Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

MEDICAL WORKFORCE PLANNING

Future Demand for General Practitioners

2015-2025

National Doctor Training and Planning, HR Directorate, Health Service Executive,
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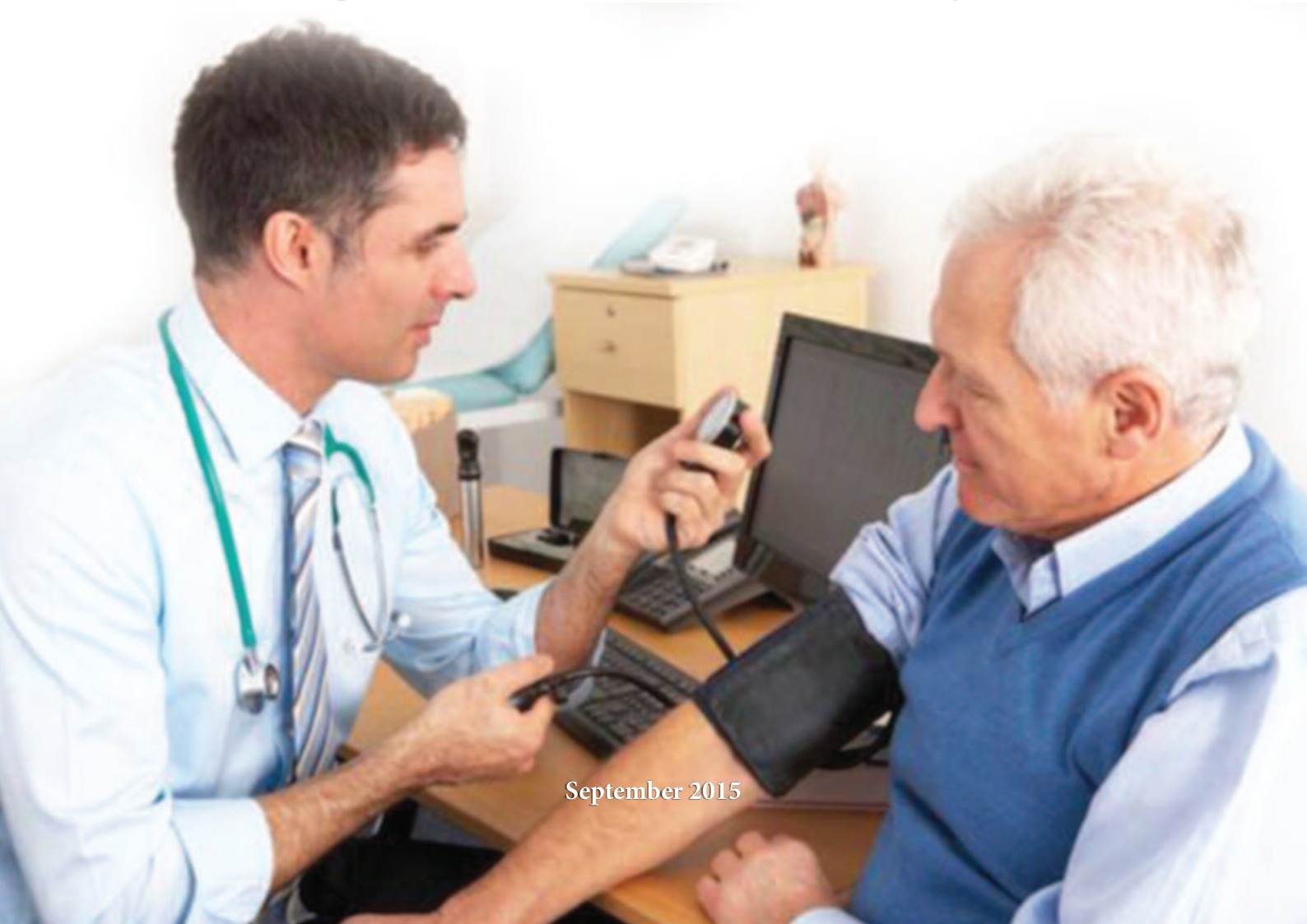
"Investing in the career development of doctors"



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Foreword

This report on the future medical workforce required for General Practice in the Irish health service is the result of the first in-depth specialty-based exercise carried out by the National Doctors Training and Planning Unit in the HSE. Future reports will address the manpower needs of all medical specialties, and work is already underway in Paediatrics/Neonatology and Emergency Medicine.

The approach we have taken is based on the genesis of various scenarios for the delivery of care, each projected over a 10-year period. It reflects the outcome of the deliberations of an expert panel, combined with extensive background research.

The scenarios incorporate factors such as population growth predictions generated by the Central Statistics Office, current estimated GP visitation rates, potential impact of policy decisions such as extension of GP visit card eligibility, as well as data related to part-time working and trainee numbers.

Workforce planning attempts to predict the future, and is fraught with difficulty. The recommendations contained in this report must be considered carefully in the context of the limitations associated with the methodology of workforce planning. However, there are some certainties that we can accept. There is a current undersupply of GPs in Ireland, we are faced with a recruitment and retention challenge in the specialty, many of the doctors delivering primary care are not on the specialist register, our population is growing, and extension of GP visit card eligibility on an incremental basis is Government policy.

The key findings and recommendations contained in this report will inform policy-makers in terms of projections for GP workforce numbers and also regarding important additional priorities such as promoting the specialty as an attractive career choice and the need for policies to maximise recruitment and retention within the profession.

I would like to express my thanks to the expert panel for their wise input, and particularly to Roisin Morris in NDTP, for her major contribution to this work.

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Executive Summary

General Practice in Ireland is currently going through a process of change, related in particular to the introduction of free GP care to the under 6s and the over 70s in the first instance, with planned extension of free GP care to the population as a whole.

Increasing demands on the health system as a direct result of the extension of free GP care, combined with an ageing population, will have a major impact on the future need for GPs. In order to plan for this changing demand, a workforce planning exercise was carried out within the National Doctors Training and Planning Unit of the HSE. The following points summarise the observations, outputs and recommendations arising from this exercise.

1. There is evidence of a significant undersupply of GPs in Ireland at present.
2. By 2025, the predicted shortage of GPs in Ireland will range from **493** to **1,380** depending on increased levels of access to free GP care.
3. If the shortfall is to be addressed by training the required GP workforce here in Ireland (as opposed to inward migration of trained GPs to Ireland from other countries) there will be a need to significantly increase the annual intake into GP postgraduate specialist training.
4. More than a third of doctors working as GPs are not on the Medical Council's specialist register of general practitioners.
5. There is evidence of increased feminisation of the profession as well as increased part-time working.
6. In addition to the need to train more GPs, there is a requirement for innovative recruitment and retention strategies.
7. A national register of GPs should be introduced to improve the availability and quality of data on the GP workforce.
8. Data collection regarding various important aspects of GP care needs to be improved (for example data related to GP visitation rates).
9. Further research into areas such as nurse-led care and the impact of IT on general practice should be carried out.

It is the intention of NDTP that a follow-up review of workforce planning for general practice will be carried out over the next two years, and that the findings of this report will be updated at that time.

Section 1: Medical Workforce Planning in the HSE

1.1 HSE National Doctors Training and Planning

In 2007, the Medical Education and Training Unit (MET) was established in response to the role outlined for the HSE in the Health Act 2004 and, in particular, the Medical Practitioners Act 2007. In 2013, MET established a Medical Workforce Planning Unit to undertake a review of current medical staffing in Ireland and to make recommendations regarding projected requirements in future years. More recently, in 2014, the Consultants Appointment Unit was incorporated into MET.

The co-location of these 3 functions in a single department provides a unique opportunity to integrate strategy for workforce planning across the entire medical career journey, from medical school graduation to appointment as a specialist/consultant.

In late 2014, the name of the unit was changed to National Doctors Training and Planning (NDTP) in order to more fully reflect these changes. NDTP is a unit within the HSE National Directorate for Human Resources.

In terms of medical workforce planning, the work of the NDTP forms part of the integrated workforce planning approach being developed within HSE's Workforce Planning, Analysis and Informatics unit. Further to this NDTP engages with the Department of Health workforce planning function.

1.2 Medical Workforce Planning

'Worldwide demand for cars will never exceed one million, primarily because of a limitation in the number of available chauffeurs' Research prediction, Mercedes-Benz, 1900.

'I think there is a world market for about five computers.' Thomas Watson, Chairman, IBM, 1943.

Planning is required to avoid greatly miscalculating the future direction of any service, organisation or industry, and future planning has now become a core business function.

Part of the work of the National Doctors Training and Planning unit of the HSE is to estimate and plan for the number of medical specialists required to support health service delivery over the next 10 plus years, so that medical trainee numbers can be appropriately matched to expected specialist requirements.

Estimating the number of specialists required to meet service delivery needs is not a straightforward task. The approach used by NDTP is to consider a number of different potential scenarios relating to how the health service might function in 10, 15 or 20 years; comparable estimates of the demand for future specialists can then be made based on these future scenarios. Following estimation, decision-makers will typically be presented with data relating to required workforce and trainee numbers as per each future health service scenario. These estimates can then be used to guide decisions relating to the future specialist workforce and parallel training requirements.

1.3 Principles Underpinning Medical Workforce Planning

Certain key principles underpin the NDTP approach to medical workforce planning (MWP). These include the following:

1.3.1 MWP should be consistent with the recommendations of the Report on Medical Education in Ireland: A New Direction. Report of the Working Group on Undergraduate Medical Education and Training[1] (the Fottrell Report) and the report on Preparing Ireland's Doctors to meet the Health Needs of the 21st Century[2] (Buttimer Report) i.e.

I. More patient care should be consultant-delivered

II. More patient care should take place in the community

III. The Irish health service should be self-sufficient in the production of medical graduates, with reduced dependency on International Medical Graduates (IMGs - doctors who graduate from medical schools outside Ireland)

IV. There should be a gradual reversal in the ratio of non-consultant doctors to consultants (currently approximately 1.7:1)

1.3.2 MWP recommendations should be consistent with the WHO Global Code on the International Recruitment of Healthcare Personnel. Ireland is a signatory of the code, which states that not only should countries be self-sufficient (and this has been addressed in Ireland with the increase in EEA medical school intake from 305 to 725 as a result of the Fottrell Report) but that they should not poach doctors from low and middle income countries, particularly those with acute healthcare personnel shortages.

1.3.3 MWP recommendations should encompass medical workforce requirements for the entire population to include both the public and private healthcare systems.

1.3.4 MWP recommendations should incorporate future health need. This will require the incorporation of projections relating to, for example, demographic changes; alterations in disease incidence and prevalence; medical and therapeutic innovations; policy initiatives and technological advances.

1.3.5 MWP recommendations should incorporate the implications of existing, and where known, future healthcare policy (for example the Report of the National Task Force on Medical Staffing[3] (the "Hanly Report"); the National Clinical Programmes; the new Hospital Groups; the Small Hospitals Framework; the National Cancer Control Programme; Universal Health Insurance).

1.3.6 Trainee numbers for each specialty should be based on MWP projections for that specialty.

1.3.7 Training capacity should match the recommended training numbers. Where recommendations are made to increase the intake of trainees into a particular specialty, additional training posts may be required.

1.3.8 Where appropriate, innovative models of care should be explored, for example new team structures, new medical roles and skills transfer.

1.4 The Workforce Planning Methodology

A core focus of the NDTP unit over the past two years has been the development and implementation of a methodology to support planning the specialist medical workforce in to the future. This methodology has now been developed through a number of key phases of research, stakeholder consultation and data modelling as follows:

1. A review of international workforce planning methodologies was carried out with particular focus on those models and methodologies deemed most appropriate and relevant to the Irish context. A more in-depth review of the following models was subsequently carried out:
   i. Ireland: A Quantitative Tool for Workforce Planning in Healthcare[4]
   ii. Ireland: Department of Health, General Practice Workforce Planning Model[5]
   iii. Australia: Health Workforce Australia: Health Workforce 2025 - Medical Specialties – Volume 3[6]
   iv. Canada: The Ontario Population Needs-Based Physician Simulation Model[7]
   v. The Netherlands: Model developed by The Advisory Committee on Medical Manpower Planning[8]
   vi. England: Centre for Workforce Intelligence: a Strategic Review of the Health Workforce. Informing the Medical and Dental Student Intake[9-11]

   Upon completion of the review process, we focused on the workforce planning systems in place in England and the Netherlands as we considered them progressive in design, implementation and evaluation and they were accessible in terms of availability of information and expertise.
2. Following the workforce planning methodologies review, consultation with national and international experts in the development and implementation of models and methodologies related to workforce planning for health care took place. This involved consultation with colleagues from the Netherlands, England, Trinity College Dublin and Solas as well as participation in an EU level workforce planning for health initiative.
3. A request for submissions on medical workforce planning was sent to all medical specialty training bodies as well as to relevant National Clinical Programme Leads. These stakeholders were asked to submit their recommendations on the number of specialists required to staff their specialty area in the medium term. Stakeholders were also asked for their views on the major policy drivers that could shape or influence the future of their specialty workforce as well as their general views on how the specialty might be developed to fit with future changes in health service delivery. Relevant documentation and references were requested. Completed submissions were analysed according to recommended numbers and ratios of specialists as well as the major drivers expected to influence the future of the specialty workforce.

4. A current state analysis of the specialist workforce was carried out using the FÁS (now Solas) and Expert Group on Future Skills Need's Quantitative Tool for Workforce Planning in Health Care as a template for data collection[4]. Data were gathered from multiple sources including (for GPs) the Medical Council, the Central Statistics Office, the Irish College of General Practitioners, Primary Care Reimbursement Service and the Centre for Health Policy and Management, Trinity College Dublin. This research resulted in a breakdown of the approximate number of specialists and non-specialists in the current employment stock; the ratio of specialists and non-specialists per head of population and the number of entrants and exits from the employment stock as well as, for GPs, the number of annual GP consultations estimated across age groups and level of access to free GP care.

5. A review of Irish and international benchmarks and ratios used in medical workforce planning was completed. Current ratios of specialists per head of population in Ireland were estimated and compared with those ratios recommended by specialty stakeholders in their responses to our request for submissions on medical workforce planning. Further comparisons were made across current ratios of specialists to the population in Ireland, those recommended in the Hanly Report 3 as well as those in place in comparable healthcare jurisdictions namely Australia, the UK and New Zealand (New Zealand for surgery only). This review was deemed important to give context to commonly cited ratios in medical workforce planning in Ireland by comparing them internationally.

6. A one day workshop with a wider stakeholder group to include medicine, nursing, Government, the Health Service Executive, epidemiology, health technology, economics, patients, academia and allied health was convened to further understand the major drivers of change to the future of the health service over the next 10 to 20 years. The results of this workshop process were (and will continue to be) used to give context to the future of health care in Ireland and to support thinking around the major areas requiring further consideration in the planning process. These areas included population change, epidemiological change, service reconfiguration and integrated care, technological developments, economic growth/stagnation and professional task reallocation within the multidisciplinary team.

7. An expert panel consisting of the major stakeholders in workforce planning for General Practice was set up with a view to establishing consensus on the recommended number of specialists required for the specialty over the next 10 years. A total of three panel meetings were convened for this purpose. Meetings also served to provide information and clarifications where required as well as to guide decision making in relation to data to be used in the statistical modelling phase of the methodology.

8. Statistical modelling of all workforce data, including current and future recommended supply and demand variables, was carried out across a number of different stakeholder informed scenarios representing the possible future of the health service over the next 10 years.

Section 2: Overview of the General Practice Workforce in Ireland

2.1 The Context of General Practice in the Irish Health Service

In Ireland, General Practitioners play a central role in the delivery of primary care services. The majority of GPs in Ireland are self-employed private practitioners providing services to the general population. A large proportion of general practitioners (but not all) provide free GP care to approximately 2 million people in the population through state contract arrangements, including free GP care to the under 6's. The remainder of the population of Ireland will generally pay their GP on a per consultation basis.

Individual patients who are eligible for free GP care are covered by the state run General Medical Services (GMS) programme and hold either a Medical Card or a GP Visit Card. Medical Card holders are eligible for free GP care, a range of medications and other products free of charge. Medical Card holders must be below a certain income in order to qualify. Medical Cards may also be granted on a discretionary basis. Certain people in Ireland who do not qualify for a medical card may apply to the Health Service Executive for a GP Visit Card. GP Visit Cards allow individuals and families who qualify, to visit their General Practitioner free of charge. The majority of those over 70 years of age will hold a Medical Card, subject to means testing. The HSE has also recently decided to provide a medical card to all children under 18 years of age with a diagnosis of cancer.

Persons who have contracted hepatitis C directly or indirectly from the use of Human Immunoglobulin-Anti-D or the receipt within the State of another blood product or a blood transfusion, as well as women covered by the redress for Women Resident in Certain Institutions Act, 2015 have access to, inter alia, free GP care. From July 2015, children under the age of 6 have access to free GP care. From August 2015 all persons aged over 70 years have access to free GP care. All others in the population pay for GP care through out-of-pocket expenditure.

Under the terms of the Health Provision of General Practitioner Services Act 2012, it became mandatory for a GP to be on the specialist register of the Medical Council in order to obtain a GMS contract. Despite this, there remain a number of GMS contract holders who are not on the specialist register who would have obtained their GMS contract prior to the legislation being enacted. Specialist registration was introduced by the Medical Council in 2007.

Within the current Government Health Reform Programme, 'Future Health'[12], priority is given to the introduction of free GP care for the entire population of Ireland on a phased basis. The first phase of policy implementation involved the introduction of free GP care to children under the age of 6. This was extended to the over 70s in August 2015. Proposals exist to extend free GP care to the under 12's and the under 18's, with gradual extension of free GP care to the population of Ireland.

While a significant proportion of GPs are likely to sign up to free GP care contractual arrangements, this will not be the case for all GPs. Some GPs are expected to choose to deliver a fully private service to their patients.

2.2 Total Number of Doctors Working in General Practice

The population of doctors working in general practice in Ireland is heterogeneous and is made up of several cohorts including the following:

i. Career GPs who are based in Ireland, and who work permanently in the health service, either full or part-time. They may or may not be on the specialist register.

ii. Non-career doctors who are based in Ireland and contribute to general practice provision; for example

   a. NCHDs (non-consultant hospital doctors) providing short-term GP cover for out-of-hours services and holiday relief. These doctors are most likely to be on the general register of the Medical Council.

   b. Doctors whose main area of practice is in another specialty, for example occupational medicine, but who work part-time in general practice. These doctors are unlikely to be on the general practice specialist register, but may be on the general or an alternative specialist register.

iii. Doctors not normally resident in Ireland who travel to Ireland regularly (usually for a number of weeks at a time) to provide short-term cover for out-of-hours services/relief for annual or other leave. These doctors may or not be on the specialist register. They are most commonly recruited through Irish medical employment agencies.

For this reason, it is difficult to be definitive about the exact number of doctors who contribute to the general practice workforce.

There is no central register of GPs working in Ireland. However, a number of different data sources exist to support the workforce planning process. The most useful sources of information are the Medical Council, the Irish College of General Practitioners and the Primary Care Reimbursement Service.

2.2.1 The Medical Council Register of Medical Practitioners

The Medical Council collects and analyses data from the trainee, general and specialist registers to produce valuable data on the GP workforce. Medical Council data includes the number of GPs on all registers as well as the country of basic medical qualification, age, gender and part-time working patterns.

According to data from the Medical Council, as of January 2015, a total of 4,685 registered doctors who had worked in the previous 12 months (i.e. not inactive or retired) stated general practice to be their primary area of practice. Of these, 2608 (56%) were on the specialist register, 38% were on the general register and 6% were on the trainee register. Less than 1% were on the specialist register but not registered as GPs. This latter group would comprise doctors who are on a different specialist register (for example Occupational Medicine) but who work primarily in general practice. See Table 1 below.

Table 1 Doctors who worked in 2014 and Identified Themselves as Working in General Practice

Division registered	N	Percent
Specialist registration (in GP)	2,608	56%
Specialist registration (not in GP)	21	<1%
General registration	1,763	38%
Trainee Specialist registration	293	6 %
Total	**4,685**	**100%**

Data as of January 2015

Doctors registering with the Medical Council are asked to state if they have worked in Ireland in the preceding 12 months. If we exclude doctors who worked outside Ireland only (81 on the GP specialist register and 388 on the general register) and those who were on the trainee specialist register, then we can say that approximately 3,923 doctors worked in general practice in Ireland in 2014. See Table 2 below.

Table 2 Estimated Number of Doctors Working General Practice in Ireland in 2014

Division registered	N	Percent
Specialist registration (in GP)	2,527	64%
Specialist registration (not in GP)	21	<1%
General registration	1,375	35%
Total	**3,923**	**100%**

Data as of January 2015

For the purpose of this report, we refer to all doctors providing GP services (whether on the specialist register of the Medical Council or not) as GPs. It should be noted that it is an aspiration of the Department of Health and the HSE that all doctors working in general practice should be on the specialist register. (At the time that specialist registration was introduced by the Medical Council in 2007, not all eligible GPs availed of the opportunity to register; these GPs are registered in the general division However, 35% of doctors who work as GPs are not specialist trained).

This figure of 3,923 is, however, an underestimate. The Medical Council records are based on the registering doctor identifying the specialty in which they practice for most of their professional time. Therefore, doctors described in Section 2.2 ii (a) and (b) above are not captured. It is not possible to accurately identify this underestimate.

In the absence of a comprehensive register of GPs, we consider the data from the Medical Council's workforce intelligence reports for 2012 and 2013 registrations as well as more recent registration information, to be the best available data on the current configuration of the GP workforce in Ireland (Medical Council, 2013; 2014)[13-14].

2.2.2 The Irish College of General Practitioners Membership Register

The Irish College of General Practitioners (ICGP) collects and analyses data on the GP workforce, including the number of doctors registered for professional competence and those holding membership of the ICGP.

Currently 3,799 doctors are registered on the ICGP-run professional competence scheme. Of these, 2,772 are also ICGP members. While it is a legal requirement that all doctors on the Medical Council register maintain professional competence, it is not mandatory for a doctor practicing in primary care to be a member of the ICGP. In order to be eligible for membership of the ICGP, a GP must have completed recognised GP specialist training or have successfully completed the ICGPs 'alternative' route to college membership.

2.2.3 The HSE Primary Care Reimbursement Service Database

The HSE Primary Care Reimbursement Service (PCRS) collects data on the number of GMS contract-holders and those GPs delivering state-funded primary care services such as Cervical Check, Heartwatch and a range of childhood immunisations.

Since 2012, in order to obtain a General Medical Services (GMS) contract, a doctor must be on the GP specialist register. The number of GMS contract holders as of April 2015 was **2,418**. While the GP principal within a practice will hold the GMS contract, other doctors employed within that practice may deliver care to GMS patients. It is not currently a requirement that these doctors be on the specialist register.

An additional **462** GPs who do not hold GMS contracts are registered to provide services under alternative programmes, such as the Primary Childhood Immunisation Scheme, Heartwatch, the Methadone Treatment Scheme and National Cancer Screening Services. It is not necessary to be on the specialist register in order to obtain or deliver care related to one of these subsidiary contracts.

The total number of GPs on the PCRS database is 2,880, which is significantly less than the total number of GPs registered with the Medical Council. We estimate that the remaining 1,000 (approximately) doctors who practice in primary care, do not hold any type of state contract. As very few doctors practice exclusively in the private sector, we have made an assumption that these doctors work as part of teams in general practices where the principal holds a GMS or other state contract. These doctors may be GP assistants.

The PCRS does not hold data on the Medical Council registration of GPs holding state contracts. Therefore, we do not know how many of these 2,880 GPs hold specialist registration.

2.3 Gender Breakdown, Working Patterns and the Feminisation of the GP Workforce

Medical Council data records that 47% of doctors on the GP specialist register were female, while 46% of all doctors participating in general practice were female.

Approximately 22% of all GPs stated that they worked on a part-time basis while 76% stated that they worked full-time (the remaining 2% indicated 'other').

Breaking these figures down, 13% of males and 34% of females work part-time, while 85% of males and 64% of females work full-time.

In consultation with the ICGP we have estimated a full-time whole time equivalent (WTE) rate of 1, to include administrative work associated with the GPs clinical workload, and a part-time WTE rate of 0.5. Overall, we estimate the WTE rate across full and part-time males and females to be approximately 0.88.

If we consider the gender breakdown of the current GP workforce along with the projected gender breakdown of those leaving and entering the workforce post-specialisation (from the Irish postgraduate medical education system only), we estimate that there will be a 6% increase in the proportion of female GPs in the workforce, as shown in table 3 below. This is because the proportion of trainees who are female has increased significantly in recent years, and will have implications for the future WTE rate among GPs. It is very possible that increased demand for flexibility at work will lead to an increase in the number of GPs working part-time. It is important to note also that recent research conducted by the ICGP showed that increasing numbers of males also have intentions to work part-time in the future (Collins et al, 2014)[15].

Table 3 Workforce Feminisation Estimates

Feminisation Estimates	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Stock of females in employment	1,805	1,838	1,864	1,887	1,906	1,924	1,941	1,958	1,973	1,988	2,002
Exits other than retirement	36	37	38	39	40	40	41	42	43	44	45
Exits due to retirement	46	46	46	46	46	46	46	46	46	46	46
Irish CCST graduates	115	110	107	104	104	104	104	104	104	104	104
Total number of females	1,838	1,864	1,887	1,906	1,924	1,941	1,958	1,973	1,988	2,002	2,015
Stock of males in employment	2,118	2,086	2,058	2,033	2,011	1,990	1,968	1,947	1,925	1,904	1,882
Exits other than retirement	21	21	21	21	21	21	21	21	21	21	21
Exits due to retirement	54	54	54	54	54	54	54	54	54	54	54
Irish CCST* graduates	42	47	50	53	53	53	53	53	53	53	53
Total number of males	2,086	2,058	2,033	2,011	1,990	1,968	1,947	1,925	1,904	1,882	1,861
Female share in the stock	46%	47%	48%	48%	49%	49%	50%	50%	51%	51%	52%

**CCST refers to Certificate of Completion of Specialist Training*

***Note it is difficult to get a clear picture of gender breakdown across years of trainees due to deferrals etc. The trainee gender breakdown in the table above is derived through consultation with the ICGP*

2.4 Age Profile of GPs

The average age of GPs in Ireland, as per the Medical Council data for 2013, was found to be 49 years, with a particularly high proportion over the age of 55 (36%) compared to other specialties. For this reason, proportionately more retirements are expected in the next 10 years. Table 4 below outlines the age categories of doctors registered on the specialist and general divisions as general practitioners who were actively working in Ireland in 2013.

Table 4 Total Age Breakdown of Doctors Delivering GP Services in Ireland in 2013

Age Group	N	%
25-34	511	13
35-44	1,087	28
45-54	934	24
55-64	962	25
65 +	427	11
Total	**3,921**	**100**

Rounding will impact the addition of the above to exactly 100%. Trainees are excluded from these estimates. Source, Medical Council – unpublished.

2.5 Exits from the GP Workforce

In 2013 57 GPs exited the specialist register. It is estimated that 157 of specialist and non-specialist registered GPs exited the workforce in 2013. This estimate is based on:

i. A derived estimate of 1% of males and 2% of females exiting the workforce for reasons other than retirement i.e. for family reasons, change of career etc. This equates to around 57 GPs in 2014 and

ii. A derived estimate of 100 GPs retiring per year. This is based on GP age profile and an expected average retirement age of 68 years to account for the fact that GPs holding contracts related to the GMS Scheme, Mother and Infant Care Scheme and/or the Primary Childhood Immunisation Programme are now eligible to work to the age of 72 years.

We accept that these estimates are open to challenge.

2.6 Entrants into the GP Workforce

General practice training is four years in duration. The first two years of training are spent primarily in hospital settings, with the third and fourth years spent in supervised general practice. Prior to 2010, the annual intake into GP training was 120; this was increased to 157 due to a projected increase in demand for GPs.

Currently approximately 73% of GP trainees are female. It is anticipated that this figure will be approximately 66% in 2025.

In 2013, 170 GPs entered the specialist division of the register, of whom 112 had completed training in Ireland and 58 had trained abroad. Of these new entrants 42 were over the age of 40, and 59% were female. There was a 4% increase in the number of GP specialists on the register between 2012 and 2013.

2.7 GP Emigration

There is little data available on those who graduate from Higher Specialist Training in Ireland going abroad to take up posts. A recent survey of 649 current GP trainees and 445 GP graduates from 2010 to 2013, carried out by the Irish College of General Practitioners, details emigration patterns of graduates since 2010, emigration expectations of current trainee GPs, as well as a range of manpower issues facing the profession (Collins et al, 2014[15]). Key findings from the report include the following:

1. Most graduates (60%) would prefer to remain in Ireland, however uncertainty around security in their professional roles, defined career progression opportunities and the role of GPs in the Irish healthcare system are the main factors driving the decision amongst current trainees and recent graduates to consider emigration.
2. Among trainees, 12.3% of current trainees are definitely planning to emigrate and 25% are undecided with only one quarter planning to definitely stay in Ireland.
3. Among graduate respondents, 16.9% are currently working overseas. Of this group only 17.1% are planning to return to Ireland to work.

2.8 Estimation of Current Undersupply of GPs

There is strong evidence of a significant undersupply of GPs in Ireland. This is reflected in the following:

- The heavy reliance on overseas doctors to provide locum and short-term cover in general practice, particularly for out-of-hours services and holiday relief. There are several out-of-hours co-ops which are heavily dependent on these doctors, most of whom are based in South Africa. It is likely that this represents a group of doctors who are resident and work overseas, but who visit Ireland to do short-term locum work.

- The best indication of the numbers of doctors involved in this activity comes from the Medical Council. In the Medical Intelligence Report (Medical Council, 201313), the Council recorded that 4.5% of GPs had practiced both in and outside Ireland in the previous year. This would equate to 217 doctors. Of these, 142 were GPs on the specialist register who had graduated from a medical school outside of Ireland. However, the total number is unknown.
- Other doctors contributing to the locum/temporary/short-term GP workforce include non-consultant hospital doctors (NCHDs) not in training, who choose to work as locum GPs when they are not working in the acute hospital sector. Again, we have no accurate estimate of this number.
- There are approximately 21 GMS vacancies around Ireland currently (split almost evenly between urban and rural practices). Locum arrangements are put in place for all of these vacancies to ensure continuity of services to the relevant communities.
- GPs who have reached retirement age who, although they would like to retire, continue to work due to the inability to identify an appropriate replacement GP for their practice also represent an unmet demand for GPs.
- Finally, doctors who work full-time but would rather work on a part-time basis represent an unmet demand within the primary care system.

While it is not possible to get accurate figures to attach to this part of the general practice workforce, we have estimated that it is the equivalent of 500 headcount for the purposes of scenario generation in the following sections.

2.9 Data Availability

One of the main challenges in workforce planning for general practice relates to the lack of data on the configuration of the workforce. While the Medical Council has made an invaluable contribution to the availability of data across different medical specialties, there remain difficulties in accessing data on the GP workforce including that relating to part time working rates and workload.

There is a serious lack of evidence related to the provision of locum and out-of-hours care. A significant number of doctors providing GP services in Ireland are coming from overseas, are not registered specialists and are working either in Ireland only or inside and outside Ireland in the same year. As already mentioned many of these doctors are likely to be delivering locum services and represent an unmet need in the provision of GP services across Ireland. We do not know enough about who is delivering locum and out-of-hours GP care in Ireland.

2.10 Summary of Current Configuration of GP Workforce 2013/2014

The availability of accurate and reliable data on the GP workforce is limited. In order to support workforce planning for general practice, we have summarised the best available data in Table 5 below.

Table 5 Current Configuration of the GP Workforce 2013/2014

GENERAL PRACTICE

Assumption	Value	Source
Number of GPs on the specialist register	2,548	Medical Council Specialist Register as of January 2015, analysis of GPs and 21 other specialists providing GP services who are on the specialist register and working in Ireland
Number of GPs on the general register	1,375	Medical Council analysis of doctors working in general practice who are on the general register and working in Ireland
Number of GPs (specialist and general registered)	3,923	Medical Council analysis of doctors working in general practice who are on the specialist and general register and working in Ireland
Number of GPs who obtained their basic medical qualification overseas and are on the specialist register	221	Medical Council analysis of doctors working in general practice who are on the specialist register and working in Ireland
Number of GPs who obtained their basic medical qualification overseas and are on the general register	409	Medical Council analysis of doctors working in general practice who are on the general register and working in Ireland
Total number of international medical graduates delivering GP services in Ireland	630	Medical Council analysis of doctors working in general practice who are on the specialist and general register and working in Ireland
Proportion of international medical graduates delivering GP services in Ireland	16%	Derived using Medical Council analysis of doctors working in general practice who are on the specialist and general register and working in Ireland
Estimated number of GPs representing unmet need	500	Derived from Medical Council data related to overseas doctors on the general register and those doctors working beyond the age of 70 as well as hospital based NCHDs working in general practice as locums and those working full rather than part-time
Females in employment	47% specialists 46% all doctors	Medical Council, 2014 – analysis of the general and specialist registers for 2013
Males in employment	53% specialists 54% all doctors	Medical Council, 2014 – analysis of the general and specialist registers for 2013
Part-time working all	22%	Medical Council, 2014. Numbers represent 'all' doctors in general practice
Part-time: full-time working females	34%:64%	Medical Council, 2013. Numbers represent 'all' doctors in general practice
Part-time: full-time working males	13%:85%	Medical Council, 2013.Numbers represent 'all' doctors in general practice
Part time WTE adjustment rate	0.50	Based on information from the ICGP
Full time WTE adjustment rate	1	Based on information from the ICGP
Age profile of the GP stock	Table 4	Medical Council Register 2013 analysis of GPs per age group (specialist and general register)
Annual retirement from stock per annum	100 per year	Medical Council Register 2013 analysis of GPs per age group (specialist and general register). Estimate and derived from age related data
Attrition from employment stock (not due to retirement)	Males: 1% Females: 2%	Informed by Medical Council 2014 / derived for gender
Steady state annual intake into national GP training programme	157	HSE/ICGP
Cumulative annual attrition from GP training	Almost zero	HSE/ICGP
Annual graduates – national GP training programme	157 approximately	HSE/ICGP. Note - approximately 34% of new entrants on the specialist register (2013) completed their training overseas

Section 3: Demand for GP Services

3.1 Estimating the Future Demand for GP Services in Ireland

There are multiple factors that impact on the demand for GP services. For the purposes of this exercise, we are focussing on 3 major variables including:

i. Population change

ii. Utilisation based on consultation/visitation rates

iii. Proportion of the population eligible for free GP care, as a reflection of Government policy

In order to estimate this demand for GPs over the next 10 years, we used a number of potential future scenarios upon which to make different supply and demand focused workforce projections. The scenarios are stakeholder-informed and based on recommendations from the ICGP and the Clinical Programme for Primary Care, as well as on Government policy. The recommendations are based on submissions received in Q4 2013 as per the workforce planning methodology outlined in Section 1 of this report. See Appendix A for more information.

The scenarios used in GP workforce planning include the following:

- Scenario 1: Maintaining the estimated ratio of GP consultations to the population, weighted for age and visitation levels, prior to the introduction of free GP care to the under 6s.
- Scenario 2: Maintaining the estimated ratio of GP consultations to the population as per Scenario 1 while accounting for estimated unmet demand for GPs within the system as defined in Section 2.7 above
- Scenario 3: Extending free GP care to all those under the age of 6, while also accounting for estimated unmet demand within the system
- Scenario 4: Extending free GP care to all those under the age of 6 and over the age of 70, again accounting for estimated unmet demand within the system

Workforce planning estimates related to the extension of free GP care to the under 6s and over 70s are explored within the main body of this report. Workforce planning estimates related to the extension of free GP care those under the age of 12 and 18 respectively and over the age of 70, as well as the extension of free GP care to 'all' is included in Appendix B.

While extension of free GP care to those with a chronic disease was also suggested for inclusion in workforce planning, this scenario is excluded from the current planning exercise and will be revisited upon the availability of better data. Extension of free GP care to those with a chronic disease is addressed in part in the discussion section of this document.

Service utilisation is estimated in order to gauge the demand for GP services today. The GP consultation rates used herein are derived from estimates made by researchers at the Centre for Health Policy and Management, Trinity College Dublin and the most recent data on the number of people in Ireland who currently have free access to GP care. It is our understanding that these rates are based on best available data. Estimates of the number of visits an individual with and without free access to GP will make per year are, in the main, based on retrospective data from the following sources:

- Central Statistics Office, National Quarterly Household Survey, 2010[16]
- The Irish Longitudinal Study on Ageing – a national representative study on people in Ireland over the age of 50[17]
- Growing Up in Ireland – a national longitudinal study on the progress and development of approximately 20,000 children in Ireland[18]
- Central Statistics Office, Survey on Income and Living Conditions[19]
- Health Service Executive, Primary Care Reimbursement Service

In the consultation rates estimation process, the researchers gave consideration to the number of people with and without General Medical Service (GMS) and general practice Visit (GPV) cards. In estimating the change in consultation rates should free GP care be introduced, adjustments were made to account for the association between deprivation and poorer health outcomes, among other factors. Table 6 below outlines the estimates derived from the above data sources as well as relevant population statistics (CSO, 2011)[20].

We base our estimates on the assumption that all eligible patients will avail of free GP care i.e. rather than choosing to pay a GP who does not participate in free GP care schemes.

In the absence of 'actual' and representative GP consultation rates related data, the consultation rates data presented in Table 6 are derived from best available information. Averages are used where the breakdown of age groups and consultation rates in the original data set does not tally with that used for the purpose of GP workforce planning projections herein. Table 6 also gives an overview of the change in consultation rates related to projected population growth. For example, there is a projected fall in the population of under 6s over the coming years, while the over 70s age group is projected to increase substantially. Further research on 'actual' consultation rates should be explored.

Table 6 GP Consultation Rates Estimated as per Best Available Data

	Age	2015	2025
Total population	0-5	440,963	347,595
Covered prior to free GP care		132,289	104,279
Uncovered prior to free GP care		308,674	243,317
Average visits pp covered		3.2	3.2
Average visits pp uncovered		3	3
Average visits pp uncovered if free		3.1	3.1
Total visits if covered		423,324	333,691
Total visits if not covered		926,022	729,950
Total visits if not covered but now free		956,890	754,281
Total visits prior to free GP care		1,349,347	1,063641
Total visits with free GP care to all under 6		1,380,214	1,087972
Total population	6 to 11	408,012	420,547
Covered		171,365	176,630
Uncovered		236,647	243,917
Average visits pp covered		2.6	2.6
Average visits pp uncovered		0.8	0.8
Average visits pp uncovered if free		1.5	1.5
Total visits if covered		445,549	459,237
Total visits if not covered		189,318	195,134
Total visits if not covered but free		354,970	365,876
Total visits per status quo		634,867	654,371
Total visits if free		800,520	825,113
Total population	12 - 17	369,746	454,230
Covered		147,898	181,692
Uncovered		221,848	272,538
Average visits pp covered		2.8	2.8
Average visits pp not covered		1.5	1.5
Average visits pp uncovered if free		2.7	2.7
Total visits if covered		414,116	508,738
Total visits if not covered		332,771	408,807
Total visits if not covered but free		598,989	735,853
Total visits as per status quo		746,887	917,545
Total visits if free		1,013,104	1,244,590

Table 6 GP Consultation Rates Estimated as per Best Available Data

	Age	2015	2025
Total population	18-44	1,722,770	1,643,976
Covered		551,286	526,072
Uncovered		1,171,484	1,117,904
Average visits pp covered		4.8	4.8
Average visits pp not covered		2.1	2.1
Average visits pp uncovered if free		3.4	3.4
Total visits if covered		2,646,175	2,525,147
Total visits if not covered		2,460,116	2,347,598
Total visits if not covered but free		3,983,044	3,800,873
Total visits as per status quo		5,106,290	4,872,745
Total visits if free		6,629,219	6,326,020
Total population	45-64	1,107,838	1,317,230
Covered		343,430	408,341
Uncovered		764,408	908,889
Average visits pp covered		5.8	5.8
Average visits pp uncovered		2.1	2.1
Average visits pp uncovered if free		3.4	3.4
Total visits if covered		1,991,893	2,368,380
Total visits if not covered		1,605,257	1,908,666
Total visits if not covered but free		2,598,988	3,090,222
Total visits as per status quo		3,597,150	4,277,046
Total visits if free		4,590,881	5,458,601
Total population	65-69	202,341	244,734
Covered		95,100	115,025
Uncovered		107,241	129,709
Average visits pp covered		5.2	5.2
Average visits pp uncovered		2.6	2.6
Average visits pp uncovered if free		4.7	4.7
Total visits if covered		494,521	598,130
Total visits if not covered		278,826	337,243
Total visits if not covered but free		504,031	609,632
Total visits if status quo		773,347	935,373
Total visits if free		998,553	1,207,762

Table 6 GP Consultation Rates Estimated as per Best Available Data

	Age	2015	2025
Total population	70+	403,828	583,741
Covered prior to free GP care		327,101	472,830
Uncovered prior to free GP care		76,727	110,911
Average visits pp covered		5.6	5.6
Average visits pp uncovered		4.1	4.1
Average visits pp uncovered if free		6.2	6.2
Total visits if covered		1,831,764	2,647,849
Total visits if not covered		314,582	454,734
Total visits if not covered but now free		475,709	687,647
Total visits prior to free GP care for all over 70		2,146,346	3,102,583
Total visits with free GP care to all over 70		2,307,473	3,335,496

Covered: Those holding a GPV or Medical Card
Uncovered: Those not holding a GPV or Medical Card

While the focus of this report is on population change, utilisation of services and consultation rates, both health technology and nurse-led care can impact on the demand for general practitioners. These areas are discussed in more detail in Section 6 below.

Section 4: Estimating the Gap between Supply and Demand for GPs in Ireland

4.1 Projecting the Supply and Demand for GPs in Ireland

In order to project the supply and demand for GPs over the next 10 years, we adapted and extended a statistical forecasting model developed by the Expert Group on Future Skills Needs and Solas (Behan, 2009)[4]. Variables used to estimate the **supply** of GPs include the number of doctors delivering GP services that are registered with the Medical Council, in headcount and WTE equivalents; the part-time and full-time working adjustment rates as well as the gender breakdown of doctors.

The number of doctors retiring and the assumed proportion of those exiting the workforce for reasons other than retirement are also estimated along with the number of doctors entering the workforce post specialist training. As mentioned above, it is an aspiration of the Department of Health and the HSE that all doctors delivering GP services in Ireland be specialist qualified. Within the statistical forecasting model, the inflow of overseas GPs is set to zero in order to isolate the domestic supply of GPs and assess the extent to which the national education and training system can meet estimated future demand. In this way, entrants in to the GP workforce are based on the number of doctors who complete postgraduate GP training and enter on to specialist register of the Medical Council. Exits, on the other hand are based on all GPs leaving the health system, regardless of whether they hold general or specialist registration. A number of emigration trends are explored within the model also.

Demand projections are based on both population changes and service utilisation patterns across the relevant age groups and the future scenarios for GP care in Ireland. Population projections from the CSO (2011)[20] are used to estimate the number of consultations across age groups that might be expected to 2025.

4.2 Future General Practice Demand and Supply Scenarios

As already mentioned above, workforce planning for GPs is based on a number of different stakeholder-informed future scenarios for the profession. These include:

Scenario 1: The level of access to GP care remains at the level prior to the introduction free GP care to the under 6s, as do service utilisation rates. The change in demand for GPs is based solely on projected population change over the next 10 years.

Scenario 2: The baseline assumption in Scenario 1 is unchanged, i.e. demand as defined by access to free GP care and service utilisation rates remain the same as 2015 (prior to the introduction of free GP care to the under 6s) and adjusted for projected population change. However, an adjustment is made for the unmet demand for GPs identified in 2015, and carried forward throughout the 10 year projection period.

Scenario 3: Free GP care for the under 6s is superimposed onto Scenario 2, and the consequent impact on service utilisation/demand for GP care is estimated over 10 years. Again, an adjustment is made for unmet demand as per Scenario 2.

Scenario 4: Free GP care for the over 70s is superimposed onto Scenario 3, and the consequent impact on service utilisation/demand for GP care is estimated over 10 years. An adjustment is made for unmet demand as per Scenarios 2 and 3.

Important assumptions related to the GP workforce planning methodology include the following:

- There is no inward migration of GPs.
- There is no emigration among GPs.
- The training intake remains at 157 per year.
- There is almost no attrition from GP training (0.3% attrition annually as per information from the ICGP).
- All graduates of GP training enter the workforce, with a WTE ratio of approximately 0.88.
- All cohorts to which free GP care is extended will choose to avail of free GP care rather than paying for it.

It is important to note that, in this workforce planning model, there is no outward or inward migration of GPs accounted for so that graduates of Irish GP specialist training represent the only supply stream of doctors entering the workforce. A 10-year projection period is used across each scenario presented.

4.3 Scenario Results

The workforce planning projections are outlined in Tables 7 to 11 below. Figure 1 contains a guide to interpretation of these tables.

Figure 1

Interpretation of the Gap Analysis Projection Tables

- **Employment** represents the number of GPs required to maintain the current ratio of GPs per 1,000 estimated patient consultations for 2015. That ratio is .24 WTE (.27 headcount) GPs per 1,000 consultations. Consultation levels differ based on the extension of free GP care to different cohorts of the population which impacts the required number of GPs per 1,000 consultations.
- **Expansion** demand represents the number of additional specialists required to keep the current ratio of GPs to consultations constant year on year e.g. employment requirements 2016 minus employment 2015 = expansion demand.
- **Replacement** demand represents the number of specialists exiting the workforce and is based on projected retirements and 'other' leavers.
- **Recruitment** requirement represents the number of specialists required as per expansion demand and replacement demand.
- **Graduate** supply represents those specialists completing specialist training and entering the workforce.
- **Gap to specialist supply** represents the difference between the recruitment requirement and the specialist supply.

A minus sign indicates an oversupply of GPs as per the gap between supply and demand over the 10 year period

4.3.1 Scenario 1 Results

Within Scenario 1, change in the demand for GP services is based on the level of GP consultations per age group prior to the introduction of free GP care to the under 6s, projected forward as per population change only. The analysis, which is outlined in Table 7 below, suggests that by 2025 there will be a shortage of approximately 493 GPs (430 WTEs) if the annual trainee intake remains at 2014 levels, i.e. 157.

Table 7 Gap Analysis, Scenario 1

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3923	3957	3994	4033	4072	4113	4155	4197	4240	4281	4324	
Expansion demand	34	37	39	39	41	42	42	42	42	43	44	445
Replacement demand	157	158	159	160	161	161	162	163	164	165	166	166
Recruitment requirement	191	195	198	199	202	204	204	205	206	208	209	2220
Graduate supply	157	157	157	157	157	157	157	157	157	157	157	1727
Gap to specialist supply	34	38	41	42	45	47	47	48	49	51	52	493

Some numbers may not add up due to rounding

4.3.2 Scenario 2 Results:

Scenario 2 explores the gap between the supply and demand for GPs should the ratio of specialists to consultations in Scenario 1 remain unchanged and should all unmet demand (as defined in Section 2) be considered in estimating the recruitment requirement.

The results of the gap analysis for Scenario 2 indicate a shortage of 1049 GPs (920 WTEs) should doctors representing unmet demand be replaced by doctors coming out of GP specialist training programmes. Here the 500 GPs estimated to be contributing to the workforce and representing unmet demand are added to the recruitment requirement. The changing population is accounted for in these estimates and results in the unmet demand increasing from 500 to approximately 556 over the next 10 years. See Table 8 below.

Table 8 Gap Analysis, Scenario 2

GAP ANALYSIS	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3923	3957	3994	4033	4072	4113	4155	4197	4240	4281	4324	
Expansion demand	34	37	39	39	41	42	42	42	42	43	44	445
Replacement demand	157	158	159	160	161	161	162	163	164	165	166	1775
Requirements to meet unmet need by 2025	51	51	51	51	51	51	51	51	51	51	51	556
Recruitment requirement	242	245	249	249	252	254	255	256	256	258	260	2776
Graduate supply	157	157	157	157	157	157	157	157	157	157	157	1727
Gap to graduate supply	85	88	92	92	95	97	98	99	99	101	103	1049

**The estimated 556 locums representing overseas doctors and those over 70s fulfilling a service need are spread over the 10 year projection period. This increases to 556 by 2025 as per population change. Some numbers may not add up due to rounding*

4.3.3 Scenario 3 Results:

Scenario 3 explores the gap between the supply and demand for GPs by 2025 as free access to GP care is extended to the under 6s. Within this scenario, unmet demand is also accounted for in the recruitment requirement estimates. The analysis of this scenario infers a requirement of 1056 extra GPs (925 WTEs) in order to meet demands related to increased visitations arising from the extension of free GP to the under 6s and in order to meet unmet demand already in the system. See Table 9 below.

Table 9 Gap Analysis, Scenario 3

GAP ANALYSIS	2015	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3923	3931	3965	4002	4041	4080	4120	4163	4204	4247	4288	4331	
Expansion demand		42	36	39	39	41	42	42	42	42	43	44	452
Replacement demand		157	158	159	160	161	161	162	163	164	165	166	1775
Requirements to meet unmet need by 2025		51	51	51	51	51	51	51	51	51	51	51	556
Recruitment requirement		250	245	248	249	252	254	255	256	256	258	260	2783
Graduate supply		157	157	157	157	157	157	157	157	157	157	157	1727
Gap to graduate supply		93	88	91	92	95	97	98	99	99	101	103	1056

Some numbers may not add up due to rounding

4.3.4 Scenario 4 Results:

The results of the gap analysis for Scenario 4 indicates a shortage of 1121 GPs (983 WTEs) as free access to GP care is extended to the under 6s and the over 70s by 2025 and accounting for current levels of unmet demand within the system. See Table 10.

Table 10 Gap Analysis, Scenario 4

GAP ANALYSIS	2015	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3923	3975	4011	4049	4090	4131	4174	4218	4262	4306	4350	4395	
Expansion demand		88	38	41	41	43	44	44	44	44	45	46	518
Replacement demand		157	158	159	160	161	161	162	163	164	165	166	1775
Requirements to meet unmet need by 2025		51	51	51	51	51	51	51	51	51	51	51	556
Recruitment requirement		296	247	250	251	254	256	257	258	258	260	262	2848
Graduate supply		157	157	157	157	157	157	157	157	157	157	157	1727
Gap to graduate supply		139	90	93	94	97	99	100	101	101	103	105	1121

Section 5: Discussion and Recommendations

5.1 Discussion of the General Findings

Planning for the General Practitioner workforce in Ireland is important in the current health care environment given the recent and planned extension of free GP care, the aging population and increasing pressure on the acute hospital system, among other factors.

The workforce projections outlined in Section 4, Tables 7 to 10 address the estimated gap between the supply and the expected demand for GPs in the primary health care system over the next 10 years.

Of importance to note here is that the estimated inflow of GPs into the workforce is made up of newly trained specialists only. This is done in order to gauge the number of extra specialist doctors required to ensure that the GP workforce is increasingly made up of specialist trained doctors, thereby making the primary care system decreasingly reliant on non-specialist qualified doctors. Also of note is that in the main set of projections outlined above, we have set emigration to zero. This is done in order to assess the ability of the training system to produce enough specialists to meet demand. In this way we assume all doctors who graduate from specialist training, enter the GP workforce.

Scenario 1

The first set of projections, outlined in Table 7, outlines the estimated shortage of GPs based on GP numbers and utilisation patterns prior to the introduction of free GP care to the under 6s, corrected for population change on an annual basis until 2025. It assumes that there will be no change in Medical Card and GP Visit Card eligibility. The annual shortage ranges from 34-52, cumulatively adding up to 493 headcount (430 WTE) at the end of the 10 year period.

In the projection estimates we have addressed the impact of the ageing population on the utilisation of GP services should access to those services remain unchanged, at levels prior to the introduction of free GP care to the under 6s. The number of people in Ireland over the age of 70 is projected to increase from around 402,871 to 583,169. With this ageing population will come increased demands for GP services, regardless of levels of free access to GP care.

Scenario 2

Table 8, incorporates a correction for current unmet demand for GP services, extrapolated over a 10 year period. In the absence of hard evidence, we have estimated this at 500 headcount, and rather than apply the correction in year 1, we have spread it over the years 2015-2025. The unmet demand is superimposed on the baseline figures of Scenario 1, i.e. Scenario 2 represents a cumulative situation. The annual shortages range from 85 to 103, cumulatively adding up to 1,049 headcount at the end of the 10 year period.

The background to our estimation of unmet demand is described in Section 2. At the present time, Ireland is dependent on doctors from overseas, hospital NCHDs, and a cohort of its own GPs who would prefer to retire or work part-time; these doctors are filling gaps that our permanent, career-GPs cannot address due to inadequate numbers. They are providing an essential service. Furthermore, the WHO Global Code of Practice on the International Recruitment of Health Personnel recommends that countries should have a sustainable medical workforce.

Scenario 3

Scenario 3 addresses the projected requirement for GPs as free access to GP care is extended to the under 6s. Again, the figures in Table 9 represent a composite of the 3 scenarios, with Scenario 3 being superimposed on Scenario 2. The annual shortages range from 93 to 103, cumulatively adding up to 1,056 headcount (925 WTE).

The small increase in the gap which we see on comparing Scenarios 2 and 3 may be explained by the falling birth rate in Ireland. The CSO population projections show a reduction in the population of under 6s from 440,963 in 2015 to 347,595 in 2025. We are using the CSO M2F2 population projections as part of our workforce planning methodology for all specialties. M2F2 forecasts are on the conservative side. However, when the actual annual birth rates since 2011 are compared with the projected birth rates as per the CSO M2F2 it can be seen that the number of registered births was in fact lower than those predicted. See Table 11 below.

Table 11 Number of Births to 2013. Estimated Actual and Projected

	Births CSO Actual Estimate (Registrations)	**M2F2**
2011	74,650	72,452
2012	72,225	74,235
2013	68,930	75,160
2014		73,004

Scenario 4

The final set of projections superimpose the effects of extending free GP care to the over 70s to the previous scenarios. The results of the gap analysis indicate a shortage of 1,121 GPs (983 WTEs) over the 10 year projection period, with an annual range of 105 to 139.

Tables have been prepared for 3 further scenarios including:

- Extension of free GP care to under 12s
- Extension of free GP care to under 18s
- Extension of free GP care to all

These tables can be found in Appendix B.

5.2 The Impact of Emigration/Migration on the Demand for GPs

The methodology used herein incorporates certain assumptions including the assumption that all graduates of GP training enter the workforce and that there is no emigration among GPs. It is important to address these assumptions, as well as other variables which might influence the modelling, and outputs of the scenario analyses.

Accurate emigration and migration figures are not available. However, an ICGP survey of GPs suggests that recently qualified specialists are finding the costs of setting up in independent practice prohibitive. This, combined with cumulative cuts in GMS payments, is cited to be leading to the emigration of young GPs. GMS along with other public service financial cut-backs were introduced during a time of economic crisis in Ireland. There is however a commitment from Government to gradually reverse these cuts, which may go some way to reducing the number of young GPs leaving the country.

In order to better understand the potential impact of emigration on the future supply of GPs, a number of alternative emigration trends were explored within the workforce planning model. This was done through manipulation of the 0% emigration assumption within the model as follows:

- 5% rate of emigration
- 10% rate of emigration
- 15% rate of emigration

Table 12 shows the resulting adjustment in the 10 year shortfall for each of the 4 scenarios. As can be seen, even modest emigration rates have a major impact on the gap between the supply and demand for GPs.

Table 12 Impact of emigration rates on scenarios/gap analysis

Emigration Rate	WTE/ Headcount	Scenario 1	Scenario 2	Scenario 3	Scenario 4
0%	Headcount	493	1,049	1,056	1,121
	WTEs	430	920	925	983
5%	Headcount	580	1,135	1,142	1,208
	WTEs	504	994	1,000	1,057
10%	Headcount	666	1,222	1,228	1,294
	WTEs	579	1,068	1,074	1,131
15%	Headcount	752	1,308	1,315	1,380
	WTEs	653	1,142	1,148	1,205

5.3 Flexible Working Arrangements

The analysis carried out within the workforce planning modelling indicated that over the next 10 years the percentage of female GPs in the workforce is likely to increase from around 46% to 52%.

As female GPs are more likely to work part-time, feminisation of the GP workforce will drive the demand for increased numbers of GPs to meet patient demand. Today, a GMS contract holder can apply for flexible working as long as there is no resultant reduction in the whole time equivalent number of GMS contract holders in a specific locality. This flexible working allowance for GMS contract holders should help reduce the headcount demand for GPs over the next 10 years.

Flexible working arrangements can be configured in such a way as to allow for part time work at, for example, 60% to 75% of the working week rather than the current estimated rate of 50%. Such arrangements represent a trend emerging internationally and across professional groupings in response to escalating employment and training costs, reducing birth rates, shortages in the employment stock and the need to encourage women in to the workplace. Increasingly male employees are also seeking flexible working arrangements.

5.4 Nurse-Led Care and Chronic Disease Management in General Practice

5.4.1 Nurse-led Care in General Practice

The development of nurse-led care can help reduce GP workload, lead to financial savings and alleviate the escalating demand for GPs in the future. In countries such as the UK, New Zealand and Australia nurse-led care is delivered for chronic conditions, immunisations and general care for older people in the population. This means that GPs can concentrate on the more complex patient cases, leaving nurses to carry out some routine procedures.

Consideration should be given to the need for increased nursing to GP ratios and to specialist training (up to Advanced Nurse Practitioner level) for practice nurses so that they may become a primary care team or network resource to support the management of long term conditions in the community. In this way, more generalist practice nurses could deliver routine care.

In the UK it is notable that financial incentives for general practice successful in achieving positive patient outcomes was the main driver behind the expansion of nurse-led care (Hoare et al, 2012)[21].

5.4.2 Chronic Disease Management

As already noted, within our workforce planning we have not addressed the extension of free GP care to those people with a chronic disease. Future considerations in the workforce planning process must include the impact of progress towards chronic disease and other care being delivered in the community setting. We acknowledge the importance of considering the potential of for example, the increased delivery of chronic disease

management and older age care by nurses in the community, on the demand for GP services in the future. Another important area that must be considered is the potential impact of increased access to homecare packages and the role the GP will play in overseeing care in the home. It is envisaged that the proposed new contract between the HSE and general practitioners, relating to the delivery of GP care through the GMS scheme, will recognise the potential for combined nurse, GP care activity. New models of care for chronic disease management in the community infer combined GP and nurse-led initiatives for certain major illness e.g. diabetes.

In building a picture of what planning for chronic disease management in the community will entail, we note the following:

There are three main levels of patient complexity relating to chronic disease presentation and management as follows:

Level 1: Individuals who have a chronic illness which can be well controlled by the patients themselves with primary care support. This equates to approximately 80% of patients.

Level 2: Individuals with more complex illness who may have one or more chronic illness of varying severity, but are not at high risk of hospitalisation, if they are well managed in the community. This equates to approximately 15% of patients.

Level 3: Individuals with complex conditions, often with complications, who require specialist care, intensive intervention and are at high risk of hospitalisation. This equates to approximately 5% of patients (HSE, 2008 p. 4).[22]

Using these statistics, we can assume that approximately 95% of all chronic disease patients could be treated in the community setting, by either a GP or an appropriately qualified nurse. In order to benchmark this against current primary care based treatment of chronic illness patients, we need better data.

According to the HSE there are currently around 800,000 people in Ireland who have one or more of the major chronic diseases COPD/asthma, diabetes and heart failure and atrial fibrillation. Around one third of these have more than one of these chronic diseases. The HSE are recommending that these patients be cared for in the community by both GPs and practice nurses. Taking the complexity of illness in to consideration, it can be estimated that around 95% of the 800,000 patients referred to above i.e. 760,000 patients, could be treated for their chronic illness in the community. The HSE currently advocates that these patients could receive structured chronic disease care in the community seeing a GP approximately once per year and a practice nurse around twice per year. In this way, the introduction of chronic disease management in the community would increase GP consultation rates, over and above those for free GP care for the under 6s and the over 70s, by around 760,000 per year. Here, we are assuming that the current level of consultations for the over 70s in particular will not be impacted by chronic disease management in the community setting being introduced free of charge.

If advanced nurse practitioners and practice nurses were to be resourced to manage chronic illness in the community, in the place of GPs, this could decrease the requirements for GPs in managing the care of these patients. It is safe to assume that a significant level of chronic disease management in the community setting could be nurse delivered if the appropriate training and primary care resources were made available.

5.5 The Impact of Health Technology on the Demand for GPs

General practice in Ireland has been relatively progressive at adopting technology to assist in case and practice management. Optimum use of IT systems in GP practices however can assist the practice to coordinate, measure, track, and share health related data to monitor and improve clinical workflow processes. This in turn can lead to increased efficiencies, reduced costs and improved patient health outcomes. Health technology is increasingly facilitating improved workflows across both the primary and acute care settings. The introduction of the electronic patient record has the potential to greatly increase efficiencies within and across primary and acute care settings.

Benefits of health technology optimisation within the practice setting include the following:

- Facilitation of the transfer of information related to laboratory, scans and test results, medications, immunisations and other information about patient care. This serves to greatly enhance care coordination.
- The standardisation of data collection at practice, community and national level. This in turn facilitates monitoring and review of practice processes as well as practice and population level analysis.
- The development of data registers and datasets to inform chronic disease incidence and related workload, GP and practice nurse consultations among other things. Such registers and datasets provide evidence to support the development of policy and practice and can be invaluable in supporting primary care strategic planning in relation to, for example, more practice nurse-led care. This in turn can lead to increased efficiencies and reduced costs.

While the implementation of health technologies can serve to increase GP workload in the short term i.e. through the need for learning, data inputting etc. the impact on GP workload ultimately can be reduced. For example, in the Netherlands the impact of technology on the demand for GPs was found to lead to an overall decrease in demand of 1%, taking both increased workload and increased efficiencies into consideration (Van Greuningen et al, 2012)[8].

The impact of health technology on primary care is an area that needs further examination.

5.6 Resources to Support Practice Development

Expansion of the GP workforce can only take place if supported by infrastructural and human resources. The planned reversal of financial cuts and the provision of other support requirements will be important in ensuring adequate general practice resourcing.

5.7 Actions Required to Address Current and Future GP Shortages

5.7.1 Trainee Intake

The main finding of the GP workforce planning exercise outlined in this report is that a current and future shortfall of GPs has been identified and clarified. In order to ensure that Irish patients continue to have ready access to GP services, these results should be reviewed with a view to formulating a policy aimed at addressing the projected deficit.

If we use the "gap to graduate supply" figures from the 4 scenarios (i.e. the figures in red in the last line of tables 7 to 10) as a proxy for the projected shortfall in trainee intake, this would suggest that an annual increase of between 50 (scenario 1) and 110 (scenario 4) GP training places is required to prepare for the future GP demand. In this regard, the following points are noted:

i. **Scenario 1** Should an increase in the number of GPs in training to meet future demand based on population ageing alone, without provision for the extension of free GP care to the under 6s, then an increase of around **50** GPs per year would be required. These estimates assume all trainees are available to enter the workforce upon specialist qualification.

ii. **Scenario 2** In order to meet the current unmet demand for GPs (represented by current GMS panel vacancies; doctors flying into Ireland from overseas for short periods of time to fill locum GP demand, including red-eye co-op shifts; NCHDs from the acute sector working as locum GPs; GPs working beyond retirement but not by choice; GPs working full-time when they would otherwise choose to work part-time) it is estimated that an annual increase of approximately **100** training places will be required

iii. **Scenarios 3 and 4** If both unmet demand for GPs in the system today and requirements to meet demand based on the roll-out of free GP care to the under 6s and the over 70s over the coming 10 years are to be considered, then the training intake allocation should increase by approximately **110** places per year.

iv. If we factor emigration among newly qualified GPs into training related estimates, then the requirement for increased training places, over and above the current 157, could be up to between 75 per year and 138 per year (based on a 15% emigration rate among new specialists)

v. The headcount projections above could be impacted by variations in the incidence of part-time working/WTE rate of doctors working in the system over the next 10 years. For example, a greater proportion of GPs (both male and female) may choose to work shorter hours. In this way, attention should be paid to part-time working/WTE rates when reviewing trainee intake requirements.

vi. In order to ensure that, in the future, newly qualified medical graduates choose to apply for GP training, it is important that general practice is promoted as a positive career choice among undergraduate and second level students. In addition, innovative approaches to training such as accelerated training for doctors who have completed recognised training in other specialties should be considered.

5.7.2 Innovation in the Recruitment and Retention of GPs

Reliance solely on the training system to meet the future demand for GPs in Ireland is not appropriate. A number of parallel recruitment and retention strategies should be considered in order to meet the future demand for GPs, which could thereby reduce the trainee requirements. These include the following:

i. A return to work programme to encourage early leavers from general practice back into the profession. These early leavers are most likely to include GPs who left the workforce for family reasons.

ii. Ongoing support for flexible working to ensure that more GPs are retained in the workforce rather than opting out in order to meet family and other commitments. This applies to both GMS contract holders and non-GMS contract holders. This has been recommended in the Strategic Review of Medical Training and Career Structure (DoH, 2014[23]).

iii. Examining mechanisms to support rural practice.

iv. Incentivising all GPs to work closer to the age of 70, in order to maximise the contribution of the current GP workforce. A flexible working scheme for those approaching retirement could be implemented. We acknowledge that GMS contract holders can currently work up to the age of 72.

v. A retention strategy for trainees and newly qualified specialists, as we know that there is currently a trend towards increasing intention to emigrate amongst recent graduates. Flexible working arrangements, structured career pathways and support and assistance in practice development could be considered.

5.7.3 Research and Data-Related Recommendations

The following research and data-related recommendations are proposed:

i. The introduction of a HSE register of all GPs working in Ireland is recommended in order to get an accurate profile of the GP workforce. This should include data collection on parameters such as numbers and registration of GPs, WTE rates, gender and age.

ii. Further research by the HSE and the ICGP into GP consultation rates is recommended in order to capture representative data on the actual utilisation of GP services across age groups, gender, deprivation, illness presentation and geography.

iii. An analysis of the future impact of moving chronic disease management from the acute hospital setting into primary care, on general practice, should be carried out. This should be done in tandem with an analysis of the potential for more nurse-led care in the general practice setting

iv. Further analysis on the potential impact of increasing nurse-led care in the general practice setting for conditions other than chronic disease management should also be considered.

v. A stakeholder consultation exercise on the potential future impact of advances in technology on general practice is recommended. This should include consultation on the implications of advances in technology for GP workforce requirements due to possible efficiencies which might result e.g.

   a. Patient data sharing across the acute and community setting

   b. Online access to diagnostics, lab results, radiology etc.

5.8 Conclusion

Over the coming 10 years, it is estimated that the demand for GP services will increase substantially. The number of people in Ireland over the age of 70 will increase from around 403,000 to 583,000. With this ageing population will come increasing chronic illness rates and increasing demand for GP services. This will have a major impact on health service planning and will require an appropriate response from Government, the acute hospital system, social care and primary care services.

The increase in access to free GP care to different cohorts of the population will also have an impact on the demand for GP services, as those who previously did not have access to a GP free of charge are likely to visit the GP more frequently. Feminisation of the workforce and trends in doctor emigration also threaten the availability of doctors to deliver much needed GP services.

All indicators point to an urgent requirement to plan for an expanded GP workforce. This will require increasing the training intake in to GP training programmes in the immediate term, along with the implementation of strategies to maximise recruitment and retention potential.

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Appendix A

Table A1 outlines the current number and ratio of general practitioners per 100,000 of the population in Ireland (as of 2014 when this exercise was carried out). Included in this table are the projected numbers of specialists per 100,000 of the population in 2024, should the current ratio remain static at the 2014 level. Table A1 also includes the research informed range of specialists per head of population as per expert stakeholder perspectives and the ratios in place, projected and/or recommended in comparable healthcare jurisdictions.

Table A1 General Practice Specialist Posts 2014-2024

2014		2024*		Research informed range of specialists per head of population to 2024 **	
N	**Ratio per 100,000 pop**	**N**	**Ratio per 100,000 pop**	**N**	**Ratio per 100,000 pop**
2,880 (2,464 WTE)	62	3,086 (2,715 WTE)	62	3,086 - 4,978 (2,715 - 4,380 WTE)	62 - 100

* *Accounting for population growth and an unchanged ratio of specialists*
** *The recommendation is based on information in Table 7 and represents a range from the lowest to the highest ratio considered*

The benchmarking data in Table A1 was informed by submissions from expert stakeholders i.e. the HSE Clinical Programme for Primary Care and the ICGP as well as research on population based ratios of GPs in the UK and Australia. See Table A2 for more information.

Table A2 Benchmarking Research: Including Submissions Overviews and International Ratio Information

National Clinical Programme for Primary Care	Medical Council statistics indicate that there are over 4,000 doctors who class themselves as General Practitioners (GPs). The Irish College of General Practitioners (ICGP) and Health Service Executive (HSE) data would indicate somewhere around 2,600 GPs currently active in Ireland. At present there are 157 GP training places annually across 15 GP training programmes – this has increased from 120 training places in 2009. GP training has also moved to a four year cycle – increased from 3 years in the period 2005 – 2008. In addition an unspecified number of GPs train in the United Kingdom, some of whom return to Ireland but numbers are anecdotal.

The male female ratio is around 3:1 females. This has implications in terms of full time equivalent GPs as both female and male GPs elect in increasing numbers to work part time due to family commitments. A recent ICGP survey noted that 93% of GP trainees see themselves working in general practice in 10 years time, indicating that retention of trained GPs is positive. However in this survey 44% of GPs saw themselves working in a part time capacity. The 2009 FAS report into healthcare workforce planning predicted that there would be a shortfall of 265 GPs annually by 2020. Another confounding factor is the age profile of Irish GPs – the median age being in the late 50's. The FAS report in 2009 envisaged up to 240 GPs retiring between 2011 and 2015 although the HSE has increased the retirement age to 70 and economic circumstances may reduce the potential number of retirees. The Primary Care Strategy 2001 and subsequent government policy has envisaged a move from secondary care to more activity in the primary care sector. Central to this change is the development of primary care teams with GPs as key leaders in the governance of such teams. Added to this are the ageing demographics of Irish society and the consequent increase in workload in primary care.

The current model of GP training is basically two years in hospital rotations followed by two years in general practice as a registrar. The ICGP criteria list the types of hospital rotations that are appropriate to GP training such as paediatrics/ obstetrics and gynaecology, medicine etc. There is a limited number of training places particularly in paediatrics which is deemed an essential rotation. As a result any plan to increase GP training places needs to take into account the problem in placing GP trainees in an ever decreasing number of hospital SHO rotations in such specialities. GP training schemes anecdotally report that they would struggle to house extra training places given the current model of training which is based on small group learning and day release.

GPs have traditionally worked as single handed practitioners or in small groups. With the increasing complexity of care and workload demands there is a move to multi-disciplinary teams where GPs share workload and delegate tasks such as chronic illness management to practice nurses and other primary care team members. In this context it is important to take workforce planning across the primary care sector rather than considering GP

training in isolation. A model of care is emerging from both the clinical programmes in the HSE and on the ground in primary care where GPs supervise illness management while practice nurses work according to models of care and protocols. An example of this is diabetes care which is predominantly carried out by practice nurses with the aid of clinical nurse specialists. The role of the public health nurse also needs to be explored and re-defined in this changing environment. There is a need for a census of the current GP workforce given the wide variation in Medical Council numbers and those registered with the HSE and ICGP as GPs. The suggestion is to build on the work of Health Atlas. This could be done in collaboration with the ICGP and HSE. In addition, the HSE needs to look at primary care workforce planning in particular with reference to practice nurses who although not all HSE employees, are supported by a grant system to GPs. In the meantime there is no doubt that a limited increase in GP training places could be considered in the short term. The suggestion is made given the above constraints, that a modest increase of 20 GP training places would be appropriate and achievable.

The Irish College of General Practitioners

The determination of an appropriate ratio of General Practitioners (GPs) per head of population must be considered in a scenario specific format. Currently there is health policy suggesting that Irish general practice is expected to change significantly. A number of scenarios could be considered:

Scenario 1: A single change, being the provision of care to all children under 6 years via the General Medical Services (GMS) contract
Scenario 2: as above plus provision of care to all those patients with chronic disease, without expectation of payment at point of care
Scenario 3: Universal Health Insurance and how it will change Irish general practice
Scenario 4: Government employment of some/all general practitioners

Ireland's allocation of General Practitioners per head of population was in line with the Organisation for Economic Co-operation and Development average (OECD, 2009) at 52 per 100,000 population in 2009. However the distribution of physicians as a percentage of total physicians shows that Ireland (12%) has a lower ratio of GPs compared

with the OECD (20%) average. Recent research in 2013 by Teljeur et al. suggests the number of GPs per head of population may be higher than the 2009 OECD figures at 64.4 per 100,000 population and an absolute number of 2,954. Government policy in recent years has the expectation of general practice to perform at a level of much higher ranked healthcare systems, such as France and Canada. In both of these countries, the ratio is over 100 per 100,000 population and comprises some 50% of their total registered physicians. In terms of the number of additional GPs deemed appropriate by ICGP over the next 5 to 10 years, best estimates of numbers are in respect to particular scenarios. Some of the relevant issues for consideration within each scenario are as follows:

General Practice has 22% of its workforce working part-time, according to the Irish Medical Council Workforce Intelligence Report (2013). There is an age related increase in the percentage of all doctors working part-time. Under 35 years, 4% of males and 7% of females work part-time. This figure increases in the 35-44 age bracket to 4.4% and 23% respectively and continues to rise such that in the 55-64 age bracket it has become 9% and 36% respectively. In 2012, 59% of new specialist entrants to the general practice division of the specialist register were female. This corresponds to the total number of female medical graduates from Irish medical schools. Currently female doctors are twice as likely to work part-time as their male counterparts.

There is little Irish data accurately detailing the volume of work per full time GP. We know that some GPs consult with four patients per hour and some 6 per hour. The number of presenting complaints (issues) per consultation is rarely less than two and commonly four. More data on these parameters in Irish general practice is needed to truly conceptualise the workload currently being met. Only then can we start to extrapolate the increase in workload that will inevitably follow the introduction of any of the current government's plans. All government plans involve removing cost at point of care to the patient and we know this will double or triple the frequency of consultation by those people currently outside the General Medical Services Scheme. Some general practitioners have started to produce this data and the high level of computerisation will allow widespread collection of data. Potentially the rapidly expanding network of practices involved in the Irish

	Primary Clinical Research Network (IPCRN), could gather accurate data as census data does not reflect the experience of practitioners on the ground. 2013 ICGP membership data showed 258 GPs to be in the 65-69 year age group. With state contracts all ending at 70 years, it is reasonable to assume that the majority of these GPs will retire at 70 years of age. In 2010, the number of available training places in general practice increased from 129 to 157. Training duration is four years and so the first year of graduation since expansion occurred is 2014.
United Kingdom Ratios	General Practice is the largest medical specialty within the United Kingdom where GPs see more patients daily than any other specialist in the National Health Service (NHS). The short-term focus of recommended ratios is to increase specialist training numbers to reach the government's recruitment target which is 3,250 GP training places per year to be reached in England by 2015. In 2011 there were 67.8 GPs per 100,000 of the population in England. The Centre for Workforce Intelligence project this ratio to improve to around 83-84 per 100,000 by 2030, estimating that if the 3,250 GP trainee places target is achieved by 2015 and maintained thereafter, it will increase baseline supply projections by around 43% or 15,300 GPs by 2030 (on a headcount basis).
Australia Ratios	The Royal Australian College of General Practitioners state that while there is no universally agreed acceptable GP to patient ratio, the Department of Health and Ageing (DoHA) defines a District of Workforce Shortage (DWS) as a geographical area in which the population's need for medical services has not been fully met. The Department of Health and Ageing has determined this by comparing the supply of GPs with the national average supply, and considers the ratio of 71 per 100,000 population as the standard doctor-to-patient ratio. Recent studies show that 42% of the current general practitioner workforce is aged 55 years or older. Whilst there has been a significant increase in training numbers since 2007 i.e. from 600 per year to 1,200 per year by 2014, increased training numbers will not fully offset the retiring workforce in the medium-to-long term. This is due to training numbers falling short of the estimated 1,500 places per year required to meet demand by 2016.

Notes:

- According to data for 2013, 2,809 doctors were registered in the Medical Council Specialist Division as General Practitioners. Teljeur et al. (2013) estimated that there were approximately 2,954 GPs working in Ireland in 2012/13. This equates to 64.4 GPs per 100,000 population in terms of headcount, and 61.3 GPs per 100,000 in terms of whole-time equivalent (WTE) and assuming that 91% of GPs work full-time. A combination of data from GMS, ICGP, Cervical Check and IMD databases were used to arrive at the estimate. For the purpose of making training intake recommendations, the estimated GP workforce for 2014 is 2,880 based on estimates outlined above.
- The WTE rate used herein is .88. This rate is estimated for 2013 based on the Medical Council rate of 75% working full-time; 23% working part-time and 2 % 'other' approximately. As per the ICGP survey results cited in the submission outlined above, in 10 years time there is potential for approximately 44% of the GP workforce to be working part time. This represents a doubling of the part time working numbers estimated by the Medical Council in 2012.
- Population 2014 is projected to be 4,626,423 using the M2F2 scenario CSO (2011)
- Population 2024 is projected to be 4,979,921 using the M2F2 scenario CSO (2011)
- Information in Table A2 does not necessarily represent the views of HSE-NDTP

Appendix B

Scenario Analysis: Further Extension of Free GP Care

Scenario 5: Extension of Free GP Care to the Under 12s and Over 70s

The results of the gap analysis for Scenario 5 indicates a shortage of 1165 GPs (1029 WTEs) should free access to GP care by extended to the under 12's and the over 70s by 2025. These estimates build in the extra GP requirements to account for unmet need within the primary care system i.e. doctors flying in from overseas to fill locum requirements, GPs working beyond retirement where they cannot find a replacement GP for their clinic and doctors from the acute hospital sector working in a locum GP capacity in their free time. See Table B1 for the results of this analysis.

Table B1

Scenario 5 - Free GP care to Under 12s and Over 70s

GAP ANALYSIS	2015	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3,923	4,021	4,057	4,097	4,139	4,181	4,224	4,268	4,311	4,355	43,98	4,441	
Expansion demand		134	39	42	42	43	44	44	44	43	44	43	561
Replacement demand		157	158	159	160	161	161	162	163	164	165	166	1,775
Requirements to meet unmet need by 2025		51	51	51	51	51	51	51	51	51	51	51	556
Recruitment requirement		342	248	252	252	254	256	256	257	257	259	259	2,892
Graduate supply		157	157	157	157	157	157	157	157	157	157	157	1,727
Gap to graduate supply		185	91	95	95	97	99	99	100	100	102	102	1,165

Scenario 6: Extension of Free GP Care to the Under 18s and Over 70s

The results of the gap analysis for Scenario 6 indicates a shortage of 1256 GPs (1101 WTEs) should free access to GP care by extended to the under 18's and the over 70s by 2025. This scenario accounts for unmet need within the system also. See Table B2.

Table B2

Scenario 6: Extension of Free GP Care to the Under 18s and Over 70s

GAP ANALYSIS	2015	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3,923	4,094	4,131	4,172	4,215	4,258	4,303	4,349	4,395	4,440	4,485	4,531	
Expansion demand		208	40	43	43	45	46	46	46	45	46	44	652
Replacement demand		157	158	159	160	161	161	162	163	164	165	166	1,775
Requirements to meet unmet need by 2025		51	51	51	51	51	51	51	51	51	51	51	556
Recruitment requirement		416	249	253	253	256	258	258	259	259	261	260	2,983
Graduate supply		157	157	157	157	157	157	157	157	157	157	157	1,727
Gap to graduate supply		259	92	96	96	99	101	101	102	102	104	103	1,256

Scenario 7: Extension of Free GP Care to All

The results of the gap analysis for Scenario 7 indicate a shortage of around 2055 GPs (1,801 WTEs) should free access to GP care by extended to the entire population of Ireland by 2025. Again, this scenario accounts for unmet need within the system currently. See Table B3 for the results of this analysis.

Table B3

Scenario 7: Extension of Free GP Care to All

GAP ANALYSIS	2015	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Totals to 2025
Employment	3,923	4,843	4,882	4,925	4,972	5,019	5,069	5,121	5,172	5,223	5,274	5,325	
Expansion demand		959	43	47	47	50	52	51	51	51	51	49	1,451
Replacement demand		157	158	159	160	161	161	162	163	164	165	166	1,775
Requirements to meet unmet need by 2025		51	51	51	51	51	51	51	51	51	51	51	556
Recruitment requirement		1167	251	256	258	261	264	264	265	265	267	265	3,782
Graduate supply		157	157	157	157	157	157	157	157	157	157	157	1,727
Gap to graduate supply		1,010	94	99	101	104	107	107	108	108	110	108	2,055

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