



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

NDTP

National Doctors Training & Planning

REVIEW OF THE **EMERGENCY MEDICINE** MEDICAL WORKFORCE IN IRELAND

2017



"Investing in the career development of doctors"

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1 – INTRODUCTION TO THE REPORT AND OVERVIEW OF THE EMERGENCY MEDICINE WORKFORCE IN IRELAND

1.1 INTRODUCTION

The HSE National Doctors Training and Planning (NDTP) Unit is positioned within the HSE National Directorate for Human Resources, and has statutory roles in:

- Medical education and training;
- Medical workforce planning; and,
- The consultant post approval process.

Within its medical workforce planning remit, NDTP predicts and proposes on an annual basis the number of interns and medical trainees required for each specialty, as well as projecting the future medical workforce requirements for each speciality. This information then feeds into the medical education and training aspect of NDTP via the commissioning and funding of medical training required to meet workforce needs, ensuring that the training content and delivery is responsive to the changing needs of the Irish healthcare system, and supporting the retention of doctors upon completion of their training.

The main objective of NDTP is to ensure that, at all times, the Irish health service is provided with the appropriate number of specialists, who possess the required skills and competencies to deliver high quality and safe care, and whose training is matched to the model of healthcare delivery in Ireland, regardless of location.

1.2 BACKGROUND TO SPECIALTY-SPECIFIC REVIEWS

In 2014, NDTP published “Population Based Ratios of Specialists in Ireland and Internationally: An Information Source to Support Medical Workforce Planning”, which was a benchmarking exercise conducted across all medical specialties, comparing specialist numbers against international examples. Included in this benchmarking exercise are the projected number of specialists required per specialty in ten years’ time (2024). Data and contextual information were requested from individual postgraduate medical training bodies and associated national clinical programmes, which were considered in the development of each specialty-specific chapter.

As a follow-up to this exercise, it is timely to provide a review of each medical specialty based on current available data and input again from the postgraduate training bodies and clinical programmes. These reviews are high-level and are a companion to the more in-depth specialty-specific reports which are published by NDTP (i.e. “Future Demand for General Practitioners 2015-2025”, published in 2015, with equivalent reports in Paediatrics and Emergency Medicine due in Autumn 2017). These reviews will be a useful reference for those with an interest in data on the medical workforce and medical workforce planning, comprising a live repository that will be continuously updated as each review is completed. Where a review has yet to be completed, the chapter from the benchmarking exercise in 2014 will be available for reference.

1.3 DATA USED AND LIMITATIONS

The data utilised in the analysis of the medical workforce in each speciality for these reviews are drawn from multiple sources:

- HSE NDTP Doctors Integrated Management E-System (DIME), which receives data from the postgraduate medical training bodies, the Medical Council of Ireland and each clinical site that employs doctors in the public health system in Ireland;
- HSE Workforce Planning, Analysis and Informatics Unit (WPAI);
- HSE NDTP Consultants Division;
- The Postgraduate Medical Training Bodies;
- The Medical Council of Ireland – Medical Council Workforce Intelligence Report ;
- The National Clinical Programme linked to each speciality;
- International medical training bodies (UK and Australia);
- International medical workforce datasets (i.e. National Health Workforce Dataset in Australia), and;
- International health research groups (i.e. Health Workforce Australia).

Variations between datasets are not unexpected and therefore the results from the different sources in the reviews are not identical. These limitations of the datasets are due to variations in the time-point of data collection, differences in the variables collected (i.e. whole-time equivalents (WTE) versus headcounts), differences in the definitions of some variables (e.g. less than full-time versus part-time), absence of variable values (i.e. missing data) in datasets, and varying quality of data between sources.

The weaknesses of benchmarking domestic data against international data are known and include:

- (i) a lack of contextual consideration;
- (ii) assumptions that the international standard is best practice; and,
- (iii) potential complacency should the domestic value equal that of the international value.

However, there is merit in this kind of comparison as these ratios are interesting in terms of contextualising the demand for consultants across international healthcare systems with similar training and health care delivery infrastructures to those in Ireland. Further, it provides an international baseline for comparison and can help identify areas for improvement. Irish doctors traditionally migrate to countries like the UK and Australia and so benchmarking against these countries is a useful exercise.

Should you require any further information on the reviews, please contact NDTP at doctors@hse.ie

1.4 THE CONFIGURATION OF EMERGENCY MEDICINE WITHIN THE IRISH HEALTH SERVICE

Emergency Medicine (EM) encompasses the knowledge and skills required for the prevention, diagnosis and management of acute and urgent aspects of illness and injury affecting patients of all age groups. EM encompasses a full spectrum of undifferentiated physical and behavioural disorders. It further encompasses an understanding of the development of pre-hospital and in-hospital emergency medical systems and the skills necessary for this development (RCSI, 2017)¹.

Emergency Medicine in Ireland today is delivered by specialists in Emergency Medicine as well as NCHDs, both within and outside formal specialist training programmes. These doctors work in both Emergency Departments (EDs) and Local Injury Units (LIUs) in different locations around the country. Emergency Departments provide care for sudden or new illness and injury 24 hours a day, seven days a week. Local Injury Units provide care for patients with recent injury over a 10 or 12 hour day, up to seven days a week.

Currently there are 29 EDs and 11 LIUs operating in publicly-funded services throughout Ireland. Three of the 29 EDs are attached to the paediatric hospitals in Dublin while 26 EDs are attached to general hospitals, both inside and outside the Dublin area.

LIUs represent a relatively new approach to the delivery of satellite adult emergency services for the patient with non-life-threatening and non-limb-threatening injuries which are unlikely to result in serious long-term disability. LIUs do not manage medical conditions, pregnancy-related or gynaecological problems, injuries to the chest, abdomen or pelvis, or serious head and spine injuries. Promotional material is provided to direct patients with uncomplicated injuries to these units.

There are also a small number of emergency departments operating within private hospitals in Ireland. While emergency departments in private hospitals treat a wide range of illnesses, injuries and complaints, ranging from respiratory and cardiac complaints to surgical emergencies, fractures and sprains, not all patients are accepted. Typical exceptions may include women with pregnancy-related issues, major trauma victims and patients with acute psychiatric conditions. VHI SwiftCare clinics also provide emergency services, although the range of conditions that can be treated tends to be more limited, and they focus mostly on fractures, lacerations that require suturing and minor illnesses. Private emergency departments do not generally treat children and have limited opening hours.

This report is concerned with the workforce (and training) needs of specialists trained through the Emergency Medicine specialist training programme in RCSI (or equivalent international training body). Consultant staffing in EDs in paediatric hospitals are addressed in the paediatrics/neonatology specialty workforce planning project.

2 - NUMBER OF DOCTORS WORKING IN EMERGENCY MEDICINE

The population of doctors working in Emergency Medicine (EM) across Ireland consists of specialists trained in EM, specialists trained in Paediatrics with a special interest in EM, a small number of GPs, trainee doctors on the national EM training programme and NCHDs not aligned to a national training programme.

Note that this report focuses on specialists trained in Emergency Medicine through the RCSI (or equivalent international training body) and registered with the Medical Council in Ireland on the Emergency Medicine register. This training encompasses adult and paediatric emergency care, and EM consultants working outside the 3 paediatric hospitals in Dublin deliver care to paediatric as well as adult patients.

Paediatric EM specialists working in the 3 paediatric hospitals are almost all general paediatricians with a special interest in Emergency Medicine; they are trained through the higher specialist training programme delivered by the Faculty of Paediatrics in RCPI (or an international equivalent) and are registered with the Medical Council on the General Paediatrics register.

This report, therefore, focuses on the specialist workforce in EDs outside of the 3 paediatric hospitals. The medical workforce requirements for the paediatric population managed in Dublin (including the existing 3 paediatric hospitals and the future National Childrens Hospital) are addressed in the NDTP Paediatrics/Neonatology workforce planning report.

2.1 SOURCES OF DATA

The major sources of data utilised in the analysis of the current Emergency Medicine workforce include:

- Medical Council Workforce Intelligence data from 2015/16 registrations (MC, 2015², 2016³);
- HSE Workforce Planning, Analysis and Informatics Unit data from the census of the workforce (HSE- WPAI);
- HSE Consultants Division (HSE-NDTP) data on approved consultant posts;
- Royal College of Surgeons in Ireland data from the National Emergency Medicine Training Programme;
- HSE National Doctors Training and Planning Unit (HSE-NDTP) data on the number of NCHDs working in non-training posts , and;
- National Emergency Medicine Programme.

Variations between datasets are not unexpected and therefore the results from the different sources in this section are not identical. There are several possible explanations for this. The time-points at which the data are collected vary, for example, Medical Council data is collected annually in July, while HSE WPAI data is collected as part of a monthly census. Also, definitions may be slightly different, for example, less than full-time working and whole-time equivalents. The quality of the data can also vary between sources.

Examination of the available data has allowed for a breakdown of the EM medical workforce by consultants and NCHDs working in both HSE-funded and private sector health services and, further, by those doctors actively participating in the medical workforce in Ireland, gender and working patterns, contract type, age group and where doctors received their basic medical training. The ratios of NCHDs to consultants are also considered.

2.2 PARTICIPATION OF CONSULTANTS/SPECIALISTS IN THE MEDICAL WORKFORCE IN IRELAND

2.2.1 The Number of HSE Approved Consultant Posts

In 2017, there were 93 HSE approved consultant posts in Emergency Medicine, two of which included a special interest (SI) in Paediatric EM i.e. posts approved via the HSE Consultant Applications Advisory Committee (CAAC) process. See Table 1 below. For information purposes it is worth noting that there are an additional 9 approved posts for consultants in Paediatric EM. These doctors are Paediatrics trained.

Table 1 HSE Number of Approved Consultant Posts as at January 2017 (Source: HSE, NDTP)⁴

	WTE	HC
Emergency Medicine	89	91
Emergency Medicine with an SI in Paediatric Emergency	2	2
Total	91	93

2.2.2 Number of Consultants Working in Publicly-Funded Services;

In 2016 there were 98 consultants (91.84 WTEs) in EM working in publicly-funded services. See Table 2 below.

Table 2 Number of Consultants Who Worked in Publicly-Funded Services in Ireland (HSE WPAI, 2016)⁵

	HC	WTE
Consultant Emergency Medicine working in publicly-funded services as of Nov 2016	91.84	98*

*1 consultant in EM has a special interest in Paediatric EM

2.2.3 The Number of Registered Specialists Working in the Irish Health Care System in 2015/2016

According to Annual Retention Application Form data from the MC (2016), there were 89 doctors on the EM division of the Specialist Register and actively participating in the EM workforce in 2015. A further 17 doctors registered in specialties other than EM (mainly Paediatrics and General Practice) also worked in EM.

Table 3 Number of Doctors on the Specialist Register who Worked in Ireland in EM in the Previous Year (MC, 2016)⁶

	HC
Number of specialists in EM working in EM in 2015	89
All specialist registered doctors working in EM in 2015	106

2.2.4 Number of Consultants/Specialists Working Exclusively in the Private Sector

In 2016, there were 7 specialist registered doctors (of a total of 106) working exclusively in the private sector in EM. See Table 4.

Table 4 Number of Specialists Who Worked in Privately Funded Services in Ireland in 2016 (MC, 2016)⁶

	HC
Specialist registered doctors actively practicing EM in the private sector only in 2015	7

2.2.5 Gender and Working Patterns

According to data from the HSE WPAI census of the workforce, of the 98 (92 WTE) consultants working in publicly-funded services in 2016, 24% were female and 76% were male. The gender breakdown for HSE WPAI data is closely aligned with that of the MC (2016) data which indicate that, of the 106 specialist registered doctors working in EM (across both public and privately-funded services) in 2015, 23% were female and 77% were male. See Table 5.

Table 5 Gender Breakdown of Consultants/Specialists Working in Ireland in 2016 (5-6)

	Male %	Male HC	Female %	Female HC	Total HC
HSE WPAI 2016	76%	74	24%	24	98
MC 2016	77%	82	23%	24	106

The working patterns of specialists/consultants in EM are outlined in Table 6 below. Of the consultants working in HSE-funded services, approximately 88% (86) were working on a full-time basis while 12% (12) were working on a part-time basis (HSE WPAI, 2016)⁵.

Working patterns of those doctors on the Specialist Register of the MC indicate approximately 91% (97) of specialists worked full-time and 9% (9) of specialists worked less than full-time. Again, the MC data represents specialists working across both the public and private sectors. Note also that data on working patterns from the HSE and the MC are not directly comparable due to differing definitions of part-time working. Part-time working infers an approximate WTE rate of less than 80% for MC data. For HSE WPAI, part-time working is defined as a WTE rate of less than 100%. The overall WTE rate for HSE WPAI data is 94% i.e. on average, specialist registered doctors work 94% of a full working week.

Table 6 Working Patterns of Consultants/Specialists 2016							
	HC	HC Full-time	% Full-Time	HC Part-time	% Part-Time	Overall WTE Rate	WTE
HSE WPAI (2016)	98	86	88%	12	12%	94%	92
MC (2016)	106	97	91%	9	9%	-	-

2.2.6 Permanent/Temporary Status of the Consultant Contract

Seventy six of the 98 consultants (78%) working in publicly-funded services held permanent contracts in 2016 (see table 7). The remaining 22% held non-permanent contracts and were typically in locum positions and on specified purpose contracts (HSE WPAI, 2016)⁵.

Table 7 Permanent / Temporary Status of Consultant Contract 2016 ⁵					
	HC	Permanent	% Permanent	Non-Permanent	% Non-Permanent
WPAI	98	76	78%	22	22%

2.2.7 Country of Basic Medical Qualification

Table 8 outlines the location (Ireland or outside Ireland) where all specialist-registered doctors practicing EM obtained their basic medical qualification. This is further broken down by doctors who are specialists in EM and all doctors who are on the Specialist Register and practiced in EM in the previous 12 months.

Table 8 Country of Basic Medical Qualifications of Doctors on the Specialist Register who Worked in Ireland in the Past 12 months in the area of EM (MC, 2016)						
Current Area of Practice	Qualified in Ireland		Qualified outside Ireland		Total	
	All	EM specialist	All	EM specialists	All	EM specialist
EM	91	80	15	9	106	89

2.2.8 Exits from the Specialist Register

Five specialists (4.4%), exited the Specialist Register in 2015, i.e. specialist registered doctors who practiced EM the previous year (Table 9). The number of new entrants for 2015 is not known at this time.

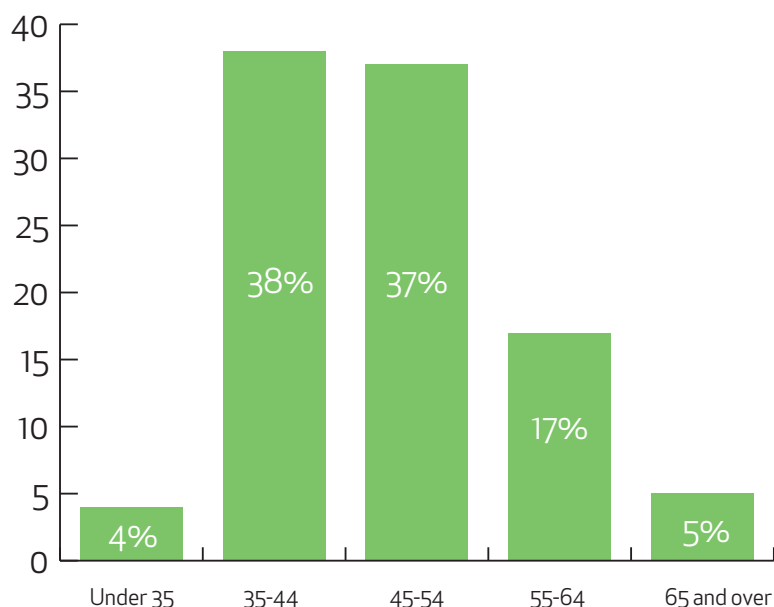
Table 9 Number of EM Doctors who Exited Specialist Registration in 2015 (MC, 2016) ⁶	
	Number leaving the register in 2016(%)
	5/113 (4.43%)

2.2.9 Age Profile of Consultants/Specialists

Of the 106 specialists working in EM in 2015, 4% were under the age of 35, 38% were between the ages of 35 and 44, 37% were between the ages of 45 and 54 and 22% were over the age of 55 years (MC, 2016)⁶. These data indicate that, over the next 10 years approximately 23 specialists working in EM are likely to exit the workforce due to retirement. (See Table 10 and Figure 1 below).

Table 10 Age Profile of Consultants / Specialists (MC, 2016) 6					
Under 35	35-44	45-54	55-64	65 and over	Total No.
4%	38%	37%	17%	5%	100%
4	40	39	18	5	106

Figure 1 Age Group of Specialists Working in EM



2.3 PARTICIPATION OF NON-CONSULTANT HOSPITAL DOCTORS IN THE MEDICAL WORKFORCE IN IRELAND

Compared to other medical specialties, Emergency Medicine is particularly dependent on NCHDs to support service delivery. Table 11 below outlines the number of NCHDs who retained registration in 2015 and worked in Ireland in EM in the previous 12 months. Of these 518 doctors, 114 were on the trainee specialist register, 401 were on the general register and 3 were on the supervised register (MC, 2016). This reflects a significant overdependence on non-training NCHDs.

Table 11 NCHDs by Registration Type Practicing in EM in the Previous 12 Months (MC, 2016)				
	General Division	Supervised Division	Trainee Division	Total
Professionally active in past 12 months	401	3	114	518

2.3.1 NCHDs in Training

Specialist training in Emergency Medicine was streamlined in July 2014 and for new entrants is currently a seven year training programme. Trainees may now commence training directly from internship and progress seamlessly through the programme rather than completing Basic Specialist Training (BST, previously 3 years in duration) followed by competitive entry into Higher Specialist Training (HST, previously 5 years in duration) (RCSI, 2016)⁷. Tables 12 and 13 below outline the number of trainees in each year of training.

The programme is currently in a transition phase, with trainees from the "old" and "new" schemes co-existing. Of the 105 trainees, 70 are in the core years and 30 are in the advanced years of the programme (RCSI, 2016)⁷.

Table 12 BST Trainees in EM 2016-2017: Distribution of posts by year of training (HSE, 2017) ⁷			
CSTEM*1	CSTEM 2	CSTEM 3	Totals
25	21	24	70

*CSTEM refers to Core Specialist Training in Emergency Medicine

Table 13 HST Trainees in EM 2016-2017: Distribution of posts by year of training (HSE, 2017)⁷

HST Yr 4	HST Yr 5	HST Yr 6	HST Yr 7	HST Yr 8	Total
7	3	7	8	10	35

The vast majority of HST trainees are in clinical posts (32), one holds an academic post and 2 are participating in flexible training (RCSI, 2016)⁷. See Table 14 below.

Table 14 Location of HST Trainees (HSE, 2017)⁷

Clinical /Lecturer Post in Ireland	Research Post in Ireland	Flexible Training	Total
32	1	2	35

Expected Specialist Training Completion Numbers

An analysis of the number of doctors in HST training currently projects that a maximum of 10 and a minimum of 3 trainees annually will complete specialist training and be eligible for specialist registration over the next 5 years. See Table 15 below.

Table 15 Expected Training Programme Exits By Year and Gender (RCSI, 2016)⁸

	2017	2018	2019	2020	2021
Male	7	4	5	2	-
Female	3	4	2	1	-
Total	10	8	7	3	7

2.3.2 NCHDs Not in Training Posts

Total Number of Non-Training NCHDs in the Emergency Medicine Workforce

As mentioned in Section 2.3.1 above, of the NCHDs who retained registration, 401 were on the general register and 3 were on the supervised register of the MC in 2015.

Table 16 Breakdown of Non- Training NCHDs Practicing in EM in the Previous Year (MC, 2016)⁶

	General Division	Supervised Division	Total
Professionally active in past 12 months	401	3	404

Total Number of Non-Training NCHDs in the Publicly-Funded Emergency Medicine Workforce

Data from HSE NDTP shows 252 NCHDs in non-training posts as of March 2017. Of these, 121 were SHOs and 131 were Registrars (Table 17).

The discrepancy between the MC and HSE non-trainee numbers are striking (404 v 252). As HSE data only capture doctors employed directly in publicly-funded posts, some of this could be explained by doctors working in the private sector. However, only 6 MC registrants were working in private EDs (see Table 18 below). Another possible explanation is that many of these doctors are employed indirectly via employment agencies contracted by the HSE.

Table 17 Non-Training NCHDs (HSE NDTP, 2017)

SHO	Registrar	Total Non-Training
121	131	252

Total Number of Non-Training NCHDs in the Privately-Funded Emergency Medicine Workforce

Data from the MC (2016)⁶ infers a total of 6 NCHDs in non-training posts were working exclusively in the private sector in EM.

Table 18 NCHDs Practicing in EM in the Previous Year in the Private Sector Only MC (2016) ⁶

	General Division
Professionally active in past 12 months	6

2.3.3 Gender and Working Patterns of NCHDs

According to the MC (2016), 36% of all NCHDs registered in 2015 and practicing in EM in Ireland in the previous 12 months were female. A further gender breakdown by trainee/non-trainee is shown in Table 19.

Emergency Medicine is one of a small number of specialties which has a higher than average ratio of male to female doctors; however data on trainees shows that the number of newly qualified specialists will be increasingly female in future years.

Table 19 Gender - Emergency Medicine (MC, 2016) ⁶

	Female (N)	Female (%)	Male (N)	Male (%)	Total No.
General Division	92	23%	309	77%	401
Trainee Specialist Division	58	51%	56	49%	114
Supervised Division	1	33%	2	66%	3
Overall Total	151	36%	367	64%	518

Only 8% of doctors on the general register stated that they worked less than full-time while the corresponding figure for trainees is 1%. Compared with some other specialties e.g. Paediatrics and General Practice, EM has a low number of doctors working on a part-time basis. This may be due to the predictable shift pattern of working coupled with the higher proportion of males in the EM workforce (See Table 20 below).

Table 20 Working Patterns - NCHDs Emergency Medicine (MC, 2016)⁶

	Less than Full time (N)	Less than Full time (%)	Full time (N)	Full time (%)	Total N
General Division	32	8%	369	92%	401
Trainee Specialist Division	1	1%	113	99%	114
Supervised Division	0	0%	3	100%	3
Total NCHDs	33	3%	485	97%	518

2.3.4 Country of Basic Medical Qualification of NCHDs

Approximately 71% of trainees and 32% of general registered doctors working in EM graduated from an Irish medical school (MC, 2015)². The vast majority of EM NCHDs graduated outside Ireland.

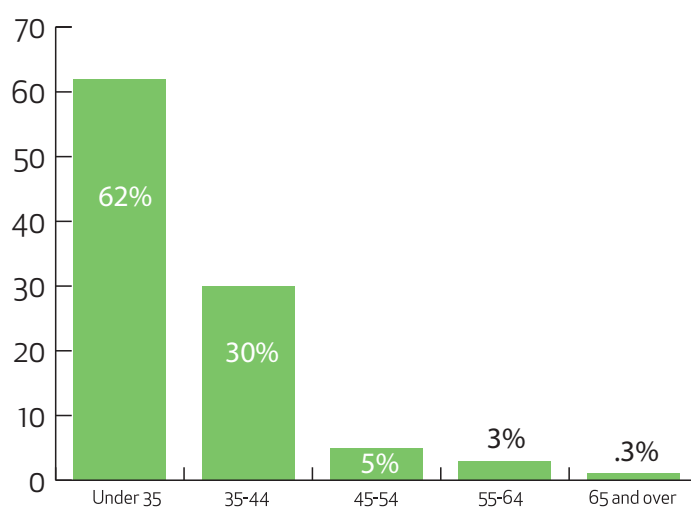
2.3.5 Age Profile of NCHDs

Of the 518 EM NCHDs in 2015 who were on the general division of the MC register, 44% were under the age of 35, 32% were between the ages of 35 and 44, 15% were between the ages of 45 and 54 and 10% were over the age of 55 years (MC, 2016)⁶. These data indicate that, over the next 10 years, approximately 40 EM doctors on the general division are likely to exit the workforce due to retirement. The older age profile of non-training EM NCHDs (101 aged 45 and over) is exceptional compared to other specialties.

All doctors on the trainee specialist and the supervised division of the register were under the age of 44. See Table 21 below.

Table 21 Age Profile of the Emergency Medicine NCHD Workforce						
	Under 35	35-44	45-54	55-64	65 and over	Total No.
General Division	44%	32%	15%	9%	1%	401
Trainee Specialist Division	76%	24%	-	-	-	114
Supervised Division	67%	33%	-	-	-	3
Total NCHDs	62%	30%	5%	3%	.3%	518

Figure 1 Age Group of NCHDs



2.4 RATIO OF NCHDS TO CONSULTANTS

The ratio of NCHDs to consultants is high relative to other specialties at approximately 4 to 1 (the ratio rises to 5:1 if all MC NCHDs are included). There is also a very high ratio of non-training NCHDs to those NCHDs in postgraduate medical training (again 2.5:1 and 4:1 using HSE/MC data respectively) . This heavy reliance on non-trainees is exceptional compared to other medical specialties.

2.5 SUMMARY OF WORKFORCE DATA

Table 22 outlines a summary of data on the consultant and NCHD Emergency Medicine workforce. These data provide the high level information required to analyse inflows and outflows of doctors from the medical workforce in Ireland.

Table 22 Current Configuration of the Emergency Medicine Specialist Workforce

EMERGENCY MEDICINE WORKFORCE		
Assumption	Value	Source
Number of consultants working in HSE-funded services – permanent and temporary (excluding paediatric EM in Dublin EDs)	98 HC 92 WTE	HSE Workforce Planning, Analysis & Informatics Unit of the HSE as of September 2015 – (excluding paediatric EM in Dublin EDs) ⁵
Full-time consultants in HSE-funded services	86 HC 82 WTE	HSE Workforce Planning, Analysis and Informatics Unit Nov 2016 ⁵
Part-time consultants in HSE-funded services	12 HC 7 WTE	HSE Workforce Planning, Analysis and Informatics Unit Nov 2016 ⁵
Estimated number of private sector only consultants as per Medical Council data	7 HC	Medical Council (2016) ⁶
Number of approved consultant posts for HSE-funded services	93 HC 91 WTE	HSE Consultants Appointments Unit 2017 ⁴
Share of females in consultant employment stock for HSE-funded services	25.5%	HSE Workforce Planning, Analysis and Informatics Unit Nov 2016 ⁵
Share of males in consultant employment stock for HSE-funded services	74.5%	HSE Workforce Analysis, Planning and Informatics Nov 2016 ⁵
Overall WTE rate for consultants in HSE-funded services	.94	HSE Workforce Analysis, Planning and Informatics Nov 2016 ⁵
% Consultants/Specialists over 55 years working in EM	22%	Medical Council (2016) ⁶
% Non-training NCHDs over 55 years working in EM	10%	Medical Council (2016) ⁶
Total HST	35	As advised by NDTP/RCSI EM training body
Total BST	70	As advised by NDTP/RCSI EM training body
Total non-training NCHDs	252	NDTP 2017
Annual exits from HST training w/ CSCST	3-10	RCSI, 2016

3 - CURRENT UNDERSUPPLY OF DOCTORS IN THE EMERGENCY MEDICINE WORKFORCE

Ireland is currently experiencing huge demand for emergency services for a number of reasons; an ageing population, increased prevalence of chronic diseases, and underdeveloped community and primary care resources including population ageing, an increasing burden of chronic disease, as well as underdeveloped community and primary care. It is also acknowledged that there is an undersupply of senior decision makers on the ED floor. As a result, patient waiting times far exceed the national target of 95% compliance with the 6 hours 'patient experience time' (DoH, 2015)⁹.

An undersupply of senior decision makers on the ED floor, coupled with an over-reliance on non-training NCHDs, results in delays for both admissions and discharges of patients to and from the ED. Both the Emergency Medicine Taskforce (DoH, 2015)⁹ and the EMP state that an increase in medical staffing levels, at both consultant and non-consultant level, is needed to ensure:

- Increased access to senior decision makers to increase efficiencies in patient care;
- The reduction in onerous on-call rostering arrangements;
- Reduced reliance on agency staff including locum doctors;
- Reduced patient waiting times; and;
- Increased patient safety and better patient outcomes.

The undersupply of emergency medicine specialists and NCHDs is addressed further in Section 5 below.

4 - KEY DRIVERS OF CHANGE TO THE FUTURE OF THE EMERGENCY MEDICINE WORKFORCE

4.1 INTRODUCTION

There are multiple factors that impact the demand for emergency medical services today and into the future. While some of these relate directly to emergency services and how they are delivered, others relate to the lack of resources in the community and acute hospital setting. These demand factors are addressed in a recent report from the Department of Health's Emergency Department Taskforce (April 2015)⁹ and include the following:

- Population projections and rising chronic disease;
- New model of care and service reconfiguration;
- The development of the Acute Medical Assessment Units, Acute Surgical Assessment Units and Rapid Access Clinics;
- Service developments related to care of the elderly, and;
- Availability of senior decision makers on the ED floor.

4.1.1 POPULATION PROJECTIONS AND CHRONIC DISEASE

Under the M2F2 CSO scenario for projecting population growth (CSO, 2011)¹⁰ it is estimated that by 2027 the population of Ireland will have increased by over 400,000 (from around 4.65 million today to approximately 5.07 million). By 2027 there will be approximately 860,000 people in Ireland over the age of 65, representing an increase of almost 40% in the number of over 65s today. The over 80s population, which exerts the greatest pressures on the health service, is expected to increase from around 150,000 to over 220,000 or by around 50% over the next decade.

Population ageing is directly linked to increasing chronic disease presentation and complexity of care requirements. The ageing of the population presents the health service with many resource challenges across the acute hospital, primary and social care sectors. Over the course of 2014, almost 22% of all ED attendances were aged 65 or over, and almost 12.5% were aged 75 or over. In 2014, the proportion of over 65s admitted on an emergency basis increased by 20% from 32% in January to 38% in December 2014. This trend has continued into 2015 and 2016 and admission figures for the over 65s will likely continue to increase in line with population ageing if the current service delivery model remains unchanged (Emergency Department Task Force, 2015). Using current ED attendance figures, weighted for age group, it is estimated that the number of emergency attendances among the 65+ age group could increase from 195,728 in 2015 to around 267,975 by 2026, representing an increase in attendances of approximately 37% over a 10 year period.

Chronic disease care requirements among elderly patients remain a significant avoidable reason for presentation at EDs. It is an established policy of the Department of Health to increase chronic disease management within the community in order to reduce reliance on acute hospital services. However, it is noted by the Emergency Department Task Force that current capacity in community services is insufficient to meet growing demands associated with population ageing. This in turn results in an increased number of referrals to EDs and delayed discharges from acute hospitals.

4.1.2 MODEL OF CARE AND SERVICE RECONFIGURATION

In 2012 the Minister for Health and Children launched the Emergency Medicine Programme (EMP) Model of Care (EMP, 2012)¹¹. This model of care takes in to account the major drivers of change to the future of the EM services, including those outlined above, and proposes a number of changes to the way in which emergency medical services in Ireland are delivered.

Proposals of the EMP include the re-organisation of emergency services in Ireland based on the concept of a National Emergency Care System (NECS) to establish 'a well co-ordinated system to facilitate the provision of high-quality patient care that is standardised across the country and easily accessible for all service users, irrespective of when or where they access emergency care' (EMP 2012). Emergency Care Networks (ECNs), which underpin the NECS, if fully implemented and operated, will include a number of collaborating emergency units, closely aligned with local pre-hospital services. The ECNs will function within the framework of the HSE regional structures and be delivered through Emergency Departments, Local Emergency Units (LEUs) and Local Injury Units (LIUs).

It is intended that ECNs will be complementary to the Hospital Models described in the National Clinical Programmes for Acute Medicine, Acute Surgery and Critical Care and the report: 'Securing the Future of Smaller Hospitals: A Framework for Development' (DoH, 2011)². The various component units of an ECN will also almost certainly map onto those described in the development of Trauma Networks i.e. networks of hospitals to treat patients who present with serious, often multiple injuries or one life changing injury.

The core components of ECNs are:

- Pre-hospital care: including a Helicopter Emergency Medical Service (HEMS), ambulance transport, pre-hospital medical support (both via telemedical support and the dispatch of appropriately trained doctors and nurses when requested) and the work of paramedics and advanced paramedics;
- Emergency Medicine: including Emergency Departments (EDs), Clinical Decision Units (CDUs), Paediatric Emergency Medicine (PEM) and multidisciplinary Emergency Medicine (EM) teams; and;
- Acute hospitals and supporting specialties, including assessment units as recommended by National Clinical Programmes in Acute Medicine, Acute Surgery and Paediatrics.

ECNs will also include community level emergency care i.e. first responders, voluntary groups, GPs and transport and retrieval services.

Urgent and Ambulatory Care Centres (UACCs) are proposed in the new model of care for paediatrics, developed by the National Clinical Programme for Paediatrics and Neonatology, in conjunction with the National Clinical Programme for Emergency Medicine. These will be established in 2016/17 to provide care for non-life threatening and non-limb threatening conditions in children aged 0 to 16. Lists are provided to guide patients, parents and GPs in making an appropriate referral to these units. Care will be provided by consultants and advanced nurse practitioners (ANPs).

Within ECNs, the EMP proposes 3 different emergency medical unit categories i.e. Type A units; Type B units and Type C units. These are discussed in more detail in Section 5.2 below.

Coinciding with the development of emergency medical services in Ireland is the development of other cross-over or related services, particularly in the area of care of the elderly, including acute and community-based care services.

4.1.3 Development of the Acute Medical Assessment Units, Acute Surgical Assessment Units and Rapid Access Clinics

The key interface between Emergency Medicine, Acute Medicine and Acute Surgery is being developed in what is now described as the Acute Floor, to ensure the provision of high-quality patient care as well as earlier access to the most appropriate senior decision makers within the hospital (Acute Medicine Programme, 2010)³. This will involve the following:

- Planning for routine and surge capacity through coordination of services across the Emergency Department (ED), the Acute Medical and Acute Surgical Assessment Units' (AMAU and ASAU) to prevent overcrowding;
- Direct access by GPs to Acute Medical Assessment Units (AMAU) and Acute Surgical Assessment Units (ASAU), as appropriate;
- Ensuring close proximity of Acute Floor components including EDs, acute specialty assessment areas, emergency ambulatory care and diagnostics (and, ideally, critical care and operating theatres);
- The availability of dedicated acute medical and surgical on-call teams freed up from other responsibilities;
- Expedited in-patient admission protocols and practices for urgent surgical and/or trauma patients (e.g. fractured hips); and,
- The promotion of shared academic activity between Emergency Medicine, Acute Medicine and Acute Surgery each of their sub-specialties.

4.1.4 Service Developments related to Care of the Elderly

The National Clinical Programmes for Older People and Acute Medicine recommend that a new paradigm of care be developed for older patients within ECNs to facilitate ED avoidance and ensure better, safer care to this complex patient group. It is proposed that this will involve:

- Establishing national quality standards for older persons as evidenced in the Model of Care for Older Persons;
- Closer collaboration with the Primary Care, Care of the Older Person, Acute Medicine, Emergency Medicine and Acute Surgery Programmes in providing education and training in core geriatric competencies and risk stratification within the Acute Floor;
- Improved integration of Care of the Older Person at the hospital/community/public health nursing/General Practice interface with safe hospital avoidance where possible and timely discharge via the Integrated Care Programmes;
- Establishing specific early detection and screening tools for rapid risk stratification of older patients;
- Establishing a safe Acute Floor physical environment and one that encourages retention of independent function for frail patients;
- Fast-tracking of admissions of older patients to inpatient beds;
- Implementation of polypharmacy review and controls with specific pharmacist review of older patients' medications in the Acute Floor; and;
- Supporting investment in Geriatric Emergency Medicine research.

Underdeveloped community-based health care services for the elderly results in delayed discharges from EDs and the wider acute hospital system. This in turn results in a shortage of hospital beds as those who should be cared for in the community setting remain in the care of the acute hospital system. Addressing problems with delayed discharge and access to acute hospital beds relates directly to the development of community health services such as residential care services, GP and other community-based specialist care services as well as community-based chronic disease management. If these and related health services were appropriately developed to ensure, whenever appropriate, patients are cared for as close to home as possible, the demand for emergency services should be in some way reduced.

The ED Taskforce points to the need to develop Standardised Care Pathways to manage the care of elderly patients in the community and to allow for direct access to the AMAU through GP referral. The development of alternative pathways (i.e. to ED attendance) is recommended in order to alleviate demand on EDs and provide a better experience for those patients whose needs can be met in timely fashion without referral to an ED.

Included in this recommendation is the development of Rapid Access and Community Case Management Models of patient care. Analysis of the impact of both Rapid Access Models and the Community Case Management Models of care for elderly patients, as they currently exist in the Irish and international health context, have inferred that they can lead to more care being delivered in the community, reduced length of hospital stay and the prevention of re-admission of frail elderly patients.

4.1.5 Availability of Senior Clinical Decision Makers on the ED Floor

Increased access to consultants in EM and other senior decision-makers (consultants in other specialties, SpRs and Advanced Nurse Practitioners) is seen as critical in terms of meeting the demand for specialists based on service reconfiguration and addressing admission and discharge problems within EDs. A number of hospitals have a high level of reliance on agency provision at consultant (22% overall) and NCHD level and ongoing vacancies at consultant level impact long patient waiting times within EDS.

4.1.6 The Potential Recognition of a Permanent Service Grade Emergency Medicine Post

As mentioned in Section 2.4 above, the current ratio of NCHDs to consultants is high relative to other specialties, at approximately 4 to 1, and there is a very high ratio of non-training NCHDs to those NCHDs in training, whereby less than one third of all EMNCHDs are in training posts. Adequate staffing at middle-grade level in Emergency Medicine is considered to be core to service delivery. In response to emerging recommendations for NCHDs in non-training posts to deliver emergency medical care in Ireland, there has been a call from some stakeholders in the area of EM for the recognition of a staff grade emergency medicine doctor post.

5 - OVERVIEW OF SUBMISSIONS FROM, AND CONSULTATION WITH, THE EMERGENCY MEDICINE PROGRAMME ON THE FUTURE DEMAND FOR EMERGENCY MEDICINE SPECIALISTS

This section of the report brings together information on the future of the EM workforce as per a request for submissions from both the Emergency Medicine Programme and the Emergency Medicine Training Programme management at the Royal College of Surgeons in Ireland. Over the course of 2014-2016 these key stakeholders worked with NDTP to inform planning for the future of the specialist and NCHD workforce. These planning discussions are on-going and will be further used in the development of an in-depth medical workforce planning report for Emergency Medicine.

5.1 THE CURRENT UNDERSUPPLY OF DOCTORS IN THE EM WORKFORCE

The Emergency Medicine Programme (EMP) estimates that within the current configuration of EDs and LIUs there is a demand for approximately 140 WTE consultants in total, in order to provide a safe level of emergency care whereby waiting times are kept to an acceptable level (across both public and private hospital settings in Ireland). This represents an additional 41 WTEs over and above the current number. This estimate of unmet demand is underpinned by the following:

- There are currently 26 adult public EDs (excluding the paediatric hospitals) delivering a 24-hour daily service, 365 days per year. Each of these EDs would need to be staffed by a minimum of 5 WTE consultants in order to deliver a sustainable 24/7/365 on-call service from fully trained specialists in Emergency Medicine (totalling 130 WTEs);
- There are approximately 7 WTE consultants working exclusively in the private sector;
- There are 11 LIUs and the EMP recommends that 0.3 WTE of a consultant is required in order to deliver an appropriate level of patient care (totalling 3.3 WTEs); and,
- Planning for the Dublin based paediatric emergency services is being considered by the Clinical Programme for Paediatrics and Neonatology. Outside of Dublin, there is a need for at least one consultant with an accredited interest in Paediatric Emergency Medicine for each Hub ED, with governance responsibility for paediatric presentations in the Emergency Care Network, including Injury Units.

It is important to note that continuation of the current configuration of services (29 EDs including the 26 adult EDs and the 3 paediatric EDs that are open 24/7/365) is not recommended by the EMP. Reconfiguration of services however, will not happen overnight due to service wide challenges including difficulties with demand-capacity modelling for inpatient beds, primary and community care development, capital requirements for the development of EDs and public expectations.

5.2 NEW MODEL OF CARE: SERVICE RECONFIGURATION

As discussed above, throughout 2014-2016, the Emergency Medicine Programme (EMP) has worked with NDTP to inform planning of the future EM medical workforce. The proposed new model of care for the specialty underpins the future development of the EM workforce. This is outlined below.

The Model of Care for Emergency Medicine

The model of care developed by the EMP proposes the re-organisation of emergency services in Ireland based on the concept of a National Emergency Care System (NECS), underpinned by Emergency Care Networks (ECNs). Within ECNs, the EMP proposes 3 different emergency medical unit categories i.e. Type A units; Type B units and Type C units.

Type A units i.e. 24-hour Emergency Departments: There is broad agreement that the correct number of Type A units in Ireland is approximately 15. Most, but not all of these, will be part of a Trauma Unit as defined in the Department of Health's (unpublished) report on Trauma Network Development.

Type A units are further broken down according to population catchment and services provided as follows:

Type A1 Serving local, regional and potentially national populations and based at a hospital that can accept the highest complexity and acuity emergency presentations. A Type A1 unit should be supported by the complete range of on-site specialties of relevance to Emergency Medicine. The hospitals in which these units are based have the potential to be developed into Major Trauma Centres. Type A1 EDs would be in Model 4 hospitals. It is envisaged that Ireland would support a very small number of type A1 EDs (2-3).

- Consultant staffing requirements: These units would have 14 consultants providing extended hours and depth of coverage across the week, including commitment to LEUs and LIUs within the ECN. Within Type A1 units, 14 consultants can sustainably deliver one consultant on the shop floor 8am-12am, 7 days per week, with more doubling up during the day and evenings subject to changing the current consultant contract arrangements.

Type A2 EDs with all core specialties and the majority of other supporting specialties on-site, serving local, network and HSE regional populations. Most current large EDs are the equivalent of Type A2 units. Type A2 EDs would be in Model 3 or 4 hospitals. It is estimated that, within the proposed model of care for EM, the number of type A2 units will be six or seven.

- Consultant staffing requirements: These units would need to be staffed by a minimum of 7-10 consultants in order to deliver a 12 hour/day consultant-led service, 5 days per week, with less than 12 hour sessional cover at weekends. Larger units would require more consultants to cope with patient workload. The Royal College of Emergency Medicine would recommend that the minimum number of consultants required to sustainably deliver extended hours working in a major ED is 10 consultants providing extended hours and depth of cover across the week including commitments to LEUs and LIUs within the ECN.

Type A3, EDs would be located in a Model 3 hospital that has been determined to require a 24/7 emergency service, because of its relative geographical remoteness or because of prolonged travel times to the nearest alternative EDs. The unit would serve local and regional populations and have core supporting specialties on-site. The number of Type A3 units is likely to be about six.

- Consultant staffing requirements: In keeping with modern practice in frontline specialties, these units should have five consultants contributing to a 24/7/365 on-call rota. Type A3 units would need to be staffed by five consultants to deliver a 12-hour/day consultant-led service, 4 days per week and, possibly, some sessional weekend cover, depending on local arrangements.

Type B units i.e. Local Emergency Units (LEUs): This type of emergency unit represents a significant change in the way EM services and EDs are currently configured. It aims to provide unscheduled emergency care for lower acuity patients as conveniently as possible, while ensuring patient safety and equitable standards of care within the network. If developed, LEUs would be located in Model 3 hospitals.

A key driver behind the proposal of these units is that they may allow for a level of emergency care to be provided at sites that are convenient for patients. In addition, they may maintain capacity in the system in the medium term and prevent central Type A hub EDs from being overcrowded until such time as increased capacity can be provided at the central sites and ambulance service capacity can be enhanced to support more patient transfers.

Local Emergency Units would open from 08:00-20:00 (or 08:00-18:00) seven days a week and would likely be bypassed by ambulance services working to protocol for high-acuity or complex care, such as coronary reperfusion, stroke and major trauma, in accordance with national protocols.

Within these units it is proposed that there be a continuous consultant in Emergency Medicine presence during weekdays from 08:00hrs to 20:00hrs. Consultant staffing at weekends would be equivalent to that provided at Type A units within the network. This would consist initially of a consultant presence on a sessional basis on weekend days and public holidays, with a consultant on-call for the remaining hours during which patients are in the unit. With expanded consultant staffing across networks, weekend staffing should increase from a sessional commitment to a continuous presence at weekends. Such a weekend staffing requirement means that consultant staffing for LEUs should be derived from a pool of no fewer than ten consultants in EM covering Type A, B and C units in a network.

In addition to consultant cover, there should be a senior clinical decision maker in EM in the unit at all times. A senior clinical decision maker in EM is a consultant, a specialist registrar, a staff grade or a registrar in EM who is considered to have an appropriate level of clinical competency to fulfil this role. Given the requirements for consultant staffing and other resources to maintain safe EM services at Type B units and the requirement for a phased and planned introduction of these units, it is uncertain at this time whether or not Type B units are sustainable in the longer-term. Nonetheless, the EMP advocate that this type of unit deserves consideration in terms of its feasibility, its potential value within ECNs at specific locations in current hospital groups and its potential role as a transition phase in the longer-term development of a particular unit in a network.

- Consultant staffing requirements: Local Emergency Units (Type B units), within an Emergency Care Network, providing limited hours' emergency care would require 2.7 WTE consultants staffed from the associated 'hub' ED. Type C units i.e. Local Injury Units (LIUs)

Type C units provide care for non-life-threatening or limb-threatening injuries, for limited hours of service. LIUs provide unscheduled emergency care for patients with non-life-threatening or limb-threatening injuries, while ensuring patient safety and equitable standards of care within the ECN. These units are open to new patients from 08:00-20:00 hrs (or 18:00hrs) followed by two hours of ongoing clinical work for the completion of patient care. They are mainly located in Model 2 hospitals. The sources of referral are the same as that mentioned above for an Emergency Department. However, strict inclusion and exclusion criteria apply to the type of condition appropriate to such a unit. Given that these units are not housed in Model 3 or 4 hospitals, understanding and strict application of these criteria is central to the safe and successful operation of these units.

- Consultant staffing requirements: The National Emergency Medicine Programme (NEMP) recommends that Hospital Groups should work towards a model where almost all patient care in LIUs is delivered by ANPs, with 0.3 WTE consultant per LIU and registrar involvement limited to the degree of exposure consistent with training needs to allow them fulfil their future role as a consultant. As such, Local Injury Units, Type C units, providing care for non-life-threatening or limb-threatening injuries, for limited hours of patient access would require 0.3 WTE consultants.

5.3 Potential Demand for Consultants in Emergency Medicine

The future configuration of EM services in Ireland has yet to be decided on. In order to think through the potential configuration of services, NDTP consulted with the EMP in 2016, with a view to informing medical workforce planning. A number of potential future configuration scenarios are outlined in Table 23 below based on the following alternatives:

Configuration 1 outlines the demand for EM specialists over the next decade should the current unmet demand for specialists (within the current configuration of services) be met by increasing the supply of specialists in the workforce to ensure the delivery of an acceptable level of service within the current service delivery framework. Within this configuration, it is estimated that a grand total of 140 WTEs or an additional 41 WTE consultants are required across both public and private hospital settings. The rationale for this is discussed in Section 3 above.

Configuration 2 outlines three levels of emergency units to deliver hospital-based emergency care in the National Emergency Care System i.e. Type A, B and C emergency units. The number of Type A EDs is reduced to 14 to include 3 Type A1 EDs, 5 Type A2 EDs and 6 Type A3 EDs. Further to this, there would be 6 LEUs and 17 LIUs operating around the country. Private sector and CDU numbers are also outlined. This service delivery configuration gives rise to a consultant staffing requirement of approximately 164 WTEs in total, representing an additional 66 WTEs to the current number of consultants in the workforce.

Configuration 3 outlines the number of Type A EDs, which would be reduced to 14, and the remaining EDs reconfigured to form 23 Local Injury Units. Again CDU staffing and private sector staffing requirements are included. This service delivery configuration gives rise to a consultant staffing requirement of approximately 150 WTEs, or an additional 52 WTEs to the current total.

Table 23 outlines the estimated number of consultants required as per each scenario outlined above.

Table 23 Analysis of the Demand for Emergency Medicine Consultants as per Potential Service Configuration

Unit Type	Configuration 1 Consultant WTEs	Configuration 2 Consultant WTEs	Configuration 3 Consultant WTEs
Current EDs	$5 * 26 = 130$	n/a	n/a
Type A1	n/a	$3 * 14 = 42$	$3 * 14 = 42$
Type A2	n/a	$5 * 10 = 50$	$5 * 10 = 50$
Type A3	n/a	$6 * 5 = 30$	$6 * 5 = 30$
Type B	n/a	$6 * 2.7 = 16.2$	n/a
Type C	$11 * .3 = 3.3$	$17 * .3 = 5.1$	$23 * .3 = 6.9$
Private	7	7	7
CDUs	n/a	14	14
Total Demand	140	164	150

6 - EMERGENCY MEDICINE STAFFING IN COMPARABLE INTERNATIONAL JURISDICTIONS

NDTP acknowledges that there are shortcomings related to the use of direct comparisons and benchmarking of international ratios of doctors to the population (across countries and service delivery models, for example) in order to determine the appropriate number of specialists required in Ireland. NDTP endorses an in-depth examination of service delivery and related workforce requirements based on policy, new models of care delivery, population change, epidemiological trends, technological and economic trends among other things, in the development of evidence-based workforce plans for medicine.

However, direct population-based comparisons are useful in reviewing how Ireland compares with international jurisdictions where service delivery and medical training models are comparable. Workforce data for both the actual and recommended Emergency Medicine specialist workforce in Australia and in England were analysed by converting numbers of specialists to a 'per head of population' ratio statistic. Australia and England have comparable training and health service delivery models to Ireland and are therefore considered relevant in reviewing how Ireland compares to international healthcare jurisdictions in terms of the number of specialists, either in the workforce currently or recommended, per 100,000 of the population.

6.1 AUSTRALIA

According to The National Health Workforce Dataset (NHWDS)¹⁴ Medical Practitioners 2015 data, there were 1,685 Emergency Medicine specialists registered with the Australian Health Practitioner Regulation Agency in 2015. Of these registered Emergency Medicine specialists, 1,597 were in the workforce in Australia. This equates to an actual ratio of 6.8: 100,000 (HC). If we use the Irish WTE rate of .94 then, in the Irish context, this would equate to approximately 6.4 WTEs per 100,000 of the population.

6.2 ENGLAND

In the UK, the College of Emergency Medicine (CEM) is pursuing an agenda of consultant expansion with an aim to provide 10 WTE consultants as a minimum in every Emergency Department. This is recommended rather than a ratio to ensure adequate depth of cover to help manage ED during busy periods.

The CEM (2010)¹⁵ cites a total number of 2,222 WTE consultants being required for Emergency Medicine in England. The rationale is that increased EM consultant numbers leads to an improved work/life balance for EM trainees, allows for enhanced protected training time and better supervision. This recommendation is designed to provide a sustainable degree of EM consultant cover to help manage EDs during busier times and surges. Using the Irish WTE rate of .94, this equates to 2,364 HC. The population of England today is approximately 54,786,300 giving a population-based ratio (as per recommendations of the CEM) of 4.1 WTE (4.3 HC) per 100,000 of the population.

6.3 A COMPARATIVE ANALYSIS OF THE EMERGENCY MEDICINE CONSULTANT/SPECIALIST WORKFORCE IN IRELAND AND ACROSS COMPARABLE INTERNATIONAL HEALTHCARE JURISDICTIONS

Data presented in Section 4 above demonstrates that the current population of consultants working in HSE-funded services and specialists working in the private sector in Ireland is approximately 105 HC and, based on a 0.94 WTE rate, which is equivalent to 99 WTEs.

Section 5 above outlines the EMP-informed alternative potential configurations of the future Emergency Medicine services and related consultant numbers required to address current unmet demand within the system. Again, both NDTP and the EMP stress that these represent the views of the EMP as of 2016. No decisions have yet been made on the future configuration of emergency services in Ireland.

In order to compare the EM consultant workforce in Ireland currently to that in Ireland should unmet demand be met, and to workforce numbers in both England and Australia, all workforce data were standardised and presented as the number of specialists/consultants per 100,000 of the population in 2027 in Table 24 below. Within this table, consideration is given to:

- Demand for consultants should the status quo remain and whereby demand for consultants in 2027 is based only on population change. If the status quo was maintained there would be an approximate demand for 112 HC/101 WTE consultants over the next 10 years. This is a very high level estimate and is not endorsed by the EMP;
- Demand for consultants should the workforce be expanded to meet the current estimated unmet demand for emergency services as informed by the EMP. Here, an approximate demand figure of 149 HC/140 WTEs is outlined and infers a required increase of approximately 44 HC/42 WTE consultants over the next 10 years;
- Demand for consultants should the workforce be expanded to align with the CEM recommended number of EM consultants to meet future demand for services in England (4.1 per 100,000 of the population). If Ireland were to move to a ratio of 4.1 consultants per 100,000 of the population, then demand would increase to 221 HC/208 WTE over the next 10 years; and,
- Demand for consultants should the workforce be expanded to align with the Health Workforce Australia actual number of EM consultants in post in 2015 (6.8 per 100,000 of the population). If Ireland were to move to a ratio of 6.8 consultants per 100,000 of the population, then demand would increase to 345 HC/324 WTE over the next 10 years.

	Ratio HC	Ratio WTE	N	WTE
Ireland Standstill	2.2	2	112	101
Current unmet demand addressed	2.94	2.76	149	140
England	4.3*	4.1**	221	208
Australia	6.8***	6.4*	345	324

*Derived based on a WTE rate of .94

**Recommended ratio of EM specialists per 100,000 of the population in England

*** Actual ratio of specialists in EM to 100,000 of the population in Australia

Table 25 outlines the current number and ratio of consultants in EM per 100,000 of the population in Ireland. Included in this table are the projected numbers of consultants per 100,000 of the population to 2027, should the current ratio remain static at the 2017 level. Table 25 also includes the research-informed range of specialists per head of population as per EMP perspectives and recommendations, and the ratios in place in comparable healthcare jurisdictions.

2017		2027*		Research informed range of specialists per head of population 2027 **	
N	Ratio per 100,000 pop	N	Ratio per 100,000 pop	N	Ratio per 100,000 pop
105 HC	2.2 HC	112 HC	2.2 HC	112-345 HC	2.2-6.8 HC
99 WTE	2 WTE	101 WTE	2 WTE	101-324 WTE	2-6.4 WTE

Central Statistics Office population of Ireland as at 2016 (Census preliminary results) = 4,757,976. Population projections for 2027 using the M2F2 scenario for population growth = 5,071,355.

*Derived based on a WTE rate of .94

**Recommended ratio of EM specialists per 100,000 of the population in England

*** Actual ratio of specialists in EM to 100,000 of the population in Australia

7 - CONCLUSION

Planning for the Emergency Medicine specialist workforce in Ireland is important in the current healthcare environment given the ageing population, the current and planned reconfiguration of emergency services throughout Ireland and implementation of the proposed EMP model of care for the specialty. Developments in the areas of acute medicine, care of the elderly, chronic disease management in the community and primary care services, more generally, and proposals for a consultant-delivered service should in time impact the demand for emergency medical services.

As has been outlined throughout Sections 4 and 5 of this report, according to the EMP, the ED Taskforce and other stakeholders including the Acute Medicine and Older Persons Programme Leads, there are wide and varied reasons why emergency medical and related community and hospital-based services in Ireland need reorganisation in order to reduced the high and often inappropriate demand for emergency services in Ireland.

Both the EMP and the ED Taskforce acknowledge the need for increased senior decision-makers on the floor to ensure safe, efficient and modern service is delivered to patients. The current unmet demand for Emergency Medicine consultants, as discussed in Section 5 above, indicates a need to significantly increase the number of consultants to safely deliver care within the confines of the current service delivery infrastructure. At a minimum, this increase is estimated to be in the region of an additional 41 WTE consultants in the medium term, to bring the consultant workforce up from 99 WTEs to 140 WTEs (to include those working across both the public and private sectors). A further increase of between 10 and 24 WTEs is proposed by the EMP depending on the chosen future model of care for the EM service.

NDTP again emphasise the fact the there is no currently agreed future configuration of EM services and all of the estimates outlined in this document are based on potential future service configuration alternatives, informed by the EMP.

The information set out in this report highlights the fact that Emergency Medicine is highly dependent on NCHDs to support medical care delivery. The current ratio of NCHDs to consultant in EM is approximately 4:1. This is very high compared to other medical specialties. Furthermore, trainees comprise less than one third of the NCHD workforce. There is recognition among many stakeholders in EM that there is a requirement to address high levels of dependence on the non-training NCHD workforce by the introduction of a permanent service grade Emergency Medicine post. This, it is proposed, will improve doctor retention, training and standards, as well as patient outcomes and overall service provision.

Within a future reconfigured model of care, the EMP advocates a move to a consultant-provided service. Such a move would ultimately reduce the dependency of Irish EDs on NCHDs providing EM services. However, given the level of proposed consultant expansion required to achieve this aim, it would take some time to increase the workforce numbers and therefore, this high level of dependence on NCHDs will continue over the coming years. In response to the need for NCHDs in non-training posts to deliver emergency medical care in Ireland, the EMP has called for the recognition of a staff grade Emergency Medicine doctor post in addition to the introduction of a consultant-provided service.

If LIUs were to become ANP-led as originally planned, this would reduce the requirement for NCHDs in the system, as nurses would deliver and manage local injury medical services.

Across all medical specialties, doctor retention is a significant issue in ensuring that NCHDs completing training do not leave the Irish emergency medicine system to work overseas. The Strategic Review of Medical Training and Career Structure (MacCraith) contains recommendations regarding the implementation of policies which will improve the recruitment and retention of specialist medical staff. Recommendations are being implemented through, for example, the development of structured career pathways for medical trainees and continued mentoring and information supports. Improved working conditions will also be central to doctor retention.

As already mentioned, NDTP does not endorse the use of international population-based ratio comparisons of specialists in the workforce as the sole means of projecting medical workforce demands in Ireland. These ratios are, however, interesting in terms of contextualising the demand for consultants across international healthcare systems with similar training and healthcare delivery infrastructures to those in Ireland. As can be seen in Section 7 above, Ireland is some way off meeting those recommended and actual ratios in both England and Australia. There are implications for training EM specialists if the system here in Ireland is to, at a minimum, staff the workforce with sufficient consultants to ensure a safe and efficient service as per its current configuration. The workforce planning implications for training in emergency medicine will be more comprehensively considered in an in-depth medical workforce planning report for the specialty.

For more information on medical workforce planning within NDTP please contact us via email at doctors@hse.ie

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