

Trends in Medical Workforce Supply and Retention

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Key Point:

In 2019, Consultants and Non-Consultant Hospital Doctors account for over 10,000 or 8% of the total workforce in the public health system. Since 2015, the number of serving Consultants has increased by almost 530 to 3,250 in 2019, while the total number of NCHDs also increased by almost 1,000 to 6,860. Despite the growth in the medical workforce during these years, the Irish health care system continues to experience significant staff shortages. In 2018, almost 2,000 medical practitioners withdrew from the Irish Medical Register, constituting an exit rate of 9%. Recent data from Irish Medical Council suggests that a significant proportion of Irish medical graduates leaving the medical register (61%) planned to practice medicine in another country. In terms of the Specialist or Consultant division workforce capacity, 265 or 8% of posts were not filled as of 31 July 2020. The specialities with the highest number of vacancies included Medicine (72), Psychiatry (39), Pathology (37), and Radiology (27). With the increasing workforce in the NCHDs division (particularly non-training posts), compared to the Specialist'/Consultant division, this raises policy concerns surrounding the achievement of a future health service that is consultant-driven.

Policy Context

In 2019, Consultants and NCHDS, accounted for over 10,000 or 8% of the total workforce in the public health care system. Figure 1 shows the number of Whole Time Equivalent (WTE) medical doctors (NCHDs and Consultants) employed in the Irish health service between the years 2015 and 2019. During these years, the total number of serving medical doctors rose by almost 1,500 or 17%: increasing from over 8,600 in 2015 to over 10,000 in 2019. In this sector, the total number of serving consultants increased by 530: increasing from over 2,720 in 2015 to 3,250 in 2019. The total number of NCHDs has also risen between these years from over 5,890 in 2015 to over 6,860 in 2019.

Despite the growth in the number of serving medical doctors' overtime, it is well documented that the Irish health care system continues to experience significant staff shortages in the sector. This has led to a deterioration in the working conditions of medical practitioners delivering frontline services due to factors such as: the inability of doctors to take annual leave and inadequate replacement cover (IHCA, 2019; Hayes, Prihodova,

Walsh et al., 2019, Humphries, Crow and Brugha, 2018). In addition, it is believed that this has led to an increasing number of doctors leaving Ireland to work overseas. Within a stock of 1,305 Irish-trained doctors registered to work in Australia in 2016, 402 were registered as specialists, 375 as general practitioners, 234 as specialists in training, 132 were hospital non-specialists and 162 were categorised as ‘other’ (i.e. other clinicians or non-clinicians) (Humphries, Connell, Negin and Buchan, 2019: 5). The absence of a sustainable medical workforce impacts significantly on system development and the capacity to respond to public health disasters such as COVID-19.

Table 1: Serving Number of Consultants and Non-Consultant Hospital Doctors (WTE), 2015-19

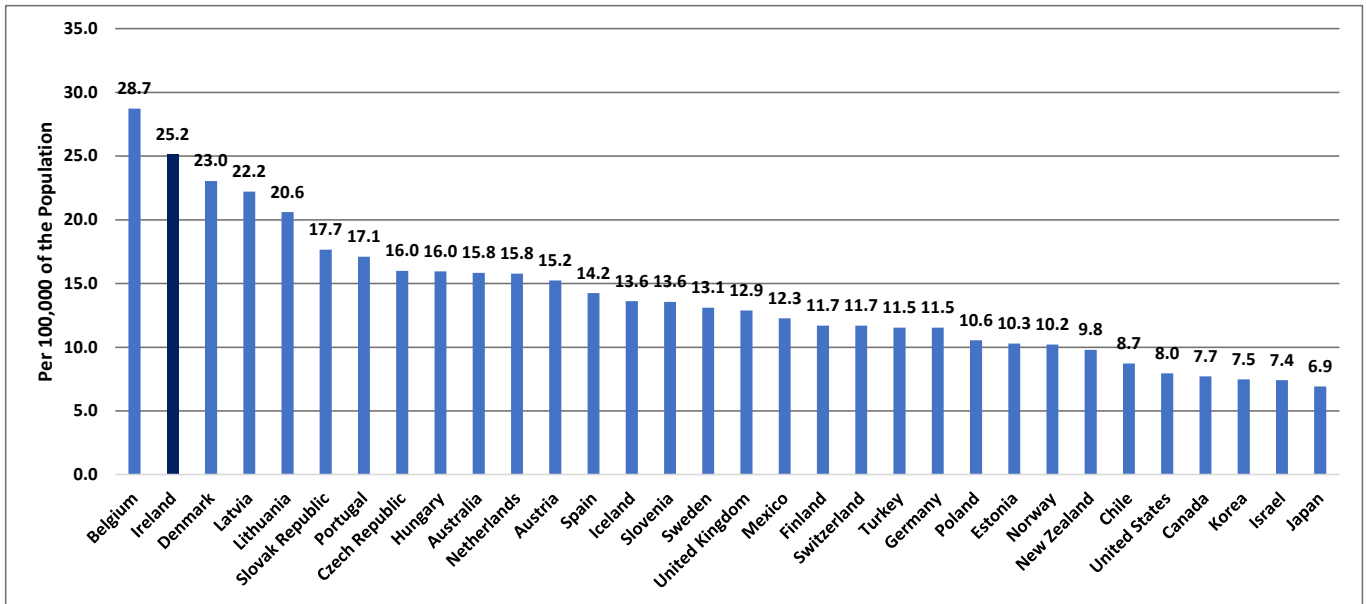
	2015	2016	2017	2018	2019	Numeric Change, 2015-19	% Change, 2015-19
Consultants	2,724	2,861	2,971	3,096	3,250	526	19.3%
NCHD	5,893	6,134	6,416	6,635	6,856	963	16.3%
<i>Of which</i>							
<i>Interns</i>	712	712	719	730	726	14	2.0%
<i>Senior House Officer</i>	2,158	2,217	2,295	2,346	2,390	232	10.8%
<i>Registrar</i>	1,949	2,055	2,160	2,265	2,332	383	19.7%
<i>Senior Registrar</i>	141	187	175	202	211	70	49.6%
<i>Specialist Registrar</i>	933	963	1,067	1,092	1,197	264	28.3%
Total	8,617	8,995	9,387	9,731	10,106	1,489	17.3%

Source HSE (2020)

Supply of Non-Consultant Hospital Doctors

Figure 1 shows the number of medical graduates per 100,000 of the general population. In 2018, Ireland has the second highest number of medical graduates per 100,000 of the population in the OECD. Belgium had the highest number of medical graduates at 29 per 100,000 of the population and was followed by Ireland (25 graduates), Denmark (23 graduates), Latvia (22 graduates) and Lithuania (21 graduates). The country with the lowest number of graduates in the OECD in 2018 was Japan at 7 graduates per 100,000 of the population.

Figure 1: Number of Medical Graduates Per 100,000 of the General Population, 2018



Source: OECD (2020). Note data refers to number of students who have graduated in medicine from medical faculties or similar institutions (i.e. students who have completed basic education in a given year).

The track to becoming a specialist or consultant doctor in Ireland requires the completion of three postgraduate training stages: an internship, Initial Specialist Training (IST) and Higher Specialist Training (HST). Table 2 shows the trends in the number of ‘approved’, ‘filled’ and ‘un-filled’ posts for internship, IST and HST posts. After graduating from medical school, newly graduated doctors spend 12 months training in hospitals as an intern. These interns work as part of a team with nurses and experienced doctors and can gain experience in a variety of medical and surgical specialities. In 2018, the number of filled internships amounted to 734: an increase of 50 or 7% from 684 posts in 2014.

Upon choosing an area of medicine to continue their postgraduate training at the end of the internship year, medical doctors then take up an IST post. For most specialities, the duration of IST is two years. Although, it can include a third and fourth year of training for some specialities, such as Ophthalmology (3 years) and Psychiatry (4 years). In undergoing their training, doctors are normally employed at Senior House Officer (SHO) level or Registrar level during the latter stages of IST (i.e. years 3 and 4). In 2018, almost 760 first year IST training posts were approved: an increase of 80 on the 670 posts available in 2014. Of the approved posts in 2018, over 730 first year posts were filled, with a remaining 22 IST posts un-filled.

After IST, most medical doctors progress to HST which is the final stage of post graduate training. Entry to HST is a competitive process in Ireland and successful trainees are primarily employed at Specialist or Senior Registrar grade in the Irish health service. In 2018, 546 HST posts were approved, an increase of 111 (+25.5%) from 435 posts approved in 2014. Of the approved posts in 2018, almost 500 were filled, while a remaining 50 posts were unfilled.

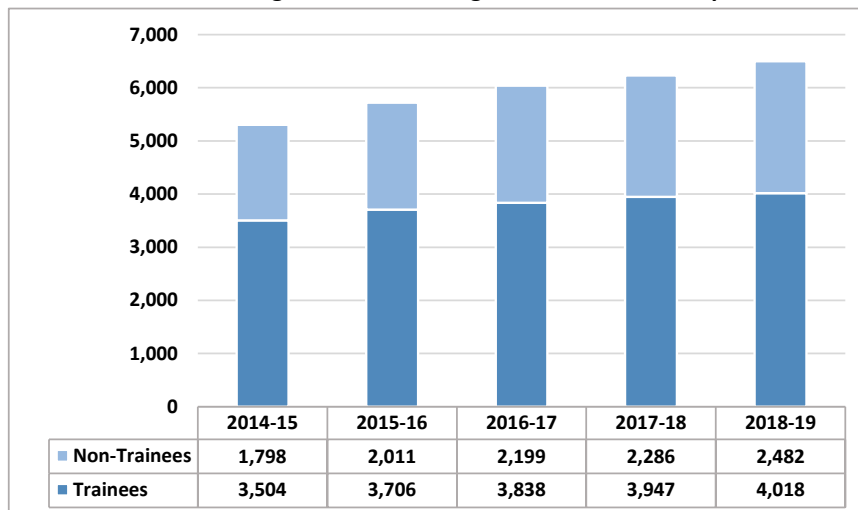
Table 2: Number of Approved, Filled and Un-Filled Medical Training Posts, 2014-18

	2014	2015	2016	2017	2018	Numerical Change, 2014-18
Internships						
Filled	684	727	727	733	734	50
IST Posts						
Approved	673	677	731	735	756	83
Filled	658	645	715	704	734	76
Un-filled Posts (1)	15	32	16	31	22	7
HST Posts						
Approved	435	467	476	509	546	111
Filled	427	443	455	497	497	70
Un-filled Posts	8	24	21	12	49	41

Source: NDTP (2020). Note: (1) The un-filled posts in 2018 are due to a lack of suitable candidates or insufficient applications received.

Figure 2 shows the trends in training and non-training NCHDs posts from 2014/15 to 2018/19. In contrast to training posts (i.e. IST and HST), doctors in non-training posts are not required to engage in formal training and are commonly employed at SHO and Registrar levels. The total number of trainee posts increased from over 3,500 in 2014/15 to almost 4,020 in 2018/19: representing an increase of over 500 or 15% on 2014. During this time, the number of non-trainee posts also increased by over 680 (+38%) from almost 1,800 in 2014/15 to 2,480 in 2018/19. The rise in training and non-training posts reflect government policy aimed at increasing recruitment to ensure compliance with the European Working Time Directive (EWTD). However, the increase in serving NCHDS WTEs by 16% (see Table 1), and non-training posts specifically, is not consistent with the government’s policy goal of a future health service that is consultant-delivered (Public Service Commission, 2018). As the rate of growth in NCHDs is greater than the growth in Consultants WTEs working in the Irish health service.

Figure 2: Number of Training and Non-Training Non-Consultant Hospital Doctors Posts, 2014-19



Source: NDTP (2020)

Medical Workforce Retention and Migration

In 2018, over 20,100 doctors chose to retain their place on the medical register and 1,992 doctors did not, constituting an exit rate of 9% as shown in Table 3. Of the 20,100 doctors retaining their place, over 3,250 (16%) practiced medicine outside of Ireland. The majority of doctors exiting the register in 2018 were male (65%), while the average age of non-retaining doctors was just under 42 years. Three quarters or 75% of non-retaining doctors were on the General Division of the Register. The proportion of non-retaining doctors on the Specialist Registration, Supervised Registration and Trainee Specialist Registration divisions of the medical register amounted to 25% in 2018 (Medical Council, 2019).

Since 2014, the number of doctors exiting the register decreased from over 3,190 to just under 2,000 in 2018. During these years, the exit rate of doctors from the medical register increased from 6% in 2014 to 13% in 2016, before decreasing again to 9% in 2018.

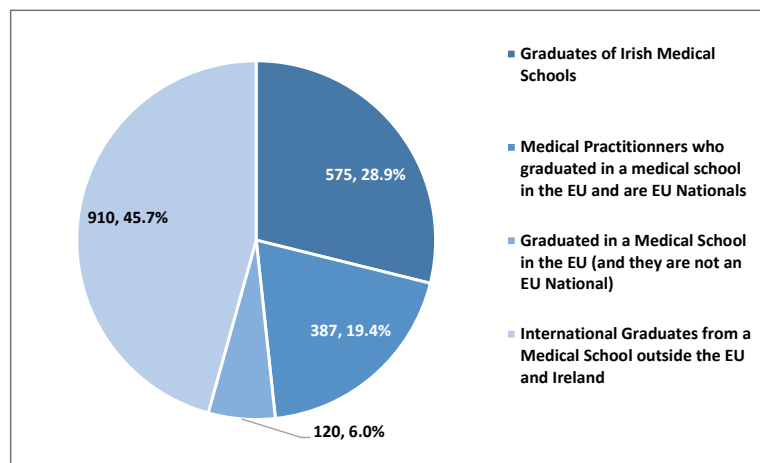
Table 3: Retention, Non-Retention and Exit Rate of Medical Doctors, 2014-18

	2014	2015	2016	2017	2018
Retention	14,474	15,812	17,435	19,600	20,109
Non-Retention	3,194	2,954	2,643	1,728	1,992
Exit Rate	5.6%	6.4%	13.1%	8.9%	9.1%

Source: Medical Council (2018) (2019). Note Data includes all grades of medical doctors.

Figure 3 shows the breakdown of doctors not retaining on the Irish Medical Council’s register by region of where their Basic Medical Qualification (BMQ) was attained. In 2018, medical practitioners who graduated from Irish medical schools accounted for the second highest number of doctors who exited from the Irish Medical Council’s register at 575 (29%), behind international graduates from medicals school outside of the EU at 910 (46%). The number of EU and non-EU nationals (with EU medical qualifications) who did not remain on the medical council register amounted to 387 and 120 respectively.

Figure 3: Category of Doctors Exiting the Irish Medical Council’s Register by Region of Basic Medical Qualification Attained, 2018

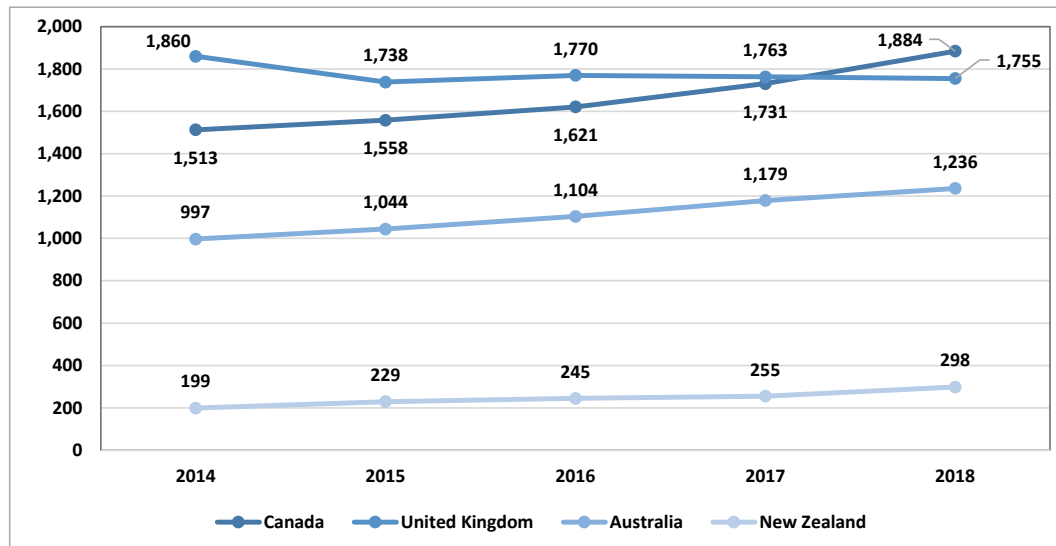


Source: Medical Council (2019). Note: Data includes all grades of medical doctors

According to self-reported data provided by the Irish Medical Council relating to doctors who voluntarily withdraw from the Irish Medical register, the majority of doctors (N=257, 60.6%) planned to practice medicine in another country in 2018. Most of these doctors reported leaving the general division of the register (N=216, 58.5%), compared to the Specialist Division (N=107, 29%) and Internship Division (N=44, 11.9%) (Medical Council, 2019).

Figure 4 shows the stock of Irish medical graduates in selected OECD countries. In 2018, the stock of Irish trained doctors working in Canada increased to almost 1,900: rising by almost 400 or 25% from the 1,500 doctors working there in 2014. Canada was followed by the UK with over 1,750 Irish doctors in 2018: representing a slight decrease of over 100 from 1,860 doctors in 2014. During these years, the number of Irish trained doctors working in Australia has also risen to almost 1,240 in 2018. The stock of Irish trained doctors working in New Zealand has remained relatively flat: with an increase of 100 doctors from almost 200 in 2014 to 300 in 2018.

Figure 4: Irish Trained Medical Doctors Stock Internationally, 2014-18



Source: OECD (2020) Note: Data presented is from select OECD countries. Data includes all grades of medical doctors.

Table 4 shows an international comparison of gross basic pay for specialist trainee doctors and specialist/consultant doctors. From these selected countries, an Irish medical intern doctor in 2020 earns the second lowest rate of pay at over €34,000 in 2020. Interns earned the highest rate of pay in Canada at almost €42,000 gross basic pay per annum. This country was followed by Australia (€41,545), and New Zealand (€37,000). Interns in the UK earn the lowest rate of pay among these selected countries at €31,500 per annum.

In the specialist registrar/trainee specialist medical division, Ireland is competitive relative to the other selected countries: with entrant doctors earning almost €64,000 per annum in 2020. Specialist registrar doctors in Australia had the second highest rate of gross basic pay at almost €61,000 and was followed by the United Kingdom (€55,000) and Canada

(€51,000). Entrant specialist registrars in New Zealand had the lowest rate of pay at almost €47,000.

The public service gross basic pay rate for new entrant consultant/specialist doctors in Ireland is €133,000 in 2020, compared to Australia (€102,000), New Zealand (€92,000) and the United Kingdom (€89,000). However, it is important to note that consultants in the UK can further increase their gross basic salaries through the payment of Clinical Excellence Awards. Consultants/Specialists in Canada are clinically independent and are contracted by the state health care system, with their remuneration being primarily based on Fee-For-Service payment system. In 2018, the gross average earnings of a consultant/specialist was almost €245,000. Although, it is important to note that this figure does not take account of the overheads associated with these practices.

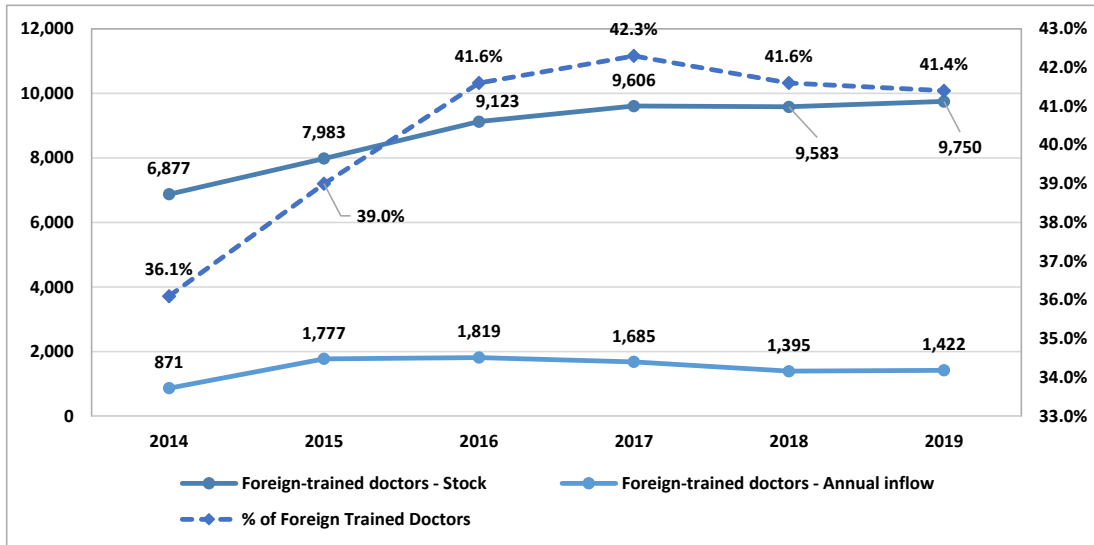
Table 4: International Comparison of Gross Basic Salaries for Trainee and Consultant, Specialist Doctors (€)

	Ireland (1)	United Kingdom (England - 2020) (2)	Australia (New South Wales – 2019/20) (3)	New Zealand (Auckland- 2020) (4)	Canada (Nova Scotia -2018/19) (5)
Intern	34,188	31,522	41,545	37,101	41,680
Specialist Registrar	63,734	54,729	60,662	46,559	51,289
Specialist/Consultant	133,128*	89,131	102,069	91,981	244,926*

Sources: (1) HSE (2019); *Note Irish Specialist/Consultant salary relates to 'Category B' contracted doctors (2) British Medical Association (2020) (3) Industrial Relations Commission of New South Wales (2019a); Industrial Relations Commission of New South Wales (2019b) (4) Association of Salaried Medical Specialists (2020); Speciality Trainees of New Zealand (2018) (5) Carms (2019); Canadian Institute for Health Information (2019); *Note Canadian Specialist/Consultant salary are average gross earnings.

With the increasing migration of Irish trained doctors in recent years, internationally trained doctors have come to represent a substantial source of recruitment for the Irish public health service. Figure 5 shows the inflow and stock of internationally medically trained doctors, 2014-19. Over time, the percentage of foreign trained doctors working in the Irish health service has increased from 36% in 2014 to 41% in 2019. During these years, the number of foreign trained doctors increased from almost 6,880 in 2014 to 9,750 in 2019: representing an increase of over 2,870 or 42%. However, the inflow of foreign doctors has fallen slightly in recent years: with a decrease of 380 or 21% from 1,800 in 2015 to over 1,420 in 2019.

Figure 5: Inflow and Stock of Internationally Trained Medical Doctors in the Irish Health Service, 2014-19

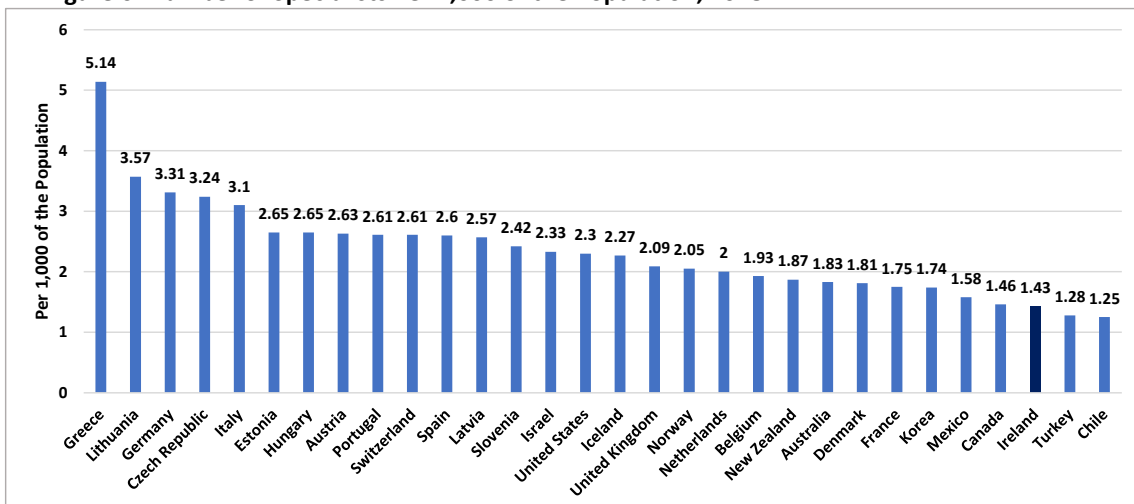


Source: OECD (2020). Note the data on foreign trained doctors ‘stock’ and ‘inflow’ refer to the number of doctors who have obtained their first medical qualification or degree in another country and are entitled to practice in the receiving country. Data includes all grades of medical doctors.

Medical Workforce Capacity: Specialist Division

Figure 6 shows the number of specialists per 1,000 of the population. From this sample of OECD countries, Ireland has the third lowest number of specialists, at 1.4 per 1,000 of the population in 2018. Greece had the highest number of specialists at 5.14 per 1,000 of the population and was followed by Lithuania (3.57), Germany (3.31), Czech Republic (3.24) and Italy (3.1).

Figure 6: Number of Specialists Per 1,000 of the Population, 2018



Source: OECD (2020).

According to the Irish Hospital Consultant Association (2020), over 500 permanent consultant posts were unfilled at the beginning of 2020. However, the HSE National

Doctor Training and Planning department provide an alternative source of data on the number of filled and vacant consultant posts in the public health care system. Table 5 shows a breakdown of consultant establishment by post occupancy and medical discipline. As of 31 July 2020, 265 or 8% of specialist/consultant posts were unfilled.

Table 5: Consultant Establishment by Post Occupancy and Medical Discipline

Medical Discipline	Filled	% of Total Posts	Unknown	% of Total Posts	Vacant	% of Total Posts	Total Posts
Anaesthesiology	382	11.2%	0	0.0%	14	0.4%	396
Emergency Medicine	107	3.1%	0	0.0%	6	0.2%	113
Intensive Care Medicine	28	0.8%	0	0.0%	5	0.1%	33
Medicine	733	21.5%	4	0.1%	72	2.1%	809
Obstetrics & Gynaecology	165	4.8%	0	0.0%	15	0.4%	180
Paediatrics	208	6.1%	1	0.0293%	25	0.7%	234
Pathology	262	7.7%	0	0.0%	37	1.1%	299
Psychiatry	443	13.0%	10	0.3%	39	1.1%	492
Radiology	288	8.4%	0	0.0%	27	0.8%	315
Surgery	517	15.1%	1	0.0293%	25	0.7%	543
Total	3,133	91.8%	16	0.5%	265	7.8%	3,414

Source: Correspondence with HSE National Doctors Training and Planning. Note: Figures relate to Consultant Applications Advisory Committee approved posts. A vacant post is a Consultant post that the hospital has verified on the Doctors Integrated Management E-system (DIME) as vacant. An unknown post refers to when the site has not yet assigned a consultant to a post or marked a post as vacant.

The specialities with the highest number of vacancies included Medicine (72), Psychiatry (39), Pathology (37), Surgery (25) and Paediatrics (25). Cancer services are also impacted, with 27 vacancies in radiology, while obstetrics and gynaecology had 15 vacancies. In the specialties of anaesthesiology and emergency medicine, a combined total of 20 posts were vacant.

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