
Sweden	34	42	50	54	55	60	
Switzerland		21	23	27	29	34	
United States	3913	3855		3987	4169	4544	4707
<b># countries reporting data * □</b>	<b>10</b>	<b>12</b>	<b>12</b>	<b>13</b>	<b>16</b>	<b>14</b>	<b>12</b>
<b>TOTAL</b>	<b>8449</b>	<b>8703</b>	<b>5014</b>	<b>9197</b>	<b>10432</b>	<b>10671</b>	<b>14993</b>

\* Those who have not reported any doctors trained in the UK are excluded

Source : OECD Health Statistics 2015, based on national sources (mostly professional registries)



# Lessons and next steps to improve data collection on health workforce migration

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- Data availability: Majority of OECD countries have been able to report data on the stock and flow of foreign-trained doctors and nurses working in their country for at least one recent year
  - But need to increase further the number of countries providing data for more comprehensive monitoring of immigration/emigration patterns
- Focus on place of training is the most relevant to measure “brain drain”, but need to take into account growing internationalisation of medical and nursing education
  - Need to achieve further progress in collecting data to distinguish “foreign-born and foreign-trained” students from “domestic-born but foreign-trained” returning to their home country after their studies
- Limitation of data collection approach: Does not capture doctors and nurses who may be emigrating to other countries but do not work as doctors and nurses



## Possible next steps for Joint Questionnaire

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- Joint Questionnaire has helped over past 6 years to improve availability of comparable data to monitor key aspects of health workforce across a large number of countries
- Possibility to amend/extend the variables collected in the JQ to cover more of the proposed indicators in the National Health Workforce Accounts handbook
- But any change should be based on proper R&D work, pilot testing, and consultation with countries



## Health workforce data required for health labour market/economic analysis

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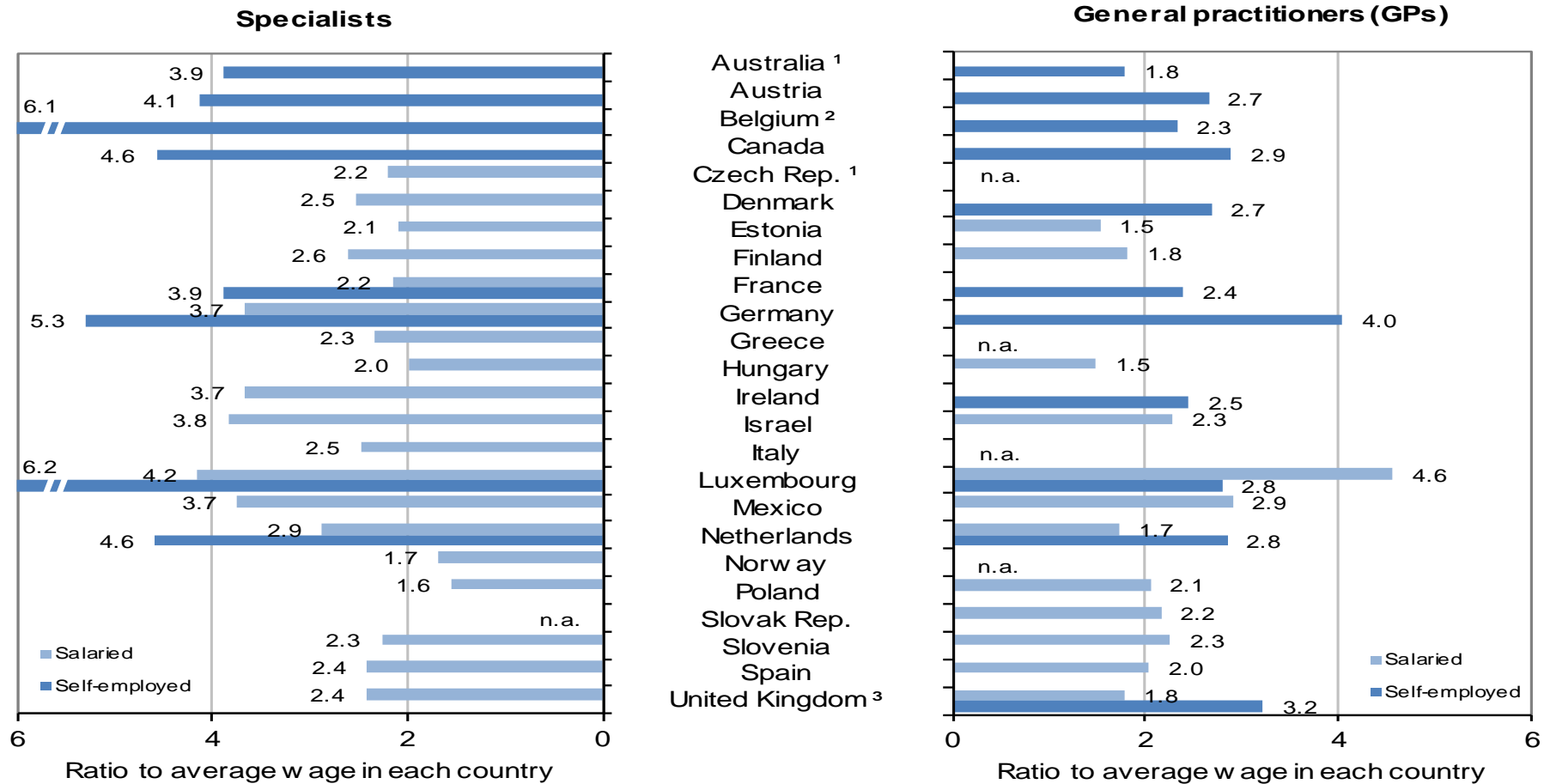
### Major data gaps exist for labour market/economic analysis

- Data on health workforce earnings – OECD has started to collect data but not yet part of the Joint Questionnaire
- Data on FTE (actual hours in practice, dual practice)
- Data on financing and cost of education: pre-service and continuing education



# Remuneration of doctors, OECD countries in 2013

Ratio to average wage, 2013 (or nearest year)



1. Physicians in training included (resulting in an underestimation). 2. Practice expenses included (resulting in an overestimation). 3. Specialists in training are included (resulting in an underestimation).



## Other dimensions of health workforce – Skills

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- **Skills mismatch (2011-12 OECD PIAAC survey)**
  - 50% of doctors and 40% of nurses reported under-skilling
  - 70 to 80% of doctors and nurses reported being over-skilled
- **Changing skills requirement:**
  - Task shifting and changing scope of practice among professional groups
  - Technological innovations and rapidly changing care delivery settings
- **Difficulties in cross-border /trans-jurisdictional recognition of education credentials**





THANK YOU!

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