Planning for Health

Trends and Priorities to inform Health Service Planning 2016

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

hi Healthy Ireland

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Foreword

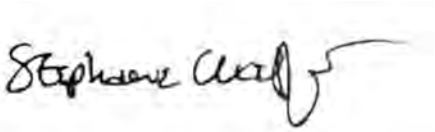
I am pleased to welcome the publication of this significant paper, *Planning for Health: Trends and Priorities to inform Health Service Planning 2016*. This paper sets out the health needs and demands of the Irish population to support service planning 2016 in the HSE. It provides a population focused analysis of current and future needs and demands in terms of demographic pressures for 2016 and also provides a five year forecast to 2021. It is a key resource to inform priority setting across key areas in the health service and assist in the annual estimates process.

Ireland is undergoing significant demographic change, with people now living longer than ever before. Whist this is a wonderful achievement, it is not without its challenges. As a health service we are endeavouring to provide for our ageing population so that older people can enjoy these additional years in good health and where they are supported to live in their own communities. Knowledge and intelligence gained from analysis of robust health information is the cornerstone of evidence-led health service planning and this paper provides an excellent first step in this regard.

I would like to thank Dr. Breda Smyth and her team for their tremendous work in producing this paper and to acknowledge the contributions of the many staff across the Health Services who participated in consultation sessions, provided data and drafted content. I am also very grateful to the Information Unit in the Department of Health, the Central Statistics Office and the Health Research Board for their collaboration and support.

It is our plan to build on this initial publication, to expand analysis to look at other healthcare cost drivers in addition to demographic pressures. We can further improve our analytic capability and insights to feed into service planning from local to national level into the future. As part of this work into the future, it is recommended that a 'Planning for Health' paper is developed for all Community Healthcare Organisations and Hospital Groups to guide robust planning focussed on meeting the evolving needs of local populations. This proposed next phase aligns with plans identified under the broader health service reform programme around completion of population needs assessments.

This paper is the first important step to utilising current demographic projections, disease prevalence, and service utilisation data and knowledge to support decision-making and inform service design so that we can improve health outcomes in the longer term. The paper is a valuable resource for all of us who are grappling with the challenges of planning for the provision of high quality accessible services to a growing and ageing population amidst rising chronic disease levels. I very much look forward to building greater capacity and putting in place stronger governance for this work within the Health Services over the coming months.



Dr. Stephanie O'Keeffe
National Director
Health and Wellbeing

Introduction

This paper aims to set out a clear and comprehensive overview of the imminent demographic pressures that our health service will encounter in 2016 and continue to do so over the next five years up to 2021. Chapter 1 outlines the key messages from Chapter 3 – 7. It is important when reading Chapter 1 to be cognisant of the assumptions and contextual basis of these analyses. Chapter 2 then summarises the conversation regarding future challenges and solutions for our health system. Chapter 3 gives a comprehensive overview of our population including population growth both at national and regional level. In addition, the health status of our population is examined. Chapter 4 examines the challenges that acute hospitals face taking into account demographic pressure and current budget deficits. Chapter 5 explores primary care and the subpopulations which it serves. Chapter 6 summarises the increasing demands on (1) services for the older persons and (2) services for people with disabilities as a result of our population growth, in particular our increasing aging population. Finally, Chapter 7 explores the current and future needs and demands on our mental health service.

I would like to take this opportunity to thank the 'Planning for Health' Co-Authors for their engaging and informative discussions, and tireless work in bringing this document to completion. These include:

Mr. Paul Marsden (Project Manager)

Ms. Lorna Collins

Dr. Anne Dee

Dr. Fionnuala Dohohue

Dr. David Evans and

Dr. Teresa Bennett

This document is written for use by policy makers, healthcare service planners and managers, health professionals, academics and the general public. Electronic copies of the document are freely available at www.hse.ie and www.lenus.ie.

Dr. Breda Smyth
Lead Author and Editor

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1 Key Messages

Key Messages

Assumptions

- Population projections are based on the CSO's M2F2 scenario
- Acute hospital in-patient and day case utilisation rates are based on Hospital In-patient Enquiry (HIPE) activity for 2014, the HIPE dataset used at the time of analysis was approximately 98% complete and figures may be subject to slight change
- Activity and costs by age group for publicly funded acute hospitals are available from the HIPE and casemix systems. Under the assumption that hospital discharge rates, unit costs and the ratios between in-patients and day cases remain stable between 2015 and 2016, this data can be used to estimate levels of activity and associated costs
- Projections in activity reflect the demographic pressure only and do not take into account changes in activity due to models of care, disease patterns, medical inflation, changes in policy on eligibility and utilisation, the health of the population, the expectations of the public or the state of the national economy
- National Psychiatric In-patient Reporting System data was used to calculate mental health utilisation rates and excludes data from private hospitals, Central Mental Hospital, Carraig Mór Cork, St Joseph's IDS and Phoenix Care Centre

Demography and Health Status

DEMOGRAPHY

- The population is projected to increase by 0.7%, or 32,300 people between 2015 and 2016
- The population aged 65 years and over is projected to increase by 3.1%, or 19,400 people between 2015 and 2016
- The population aged 85 years and over is projected to increase by 4.2%, or 2,900 people between 2015 and 2016
- All Community Healthcare Organisation areas will see an increase in population between 2015 and 2016 varying between 1,400 and 5,300 people with Areas 4, 6, 7, 8 and 9 having population increases between 4,000 and 5,300 people
- Our population is projected to increase by 4% or 188,600 people between 2016 and 2021
- There will be 107,600 additional people aged 65 years and over by 2021
- There will be 15,200 additional people aged 85 years and over by 2021

HEALTH STATUS

- In Census 2011, 88.3% of our population reported their general health was either very good or good. This equates to 4.1 million people in 2016
- Life expectancy in Ireland has increased. At 78.7 years for males and 83.2 years for females it is now above the average for the EU (75.7 years male, 82.1 years female)
- Between 2004 and 2013 mortality rates for circulatory system diseases have fallen by 30% and for cancer by 10% over the same time period
- The Irish mortality rate from chronic lower respiratory diseases in 2011 (including cancer of the trachea, bronchus and lung) was 31% higher than the EU average
- The incidence of cancer, cardiovascular disease, diabetes, stroke, respiratory disease etc., will all increase by between 4% and 5% per annum
- According to TILDA, in 2015 approximately 525,590 people aged 65 years and over have at least one chronic condition. Using population projections, there will be an additional 16,830 people with at least one chronic condition in 2016. By 2021 there would be a further 94,580 additional people with at least one chronic condition
- Using TILDA data, in 2015 64.8% of people aged 65 years and over have two or more chronic conditions which equates to 391,930 people. Using population projections, in 2016 this will rise by 12,540 additional people and a further 69,780 by 2021
- In 2016, using TILDA prevalence rates and our projected population estimates, for adults aged 65 years and over there will be an additional: 1,950 people with angina, 9,950 people with hypertension, 2,110 with diabetes, and 980 with lung disease, 560 with stroke, 7,520 with arthritis and 1,080 with atrial fibrillation.
- Between 2016 and 2021, using TILDA prevalence rates and our projected population projections for adults aged 65 years and over there will be an additional: 10,880 people with angina, 55,530 with hypertension, 11,730 with diabetes, 5,490 with lung disease, 3,120 with stroke, 41,900 with arthritis and 6,030 with atrial fibrillation

COSTS

- By 2015 the healthcare budget has decreased by over 21% from 2009 and within this timeframe our demographic pressure has increased by over 9%
- In 2016 if existing patterns persist there will be a cumulative reduction of the total healthcare budget from 2009 of 30.6% inclusive of demographic pressure of 10.5% and budget reduction of 20.1%
- Using the same methodology as employed by the Department of Health based on European data in the top-down approach, a 1.3% upward adjustment in public health budget would be required to meet this 'pure demographic effect' in order to deliver the same level and quality of service from 2015 to 2016

Acute Hospitals

IN-PATIENT AND DAY CASE

- In 2014, adults aged 65 years and over make up 12.7% of our population but use 53.3% of total hospital in-patient bed days and approximately 36% of day case and same day bed days
- Adults 85 years and over currently represent 1.4% of our total population but use 13.5% of the in-patient bed days
- From 2014-2016 it is projected that there will be an overall increase in adult in-patient discharges of 11,150.
- An additional 120,800 adult bed days (120,800/365 = 330 additional beds) will be required from 2014 to 2016 in order for the service to maintain the current status quo. This required increase in bed days will have no impact with regard to relieving current overcrowding or on tackling waiting lists for outpatient appointments and procedures, but is simply to keep up with expected population growth
- Day cases are projected to increase by 10,630 in 2015, and an additional 12,170 in 2016 due to population increases
- The five leading medical and surgical in-patient specialities in adults over 65 years include General Medicine (37.2%), General Surgery (11.9%), Orthopaedic surgery (8.4%), Geriatric Medicine (8.2%) and Cardiology (5.6%). General Medicine and Geriatric Medicine combined represent over 45% of all admissions in adults 65 years and over
- From 2014-2016 in adults aged 65 years and over it is projected, that there will be an increase of approximately 4,000 in-patient discharges in General Medicine, 1,300 in General Surgery, 900 in Orthopaedics, 900 in Geriatric Medicine and 600 in Cardiology

EMERGENCY DEPARTMENTS

- In 2014, there were 646,931 adult Emergency Department attendances in the 20 adult hospitals for which data were available. Of these, 73% were 17-64 years, 22% were 65-84 years and 5% were over 85 years.
- The likelihood of admission to the ward following an Emergency Department attendance increases with increasing age, with 57% of those aged 85 years and over who attended requiring admission, compared with 44% of 65-84s, and 20% of the 17-64 age group
- It is predicted that from 2014 to 2016 Emergency Department attendances will increase for adults aged 65-84 by 6% (n=9,130) and for those aged 85 years and over by 8% (n=2,530). There will be a corresponding drop in the 17-64 age group of 0.5% (n=2,320)
- In 2014, there were 207,983 paediatric attendances at Emergency Departments. The admission rate for the 6-16 years age group was 15% of total attendances for this age group, but rose to 20% for the 1-5 age group and was 31% for the under ones
- Bearing in mind that some data were excluded, and that there may be duplication, the number of new attendances at Emergency Departments for children aged under one year represented 33% of the total population of children under one, and of these 31% were admitted

OUTPATIENT DEPARTMENT

- The numbers of people waiting across all specialties is increasing, with total OPD waiting lists increasing by 29% in the period January 2014 to the end of February 2015
- In 2016 it is estimated that 7,800 additional new adult patient attendances will be requested for OPD
- The Orthopaedic OPD waiting list is the largest waiting list nationally, with 47,390 adults and 4,932 children awaiting an OPD appointment at the end of February 2015, an increase of 31% from January 2014

DELAYED DISCHARGES

- In 2014 the number of delayed discharges never reduced below 600
- 51% of delayed discharges are awaiting a Nursing Homes Support Scheme (NHSS) or home care package
- In 2014, the availability of NHSS to people decreased from 23,007 to 22,016 a reduction of 991 people
- Increasing availability of rehabilitation beds would potentially free up 12% of delayed discharge beds
- A reduction of 200 delayed discharges per month would allow for the demographic pressure giving rise to approximately an additional 72,000 bed days in one year

COSTS

- Since 2009, there has been a 10% increase in demand for acute hospital services based on demographic pressures, and a 24% reduction in hospital funding
- A demographic total in-patient and day case cost pressure of 1.4% is predicted from 2014 to 2015 and 1.6% for the period 2015 to 2016. This estimation only takes into account the overall combined demographic effect on costs assuming unit price, utilisation rates, and models of care remain constant. It should be noted that funding for the demographic cost pressure would not allow for any quality improvement initiatives. The status quo would remain

NATIONAL SCREENING SERVICE

- There will be 152,660 women attending Breast Check in 2016 based on a participation rate of 70%. This equates to an additional 12,160 from 2015
- There will be 264,570 women attending Cervical Check in 2016 based on a five year coverage rate of 78.7%
- From 1st January 2016, BowelScreen moves to a two year screening round and in 2016 will invite approximately 250,000 men and women and approximately 500,000 will have been invited by the end of 2017

Primary Care

- In 2016 32,300 additional persons will require primary care
- Our projections for 2016 outline that there will be a reduction of the 0-5 age cohort of 3,520; an increase of the cohort 70 years and over by 15,630 and an increase in the 6-69 age cohort of 20,210
- In 2016 the increase in the population aged 65 years and over varies from 1,700 in CHO Area 1 to 3,000 in CHO Area 4
- In 2016 the increase in the population 0-17 years varies from 370 in CHO Area 3 to 2,900 in CHO Area 7
- The CHO areas with the greatest uptake of medical cards include counties Donegal and Mayo. These are also the counties experiencing greatest deprivation and with the largest proportion of adults aged 65 years and over
- 86% of GPs believe that increased access to diagnostics would reduce their referrals to emergency departments and outpatient departments
- Currently one in five GPs do not have direct access to abdominal or pelvic ultrasound in the public system. 70-80% of GPs have no direct access to CT scans. One quarter of GPs do not have direct access to Dexa scans in the public system
- It is estimated that given our population projections, an additional 5,335 accepted referrals to community physiotherapy, 3,953 additional community occupational therapy referrals and 1,336 additional community speech and language therapy referrals are projected from 2014 to 2016
- At the end of December 2014, 7,433 persons were more than 12 weeks on the physiotherapy waiting list and 8,141 persons were more than 16 weeks on the occupational therapy waiting list

LIFESTYLE RISK FACTORS

- In 2014 smoking prevalence was 19.5%. This equates to over 700,000 adults smoking in Ireland which will increase to 710,000 by 2016 if current rates persist. To achieve government target of 5% by 2025, a decline of 1.3% per annum between 2014 and 2025 is required
- Alcohol consumption in Ireland is among the highest in OECD countries at 11.6 litres per adult per annum. Almost two thirds of 18-24 year olds binge drink during a typical drinking session. If these patterns continue just under 225,000 18-24 year olds and 1.35 million adults in Ireland are projected to binge drink in 2016
- Six out of ten adults are overweight or obese
- By 2016 it is projected there will be 1.73 million adults overweight or obese and in 2021 this will increase to 1.76 million
- Seven out of ten adults (69%) do not meet recommended guidelines of physical activity

CHILD HEALTH

- One in four (25%) children aged nine are overweight or obese
- Less than one in five (19%) of primary and less than one in eight (12%) of post primary school children meet national physical activity guidelines
- In 2013, the percentage of babies that were breastfed on discharge from hospital was 55.7%. 46.3% were exclusively breastfed and a further 9.4% were fed using a combination of formula and breastfeeding. Breastfed children are less likely to become overweight or obese
- There were 69,267 births in Ireland in 2013, of which 5.5% were of low birth weight. Low birth weight is associated with a number of adverse developmental, educational, behavioural and socio-economic outcomes in childhood, adolescence and later life

NATIONAL IMMUNISATION PROGRAMME

- The projected vaccine costs for 2016 are €23.4 million. The majority (88%) of this represents the Primary Childhood Immunisation Programme with seasonal flu and pneumococcal vaccine representing 10%

SOCIAL INCLUSION

- Although figures are likely to be underestimates, current data reflect that in Ireland there are approximately 30,000 white Irish Travellers, 4,380 asylum seekers and 3,000 homeless. In addition, approximately 9,400 persons are availing of drug addiction services
- Ten local authority areas accommodate over 1,000 Travellers in their catchment area. Galway City, Longford County, Galway County and Offaly have the largest Traveller population per thousand
- Asylum seekers are predominantly a young population with 59.6% aged between 18 and 45 with a further 33.2% under the age of 18 years
- 153,865 or 3.4% of our total population can be classified as migrants of lower socio-economic group. This is a younger sub-population with 4.6% aged 65 years and over compared to 11.6% of the general population and almost 74% aged 20-64 years
- In 2016, 9,470 clients are projected to attend opioid substitute centres outside prison
- In January 2015, 2,980 homeless adult persons were in emergency accommodation. 1,960 of this population were in Dublin with Limerick accommodating 241 persons and Cork accommodating 203

Social Care

SERVICES FOR THE OLDER PERSON

- Residential care services for older people can be categorised as either long stay or short stay services
- The current targets used for planning purposes are that 4% of the population aged 65 years and over will require a long stay care bed. Short stay beds (respite, rehabilitation, assessment) are provided at a rate of 0.85% of population aged 65 years and over
- It is projected that an additional 389 long stay beds and 2,509 short stay beds will be required in 2016 to achieve target levels for the increased population aged 65 years and over
- From 2016-2021, it is predicted that 4,696 long stay and 3,424 short stay beds will be required to achieve target levels
- In 2014, Nursing Homes Support Scheme funding was reduced by an amount approximating to services for 991 people. Access to NHSS for the population aged 65 years and over decreased from 4.06% in 2013 to 3.76% in 2014
- Allowing for the additional funding added to the NHSS in 2015, to maintain the same level of support into 2016 and 2021 will require funding of an additional 757 people by NHSS in 2016 and a further 5,014 by 2021
- The number of applications to the NHSS in 2014 was 9,757. The projected number of applications in 2016 is 10,447 (a 7% increase over the two year period)
- Applying the 2014 utilisation rate per capita, it is projected that 14,062 Standard Home Care Packages and 10.97 million home help hours will be necessary in 2016 to provide solely for the increasing demographic pressure assuming current models of care and levels of provision remain constant. This does not allow for any service improvement initiatives
- The combined pressures of an increase in those aged 65 years and over and the ageing profile of carers translates into increasing demand for residential and home support services
- 4.1% of the population reported providing unpaid care to another person with the number of carers over 15 years of age increasing by 13.7% from 2006 to 2011 with the greatest increase occurring in those over 75 years (39%)

DISABILITIES

INTELLECTUAL DISABILITY (ID)

- It is predicted that by 2016 there will be an estimated 28,820 people living with intellectual disability
- In line with general population trends, life expectancy for people with ID has increased and there are now an estimated 3,100 people over 55 years with intellectual disability
- There has been a 44% increase in the number of people with intellectual disability between 1974 and 2013
- 17% of the total population recorded on the National Intellectual Disability Database are in receipt of respite care
- TILDA identified higher levels of multimorbidity in those with intellectual disability compared to the general population requiring greater levels of service input especially in the areas of mental health and neurological services

GENERAL DISABILITY

- 13% of the population reported at least one disability in Census 2011. This equates to 609,240 persons in 2016
- The number of children and adolescents living with disability in the 6-18 age group is projected to increase in 2016 and continue increasing up to 2021, giving rise to an increased demand for school support teams and placements for school leavers
- Self reported disability increases with age, rising to 72.3% of those over 85 years

Mental Health

CHILD AND ADOLESCENT MENTAL HEALTH SERVICE (CAMHS)

- In 2016 it is projected there will be 289 children aged 0-17 admitted to mental health acute inpatient units and 13,340 referrals to Child and Adolescent Mental Health teams
- 18% of children who attend community CAMHS teams are in contact with or in the care of social services
- Traveller children represent 1.2% of the 0-17 age cohort in the national population. However, they accounted for 2.8% of the total case load of CAMHS nationally and a higher percentage of those presenting in the West of Ireland (5.6%)
- The number of CAMH patients waiting to be seen is increasing and this is as a result of an increase in the demand for the service. There were 2,869 patients on the waiting list at the end of 2014

GENERAL ADULT PSYCHIATRY (GAP)

- In 2016 it is projected that there will be 38,960 accepted referrals to community Adult Mental Health Teams
- By 2021 this will increase to 39,800 accepted referrals in the 18-64 age cohort assuming current models of care continue
- The total number of admissions to psychiatric units has been decreasing over time with all admissions decreasing from 479/100,000 in 2006 to 402/100,000 in 2013
- The majority of admissions are from the age cohort 18-64 representing 88% of total in-patient adult psychiatric admissions
- Based on a three year average for the period 2011–2013, the annual number of admissions is 12,361. In 2016, 12,180 admissions are predicted using our projected population
- Young adults also present with specific mental health problems. In Ireland, females aged 19-24 years are more likely to experience a mood disorder, while males are more likely to have a substance use disorder
- The leading disorders amongst those admitted are depression (27%), schizophrenia (24%), mania (11%) and alcoholic disorders (8%)

PSYCHIATRY OF OLD AGE (POA)

- In 2016 it is projected that there will be 10,890 accepted referrals to the Psychiatry of Old Age Community Mental Health Teams for those aged 65 years and over
- By 2021 this will increase to 12,770 referrals in those aged 65 years and over assuming current models of care remain
- It is projected that there will be 1,940 admissions in adults aged 65 years and over in 2016
- The prevalence of depression in adults aged 65 years and over is 5% and rises to 20% in those aged 80 years and over
- The leading conditions among those aged 65 years and over admitted to our psychiatric hospitals are depression (33%), schizophrenia (20%) and organic mental disorders including dementia (18%)
- Organic mental disorders (dementia) is the leading condition among adults 85 years and over representing almost 50% of admissions

2 Overview

Overview

Our Core Values

Our increasing life expectancy and ageing population is a success story for our health system and society. Maintaining and improving quality of life, as we age and live longer is an overriding aim for the Health Service Executive (HSE) which is underpinned by core values of Care, Compassion, Trust and Learning as outlined in the HSE Corporate Plan 2015-2017. This can be delivered through realising five goals:

1. Promoting health and wellbeing as part of everything we do
2. Providing fair, equitable and timely access to quality, safe health services
3. Fostering a culture that is honest, compassionate, transparent and accountable
4. Engaging, developing and valuing our workforce to deliver the best possible care and services
5. Managing resources in a way that delivers best health outcomes, improves people's experience of using the service and demonstrates value for money

However, it will be challenging to maintain and embed these core values in light of the increasing demographic pressure on our health system. Our population is growing by approximately 0.7% per annum and our population aged 65 years and over is growing in the region of 3.2% per annum. This represents an increase in the total population from 2015 to 2016 of 32,300 people including 19,400 people over the age of 65 years. This increase will continue and in five years, in 2021, our population aged 65 years and over will increase further by 107,600.

Health Service Planning

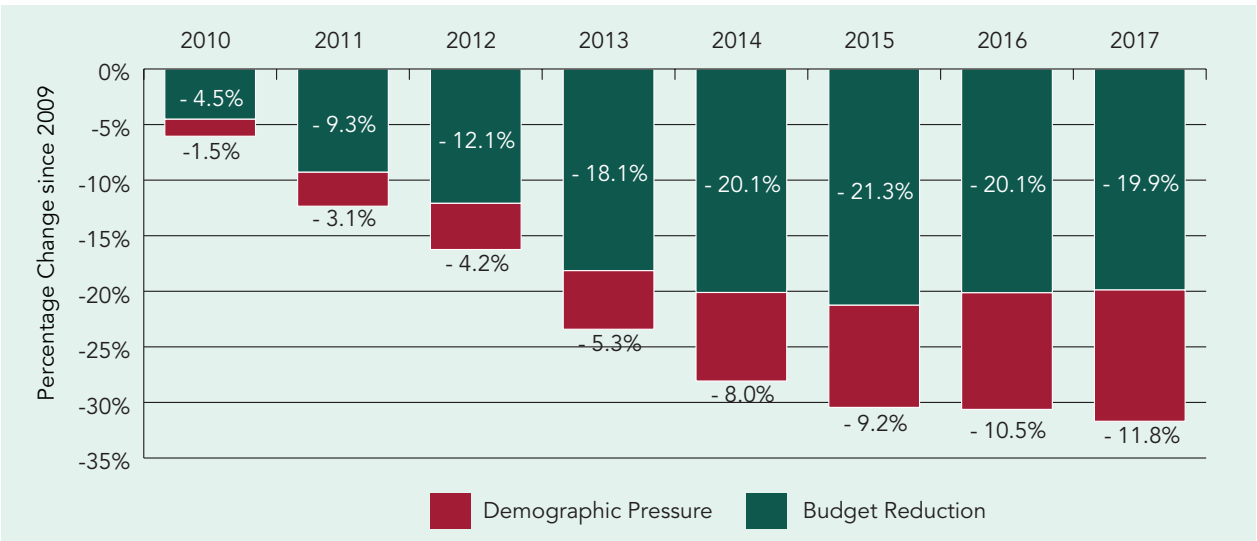
Knowledge and intelligence gained from analysis of robust health information is the cornerstone of evidence-led health service planning. This paper delivers a population focused analysis of current and future needs and demands in terms of demographic pressures for 2016 and a five year forecast to 2021. In addition, analysis of cost for 2016, as far as is possible, is reflected in proportional increase of the health budget. Demand has been quantified by applying the most recent utilisation rates (2014) to population projections for 2016 and this is reflected across all services; for example acute services projecting 11,150 additional in-patient discharges from 2014 to 2016, primary care projecting 5,335 accepted referrals to community physiotherapy in the same period, social care projecting an additional demand of 389 long stay nursing home beds from the reported capacity of May 2015 (HIQA) and mental health projecting 130 additional referrals to community children and adolescent mental health teams.

It is important to be cognisant that this does not include a comprehensive analysis of unmet demand. An attempt has been made to reflect this through waiting lists for some services where data is available. This data is currently very limited, particularly with regard to community services. Moreover, it does not capture the service avoidance and demand on the private health system as a result of lack of timely availability of services in the public system. Notwithstanding these limitations, this is the most comprehensive paper to date produced by the HSE outlining an epidemiologically focused best estimate of projected numbers of patients requiring access to each of the service areas in 2016.

Cost

This paper estimates the additional financial pressures on the provision of public health services generated by demographic change from 2014 to 2016. The approach adopted is generally referred to as the estimation of the *"pure demographic effect."* This approach applies current per capita costs by age group to the projected population in future years to derive the costs associated with demographic change. The *"pure demographic effect"* needs to be examined in context. There have been a number of significant, successive budget reductions over the last five years which have had a substantial impact on the Irish health service. The maintenance of the current increasing activity levels in the context of these budget reductions has resulted in considerable pressure on the healthcare system and the people working within the system. In addition, a growing and ageing population means that the pure demographic effect is cumulative. Therefore, for every year that this effect has not been provided for in the healthcare budget, the gap between the actual healthcare budget and that required to accommodate the pure demographic effect is increasing. Figure 2.1 demonstrates that by 2015 the healthcare budget has decreased by over 21% from 2009 and within this timeframe our demographic pressure has increased by over 9%. This has required extreme resilience on the part of the health system to respond to these pressures and in some instances failed. If this pattern persists, in 2016 there will be a cumulative reduction of the total healthcare budget from 2009 of 30.6% inclusive of demographic pressure of 10.5% and budget reduction of 20.1%. Medical inflation will further increase this pressure. Therefore the current funding levels already contain a cumulative shortfall and are sub-optimal. It should also be noted and emphasised that funding for the "pure demographic effect" will not include any additional services or quality improvement initiatives.

Figure 2.1: Cumulative budget reductions and demographic pressure combined 2010-2017



Source: Finance Unit, Dept of Health for budget data, CSO and EC Ageing report 2012 for demographic effect

A highly influential argument currently being made by the National Health Service (NHS) in England and received in the English parliament outlines that considering health spending as 'flat' simply because it is the same as last year is misleading: the population whose health needs must be met from that budget is changing. This situation is echoed here in Ireland. Each year the population is increasing and crucially, for healthcare, there are especially rapid increases in older age groups. In 2006 there were 467,900 people 65 years and over, while in 2016 we can expect 624,200. In Ireland, we do not have data on public spending on healthcare by age, that is, we do not have Irish data on unit cost per capita according to age. Our best estimate is from European data. The 2012 EU Ageing Report collected data on age-specific healthcare costs across the EU and demonstrated significant agreement on relative per capita healthcare costs by age and gender. For the purpose of this report, the European Commission Economic and Financial Affairs Directorate (EC-FIN) created their estimates for Ireland based on EU15 countries. Given varying models of care throughout European health systems, this is less than satisfactory but it is the only option at present. It must be noted that the Department of Health issued a caveat that while the data is based on the EU Ageing report, it is still a proxy and may not accurately reflect the Irish position. Using the same methodology and assumptions employed by the Department of Health, a 1.3% upward adjustment in public health spending from 2015 to 2016 will be required to meet this pure demographic effect in order to deliver the same level of service. This is almost twice the projected rate of growth in the population (0.7%) over the same time period. Applying a five year forecast shows cumulative increases in cost pressures directly attributable to demographic change rising by 10.1% by 2021. However, once again it must be re-iterated that the 2015 budget is working at a considerable deficit when taking the demographic effect and budgetary cuts into account.

In this report, cost analysis is also carried out on acute hospitals. For acute hospitals, cost pressures are quantified using projected utilisation rates applied to our casemix index for both in-patient and day case. Therein lies many caveats, the main one being that all other factors affecting costs remain constant over the projected period, thus extreme caution must be exercised when interpreting these projections. Some of the more important variables influencing expenditure on public health services include:

- medical inflation
- changes in policies on eligibility and utilisation
- the health of the population
- the expectations of the public
- the state of the national economy

Notwithstanding these limitations, it allows for a best estimate to be achieved being cognisant of the budget deficit from which we are starting. The projected total cost pressure on hospital budgets inclusive of in-patient and day case is 1.4% for 2014 to 2015 and 1.6% for 2015 to 2016. Once again this provides only for the increasing population numbers and does not include any investment in improvement of hospital services.

Although demographically driven utilisation rates are represented for mental health, age-specific costs or casemix indices are not available for acute mental health services. Resource allocation models per capita for primary care in the Irish healthcare system are not available. Significant economic modelling is essential to facilitate the production of unit level cost data for the Irish health system. This should be underpinned by a robust health economic research programme.

Ageing Population

An ageing population is a population where the median age of a country or region rises due to increasing life expectancy and or declining birth rates. What do we consider as ageing? Traditionally the age of retirement is 65 years. However, medical cards are now free for all adults 70 years and over. As a result, this variability with regard to age categorisation is reflected in individual chapters, with 65 years and over being used in relation to hospital utilisation rates and morbidity data, 70 years and over in relation to chronic disease in primary care.

Furthermore the question must be asked when examining our population aged 65 years and over as a cohort; are there significant differences in morbidity and needs within this age category? In this paper sub-analysis was carried out looking at utilisation rates by disease specialty and age category 65-84, and 85 years and over. There is remarkable consistency in the leading disease specialties which include general medicine, geriatric medicine, general surgery, orthopaedic surgery and cardiology. However when age cohorts are examined from a cost perspective i.e. casemix index, the casemix index goes from 1.37 in 65-69 years to 1.58 in the 85 years and over. Those in the 85 years and over category may have the same disease specialty demand as 65-69 year olds but their complexity is 15.3% greater, therefore more resources are needed to treat this age cohort of patients. For reference, the "average" patient has a casemix index of 1.

It must be remembered that projections are estimates. In projecting our population, the M2F2 assumptions have been used following consultation and agreement with the Central Statistics Office (CSO), and the Information Unit in the Department of Health (see Appendix B). Within M2F2, it assumes the fertility rate will continue on a decreasing trend to 1.8 per 1,000 females by 2026 from the 2011 rate of 2.04 per 1,000 females. However, if this pattern reverses with our improving economy, our projections with regard to children and women of childbearing age will not materialise. What we can be confident about is our ageing population; the proportion of our population aged 65 years and over is increasing by 3.2% annually; approximately 20,000 persons.

With increasing age comes increasing morbidity. Our best source of chronic disease prevalence data in ageing adults is the Irish Longitudinal Study on Ageing (TILDA) dataset. TILDA collects information on all aspects of health, economic and social circumstances from people aged 50 and over. What it can deliver is the proportion of the population with a disease, i.e. prevalence data. According to WAVE 1 of TILDA (2010), 86.9% of people aged 65 and older reported that they had one or more chronic conditions. This equates to approximately 525,590 people in 2015 and if that rate remains the same there will be 16,830 additional people in 2016 with at least one or more chronic conditions. Multimorbidity is defined as the presence of two or more chronic conditions. TILDA reported that 64.8% of adults aged 65 years and over live with multimorbidity. This equates to 391,930 people in 2015 and if the rate remains the same this figure will rise by 12,540 in 2016.

In addition, using TILDA prevalence data it is estimated that in 2016 approximately 2,110 additional persons will have diabetes, 1,950 additional persons will have angina, 980 additional persons will have COPD/lung disease, and the number of persons aged 65 years and older with stroke will increase by 560. The number of persons aged 65 years and older with hypertension will increase by 9,950 and for atrial fibrillation the increase will be 1,080. Although TILDA is a very rich dataset, what it does not deliver is incidence data, i.e. the number of new cases of chronic disease diagnosed in any one year. Thus it must be remembered although we have outlined the additional cases expected based on prevalence data above it will not predict the number of new cases diagnosed. Lifestyle risk factors are the precursor to chronic disease. In 2016, 975,100 men and 746,920 women will be overweight or obese. In 2016, it is estimated that 221,190 people will be alcohol dependant and there will be approximately 710,000 smokers.

Sustainability of our Health System - Prevention

The Irish health system, similar to health systems in other developed countries, is facing a combination of complex and urgent challenges. It is now acknowledged that the way in which we think about and deliver healthcare has to change. Expenditure on health comprises the second largest component of public expenditure in Ireland, after social protection. Chronic diseases are major drivers of healthcare costs, as well as associated economic losses. Ninety percent of our total healthcare costs are spent on 30% of our population with chronic disease. The cost of obesity in Ireland in 2009 was estimated to be €1.13 billion with direct costs to the health service of €400 million. Smoking related healthcare costs account for between €1-2 billion per annum. Alcohol-related illness cost the Irish healthcare system €1.2 billion in 2007. Equally, thinking about healthcare resourcing needs to shift from health spending as a cost to health spending as an investment. Our population aged 5-19 will increase by 2% or an additional 19,500 children between 2015 and 2016.

Prevention is most effective when the life course approach is taken and healthy behaviours are developed at an early age. Currently 25% of all three year old children and nine year old children are overweight or obese (Growing up in Ireland, 2011, 2013). By 2016 this will equate to 18,960 three year olds and 17,460 nine year olds overweight or obese. In addition, chronic disease prevention works in adulthood. Impact modelling demonstrated that primary prevention with lifestyle change can give rise to a 66% reduction in Coronary Heart Disease mortality (Kabir et al., 2007). Hypertension is the leading risk factor for disease worldwide (GBD, 2010). One in 125 persons treated with anti-hypertensive medication prevents one death, 1 in 67 treated prevents the development of one stroke and 1 in 100 treated prevents a heart attack. Anti-hypertensive medicines are cheap and accessible. Aetiological factors of hypertension include obesity and physical inactivity. A co-ordinated approach to early detection and treatment of chronic disease and lifestyle risk factors in the Irish health system would have significant effect on our population health.

Prevention and self-management need to be prioritised, resourced and rewarded. We need to radically shift our thinking away from the focus on curative and treatment paradigms towards wellness, self management of health status and early intervention. Innovations based on integrating services, engaging patients to self care, and leveraging e-health technology exist in Ireland with positive impacts e.g. Croí My Action, Stop HF. To be sustainable, our health system must reduce demand through primary and secondary prevention, integrated primary and secondary care, enhanced ambulatory care models and maximise efficiency of flow across our healthcare continuum. The sustainability of the current model of our health service delivery is of concern, given the increasing and ageing population, increased prevalence of chronic disease, financial constraints and shortages of key staff. Although strategies to increase efficiency by reducing acute hospital beds, reducing length of stay and increasing the amount of day case and ambulatory care are recognised as important, essentially a shift in model of care to the community is necessary to deliver 'a healthier Ireland with a high quality health service valued by all' (HSE Corporate Plan 2015-2017).

Integration and Reform

It is estimated that the major chronic diseases will increase by 20% by 2021. These include cardiovascular disease, cancer, stroke, respiratory disease and diabetes. Survivorship with chronic disease in Ireland is also increasing, another success story of our society and health system. Our current model of care, which is predominately hospital based, is not fit for purpose to achieve our five goals with our increasing ageing population. *Future Health: a Framework for Strategic Reform of the Irish Health Service 2012-2015* commits to service reform that will move us away from the current hospital-centric model of care towards a new model of integrated care which treats people at the lowest complexity that is safe, timely, efficient and as close to home as possible. It is essential that care is centred on the needs of the patient, focuses on wellness, prevention and chronic care management. In addition it is important that it is delivered in diverse healthcare settings and recognises and acknowledges the patient voice. Community Intervention Teams led by Primary Care and the Integrated Care Programmes led by Clinical Strategy and Programmes are examples moving this agenda forward. With 731,900 people aged 65 and over by 2021, perhaps we need to accelerate the rate at which this is being achieved.

Access

Access to healthcare means the timely use of personal health services to achieve the best health outcomes. While problems of access may arise from many causes, the traditional Irish model, of exchequer-funded health services with fixed global budgets, performs less well on measures of access i.e. they ration services within budgets, resulting in waiting lists. Activity based funding is being introduced and is currently being developed as a means of moving away from the traditional model. However, in the short to medium term the issue of access has a critical impact on the efficiency and sustainability of the healthcare system as healthcare providers and policy-makers allocate resources. It is evident that capacity is currently at a critical point and unprepared for the increasing demographic pressure reported in this paper and elsewhere. In order to stay at current levels of service, it is predicted that the Irish health service will require 330 additional acute hospital beds from 2014 to 2016 and a further 1,020 by 2021 if our current utilisation rates and models of care remain static. In 2016, it is estimated that 7,800 additional adult outpatient attendances will be requested. There will be 624,180 persons aged 65 and over, 4.85% of whom will require long stay and short stay nursing home beds. This will result in a required increase in long stay beds of 389 and short stay beds of 2,509 for 2016. In addition, in 2016 it is projected that 14,062 standard home care packages and 10.97 million home help hours will be required. These projections allow only for the pure demographic effect at 2014 utilisation rates and do not reflect the deficit at which services are currently being provided. In an ideal system, a patient should be able to gain access to the services they require, provided by a qualified healthcare professional, in the most appropriate setting, with minimum delay and at a reasonable cost. This is being developed with a number of outreach initiatives including Community Intervention Teams and Stroke Early Supported Discharge. This allows greater access and also improves quality of care available to patients in their communities, homes and other settings. Better access can also be achieved by creating more efficient hospital processes within hospital systems and this is being addressed by the Integrated Care Programmes (ICP) including the Patient Flow ICP and the Chronic Disease Management and Prevention ICP.

Quality and Safety

The Irish health system is in the process of implementing some of the building blocks required for effective early warning systems. These include the implementation of an e-Health strategy as well as the development of a suite of Health and Wellbeing indicators and the Irish Maternity Early Warning System (HSE National Clinical Programme for Obstetrics and Gynaecology). We also have become the first country to develop a National Early Warning Score (HSE Acute Medicine Programme). Nevertheless, significant change is still required across Irish healthcare to transfer the principles of early warning systems more widely and to install the technology platforms that will facilitate them. Innovations in this area include the national confidential nursing home database which has the potential to make a difference in the monitoring of care provided in certain healthcare institutions. These systems provide a means by which our health system benchmarks may be recorded and interpreted to identify potential issues, aid clinical assessments and inform medical responses.

Finance, Accountability and Knowledge Management

The HSE continues to be accountable for the delivery of its services with each national director accountable for the delivery of their divisional component of the National Service Plan. The performance agreement focuses on a number of key priorities captured in a Balanced Score Card which ensures accountability for the four dimensions of access to services, the quality and safety of those services, doing this within the financial resources available and by effectively harnessing the efforts of its overall workforce. This accountability is echoed throughout the system through the Community Healthcare Organisations (CHO) and the Hospital Groups. In order to deliver services within financial constraints, effective planning is necessary, knowledge management being an essential pillar in this process. Solid interpretation of robust epidemiological data supported by evidence and research is necessary to predict need and demand at all levels of the organisation from the national estimates and service planning cycle to community healthcare needs assessments. A 'Planning for Health' paper, similar to this paper, is necessary for all CHOs and Hospital Groups to efficiently and effectively plan for future population focused need and demand on services at a CHO and Hospital Group level. The capability and expertise is possible through a properly resourced Knowledge Management function within Health and Wellbeing. This would provide a central hub for integrated epidemiological analysis across HSE activity and performance datasets, reinforced with analysis of external population datasets e.g. TILDA, CSO. This knowledge structure will inform and facilitate population focused health service planning and the quality improvement cycle into the future.

3 Demography and Health Status

Demography and Health Status

Key Messages

DEMOGRAPHY

- The population is projected to increase by 0.7%, or 32,300 people between 2015 and 2016
- The population aged 65 years and over is projected to increase by 3.1%, or 19,400 people between 2015 and 2016
- The population aged 85 years and over is projected to increase by 4.2%, or 2,900 people between 2015 and 2016
- All Community Healthcare Organisation areas will see an increase in population between 2015 and 2016 varying between 1,400 and 5,300 people with Areas 4, 6, 7, 8 and 9 having population increases between 4,000 and 5,300 people
- Our population is projected to increase by 4% or 188,600 people between 2016 and 2021
- There will be 107,600 additional people aged 65 years and over by 2021
- There will be 15,200 additional people aged 85 years and over by 2021

HEALTH STATUS

- In Census 2011, 88.3% of our population reported their general health was either very good or good. This equates to 4.1 million people in 2016
- Life expectancy in Ireland has increased. At 78.7 years for males and 83.2 years for females it is now above the average for the EU (75.7 years male, 82.1 years female)
- Between 2004 and 2013 mortality rates for circulatory system diseases have fallen by 30% and for cancer by 10% over the same time period
- The Irish mortality rate from chronic lower respiratory diseases in 2011 (including cancer of the trachea, bronchus and lung) was 31% higher than the EU average
- The incidence of cancer, cardiovascular disease, diabetes, stroke, respiratory disease etc., will all increase by between 4% and 5% per annum

- According to TILDA, in 2015 approximately 525,590 people aged 65 years and over have at least one chronic condition. Using population projections, there will be an additional 16,830 people with at least one chronic condition in 2016. By 2021 there would be a further 94,580 additional people with at least one chronic condition
- Using TILDA data, 64.8% of people aged 65 years and over have two or more chronic conditions which equates to 391,930 people. Using population projections, in 2016 this will rise by 12,540 additional people and a further 69,780 by 2021
- In 2016, using TILDA prevalence rates and our projected population estimates, for adults aged 65 years and over there will be an additional: 1,950 people with angina, 9,950 people with hypertension, 2,110 with diabetes, 980 with lung disease, 560 with stroke, 7,520 with arthritis and 1,080 with atrial fibrillation
- Between 2016 and 2021, using TILDA prevalence rates and our projected population projections for adults aged 65 years and over there will be an additional: 10,880 people with angina, 55,530 with hypertension, 11,730 with diabetes, 5,490 with lung disease, 3,120 with stroke, 41,900 with arthritis and 6,030 with atrial fibrillation

COSTS

- By 2015 the healthcare budget has decreased by over 21% from 2009 and within this timeframe our demographic pressure has increased by over 9%
- In 2016 if existing patterns persist there will be a cumulative reduction of the total healthcare budget from 2009 of 30.6% inclusive of demographic pressure of 10.5% and budget reduction of 20.1%
- Using the same methodology as employed by the Department of Health based on European data in the top-down approach, a 1.3% upward adjustment in public health budget would be required to meet this 'pure demographic effect' in order to deliver the same level and quality of service from 2015 to 2016

CONTEXT

Demographic data on the population sets the context for health and for the planning and delivery of health services. This chapter outlines the population change expected in 2016 and a five year projection to 2021 in numbers, proportions and geographical distribution by Community Healthcare Organisation (CHO). In addition, it presents the current health status of our population and projects the numbers with chronic disease in 2016. The implications of this demographic pressure on our health services is not considered in this chapter but is discussed in detail in the following service area chapters. Marginalised communities e.g. Travellers, migrants, and homeless are presented and discussed in the Primary Care chapter under Social Inclusion.

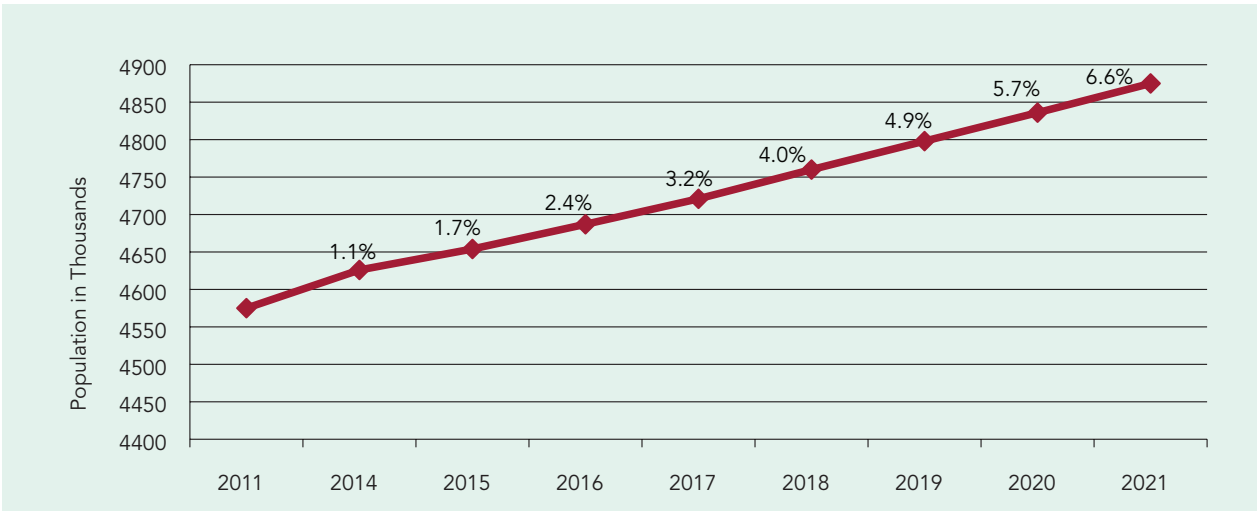
The population of Ireland has grown rapidly in recent decades with an 8.2% increase in total population between 2006 and 2011 and it continues to grow annually. However, as this document aims to describe the demographic picture for 2016, it uses Central Statistics Office (CSO) population projections to provide estimates of the population to better inform the service planning process for 2016. The CSO produced a set of population projections in 2013 which provides estimates based on a range of assumptions regarding migration and fertility (CSO, Population and Labour Force Projections 2016-2046). For the purposes of this analysis the middle migration (M2) and lower fertility (F2) assumptions are used and this approach was supported by the CSO and the Information Unit, Department of Health. Appendix B outlines the M2F2 assumptions in more detail. These assumptions were previously used in the May 2014 publication by the Department of Health – *Projected Demographic Effect on Health Service Costs in 2015*.

The CSO also publish annual population estimates. A comparison between these annual estimates and the population projections show a slight overestimation in the population projections in the order of 0.2% for 2013 and 0.4% for 2014. This is reasonable latitude for these estimates and validates the use of these projections for the purposes of outlining the demographic effect in this paper.

Total Population

The actual and projected total population together with cumulative percentage increases over the period 2011 – 2021 are displayed in Figure 3.1. Using the M2F2 assumptions, the population is due to increase by 32,300 persons or 0.7% between 2015 and 2016.

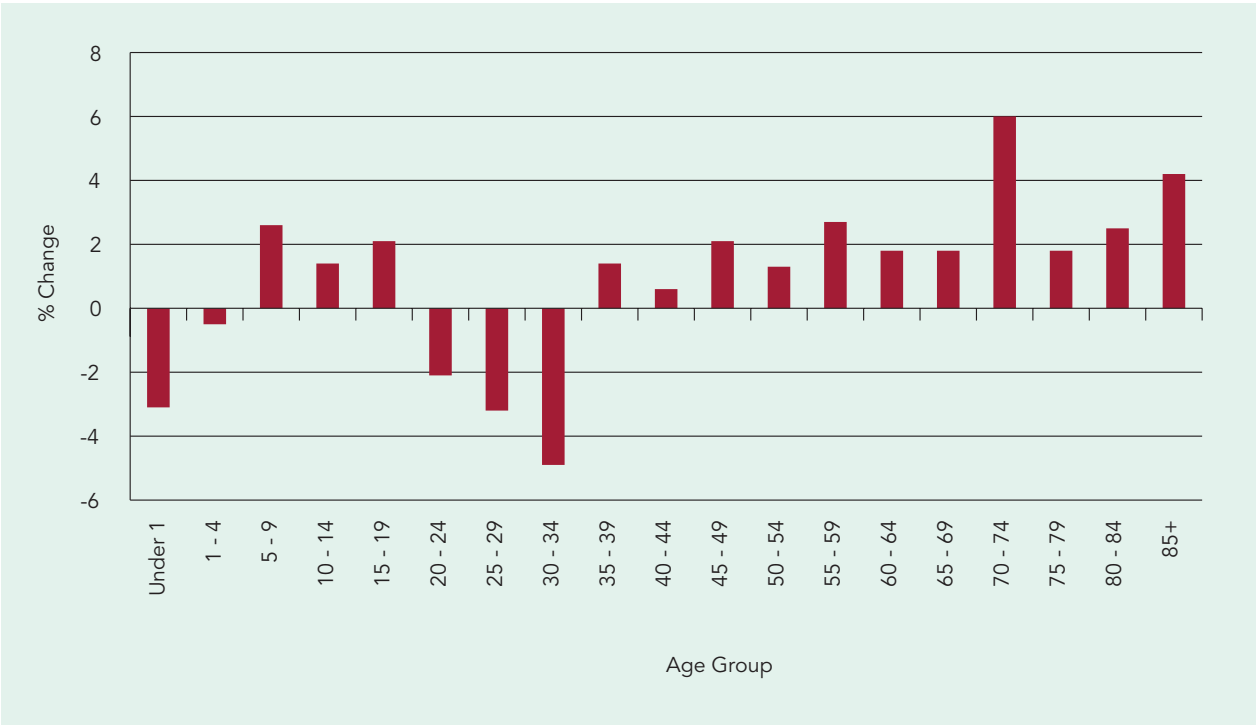
Figure 3.1: Percentage cumulative change in population for Ireland 2011 – 2021 (M2F2)



Source: CSO

The projected total population for 2016 by five year age groups is presented in Table B.1 in Appendix B. Figure 3.2 represents the percentage change in each age group 2015-2016. While these are projections, they clearly show the continuing trend of increasing population in the older age groups – most notably in the 70-74 age group (6% increase or 8,880 people: 148,870 in 2015 to 157,750 in 2016) and the 85+ age group (4.2% increase or 2,820 people: 67,060 in 2015 to 69,880 in 2016). Overall the population aged 65 years and over will increase by 3.1%. Decreases are noted across the 20-34 years age groups, increased emigration possibly a valid explanation, as well as usual migration patterns. The birth rate has started to fall with a 3.1% decrease predicted, a trend that is projected to continue.

Figure 3.2: Percentage change by age group 2015-2016



Source: CSO

While analysis by five year age groups is useful, from a health service planning point of view there are generally five main age cohorts that the population can be grouped into: – the under 5s, adolescents, the population of working age[1], the over 65s and the over 85s. Table 3.1 outlines the projected population change between 2015 and 2016 across these age groups and their proportion within the population. Again the trend of increases in the population aged 65-84 (3.1%) and over 85 (4.2%) is evident with a slight decrease projected in the under 5s (-1%) and within the population of working age (-0.1%). In 2016, 13.3% of the population are projected to be aged 65 years and over.

1 The population of working age is usually described in population analyses as people aged between15-64. However, health services for children and adolescents are provided up until 18 years of age. This analysis groups the population of working age as 20-64 to align with the age groups used by the CSO for population projections

Table 3.1: Population projections and proportions 2015 and 2016 for selected age groups

Age Group	2015 (n, 000's)	2015 (%)	2016 (n, 000's)	2016 (%)	Actual Change (n, 000's)	% Change
0-4 years	367.6	7.9	364.0	7.8	-3.6	-1.0
5-19 years	958.2	20.6	977.7	20.9	19.5	2.0
20-64 years	2,723.5	58.5	2,720.5	58.0	-3.0	-0.1
65-84 years	537.8	11.6	554.3	11.8	16.5	3.1
85+ years	67.1	1.4	69.9	1.5	2.9	4.2
Total	4,654.2		4,686.5		32.3	0.7

Source: CSO

Population by Community Healthcare Organisations

As part of the Government's policy on reforming healthcare services, '*Future Health*; the '*Community Healthcare Organisations'* report was commissioned by the HSE in May 2013 to review community healthcare services. The findings from the report provide a framework for the governance and organisation of all community healthcare services (*HSE Community Healthcare Organisations; Report and Recommendations of the Integrated Service Area Review Group. October 2014*). The report recommended the establishment of nine Community Healthcare Organisations (CHOs) which were deemed the best fit to deliver an integrated model of care. These are outlined with their constituent local health office areas in Table 3.2. Within CHOs, the report recommended the development of 90 Primary Care Networks, averaging 50,000 population, to support Primary Care Teams and to enable integration of all healthcare services for a local population.

Table 3.2: Community Healthcare Organisations

Area 1	Area 2	Area 3	Area 4	Area 5
Donegal	Galway	Clare	Cork	Carlow
Sligo	Mayo	Limerick	Kerry	Kilkenny
Leitrim	Roscommon	Tipp North		Tipp South
Cavan				Wexford
Monaghan				Waterford
Area 6	**Area 7**	**Area 8**	**Area 9**	
Wicklow	Kildare/ West Wicklow	Laois	Dublin North	
Dun Laoghaire	Dublin West	Offaly	Dublin North Central	
Dublin South East	Dublin South City	Longford	Dublin North West	
	Dublin South West	Westmeath		
		Meath		
		Louth		

Source: HSE

The CSO produce regional population projections using the same methodology and assumptions used for national population projections. These projections are based on NUTS areas (Nomenclature of Territorial Units) and are defined by Eurostat. In Ireland, these are the eight Regional Authority areas established under the Local Government Act, which came into operation in 1994. The CSO only provides population projection data on these areas as adequate data on internal migration are not available to support a smaller geographical unit of analysis such as by county or electoral division.

In producing the regional population projections, the CSO analysed internal migration patterns between regions and produced projections based on three internal migration scenarios. Advice received from the CSO recommended using the 'Recent' internal migration scenario.

To provide population projections by CHO area, a mapping exercise comparing Regional Authorities with CHOs was carried out. This mapping analysis showed an identical match for four CHO areas – Areas 2, 3, 4 and 5. Area 1 is similar to the Border region with the exception of the exclusion of Louth which is in Area 8. Areas 6, 7 and 9 all represent the Mid-East and Dublin Regional Authority area with the exception of county Meath which is in Area 8. In order to as accurately as possible reflect the population by CHO area it was decided to use the Regional Authority population projections where there was a direct match with a CHO. For the remaining CHO areas a methodology was agreed with the Information Unit in the Department of Health to provide the best possible estimate of the population projections. Therefore an element of caution should be exercised when interpreting the population data for these CHO areas.

Table 3.3 outlines the projected population for 2016 for each CHO area with the actual change in population from 2015. Figure 3.3 outlines the projected change in population from 2015 to 2016 for each CHO area across the five age cohorts described earlier on page 25. All CHO areas will see an increase in total population in 2016 ranging from 0.3 – 1.1%. Areas 4, 6, 7, 8 and 9 have the greatest increases ranging from 4,400 to 5,300 people. In particular, the increase in the 5-19 age cohort is greatest in areas 7, 8 and 9 with increases of 4,000, 2,800 and 3,600 children predicted respectively. With regard to the 65-84 year age cohort, increases of between 1,500 and 1,700 are predicted across most of the areas with the exceptions being area 4 with 2,500, area 8 with 2,200 and area 7 with 2,000 more people projected in this age cohort.

Table 3.3: Projected population by CHO area 2015 and 2016 (thousands)

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
2015	394.7	441.8	380.2	674.8	511.7	394.3	668.2	607.4	591.5
2016	396.3	443.3	381.6	679.5	515.4	398.7	673.5	612.5	596.5
Actual Diff	1.6	1.5	1.4	4.7	3.7	4.4	5.3	5.1	5.0
% Change	0.4	0.33	0.35	0.7	0.72	1.12	0.79	0.84	0.84

Source: CSO

Figure 3.3: Projected change in population in each CHO by age group 2015 - 2016

Source: CSO

Estimate of Total Demographic Change on Healthcare Costs 2015-2016

CONTEXT

By 2015 the healthcare budget has decreased by over 21% from 2009 and within this timeframe our demographic pressure has increased by over 9%. If this pattern persists, in 2016 there will be a cumulative reduction of the total healthcare budget from 2009 of 30.6% inclusive of demographic pressure of 10.5% and budget reduction of 20.1%.

TOP DOWN PROJECTED DEMOGRAPHIC EFFECT ON HEALTH SERVICE COSTS

The Department of Health in their publication "*Projected Demographic Effect on Health Service Costs in 2015*" referenced the "*2012 Ageing Report*" produced by the European Commission which modelled a variety of scenarios around increased life expectancy, morbidity and mortality and the impact of these on healthcare costs. The "*2012 Ageing Report*" noted over several decades that assumptions concerning lifetime health status can have a significant influence on healthcare costs. However, this is still the subject of much debate and the Department of Health were of the view that over a short time period, i.e. one year to the next, any effects are likely to have only a very small impact. The 2014 Department of Health report noted that the main health status-related cost driver of pure demographic change is the rapidly increasing number of people in the older age groups rather than any gradual long term projected changes in age-specific morbidity or mortality. The Health and Wellbeing data team support this view. The focus of the Department of Health in their report was to provide a measure of the imminent incremental cost pressure due to the size and the increasing age of the population. Irrespective of budgetary change, medical inflation and utilisation of services, this changing demographic profile is a constant cost pressure that accumulates over time.

The *2012 Ageing Report* collected data on age-specific healthcare costs across the EU and demonstrated significant agreement on relative per capita healthcare costs by age and gender. The Department of Health estimated cost pressures for Ireland by averaging data from across the EU15 countries. The Department of Health obtained the raw data that was used by the authors of

the *2012 Ageing Report* to derive cost relativities by age group and gender for Ireland. This data was then normalised so that the average expenditure per capita equated to a value of 1. It must be noted that the Department of Health issued a caveat that while the data is based on a number of EU countries it is still a proxy and may not accurately reflect the Irish position.

Table 3.4 shows the estimated age-specific relativities for Ireland and also shows the derived 'cost pressures' when these relativities are applied to the projected population for 2015, 2016 and 2021.

The results show cumulative increases in cost pressures directly attributable to demographic change rising by 10.1% by 2021. From 2015 to 2016 a demographically driven cost pressure of 1.3% is calculated. This is twice the projected rate of growth in the population (0.7%) over the same time period. Using the same methodology as employed by the Department of Health, a 1.3% upward adjustment in public health spending would be required to meet this pure demographic effect in order to deliver the same level of service. In monetary terms, based on the allocated budget for the HSE in 2015 this would equate to an additional minimum funding requirement of €158 million (based on budget of €12,131 million in 2015). This does not allow for the cumulative deficit position described in Figure 2.1.

Table 3.4: Projection of health cost units by age category, 2014-2021

Age Category	Relative Expenditure	2014	2015	2016	2021
Under 1 year	1.75	127,504	123,610	119,744	103,232
1-4 years	0.78	232,243	232,863	231,779	202,316
5-9 years	0.48	164,624	168,924	173,242	178,255
10-14 years	0.46	143,540	145,768	147,796	167,555
15-19 years	0.54	153,053	156,654	159,887	174,008
20-24 years	0.57	142,190	137,207	134,288	160,365
25-29 years	0.66	199,956	190,984	184,934	167,945
30-34 years	0.72	273,075	261,493	248,700	204,788
35-39 years	0.73	266,767	270,105	273,949	246,971
40-44 years	0.79	275,122	278,010	279,704	295,467
45-49 years	0.92	290,659	294,780	300,874	326,203
50-54 years	1.09	318,132	325,204	329,439	355,111
55-59 years	1.31	334,261	340,475	349,600	387,333
60-64 years	1.58	357,736	364,703	371,292	412,410
65-69 years	1.93	378,153	389,742	396,938	435,412
70-74 years	2.32	331,350	345,225	365,822	444,348
75-79 years	2.76	297,206	304,467	309,982	385,251
80-84 years	3.07	229,744	235,757	241,718	276,946
85 + years	3.34	216,033	224,145	233,540	284,233
Total Health Unit Costs		4,731,347	4,790,024	4,853,226	5,208,148
% Increase from 2014		0.0%	1.3%	2.6%	10.1%
65 years +		1,452,486	1,499,335	1,547,999	1,826,190
% Increase from 2014		0.0%	3.2%	6.6%	25.7%

Source: 2012 Ageing Report, EU Commission (2012) and Department of Health Projected Demographic Effect on Health Service Costs in 2015

Five Year Population Projections 2016 – 2021

Using the CSO population projections "*Population and Labour Force Projections 2016-2046*", a five year forecast from 2016 to 2021 is provided. Our population is expected to grow by 4% in this time period (188,600 persons) – Table B.2 in Appendix B.

Table 3.5 outlines the 5 year forecast (2016-2021) for the five previously selected age groups; the under 5s, adolescents, the population of working age, the over 65s and the over 85s.

In 2016 13.3% of the population will be 65 years and over and it is predicted that this will increase to 15% by 2021.

Table 3.5: Population projections 2016 and 2021 for selected age groups (thousands)

Age Group	2016 (n)	2016 (%)	2021 (n)	2021 (%)	Actual Change	% Change
0-4 years	364.0	7.8	317.0	6.5	-47.0	-12.9
5-19 years	977.7	20.9	1,057.3	21.7	79.6	8.1
20-64 years	2,720.5	58.0	2,769.0	56.8	48.4	1.8
65-84 years	554.3	11.8	646.8	13.3	92.5	16.7
85+ years	69.9	1.5	85.0	1.7	15.1	21.7
Total	4,686.5		4,875.1		188.6	4.0

Source: CSO

Population Projections 2016 – 2021 by Community Healthcare Organisations

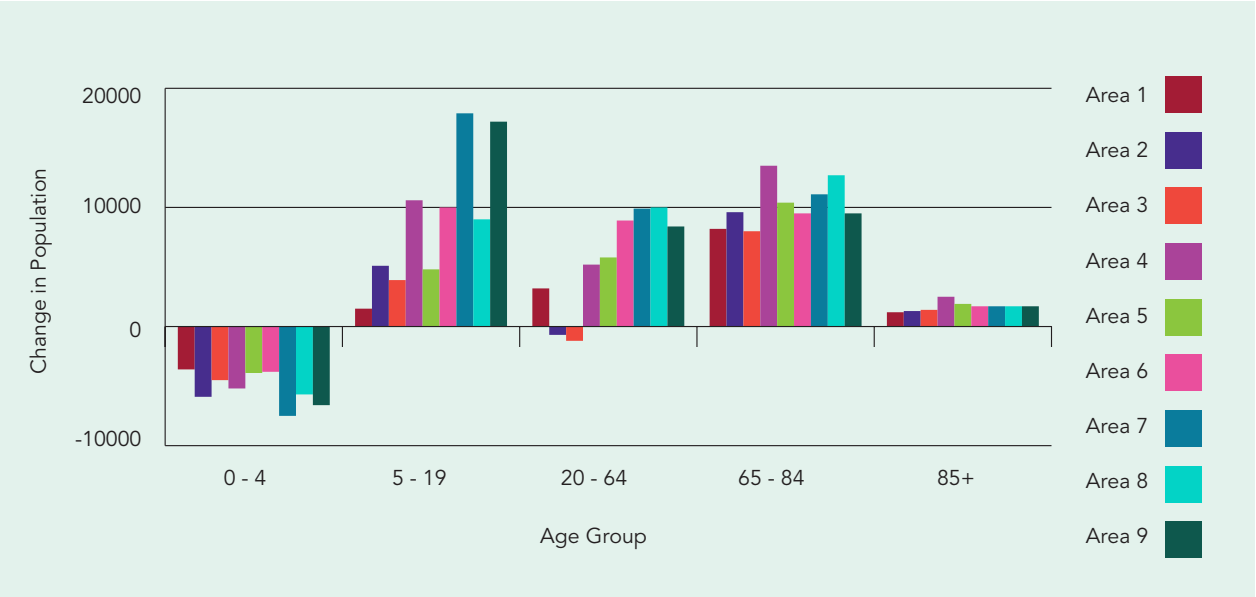
The methodology outlined on page 29 was once again used to project the populations of each CHO area for 2021 as shown in Table 3.6 and Figure 3.4. By 2021, the decrease in 0-4 age group is predicted to continue assuming fertility assumptions are correct. The increase in the 5-19 age cohort is projected to be concentrated mainly in two CHO areas – area 7 (17,900 additional persons) and area 9 (17,200 additional persons). With regard to the 65-84 year age cohort, while all areas will increase, area 4 and area 8 will represent the greatest increase of 13,500 and 12,700 additional people respectively.

Table 3.6: Projected total population by CHO area 2016 and 2021 (thousands, M2F2)

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Area 7	Area 8	Area 9
2016	396.3	443.3	381.6	679.5	515.4	398.7	673.5	612.5	596.5
2021	406.9	452.6	389.2	706.2	534.4	425.1	706.7	647.1	626.5
Actual Diff	10.6	9.3	7.6	26.7	19.0	26.4	33.2	34.6	30.0
% Change	2.7	2.1	2.0	3.9	3.7	6.6	4.9	5.7	5.0

Source: CSO

Figure 3.4: Projected change in population in each CHO by age group 2016 – 2021

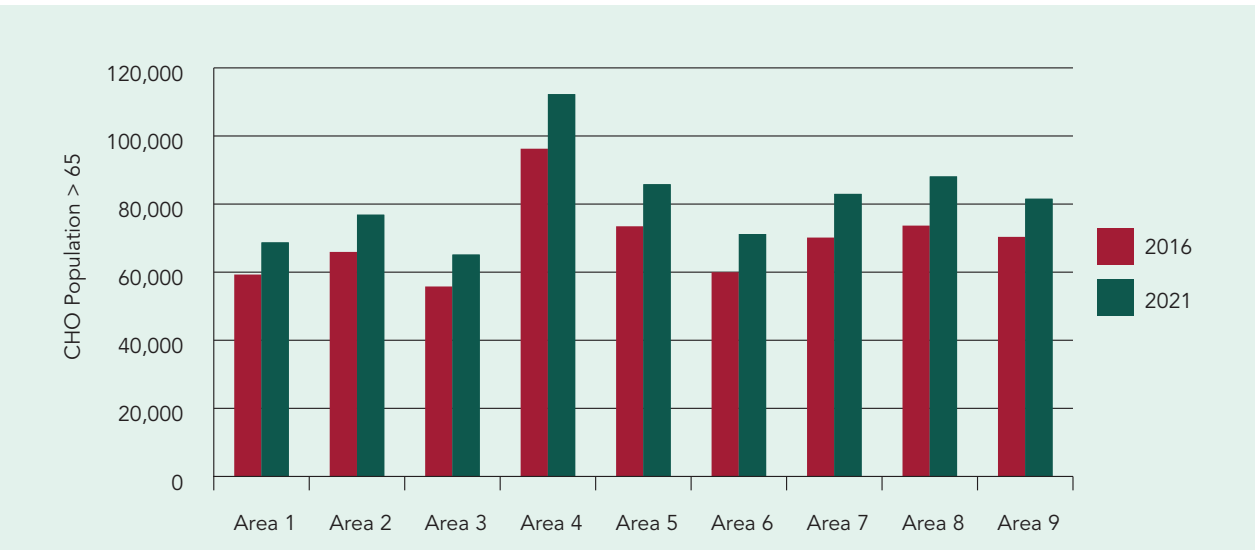


Source: CSO

Projected Increase in Adults aged 65 years and over 2016-2021 by CHO

Analysis of the population aged 65 years and over by CHO area for 2016 and 2021 is shown in Figure 3.5. This shows a variation in the number of people aged 65 years and over in each CHO from almost 56,000 in Area 3 to just over 96,000 in Area 4 for 2016. All CHOs are projected to see an increase in the number of people aged 65 years and over by 2021 with Area 4 seeing the largest increase (16,000) compared to the smallest increase in Area 3 (9,400).

Figure 3.5: Population aged 65 and over by CHO 2016 and 2021



Source: CSO

A similar analysis of the population aged 85 years and over by CHO area is shown in Figure 3.6. This shows a variation in the number people aged 85 years and over in each CHO from just over 6,000 in Area 3 to just under 11,000 in Area 4 for 2016. All CHOs are projected to increase the number of people aged 85 years and over by 2021 with Area 4 seeing the largest increase (2,500) compared to the smallest increase in Area 2 (1,300).

Figure 3.6: Population aged 85 and over by CHO 2016 and 2021

Source: CSO

Health Status of our Population

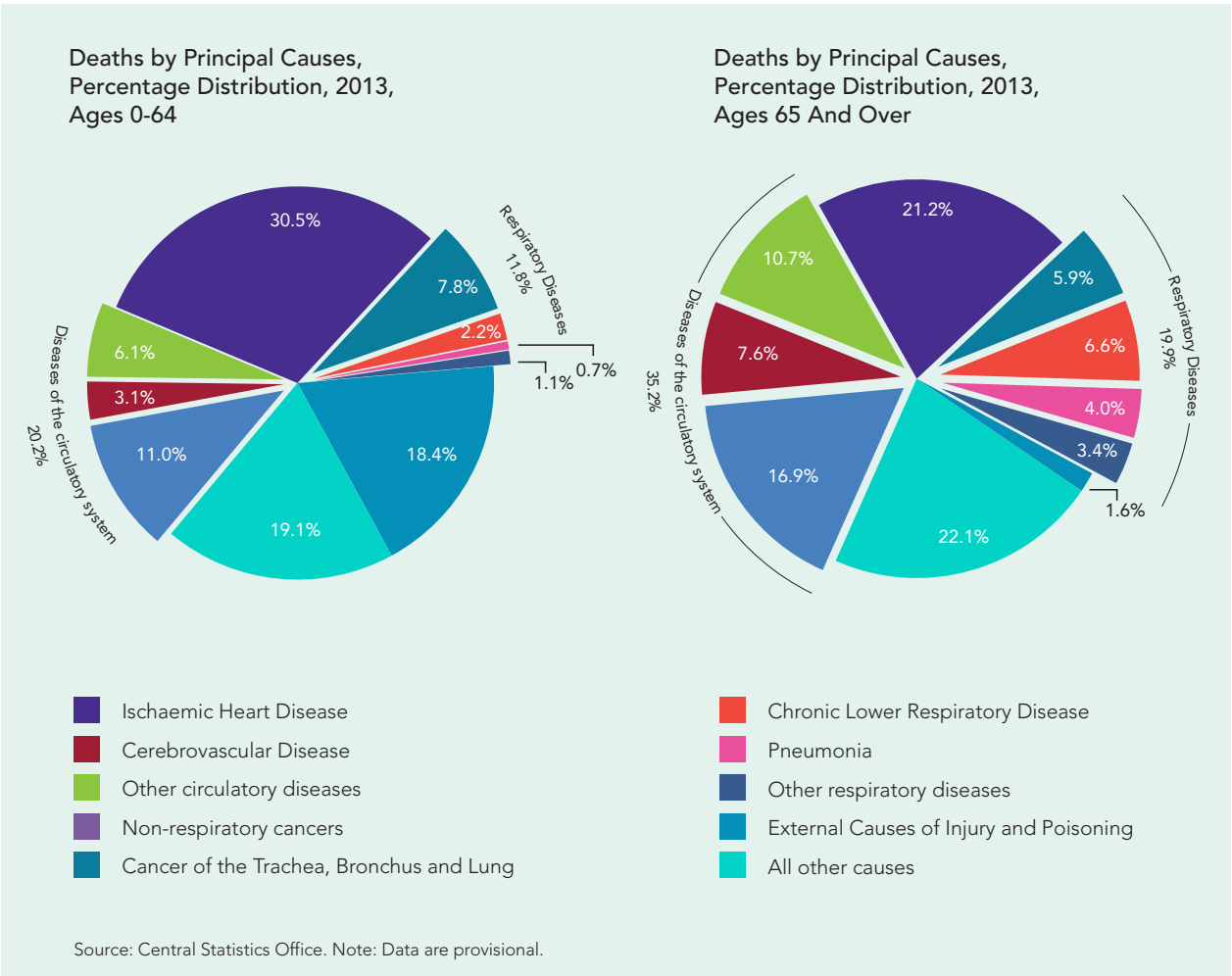
LIFE EXPECTANCY

In Census 2011 88.3% of our population reported their general health was either very good or good. This equates to 4.1 million in 2016. This is good news. Life expectancy in Ireland has increased by almost three years since 2003 and is now above the average for the EU. While female life expectancy in Ireland has tracked the EU28 average over the past 10 years, the life expectancy of males in Ireland has consistently been over one year greater than that in the EU28. In addition, the gap between male and female life expectancy has narrowed over the last decade. The greatest gains have been achieved in the older age groups reflecting decreasing mortality rates from major diseases. Survivorship has increased and 87% of the over 65 population are living with one chronic disease with 65% living with two or more chronic diseases. This demand presents at all levels in the health service such as increased attendance at General Practice, increased demand for community services, increased attendance at the Emergency Department, emergency admissions to hospitals, requirements at outpatient departments, increasing requirement for specialist services e.g. dialysis, vascular and orthopaedic services, ophthalmic services, cancer treatment services and rehabilitation services.

MORTALITY

Provisional mortality data for 2013 show a small increase in the overall age-standardised death rate compared with 2012; 550.2/100,000 in 2013 compared to 541.9/100,000 in 2012 (*Department of Health, 2014*). Mortality rates from circulatory system diseases have fallen by 30% between 2004 and 2013 and cancer deaths decreased by 10% over the same time period although both of these exhibited a slight increase between 2012 and 2013. Compared to the EU28, mortality from circulatory system diseases was 13% below the EU average. The stability in the numbers of people dying from diseases of the respiratory system in recent years masks to some extent the increase in those dying from chronic lower respiratory diseases. When cancer of the trachea, bronchus and lung are included, respiratory diseases accounted for 18% of all deaths in 2013. The Irish mortality rate from respiratory diseases (including cancer of trachea, bronchus and lung) was 31% higher than the EU average in 2011. In the past decade, mortality rates from transport accidents, infant mortality and suicide rates have fallen by 55%, 29% and 13% respectively. Comparing mortality of people aged 65 years and under and those aged 65 years and over, the greatest difference is the number of deaths from injury and poisoning. This category represents 18% of all deaths in those aged 65 years and under compared to less than 2% in those aged 65 years and over.

Figure 3.7: Predicted increase in the number of people aged 65 years and over with chronic diseases



Source: Central Statistics Office. Note: Data are provisional.

MORBIDITY AND MULTIMORBIDITY

It is estimated that most of the major chronic diseases will increase by approximately 20% by 2020 (HSE, 2014). This is primarily driven by the ageing population. The number of people with cancer, cardiovascular disease, diabetes, stroke, respiratory disease etc., will all increase by between 4% and 5% per annum. For some of these diseases, the increases are exacerbated by increased obesity and previously high levels of smoking.

According to WAVE 1 of TILDA (2010), 86.9% of people aged 65 years and over reported that they had one or more chronic conditions. This equates to approximately 525,590 people and if that rate remains the same there will be 16,830 additional people in 2016 with at least one chronic condition and by 2021 this figure will have increased by a further 94,580 people. Regarding multimorbidity, which is defined as the presence of two or more chronic conditions, TILDA reported that 64.8% of people aged 65 years and over live with multimorbidity. This equates to 391,930 people and if the rate remains the same this figure will rise by 12,540 in 2016 and a further 69,780 by 2021. Patients with multiple long term conditions are becoming the norm rather than the exception and the number of people with co-morbidities is set to increase by over 50% in the next 10 years (McDaid O. et al, BMJ Open 2013, 3(6)). This group of people are at highest risk of disability, poor self-related health and poor quality of life. Multimorbidity is predominately related to four major chronic diseases (cardiovascular disease, diabetes, respiratory disease, chronic pain) which are largely preventable. Ninety percent of our total healthcare costs are spent on 30% of our population with chronic disease. The cost of obesity in Ireland in 2009 was estimated to be €1.13 billion with direct costs to the health service of €400 million. Smoking related healthcare costs account for between €1-2 billion per annum. Alcohol-related illness cost the Irish healthcare system €1.2 billion in 2007. Sustainable health systems must reduce demand through primary and secondary prevention.

Table 3.7: Predicted increase in the number of people aged 65 years and over with chronic diseases

Disease	Prevalence (%)	2015 (n)	2016 (n)	2021 (n)
Angina	10.1	61,090	63,040	73,920
Hypertension	51.4	310,880	320,830	376,180
Atrial Fibrillation	5.6	33,870	34,950	40,980
Stroke	2.9	17,540	18,100	21,220
Diabetes	10.9	65,930	68,040	79,770
COPD/Lung Disease	5.1	30,850	31,830	37,320
Arthritis	38.9	235,280	242,800	284,700

Source: TILDA (2010)

4 Acute Hospitals

4. Acute Hospitals

Key Messages

- The focus of this chapter is on the level of demographic pressure expected on the acute hospital services from 2014 to 2016, and over that short term the assumptions of stability in utilisation provides a reasonable benchmark for projections
- Between 2015 and 2016 our total population is projected to increase by 32,300, with the population aged 65 years and over increasing by 19,000 in 2015 and 19,400 in 2016

IN-PATIENT AND DAY CASE

- In 2014, adults aged 65 years and over represents 12.7% of our population but use 53.3% of total hospital in-patient bed days and approximately 36% of day case and same day bed days
- Adults 85 years and over currently represent 1.4% of our total population but use 13.5% of the in-patient bed days
- From 2014-2016 it is projected that there will be an overall increase in adult in-patient discharges of 11,150
- An additional 120,800 adult bed days (120,800/365 = 330 additional beds) will be required from 2014 to 2016 in order for the service to maintain the current status quo. This required increase in bed days will have no impact with regard to relieving current overcrowding or on tackling waiting lists for outpatient appointments and procedures, but is simply to keep up with expected population growth
- Day cases are projected to increase by 10,630 in 2015, and an additional 12,170 in 2016 due to population increases
- The five leading medical and surgical in-patient specialities in adults over 65 years include General Medicine (37.2%), General Surgery (11.9%), Orthopaedic surgery (8.4%), Geriatric Medicine (8.2%) and Cardiology (5.6%). General Medicine and Geriatric Medicine combined represent over 45% of all admissions in adults 65 years and over
- From 2014-2016 in adults aged 65 years and over it is projected that there will be an increase of approximately 4,000 in-patient discharges in General Medicine, 1,300 in General Surgery, 900 in Orthopaedics, 900 in Geriatric Medicine and 600 in Cardiology

EMERGENCY DEPARTMENTS

- In 2014, there were 646,931 adult Emergency Department attendances in the 20 adult hospitals for which data were available. Of these, 73% were 17-64 years, 22% were 65-84 years and 5% were 85 years and over
- The likelihood of admission to the ward following an Emergency Department attendance increases with increasing age, with 57% of those aged 85 years and over who attended requiring admission, compared with 44% of 65-84s, and 20% of the 17-64 age group
- It is predicted that from 2014 to 2016 Emergency Department attendances will increase for adults aged 65-84 by 6% (n=9,130) and those aged 85 years and over by 8% (n=2,530). There will be a corresponding drop in the 17-64 age group of 0.5% (n=2,320)
- In 2014, there were 207,983 paediatric attendances at Emergency Departments. The admission rate for the 6-16 years age group was 15% of total attendances for this age group, but rose to 20% for the 1-5 age group and was 31% for the under ones
- Bearing in mind that some data were excluded, and that there may be duplication, the number of new attendances at Emergency Departments for children aged under one year represented 33% of the total population of children under one, and of these 31% were admitted

OUTPATIENT DEPARTMENT

- The numbers of people waiting across all specialties is increasing, with total OPD waiting lists increasing by 29% in the period January 2014 to the end of February 2015
- In 2016 it is estimated that 7,800 additional new adult patient attendances will be requested for OPD
- The Orthopaedic OPD waiting list is the largest waiting list nationally, with 47,390 adults and 4,932 children awaiting an OPD appointment at the end of February 2015, an increase of 31% from January 2014

DELAYED DISCHARGES

- In 2014 the number of delayed discharges never reduced below 600
- 51% of delayed discharges are awaiting a Nursing Homes Support Scheme (NHSS) or home care package
- In 2014, the availability of NHSS to people decreased from 23,007 to 22,016 a reduction of 991 people
- Increasing availability of rehabilitation beds would potentially free up 12% of delayed discharge beds
- A reduction of 200 delayed discharges per month would allow for the demographic pressure giving rise to approximately an additional 72,000 bed days in one year

COSTS

- Since 2009, there has been a 10% increase in demand for acute hospital services based on demographic pressures, and a 24% reduction in hospital budget
- A demographic total in-patient and day case cost pressure of 1.4% is predicted from 2014 to 2015 and 1.6% for the period 2015 to 2016. This estimation only takes into account the overall combined demographic effect on costs assuming unit price, utilisation rates, and models of care remain constant. It should be noted that funding for the demographic cost pressure would not allow for any quality improvement initiatives. The status quo would remain

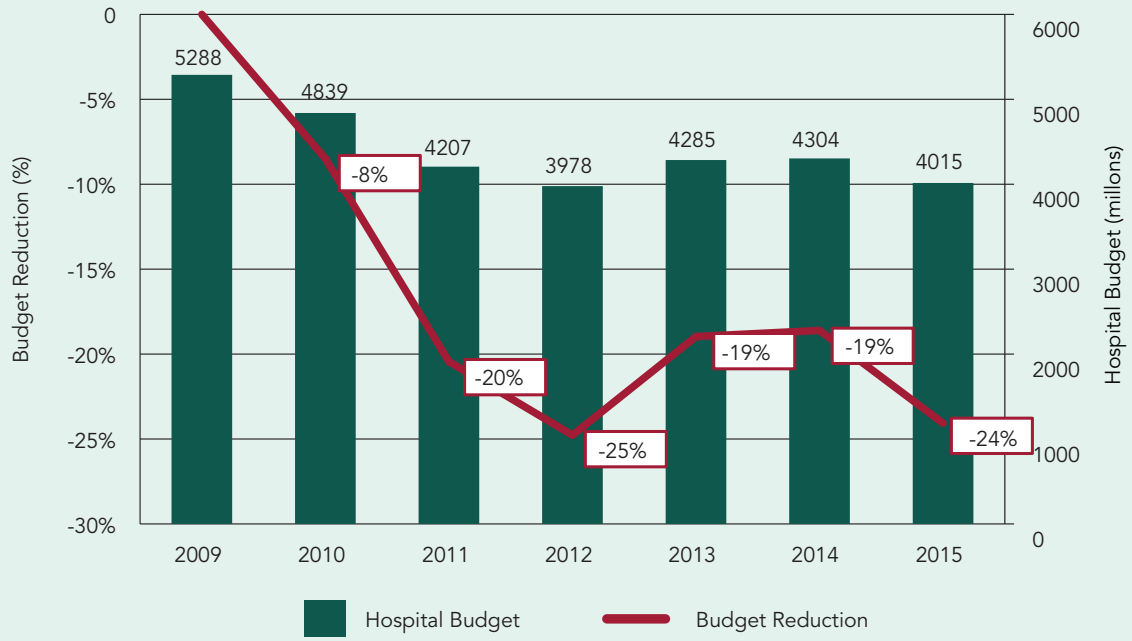
NATIONAL SCREENING SERVICE

- There will be 152,660 women attending Breast Check in 2016 based on a participation rate of 70%. This equates to an additional 12,160 from 2015
- There will be 264,570 women attending Cervical Check in 2016 based on a five year coverage rate of 78.7%
- From 1st January 2016, BowelScreen moves to a two year screening round and in 2016 will invite approximately 250,000 men and women and approximately 500,000 will have been invited by the end of 2017
- Lack of a national diabetes register makes it difficult to forecast demand. The National Screening Service is estimating that they will screen 150,000 people with diabetes in 2016. An annual growth in demand of approximately 10,000 is anticipated into 2017 and onwards

CONTEXT

Over the past number of years there has been a drive to improve efficiency in Irish hospitals. A common mantra during the early stages of austerity in Ireland was that we were "doing more with less", reflecting the situation where funding had decreased but activity levels were increasing. This is true. Since 2009, there have been significant year on year decreases in the acute hospital budget from €5.288 billion in 2009 to €4.015 billion in 2015, a proportional decrease of 24% (Figure 4.1). During this time, there has been continuous population growth and consistent ageing of our population. The net effect of budget reductions and population growth has been unprecedented pressure on hospitals and the staff working within the system.

Figure 4.1: Cumulative hospital budget decreases, percentage change from 2009 to 2015

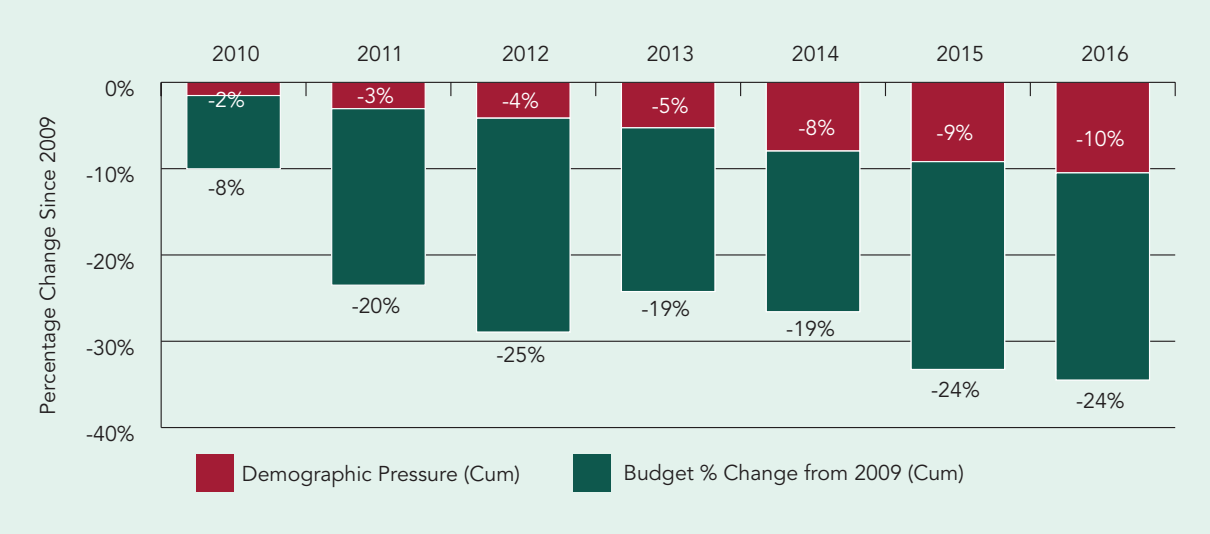


Source: HSE Service Plans 2009 – 2015

Note: In the period of analysis there has been some reclassification of what constitutes Acute Services - specifically Ambulance Services and Palliative Care services. However such reclassifications have a very marginal effect on the underlying funding trend for Acute Services. The funding amounts in the above graphs reflect the "official amounts" for Acute Services as per each relevant year's service plans.

If we add the effect of population growth on the demand for acute hospital services, which has increased by 10% since 2009, we can see that in real terms, the hospital budget for 2015 is 33% less than it was in 2009. This is shown in Figure 4.2.

Figure 4.2: Effective cumulative cost pressures: hospital budget reductions and "pure" demographic effect

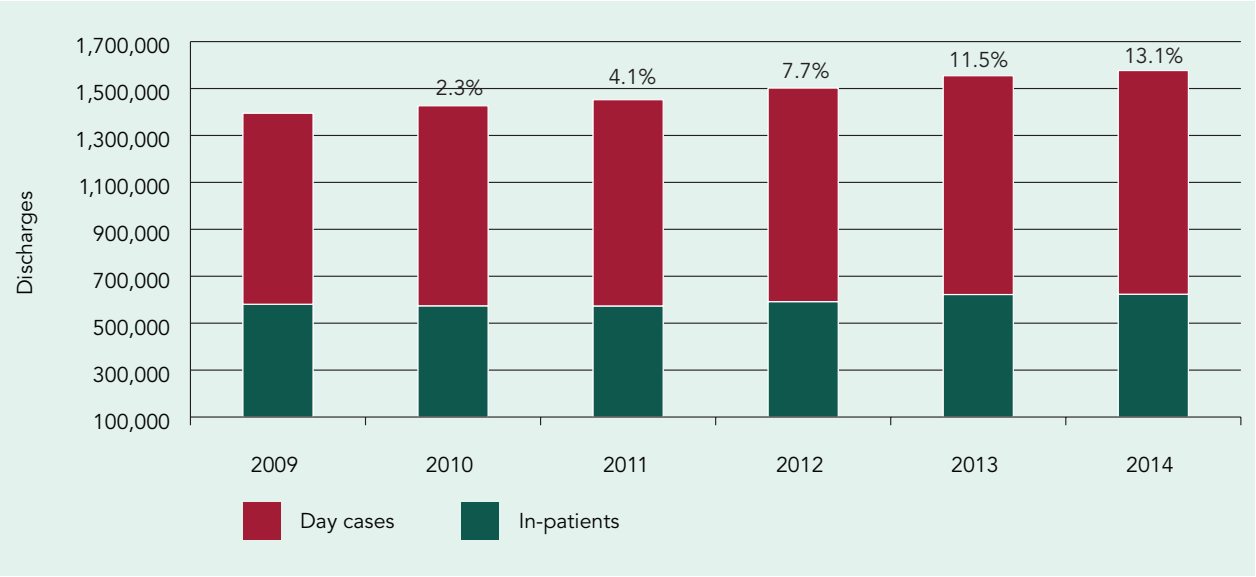


Source: HSE Service Plans 2009 – 2015, Central Statistics Office (CSO) Population Projections 2011

Note: In the period of analysis there has been some reclassification of what constitutes Acute Services - specifically Ambulance Services and Palliative Care services. However such reclassifications have a very marginal effect on the underlying funding trend for Acute Services. The funding amounts in the above graphs reflect the "official amounts" for Acute Services as per each relevant year's service plans.

Examination of hospital activity reflects that we are "doing more with less". More activity is reflected in the greater number of surgical procedures now performed as day cases. Surgical admissions are on the day of surgery (DoSA) where possible. Reduction in average length of hospital stay (AvLos) is being encouraged with Avlos decreasing from 6.63 days to 6.59 days between 2009 and 2014 which in reality equates to approximately 133,000 more bed days in the system. The trend in activity across the spectrum of emergency and elective, surgical and medical patients was upward to the end of 2014. Beds were closed, and many in-patient activities were treated as day cases, or in Acute Medical Assessment Units (AMAU). There was a reduction in in-patient bed days of 227,157 between 2009 and 2014, which is the equivalent of 622 in-patient beds removed from the system. This decrease in in-patient bed days (IPBDs) of 6.4% reflects the move from in-patient care to day case and AMAU assessments. There was an increase in day case discharges from 813,564 to 946,036 (16.3%) during the same period, which indicates a more efficient use of beds. However, the increased activity reflects the increases in day case care in the 17-64 age group and masks the increases in in-patient discharges in those aged 65 to 84 years from 127,031 in 2009 to 129,615 (2%) in 2014 and even more so in the over 85s age group from 27,416 to 31,535 (15%) in the same time period. Figure 4.3 shows the continually increasing activity levels which have caused considerable pressure on the acute hospital system.

Figure 4.3: Total In-patient and day case discharges & cumulative percentage increase 2009-2014

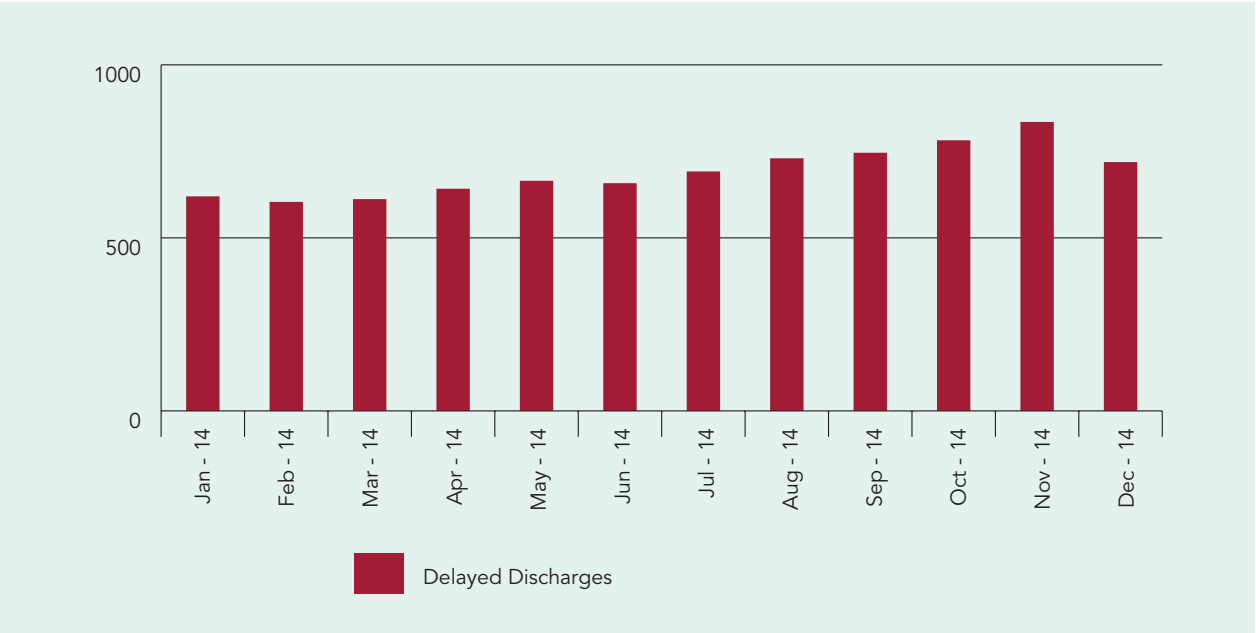


Percentages refer to cumulative percentage increase in total discharges from 2009
Source: Healthcare Pricing Office (HPO).

DELAYED DISCHARGES

The average length of stay (AvLOS) for an adult aged 65 years and over is 12.3 days. A delayed discharge is defined as "A patient who remains in hospital after a senior doctor (consultant or registrar grade) has documented in the medical chart that the patient can be discharged" (HSE, BIU). On average, 91% of the delayed discharges are over 65 years of age. The numbers of delayed discharges nationally has been consistently high, never falling below 600 at any time since January 2014 with a peak in November 2014 of 835 as per Figure 4.4.

Figure 4.4: Delayed discharges by month January 2014 – December 2014



Source: HSE Business Information Unit (BIU)

The destination of delayed discharge patients is very informative. Nursing Homes Support Scheme (NHSS) availability relieves pressure on hospital beds by giving access to an appropriate level of care for those, mainly elderly, where living at home is no longer possible. Thirty–eight per cent of total delayed discharges from May 2013 to February 2015 were discharged to any form of NHSS funded bed, this includes those awaiting transitional care pre-NHSS, NHSS and NHSS top-up. Thirteen per cent were awaiting a home care/home help package. Therefore a total of 51% of the delayed discharges resulted from delayed access to appropriate community supports. In addition, 12% of delayed discharges were discharged to rehabilitation, one third of these at the National Rehabilitation Hospital (NRH), and two thirds to other forms of rehab.

IMPACT OF FAIR DEAL REDUCTION IN 2014

Availability of NHSS funded places for people has fallen from 4.06% of the population aged 65 years and over in 2011 to 3.76% in 2014. This is despite increases in the actual places available, leading to increasing difficulty accessing these places. This was particularly evident when the number of NHSS funded places decreased from 23,007 in 2013 to 22,016 in 2014, a reduction of 991 funded NHSS places as demonstrated in Table 4.1.

Table 4.1: Number of people and percentage of population aged 65 years and over funded by NHSS 2011 to 2015

	2011	2012	2013	2014	2015
Pop >65	531,563	549,010	567,155	585,825	604,825
NHSS Funded Places	21,548	22,065	23,007	22,016	23,965*
% of Pop >65 with NHSS Funded Place	4.05	4.02	4.06	3.76	3.96*

**Includes the additional 1600 funded places for 2015*

In addition, there has also been an increase in the average length of stay for elective Geriatric Medical discharges from 28.47 days (2009) to 30.81 (2014), and 11.69 to 15.68 for elective General Medical discharges in the cohort aged 65 years and over during this period, once again possibly reflecting the increasing difficulty accessing NHSS beds, rehabilitation beds and home care supports. There has been a steep increase from approximately 1.72 million inpatient-bed days in 2011 to over 1.77 million bed days in 2014 in the cohort aged 65 years and over.

EMERGENCY DEPARTMENT

Inability of patients in Emergency Departments (ED) to access beds on the wards has led to the problem of ED overcrowding. Patients who are admitted from the ED may end up waiting on trolleys for long periods of time. This often includes an overnight stay in the ED, which is not recorded in the patient's length of stay in the hospital, and therefore is causing a certain amount of skewing of length of stay data. In 2014, using Patient Experience Time (PET) data (which is not available for all hospitals), there were 646,931 adult attendances in the 20 hospitals for which data were available. Of these, 73% were in the 17-64 years age group, 22% in the 65-84 years age group and 5% in the group aged 85 years and over. The likelihood of admission to the ward following an ED attendance increases with increasing age, with 57% of patients aged 85 years and over who attended requiring admission, compared with 44% of 65-84s, and 20% of the 17-64 age group. This would suggest triage by age should be considered to improve efficiency, as approximately 1 in 2 patients aged 65 years and over (27% of ED presentations) are admitted compared to 1 in 5 in the 17-64 age group (73% of ED presentations).

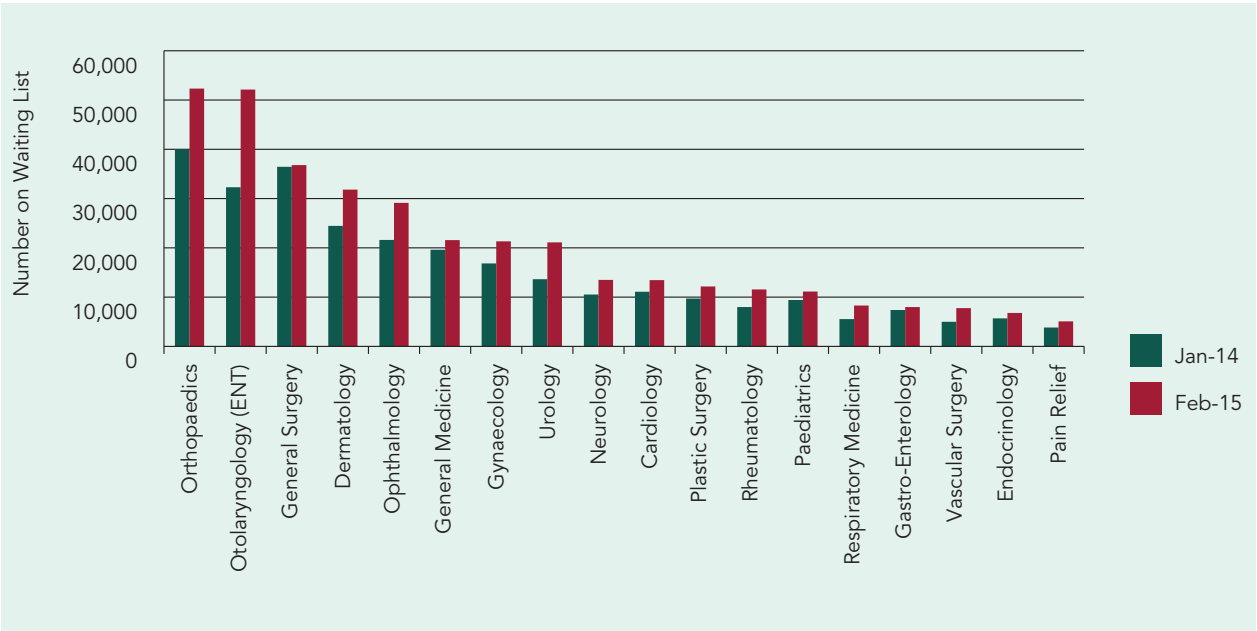
Data are available for Paediatric ED in 19 hospitals. In 2014, there were 207,983 paediatric attendances at ED departments. In this group, the likelihood of an admission to the ward increased with decreasing age. The admission rate for the 6 -16 age group was 15% of total attendances, but rose to 20% for the 1-5 age group and was 31% for the under ones. Unfortunately there are no presenting complaint data collected and no further analysis can be carried out.

It is of interest to note the large numbers of paediatric attendances. Bearing in mind that some data were excluded, and that there may be duplication, the number of new attendances at ED for children aged less than one year represented 33% of the total population of children under one, and of these 31% were admitted. For the 1-16 age group there were 182,361 attendances at EDs in 2014. This figure includes new and repeat attendances, but represents in excess of 15% of all children in that age group making an ED attendance per year.

OUTPATIENT WAITING LISTS

Data have been collected on outpatient department (OPD) waiting lists in a systematic fashion since January 2014. These data for the main specialties are shown graphically in Figure 4.5. Large increases have been experienced in numbers waiting for Otolaryngology (ENT), Orthopaedics, Dermatology, Ophthalmology, and Urology. As the data collection system is relatively new, some caution must be exercised in interpreting the results from the first 13 months, but there appears to be an upward trend in the numbers of people waiting across all specialties, with total OPD waiting lists increasing by 29%. The orthopaedic OPD waiting list is the largest waiting list nationally, with 47,390 adults and 4,932 children awaiting an OPD appointment as of the end of February 2015, an increase of 31% from January 2014.

Figure 4.5: Numbers of people on OPD waiting lists by specialty, Jan 2014 and Feb 2015

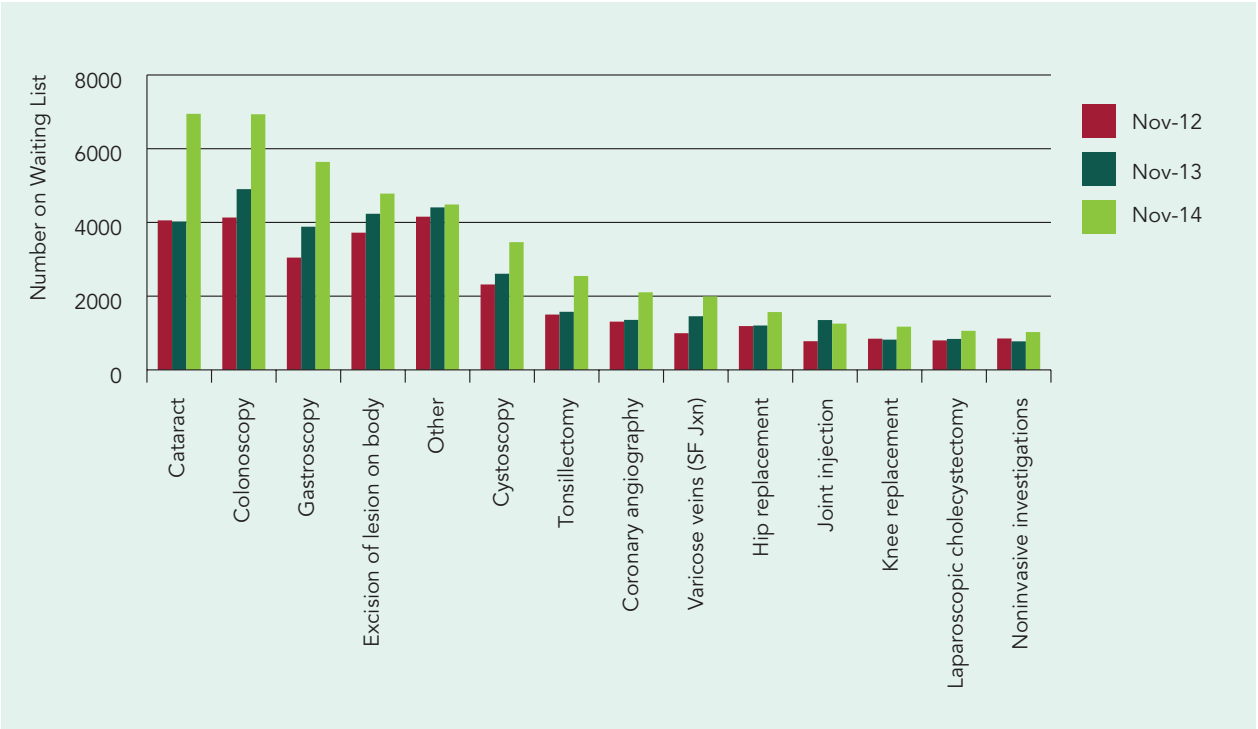


Source: National Treatment Purchase Fund (NTPF)

PROCEDURE WAITING LISTS

At the same time the waiting lists for procedures also continue to grow. Figure 4.6 shows the growth year by year in total procedure waiting lists since 2012.

Figure 4.6: Procedure waiting list November 2012 – November 2014



Source: National Treatment Purchase Fund (NTPF)

It is of note that four of the top 10 procedures are in fact diagnostic procedures, and may be part of a suite of investigations for a particular condition, which may in turn require a surgical procedure.

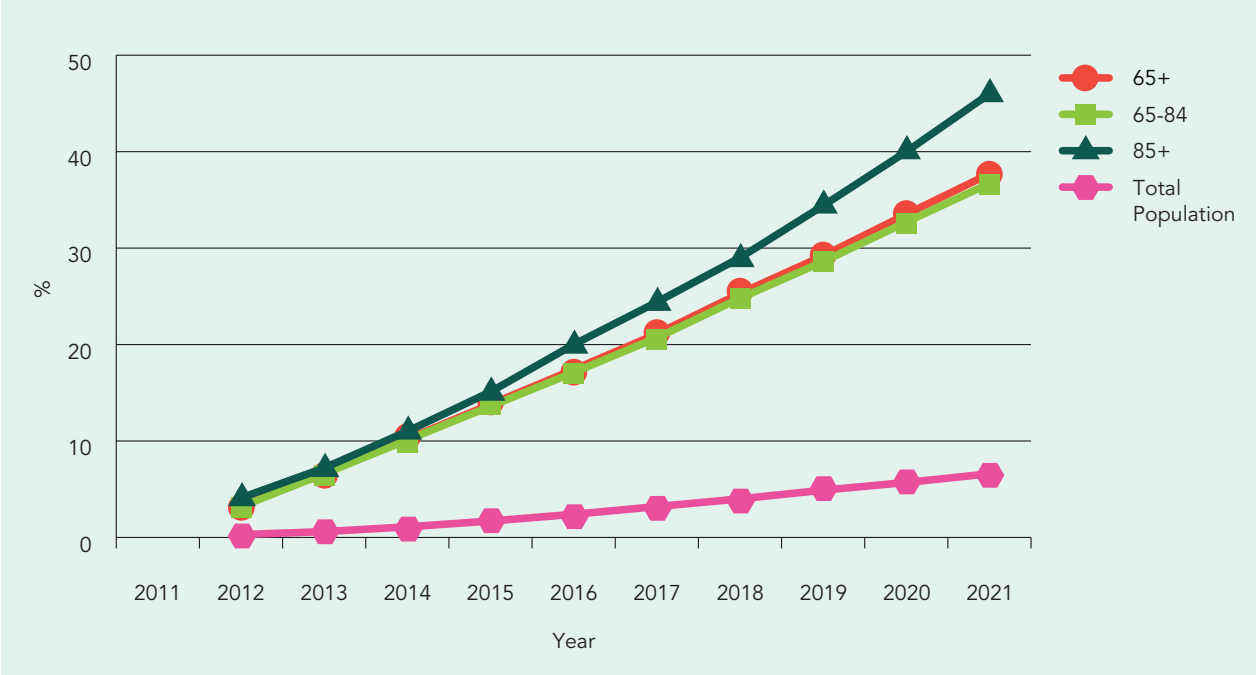
ORGANISATIONAL STRUCTURE

Reform of hospitals into groups means that level 4 hospitals are dealing with the very ill, complicated or specialist care patient, transferring them to lower level hospitals as appropriate as they recover from their initial acute phase. Level 3 and 4 hospitals that were previously occupied by a mixture of patients, some awaiting surgery, some acutely ill and some recovering from acute illness, are now occupied by mostly ill patients, with much more intense nursing needs. In addition, the acute phase of a hospital admission is the most expensive, therefore giving rise to increasing cost pressure on these hospitals.

POPULATION PROJECTIONS

The overall population growth year on year is in the order of 1%. However, the growth of the age group that is aged 65 years and over is at a steeper rate, in the order of 3-4% per year. In 2016 we can expect a projected increase of 32,300 persons in our population with an additional 19,400 aged 65 years and over and an additional 2,900 aged 85 years and over. Figure 4.7 demonstrates the projected cumulative percentage change in the population aged 65 years and over versus total population 2011 – 2021. A steep increase in the older age cohorts is evident.

Figure 4.7: Projected cumulative increase in population 65 years and over versus total population

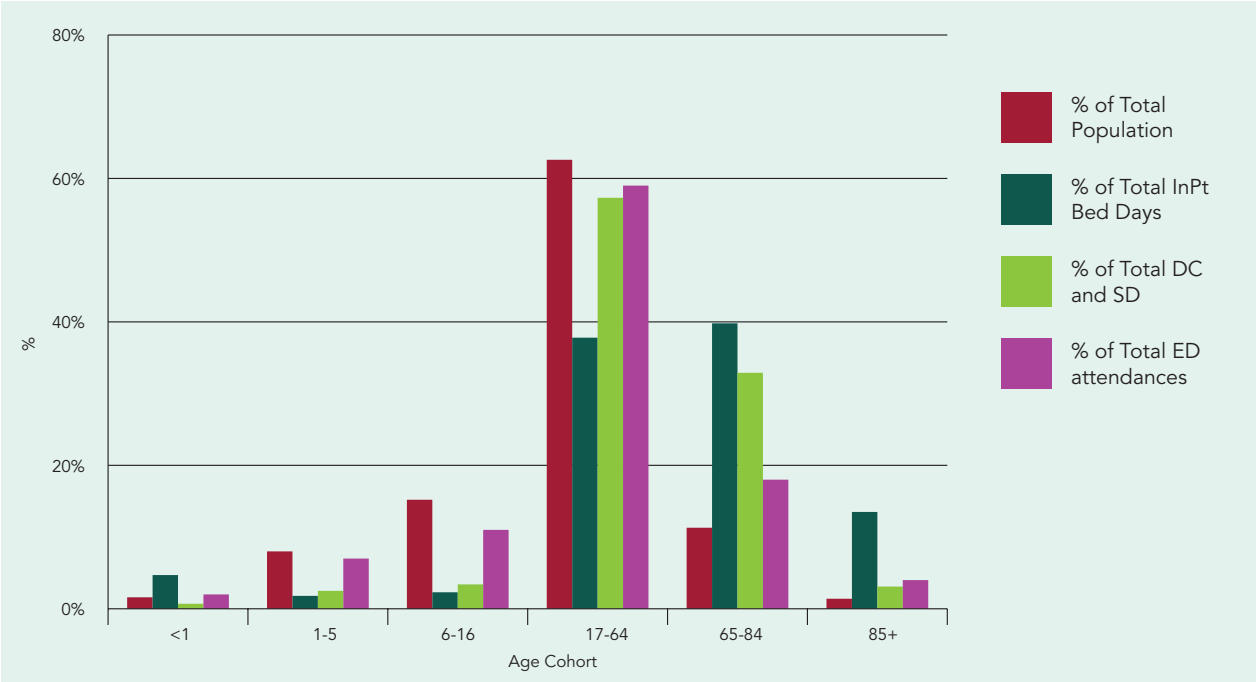


Source: Central Statistics Office (CSO)

PROJECTED SERVICE UTILISATION

The implication of this disproportionately faster growth in the population aged 65 years and over is that the demand for health services will grow disproportionately faster as health service utilisation by those aged 65 years and over is greater than that of the general population. Chronic disease mainly manifests itself in this age group and is contributing to this increased demand. The utilisation rates presented in this chapter are based on HIPE activity in 2014 and the HIPE dataset used was approximately 98% complete at the time of analysis. Although the population aged 65 years and over represent 12.7% (n=585,825) of our population, 53.3% of total hospital in-patient bed days and approximately 36% of day case and same day in-patient bed days is delivered to this group. Similarly the frail elderly aged 85 years and over group represent 1.4% (n=64,635) of our total population in 2014, but use 13.5% of the in-patient bed days. This is reflected in Figure 4.8 which shows the proportionate use of hospital services subdivided into in-patient bed days, day case/ same day discharges and ED attendance by age group in 2014.

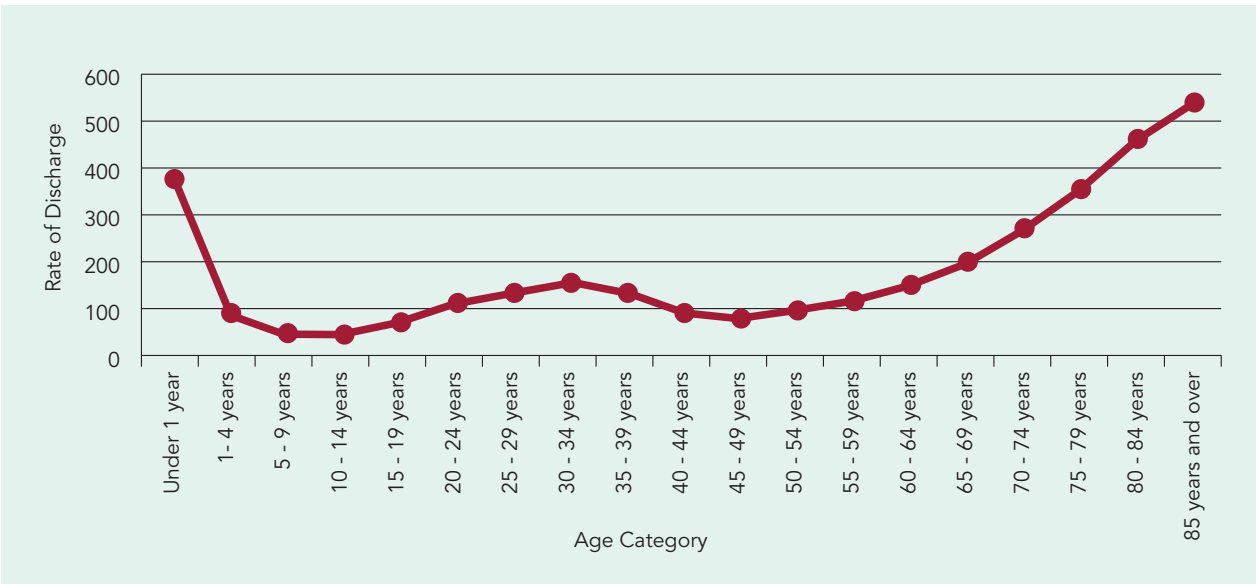
Figure 4.8: Proportionate use of hospital activity by age group



Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO)

Figure 4.9 represents the utilisation of inpatient acute hospital services quantified as in-patient discharge rates by age. It is evident that with the exception of the 0-1 cohort acute hospital in-patient utilisation increases dramatically in the cohort age 65 years and over.

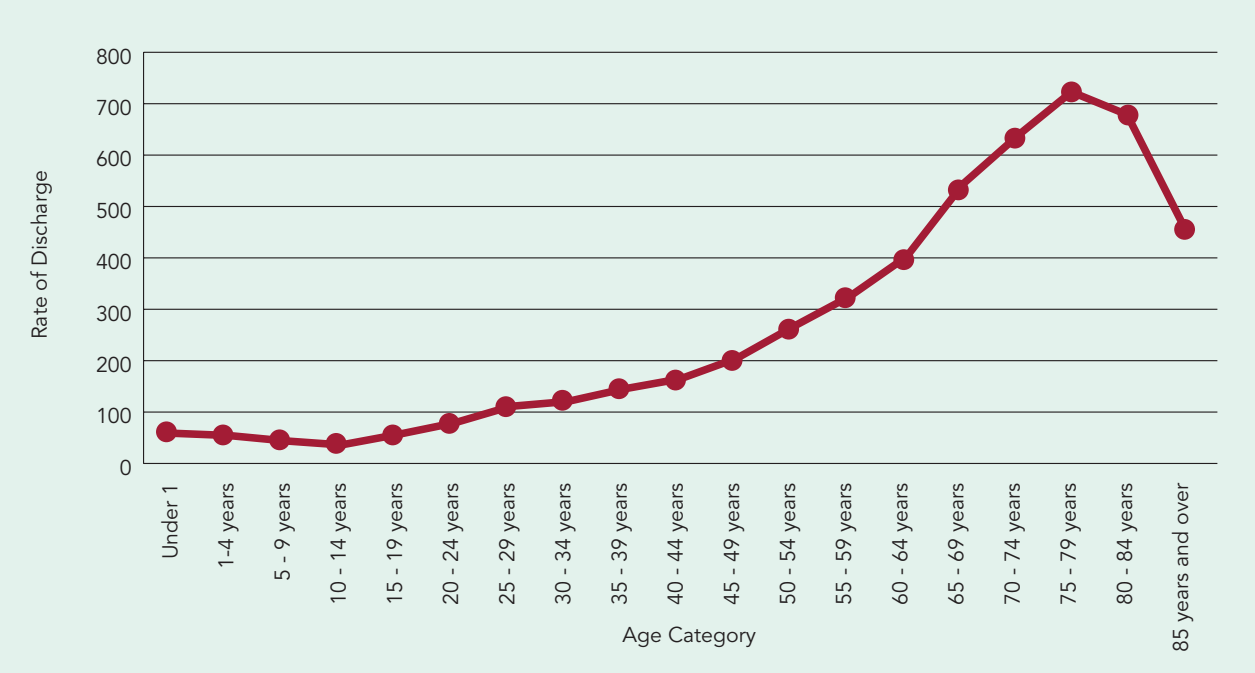
Figure 4.9: In-patient discharge rate per 1,000 population by age category, 2014



Source: Healthcare Pricing Office (HPO).

Figure 4.10 represents day case discharge rates by age cohort in 2014. It is also evident that day case patient discharge rates rise much more steeply with age and reflect the different types of care provided to in-patients and day case.

Figure 4.10: Day case discharge rate per 1,000 population by age group, 2014



Source: Healthcare Pricing Office (HPO).

The Healthcare Pricing Office (HPO) has combined these data with population data to calculate utilisation rates of in-patient discharges, day case discharges and in-patient bed day (IPBD) rates for 2014 by age cohort. This was applied to our population projections to project activity (numbers of discharges and bed days) for 2016 and 2021 *under the assumption that hospital discharge rates for in-patients and day cases remain stable and models of care remain unchanged between 2014 and 2016.*

In 2016 it is projected that there will be an overall increase in adult in-patient discharges of 11,150 from 2014. This is largely as a result of predicted increases in the group aged 65 years and over. It is projected that an increase of 120,800 adult bed days will be required from 2014 to 2016 to provide for the demographic pressure of our growing population. This equates to 120,800/365 = 330 additional adult hospital in-patient beds at 100% utilisation of seven day beds.

A forecast for 2016-2021 outlines an overall increase in adult discharges of 39,000 from 2016 if current utilisation rates remain constant.

Table 4.2 outlines the number of adult in-patient (including same day) discharges and the number of bed days by age group for 2014 and projected to 2016 and 2021.

Table 4.2: Adult in-patient (including same day) discharges and bed day utilisation in 2014 and projected to 2016 and 2021

	2014		2016		2021	
	Discharges	Bed Days	Discharges	Bed Days	Discharges	Bed Days
17 – 64 years	311,220	1,301,460	311,000	1,300,510	317,960	1,329,600
65 – 84 years	137,160	1,331,640	145,880	1,416,870	170,230	1,653,340
85+ years	32,750	450,590	35,400	487,110	43,090	592,840
Total	481,130	3,083,690	492,280	3,204,490	531,280	3,575,780

Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO).

Each delayed discharge represents approximately 30 bed days. Therefore, 100 delayed discharges equates to approximately 3,000 bed days. A reduction of 100 delayed discharges per month equates to 36,000 bed days in one year (3,000 x 12). Our projected estimate of additional demand in bed days from 2014-2016 is 120,800, which is approximately an annual demand of 60,400 bed days. Therefore a reduction of 200 delayed discharges per month in 2015 and 2016 would allow for the demographic pressure giving rise to an additional 72,000 bed days per year totalling approximately 140,000 over two years.

Additionally, average length of stay for patients aged 85 years and over has increased from its shortest length of 13.49 days in 2012 to 14.25 days in 2014. If access to beds in long term care improves, it is conceivable that average length of stay may again decrease. For the expected 35,400 discharges in 2016, a decrease in the average length of stay from 14.25 to 13.49 would equate to an additional capacity of 26,904 bed days. This falls short of the predicted 35,520 additional requirement for 2016 however demonstrates that additional capacity can be created by small reductions in average length of stay across all specialties, and by maximising Day of Surgery Admissions (DoSA) where appropriate. However, it must be borne in mind that lack of attention to population growth over the past number of years, coupled with funding reductions has led to capacity issues that also need to be addressed.

In 2016, it is projected that there will be an overall increase in adult day case discharges of 22,800. This includes 10,630 (2014–2015) and 12,170 (2015–2016)). This is largely as a result of predicted increases in the over 65 age group. A forecast to 2021 outlines an overall increase in adult discharges of 76,990 from 2016 if current utilisation rates remain constant. Table 4.3 outlines adult day case discharges in 2014 and projected to 2016 and 2021.

Table 4.3: Adult day case discharges in 2014 and projected to 2016 and 2021

	2014 (n)	2016 (n)	2021 (n)
17 – 64 years	536,514	536,140	548,140
65 – 84 years	326,578	347,330	405,300
85+ years	29,882	32,300	39,320
Total	892,974	915,770	992,760

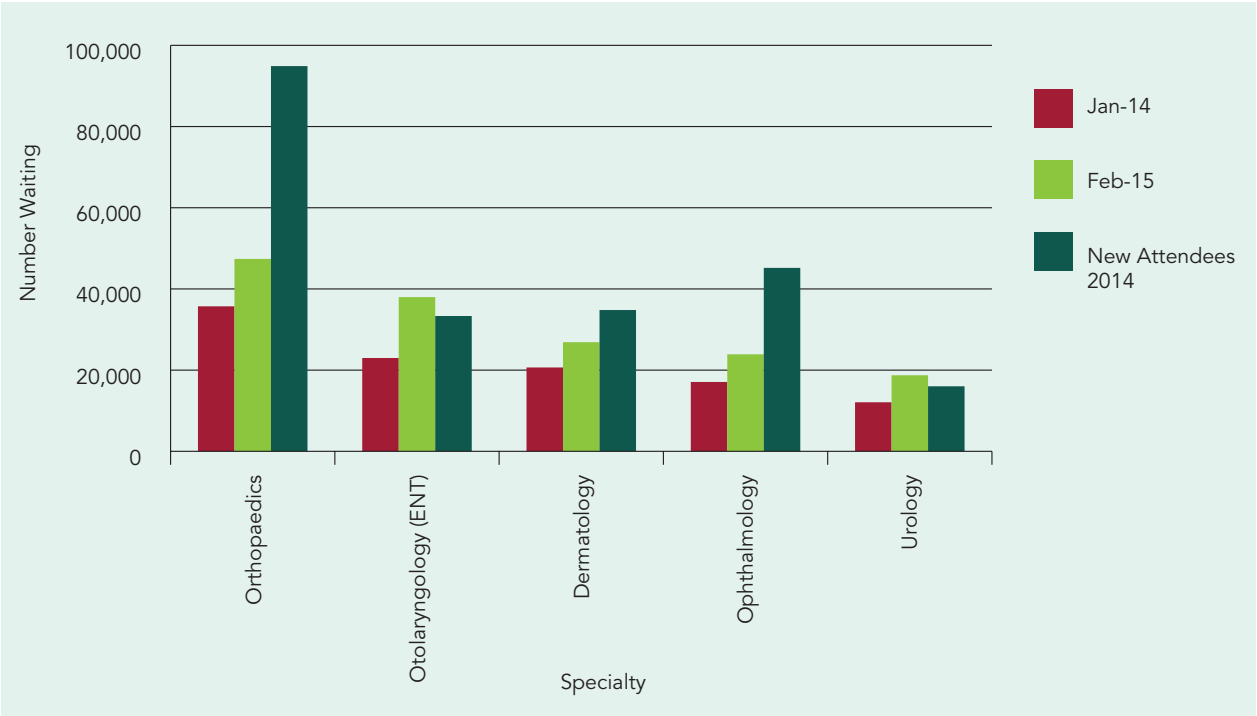
Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO).

OUTPATIENTS DEPARTMENT (OPD)

In 2014, 746,802 new patients were seen in adult OPD. This represents a new patient attendance rate of 746,802/3,480,928 = 21,454/100,000. When applied to our projected population for 2016 we estimate that 7,800 additional new patient attendances will be requested in 2016. Specialities with the largest attendances in 2014 include General Surgery (102,346), Orthopaedics (94,893), Ophthalmology (45,185), Gynaecology (36,445) and General Medicine (34,804).

However, in 2014 there remains a significant unmet demand in OPD, quantifiable by OPD waiting lists and times. It is also worth noting that in addition to the five specialties mentioned, Otolaryngology (ENT) and Urology have not been able to keep up with demand, seeing fewer people in the year 2014 than were on the waiting list. As Orthopaedics also includes all fracture clinics, it is difficult to say if they are actually keeping up with elective orthopaedic demand. This is shown in Figure 4.11.

Figure 4.11: OPD waiting list 2014-15 versus OPD activity 2014



Source: HSE Business Information Unit (BIU)

EMERGENCY DEPARTMENT PROJECTED ATTENDANCES IN 2016

Data for Emergency Department (ED) from Patient Experience Time (PET) data are not complete but some projections can be based on them. It is projected that ED attendances will increase for adults aged 65 years and over by 5,730 between 2014 and 2015 (3.3%) and a further 5,920 between 2015 and 2016 (3.3%). There will be a decrease in ED attendances in the 17- 64 age cohort of 2,760 between 2014 and 2015 (0.6%) but a slight increase of 440 between 2015 and 2016. However, as the burden of care and severity of illness increases with age, there will be some increase in ED demand, both in volume and also in complexity. Regarding paediatric ED attendances, it is projected that there will be an increase of 4,205 (4%) for the 6 -16 year old cohort with a decrease of 1,560 (6.1%) in the under ones. It is projected that there will be very little change in ED attendances amongst the 1-5 year age cohort.

PROJECTED IN-PATIENT ACTIVITY BY SPECIALITY

Further analysis of in-patient discharges by speciality provides more granular information in relation to the projected increased activity by speciality in 2016. Considering our demographic pressure will be greatest in the older age groups, this analysis was focused on the age cohorts 65-84 years and 85 years and over. On evaluation of the results, it became apparent that the top five ranked specialties were almost the same in both age categories therefore we have presented a combined category of aged 65 years and over. The specialty code is assigned based on the speciality assignment of the consultant associated with the principal diagnosis of each discharge. The five leading medical and surgical specialities were identified. These represented 81% and 88% of medical and surgical discharges respectively. It is evident that General Medicine and Geriatric Medicine combined represent over 45% of all admissions in adults aged 65 years and over. General Surgery represents 11.9%, Orthopaedic Surgery 8.4% and Cardiology 5.6%. Table 4.4 outlines top five in-patient medical and surgical specialties, in the group aged 65 years and over for 2014 and cost data based on Diagnosis Related Groups (DRGs) calculations from the HPO. Of note; the patients aged 65 years and over contribute to 32.3% of all in-patient discharges, 53.5% of all hospital bed days and 43% of the total cost.

Table 4.4: Top five In-patient medical and surgical specialties, 65 years and over (2014)

Specialty	Number of Discharges >65	% of all Discharges >65	Bed Days Used >65	% of all Bed Days >65	Total Cost (€million) >65	% of Total Cost >65
General Medicine	60,554	37.2	615,812	34.6	326.1	29.3
Geriatric Medicine	13,407	8.2	255,661	14.3	116.2	10.4
Cardiology	9,206	5.6	62,016	3.5	53.8	4.8
Respiratory Medicine	7,688	4.7	89,002	5.0	48.8	4.4
Gastroenterology	4,008	2.5	56,795	3.2	31.5	2.8
General Surgery	19,372	11.9	160,218	9.0	131.3	11.8
Orthopaedics	13,695	8.4	160,164	9.0	131.5	11.8
Urology	3,832	2.4	24,631	1.4	23.5	2.1
Vascular Surgery	2,180	1.3	27,814	1.6	25.8	2.3
Otolaryngology (ENT)	1,691	1.0	11,847	0.7	12.1	1.1
Total of Top 5 Med/Surg specialties >65s	135,633	83.3	1,463,960	82.3	900.6	80.9
Total Overall >65s	162,800	100	1,779,421	100	1,113.4	100
Total All Discharges	504,125		3,348,873		2,604.7	

Source: Healthcare Pricing Office (HPO).

Applying the 2014 age and specialty specific rates, projections for 2016 and 2021 were calculated. It is projected, from 2014 to 2016, that there will be an increase of 4,000 in-patient discharges in General Medicine, 1,300 in General Surgery, 900 in Orthopaedics, 900 in Geriatric Medicine and 600 in Cardiology. Table 4.5 outlines the top five in-patient medical and surgical specialties by number of discharges projected for 2016 and 2021.

Table 4.5: Top five in-patient discharges by medical and surgical specialties 2014 projected to 2016 and 2021, 65 years and over

Specialty	2014-2016	2016	2021	2016 - 2021
General Medicine	3,965	64,520	75,650	11,130
Geriatric Medicine	878	14,290	16,750	2,460
Cardiology	603	9,810	11,500	1,690
Respiratory Medicine	503	8,190	9,600	1,410
Gastroenterology	262	4,270	5,010	740
General Surgery	1,268	20,640	24,200	3,560
Orthopaedics	897	14,590	17,110	2,520
Urology	251	4,080	4,790	710
Vascular Surgery	143	2,320	2,720	400
Otolaryngology (ENT)	111	1,800	2,110	310
Total Top 5	8,881	144,510	169,440	24,930
Total Overall >65s	9,140	171,940	202,350	30,410

Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO).

Analysis was undertaken for adults aged 65-84 years and aged 85 years and over. There were some slight annual variations in the leading specialities when broken down by these age groups. The leading specialities were consistently represented although respiratory medicine was higher up the list of top five specialties in the patients aged 85 years and over.

PAEDIATRICS

Priorities in 2016 for Paediatrics are the development and implementation of a standardised model of care in conjunction with the development of the new children's hospital. The model will include both the acutely ill child and the well child. Notwithstanding developments, challenges exist with the delivery of certain paediatric services. Paediatric in-patient discharges are predicted to increase by 1,340 and bed days by 3,470 for the 6-16 age group from 2014 to 2016 as per Table 4.6.

Table 4.6: In-patient (including same day) discharges and bed days 2014 and projected to 2016 and 2021

	2014		2016		2021	
	Discharges	Bed Days	Discharges	Bed Days	Discharges	Bed Days
< 1 years	28,030	159,450	26,310	149,720	22,690	129,130
1 – 5 years	29,790	65,550	29,780	65,490	26,480	58,230
6 – 16 years	33,350	83,750	34,690	87,220	37,850	95,160
Total	91,170	308,750	90,780	302,430	87,020	282,520

Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO).

MATERNITY SERVICES

Population projections predict a drop in the number of children aged less than one year in 2016 by approximately 6%. Again caution must be exercised here, as economic recovery in the past in Ireland has been accompanied by increases in birth rates. In addition, major challenges in quality of maternity care exist, and addressing these is a priority into 2016.

DEMOGRAPHIC EFFECT ON ACUTE HOSPITAL CASEMIX COSTS

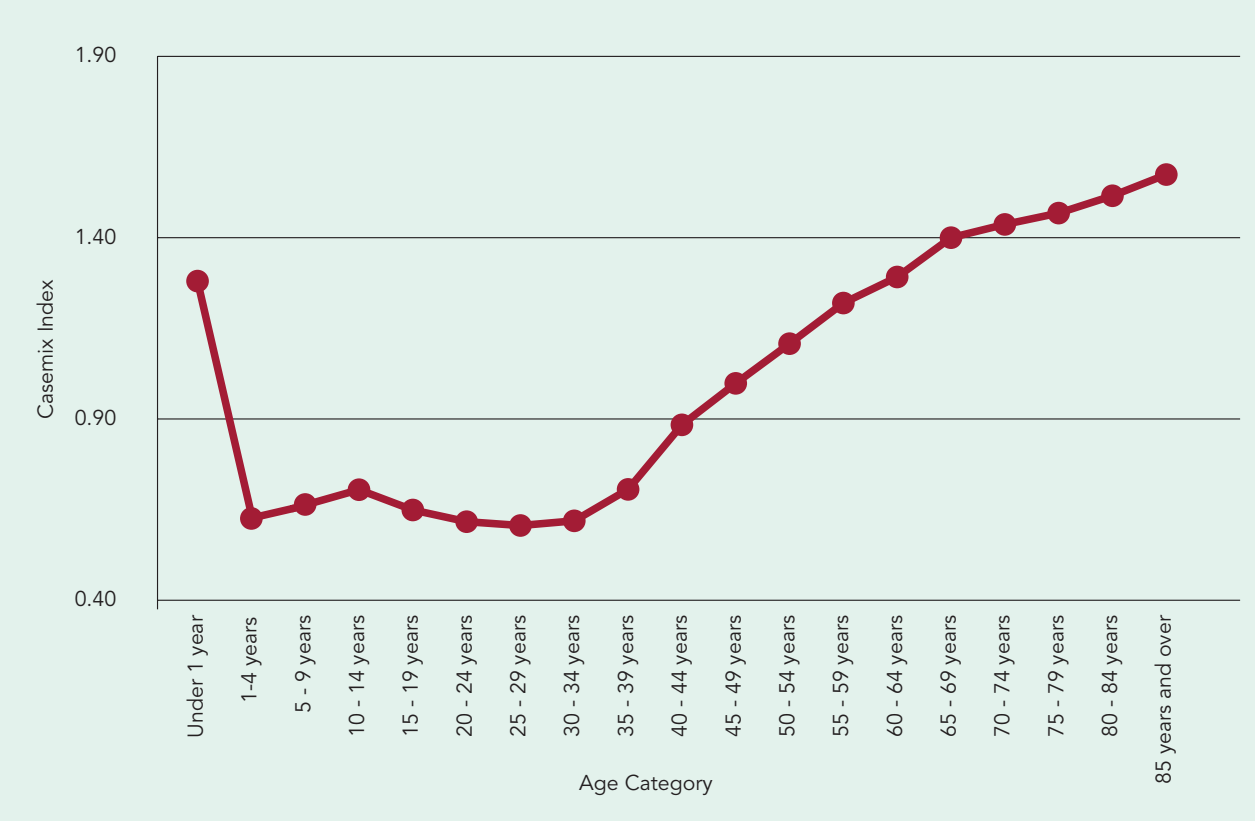
Activity and costs by age group for publicly-funded acute hospitals are available from the Hospital In-patient Enquiry (HIPE) and from the casemix system. *Under the assumption that hospital discharge rates, unit costs and the ratios between in-patients and day cases remain stable between 2015 and 2016, this data can be used to estimate levels of activity and associated costs.* The graphics displayed in this and in other sections extends the analysis out to 2021 for the purposes of illustrating the potential trend in the absence of changes in either cost structure or utilisation patterns. Of course, this should not be taken to be a realistic scenario in the longer term. The principal focus is on the level of demographic pressure which will arise between this year and next year, and over that short term time scale the assumptions of stability in utilisation and costs provide a reasonable benchmark. In the case of service utilisation, the previous section demonstrates that there has been no reduction in acute hospital use by age group in recent years. The grouping of cases into Diagnosis Related Groups (DRGs) allows a casemix relative value to be assigned to each case. The DRG cost weights are based on Irish costing data derived from the national patient-level costing (PLC) project. This involves obtaining detailed costs by patient from a representative sub-sample of Irish hospitals. 2011 was the first year for which Irish PLC-derived cost weights were the primary source for setting weights and it has continued since. Use of cost weights based principally on Irish data serves to strengthen the validity of the estimates.

The casemix relative values represent the relative cost of each DRG. These values can then be used to derive a set of cost relativities by age group for acute hospital care. This exercise has been undertaken separately for in-patient and day case care and the results are presented below.

PROJECTED IN-PATIENT COSTS

Considering in-patients first, Figure 4.12 shows the relative cost of providing in-patient care by age group where a value of 1 represents the overall average cost. The relative cost of care described as the casemix index is approximately 1.3 for infants under 1 year of age, then falls steeply to values of around 0.6 for ages up to 39 years, followed by a steady rise to a value of just under 1.6 for those aged 85 years and over. It is evident that the casemix index increases significantly with age as demonstrated in Figure 4.12.

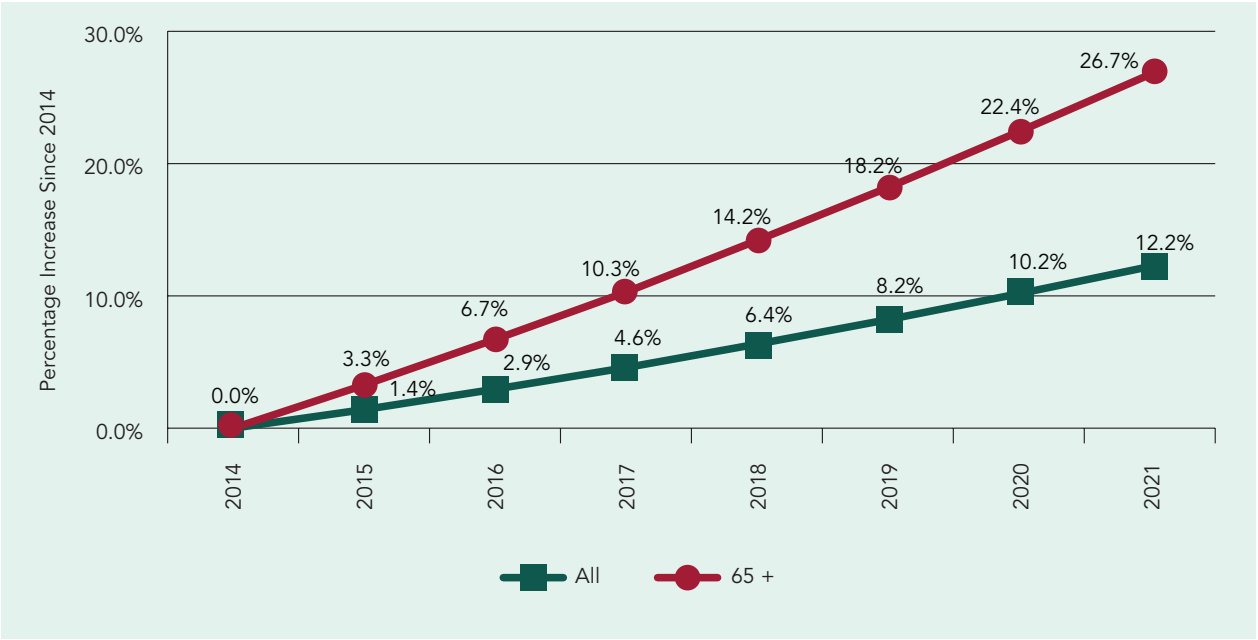
Figure 4.12: Relative cost of in-patient treatment (casemix index) by age category, 2014



Source: Healthcare Pricing Office (HPO).

The casemix data can then be matched with data on age-specific discharge rates (Figure 4.9) in order to obtain estimates of total in-patient costs for each age group. It is apparent that healthcare costs directly increase with age. Keeping the casemix indices and the age-specific discharge rates constant, the values for each age group can be applied to the projected populations for 2016 and up to the year 2021 in order to forecast total in-patient costs based only on demographic projections. This is shown in Figure 4.13.

Figure 4.13: Projected percentage increases in in-patient cost pressures based on demographic projections, all ages and 65 years and over, 2014 to 2021



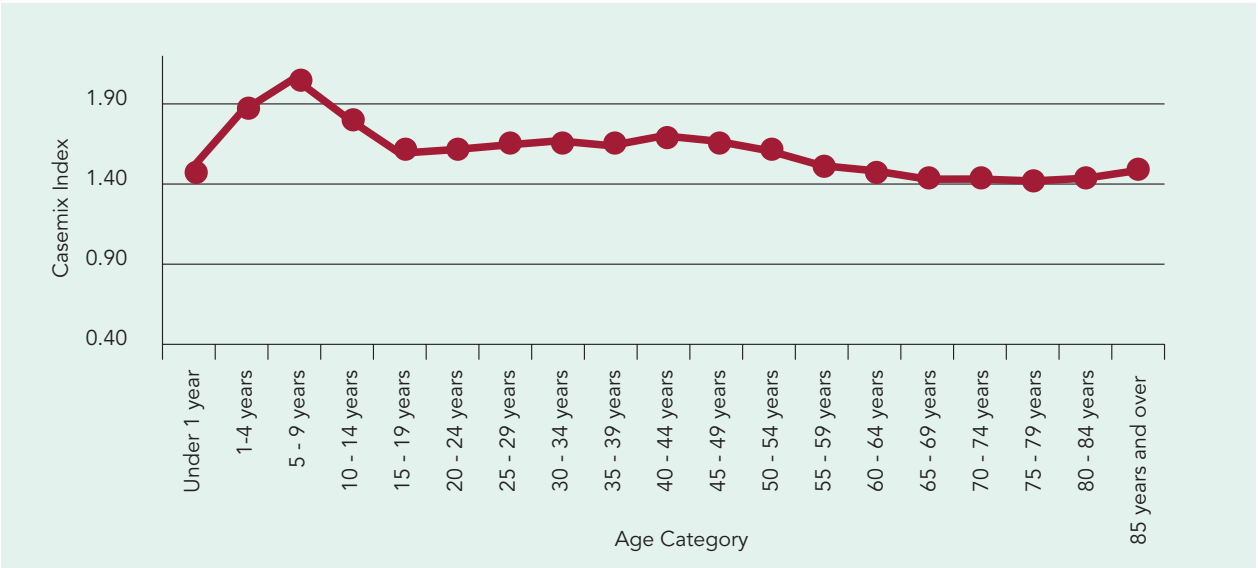
Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO).

As expected, the steepest rises in cost pressures occur in the older groups reflecting the combination of higher utilisation rates with age, higher casemix-based costs with age, and rapid population ageing. For 2016, the projected total change in in-patient costs for the total population is an increase of 1.5% on the 2015 in-patient budget. Interestingly an increase of 3.4% from 2015 will be required in the spend for those aged 65 years and over.

PROJECTED DAY CASE COSTS

The pattern of relative costs and hospital discharge rates by age group is very different for day cases as compared with in-patients. In fact, relative costs decline with age (with the exception of the very young) as demonstrated in Figure 4.14.

Figure 4.14: Casemix index by age group, day cases, 2014

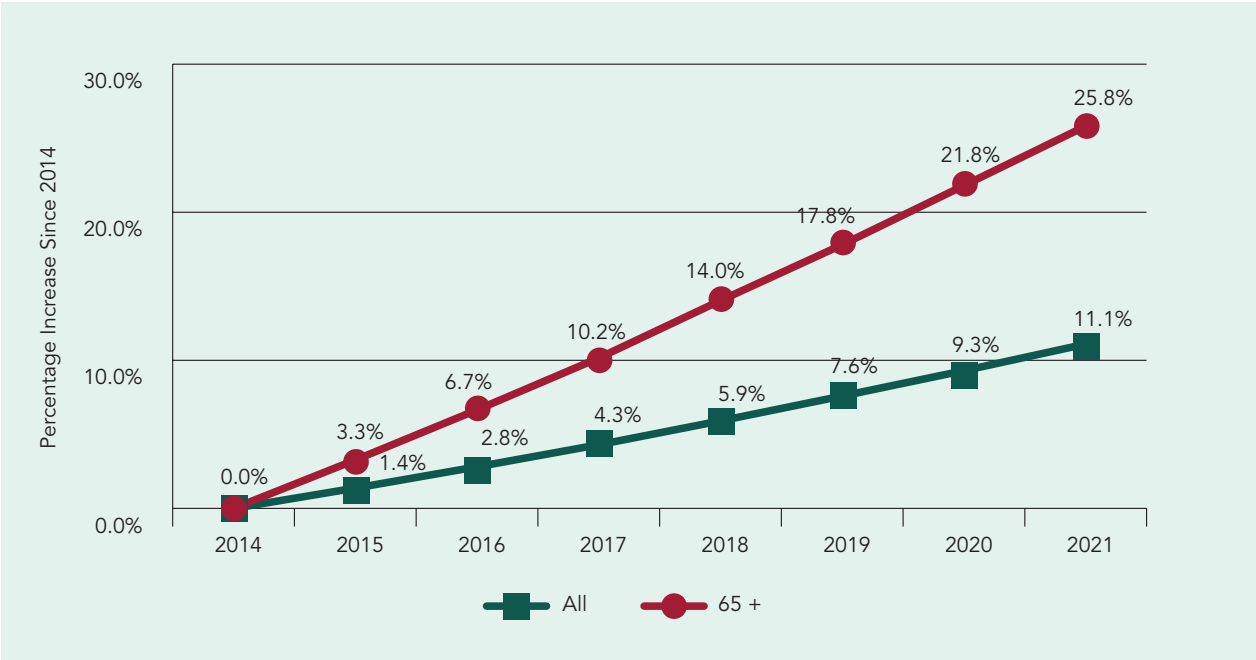


Source: Healthcare Pricing Office (HPO).

Once again the case mix data as seen above can be matched with data on age-specific day case discharge rates (Figure 4.10) in order to obtain estimates of total day case costs for each age group.

Using this data to project day case costs for 2016 and up to 2021, results in a trend very similar to that of in-patient costs for all ages. The reason for this, despite the very different cost structure and pattern of discharges, appears to be that the very marginal decline in relative cost by age is offset by the steep rise in discharge rates in the large age cohorts up to the age of 79. Projecting these forward results in a significant population ageing effect.

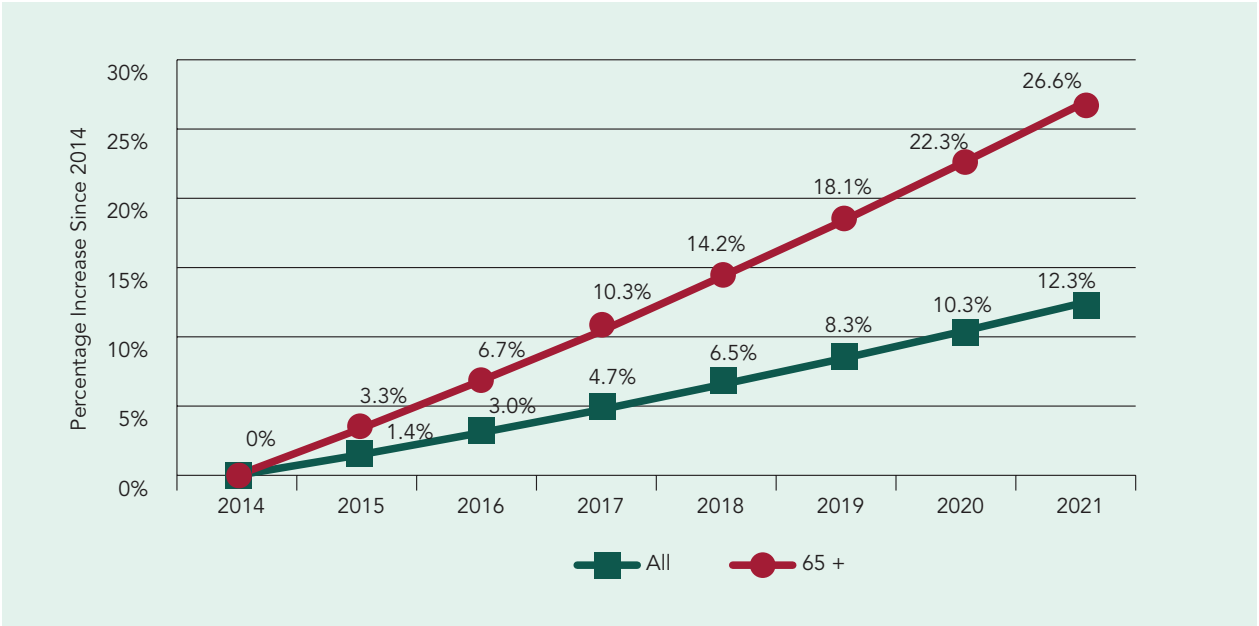
Figure 4.15: Projected percentage increase in day case costs based on demographic effect, all ages and 65 years and over, 2014 to 2021



Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO).

Combining in-patient and day case discharges provides a view of total cost pressures facing publicly funded acute hospitals in managing their in-patient workloads over the period to 2021. This shows average annual demographically driven pressures of around 1.7% for the years from 2014 to 2021, with a rising rate reflecting the acceleration in population ageing over the period (see Figure 4.16). From 2015 to 2016, which is the focus of this paper, cost pressures of 1.6% are predicted.

Figure 4.16: Projected total in-patient and day case percentage cost changes, all ages and 65 years and over, 2014 to 2021.



Source: Healthcare Pricing Office (HPO) and Central Statistics Office (CSO)

PROJECTED COST PRESSURE: 2015 TO 2016

The above analysis indicates that a demographic cost pressure of 1.4% is applicable for the period of 2014 to 2015 and a cost pressure of 1.6% is applicable for 2015 to 2016. Over this short term time scale, the assumptions of stability in utilisation and costs provide is reasonable. This is an overall estimation and only takes into account the overall combined demographic effect on costs. The cost pressures that have been building in the system from 2009 should also be considered when taking any views on service planning; the 1.6% applicable for 2015 to 2016 should be considered in addition to replacing the deficits that already exist and will not provide for any quality improvement initiatives.

It should also be noted that the projected decline in numbers of births from 2015 to 2016 is incorporated into the analysis in terms of a reduction in maternity hospital costs and this should be assessed with caution and is likely to represent an underestimation. In reality, demographic 'gains' in the younger age groups cannot be combined with estimated increases in the older age groups. Paediatric beds are not interchangeable with adult beds and maternity beds are not interchangeable with acute hospital beds. The marginal cost savings that might be gained in these areas are not realisable in adult and acute services. Roll out of the paediatric programme of care, and improving quality of care in maternity services which has been emphasised in the "*Report of the investigation into the safety, quality and standards of services provided by the HSE to patients in the Midland Regional Hospital Portlaoise*" (HIQA 2014) and the "*Patient Safety Investigation report into services at University Hospital Galway (UHG) and as reflected in the care provided to Savita Halappanavar*" (HIQA 2013) will require further investment.

National Screening Service

BACKGROUND

The National Screening Service manage the following four population-based, call-recall, screening programmes: BreastCheck, CervicalCheck, BowelScreen, and Diabetic RetinaScreen.

BREASTCHECK

BreastCheck offers screening once every two years for women aged 50-64 years. From the end of 2015, the programme will commence extension to women aged 65-69 years which will take three rounds (six years) to be fully implemented. This will involve extending the service for current users while they remain within the eligible age range. The National Screening Service is planning a phased roll out of this extension to the 65-69 age cohort with 1,000 women to be invited for 2015, 11,230 for 2016, approximately 23,000 to be invited each year for the years 2017-2020 and approximately 11,500 to be invited in 2021. Table 4.7 shows the eligible screening population for 2014 to 2016 - 50% of the total age cohort as screening is offered every two years. The uptake rate for 2014 was 71.4% based on a denominator consistent with the CSO M2F2 population projections. The Health and Wellbeing Operational Plan for 2015 outlines a target of 140,000 women aged 50-64 to be screened and an additional 500 from the 65-69 age cohort totalling 140,500. Using a target uptake rate of 70% it is projected in 2016 that 144,800 will be screened in the 50-64 age cohort with an additional 6,000 in the 65-69 age cohort.

Table 4.7: BreastCheck screening data and projections for 2015 and 2016

Year	Age Group	Eligible Population (50% of cohort)	No. Screened	%
2014	50-64	197,708	141,160	71.4
2015	50-64	202,380	140,000*	69.2
	65-69	1,000	500	N/A
2016	50-64	206,860	144,800†	70.0
	65-69	11,230	6,000*	70.0

** Target number to be screened with approximately 70% participation rate as per Operational Plan 2015*

† Target number to be screened based on a 70% participation rate

Source: CSO, National Screening Service Breast Check Programme Report 2013-2014, HSE Performance Assurance Report December 2014, HSE Health and Wellbeing Operational Plan 2015

CERVICAL CHECK

The CervicalCheck programme is provided to women aged 25-60 years. Women aged 25-44 years with normal results and routine re-call recommendations are invited to attend every three years with women aged 45-60 with normal results and routine re-call recommendations invited once every five years. Applying the current 5 year coverage rate (1 April 2010-31 March 2015) of 78.7%, in 2016 indicates that there will be 264,570 women that will receive cervical screening as per Table 4.8.

Table 4.8: CervicalCheck screening data and projections for 2015 and 2016

Year	Age Group	Eligible Population	No. Screened	%
2014	25-44	243,110		
	45-60	92,360		
		335,470	266,763	79.5
2015	25-44	241,470		
	45-60	94,330		
		335,800	271,000*	80.7
2016	25-44	239,730		
	45-60	96,250		
		335,980	264,570†	78.7

**Target number to be screened as per Operational Plan 2015*

† Target number to be screened based on a 78.7% 5 year coverage rate

Source: CSO, HSE Performance Assurance Report December 2014, HSE Health and Wellbeing Operational Plan 2015

Population movement, particularly among the younger population leads to additional women in the database. The data sources for the Cervical Check register are the Department of Social Protection, self-registration by women and direct entry (eligible women attending for a smear test without invitation). Compared to CSO population data, there are in the region of 10% more people on the Cervical Check register as a result of significant levels of population movement (principally women who did reside in the country but no longer do so). Regular matching and de-duplication processes are carried out to ensure that double counting is minimised. However if people do not respond to their invitation for screening it is not possible to determine that they reside at the address listed on the database, or continue to reside in the country.

BOWELSCREEN

BowelScreen – The National Bowel Screening Programme is currently available to men and women aged 60-69 years. The programme is currently in the final year of a three year screening round. From January 1st, 2016, the programme will commence a two year screening round. The data source for the BowelScreen register is the Department of Social Protection but men and women also have the option of self-registration via the website. As with all screening programmes, uptake cannot be calculated until after the completion of the screening round, all data has been entered and evaluated. In the case of BowelScreen, this will be circa July 2016. The eligible population for the two year round (2016-2017) is estimated at 500,000 which accommodates differences between CSO projections, Department of Social Protection and anticipated on-line self-registrations. The number of invites is estimated at 250,000 in 2016 with the same number of invites estimated for 2017 – Table 4.9.

Table 4.9: BowelScreen actual invitations 2013 and 2014 and projections for 2015 and 2016

Year	Age Group	Eligible Population	No. Invited*
2013	60-69	424,805	58,673
2014	60-69	438,518	212,141
2015	60-69	452,411	200,000**
2016	60-69	231,650	250,000

**Number invited is as per BowelScreen Register of eligible clients and reflects differences between Department of Social Protection and anticipated online self-registrants*

*** Target number to be screened as per Operational Plan 2015*

Source: CSO, HSE Performance Assurance Report December 2014, HSE Health and Wellbeing Operational Plan 2015

DIABETIC RETINASCREEN

The National Diabetic Retinal Screening Programme invites people with diabetes aged 12 and over to be screened for diabetic retinopathy annually from 2015. The National Diabetic Retinal Screening Programme will invite in excess of 150,000 people with diabetes in 2016. However, in the absence of any prevalence data regarding the number of people aged 12 and above with diabetes it is very difficult to project forward the demand for diabetic retinal screening. A key difficulty is the lack of a national register of people with diabetes. Information from PCRS schemes such as GMS, DPS and LTI was used to establish the eligible population for the Screening Register in 2013. GPs and Endocrinologists can also register patients with the programme. Facilitated self-registration is also offered online through the website. The current Screening Register does not include all those diagnosed with diabetes. In addition, it is also difficult to estimate the number of undiagnosed diabetics. Although there have been forecasts of diabetes prevalence based on historical data, current data on diabetes prevalence is required to plan services and accurately estimate future demand. The National Diabetic Retinal Screening Programme is projecting a growth in demand of approximately 10,000 people per annum which has been informed by the experience of other established National Diabetic Retinopathy Screening Programmes.

OTHER ISSUES

Each of the screening programmes has its own register. Each register has two components – the target population register of demographic details to enable call-re-call, and the screening history register. Only a subset of clients of each target population register overlaps with clients on another target population register. Currently, if an individual is eligible for more than one of the screening programmes, any demographic information that is updated on one register is not automatically updated on the other registers. The Individual Health Identifier (IHI) project will create a national population register of demographic details and health identifiers for every individual in the country. Healthcare services, including screening, will likely interface with the national register to maintain their target population registers.

5 Primary Care

5. Primary Care

Key Messages

- In 2016 32,300 additional persons will require primary care
- Our projections for 2016 outline that there will be a reduction of the 0-5 age cohort of 3,520; an increase of persons 70 years and over by 15,630 and an increase in the 6-69 age cohort of 20,210
- In 2016 the increase in the population aged 65 years and over varies from 1,700 in CHO Area 1 to 3,000 in CHO Area 4
- In 2016 the increase in the population 0-17 years varies from 370 in CHO Area 3 to 2,900 in CHO Area 7
- The CHO areas with the greatest uptake of medical cards include counties Donegal and Mayo. These are also the counties experiencing greatest deprivation and with the largest proportion of adults aged 65 years and over

PRIMARY CARE

- 86% of GPs believe that increased access to diagnostics would reduce their referrals to emergency departments and outpatient departments
- Currently one in five GPs do not have direct access to abdominal or pelvic ultrasound in the public system. 70-80% of GPs have no direct access to CT scans. One quarter of GPs do not have direct access to Dexa scans in the public system
- It is estimated that given our population projections, an additional 5,335 accepted referrals to community physiotherapy, 3,953 additional community occupational therapy referrals and 1,336 additional community speech and language therapy referrals are projected from 2014 to 2016
- At the end of December 2014, 7,433 persons were more than 12 weeks on the physiotherapy waiting list and 8,141 persons were more than 16 weeks on the occupational therapy waiting list

LIFESTYLE RISK FACTORS

- In 2014 smoking prevalence was 19.5%. This equates to over 700,000 adults smoking in Ireland which will increase to 710,000 by 2016 if current rates persist. To achieve government target of 5% by 2025, a decline of 1.3% per annum between 2014 and 2025 is required
- Alcohol consumption in Ireland is among the highest in OECD countries at 11.6 litres per adult per annum. Almost two thirds of 18-24 year olds binge drink during a typical drinking session. If these patterns continue just under 225,000 18-24 year olds and 1.35 million adults in Ireland are projected to binge drink in 2016
- Six out of ten adults are overweight or obese
- By 2016 it is projected there will be 1.73 million adults overweight or obese and in 2021 this will increase to 1.76 million
- Seven out of ten adults (69%) do not meet recommended guidelines of physical activity

CHILD HEALTH

- One in four (25%) children aged nine are overweight or obese
- Less than one in five (19%) of primary and less than one in eight (12%) of post primary school children meet national physical activity guidelines
- In 2013, the percentage of babies that were breastfed on discharge from hospital was 55.7%. 46.3% were exclusively breastfed and a further 9.4% were fed using a combination of formula and breastfeeding. Breastfed children are less likely to become overweight or obese
- There were 69,267 births in Ireland in 2013, of which 5.5% were of low birth weight. Low birth weight is associated with a number of adverse developmental, educational, behavioural and socio-economic outcomes in childhood, adolescence and later life

NATIONAL IMMUNISATION PROGRAMME

- The projected vaccine costs for 2016 are €23.4 million. The majority (88%) of this represents the Primary Childhood Immunisation Programme with seasonal flu and pneumococcal vaccine representing 10%

SOCIAL INCLUSION

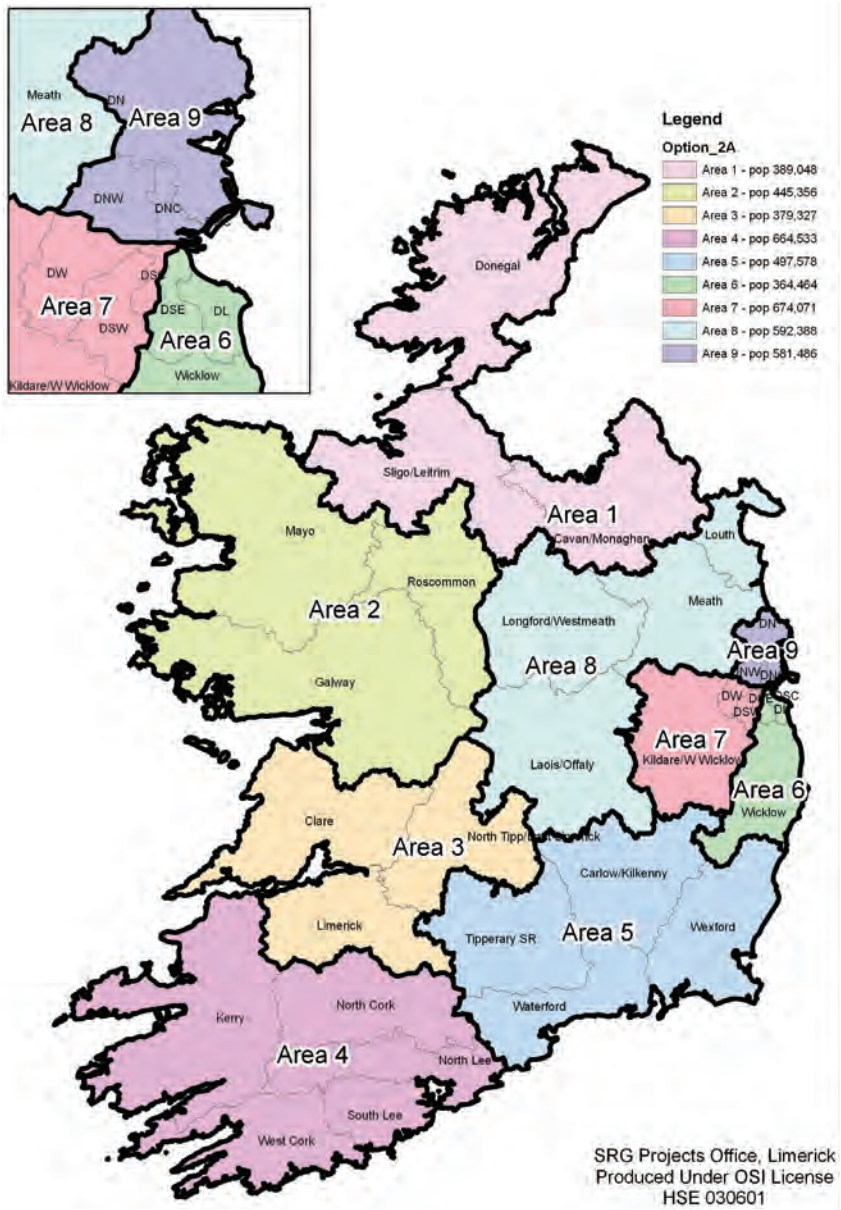
- Although figures are likely to be underestimates, current data reflect that in Ireland there are approximately 30,000 white Irish Travellers, 4,380 asylum seekers and 3,000 homeless. In addition, approximately 9,400 persons are availing of drug addiction services
- Ten local authority areas accommodate over 1,000 Travellers in their catchment area. Galway City, Longford County, Galway County and Offaly having the largest Traveller population per thousand total population
- Asylum seekers are predominantly a young population with 59.6% aged between 18 and 45 with a further 33.2% under the age of 18 years
- 153,865 or 3.4% of our total population can be classified as migrants of lower socio-economic group. This is a younger sub-population with 4.6% aged 65 years and over compared to 11.6% of the general population and almost 74% aged 20-64 years
- In 2016 9,470 clients are projected to attend opioid substitute centres outside prison
- In January 2015, 2,980 homeless adult persons were in emergency accommodation. 1,960 of this population were in Dublin with Limerick accommodating 241 persons and Cork accommodating 203

Primary Care is the first level of a healthcare system where people present with their health problems and where the majority of the population's curative health needs, health promotion and preventive health needs are satisfied (Starfield 1994). Ever since the WHO Alma-Ata declaration (WHO 1978), strengthening primary care has increasingly been considered to be of the greatest importance for improving population health and wellbeing, and building more equitable societies. Overall health is considered within primary care in a more holistic manner, paying not only attention to medical health needs, but also to other causes of ill health, such as social or employment determinants. This makes primary care more health-centric than disease-centric. Strong primary care is associated with better population health, lower rates of unnecessary hospitalisations and relatively lower socioeconomic inequality in self-perceived health (Kringos et al 2013. British Journal General Practice). The policy documents Primary Care – A New Direction (2001) and Quality and Fairness – a Health System for You (2001) provide guidance, with Healthy Ireland (2013) providing an overarching framework for improved health and wellbeing.

ORGANISATION OF SERVICES

Services provided by Primary Care are now aligned to Primary Care Teams and Primary Care Networks. The primary care team is the central point for service delivery which actively engages to address the medical and social needs of its defined population in conjunction with a wider range of Health and Social Care Network services. A national review of the organisation of community based services was carried out in the context of national government policy in relation to health and social care services in *Future Health – A Strategic Framework for Reform of the Health Service 2012-2015*. This review recommended the establishment of nine Community Healthcare Organisations (CHO) as successors to Integrated Service Areas as represented in Figure 5.1. Within each CHO there will be an average of 10 Primary Care Networks each with a population of approximately 50,000. (HSE, Community Healthcare Organisations: Report & Recommendations of the Integrated Service Area Review Group).

Figure 5.1: Community Healthcare Organisations



Source: HSE, Community Healthcare Organisations: Report & Recommendations of the Integrated Service Area Review Group

POPULATION CHANGE AND IMPACT ON PRIMARY CARE

Our growing population will have significant impacts on Primary Care. The *Future Health* policy document outlines the introduction of a universal GP service for all Irish citizens. In 2015, the first two phases of the introduction of this policy will be implemented by introducing free GP care to all children aged under 6 and all persons aged 70 years and over. Taking this into account, in 2016 32,320 additional persons will require primary care. Considering our population in 2015, our projections for 2016 show that there will be a reduction of 3,520 in the 0-5 age cohort; an increase of 15,630 adults aged 70 years and over and an increase of 20,210 in the 6-69 age cohort (Table 5.1). These changes are further magnified by 2021.

Table 5.1: Population projections for primary care 2015, 2016 and 2021

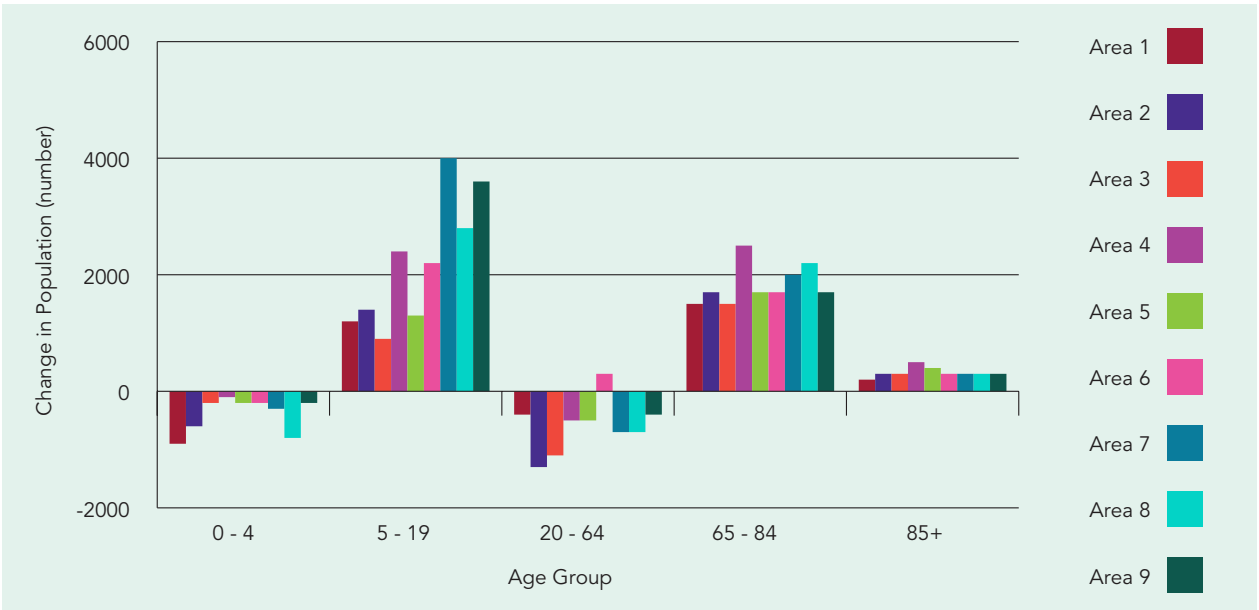
Age cohort	Population change (numbers) 2015-2016	Population change (numbers) 2016-2021
0-5	↓ 3,520	↓ 50,370
6-69	↑ 20,210	↑ 151,270
70 and over	↑ 15,630	↑ 87,740

Source: CSO

POPULATION PROJECTIONS BY CHO AREA

The variation in the geographic distribution of the population aged 65 years and over is represented at CHO area level. All Community Healthcare Organisations will see an increase in population between 2015 and 2016 varying between 0.3 and 1.1%. In 2016 the increase in the population aged 65 years and over varies from 1,300 in Area 1 to 3,000 in Area 4. This has implications for the planning of primary care services in these areas. Figure 5.2 outlines the distribution of the 32,300 additional persons in our population for 2016 by CHO area.

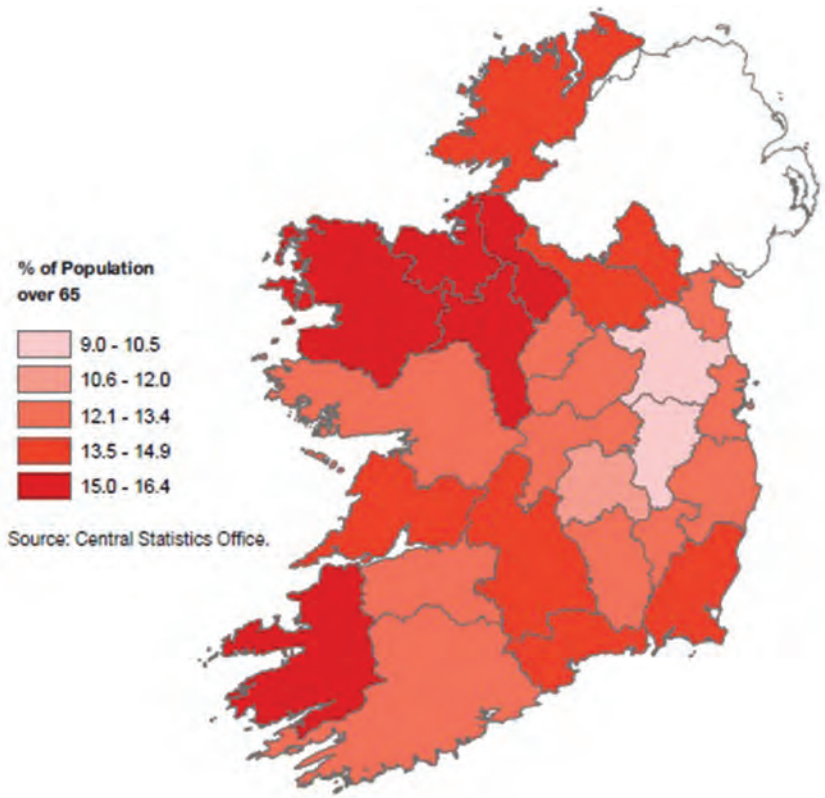
Figure 5.2: Geographic distribution of the additional population projected 2015-2016 by CHO area



Source: CSO

While our population aged 65 years and over is evidently growing exponentially, the geographical distribution of this age group varies across CHOs with Area 1 and Area 6 projected to have 15% of their population aged 65 years and over compared to Area 7 and Area 9 with 10.4% and 11.8% respectively in 2016. Figure 5.3 maps the breakdown of the proportion of population aged 65 years and over by county in 2014. This shows that Mayo, Sligo, Roscommon, Leitrim and Kerry have the highest percentage of the population aged 65 years and over.

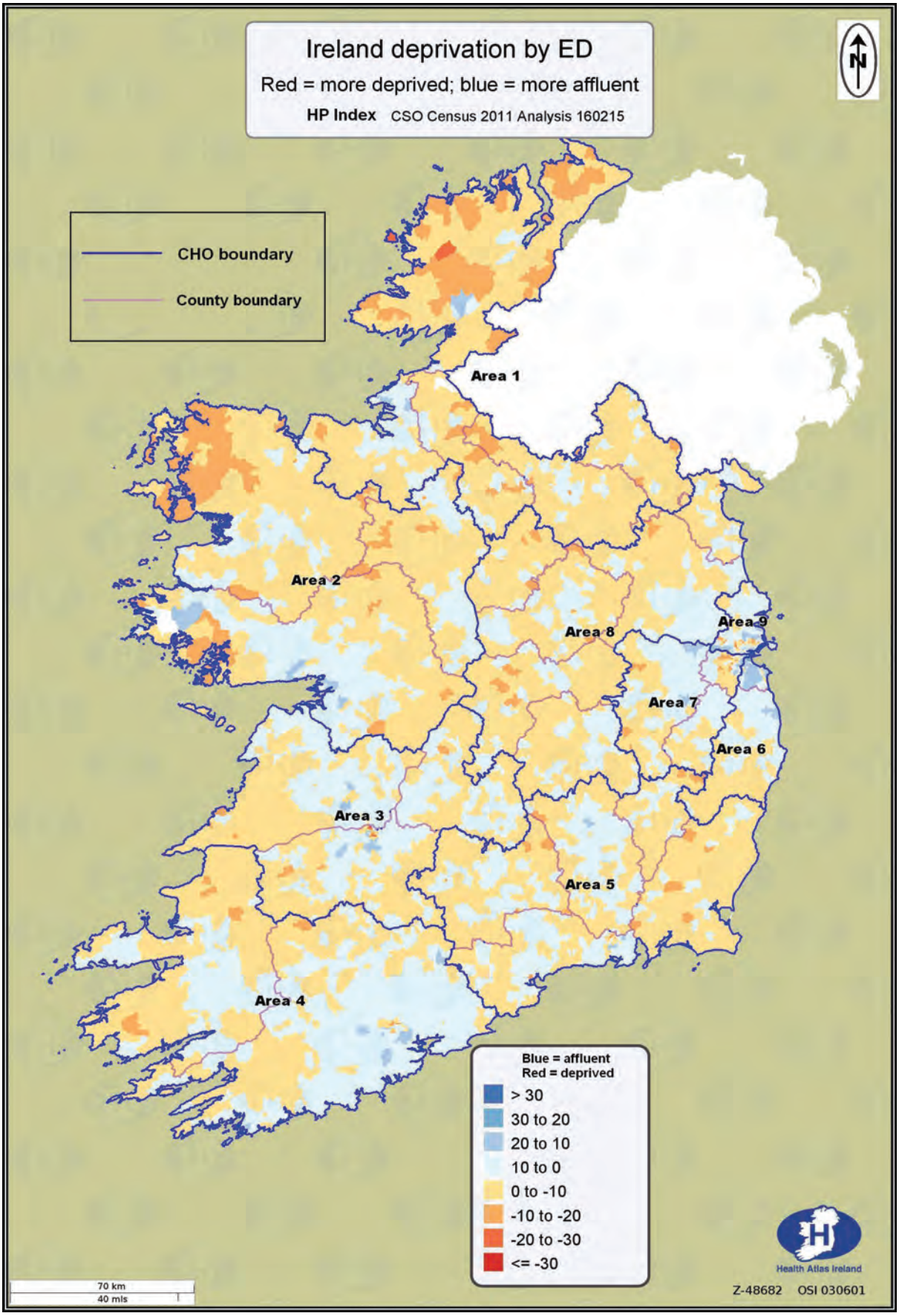
Figure 5.3: Percentage of the population aged 65 years and over by county 2014



AREAS OF DEPRIVATION

The **Haase and Pratschke (HP) Deprivation Index** provides a relative affluence or disadvantage score by census year to a small area such as an electoral division (ED). The index is based on the combination of three dimensions of relative affluence and deprivation: demographic profile, social class composition and labour market situation. These three scores are then combined to produce the deprivation index. Figure 5.4 outlines areas of deprivation in Ireland, with CHO boundaries identified. Red/brown depicts the most deprived and blue the least deprived. The vast majority of EDs (89%) are either marginally above or marginally below average deprivation. These are represented by the light blue and light orange shading in Figure 5.4. The more affluent areas appear to be located in and around the larger cities – Dublin, Cork and Galway with pockets of more deprived areas in parts of Dublin and larger areas along the western seaboard, particularly west Mayo and Donegal.

Figure 5.4: Deprivation in Ireland by Electoral Division (ED)

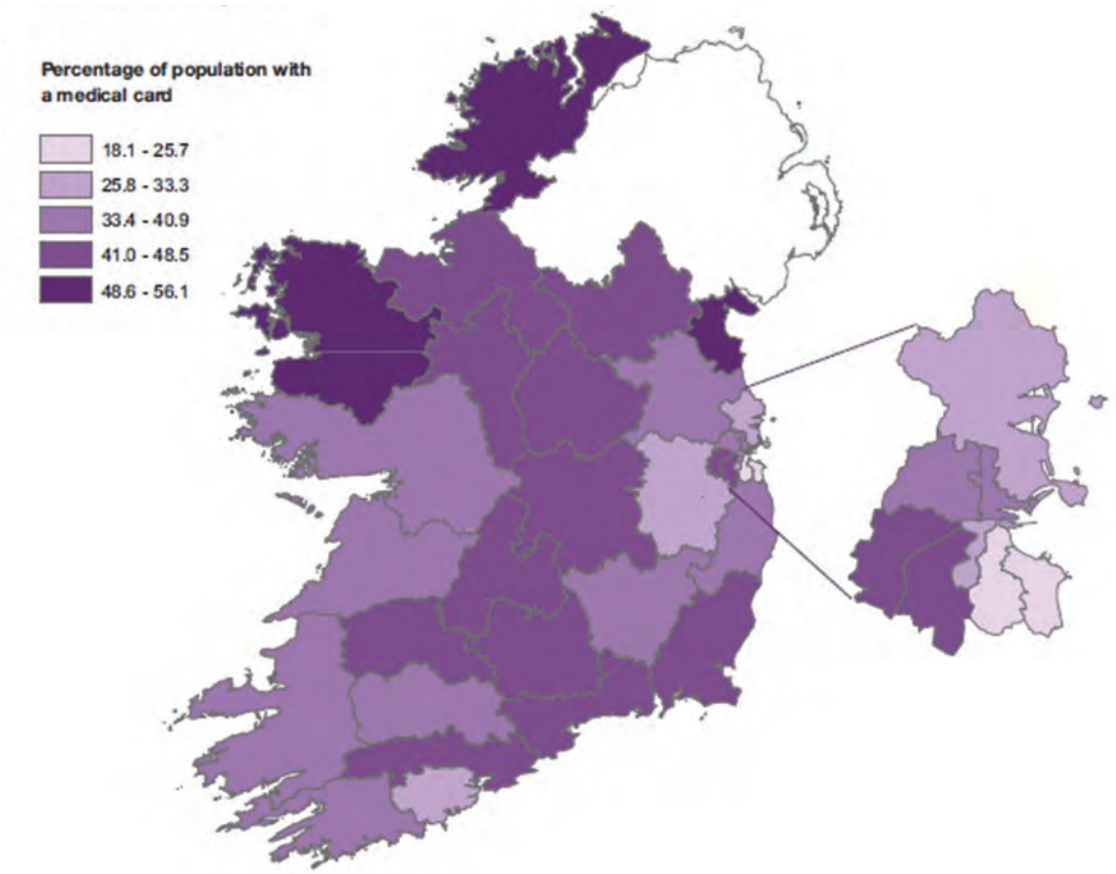


Source: CSO, HSE Health Intelligence

POPULATION WITH A MEDICAL CARD

A medical card holder receives free medical care. Until 2015, this was based on a standardised income means test and represents the lower socio-economic classes. Examining the geographic distribution of medical cards in 2014, this mirrors the pattern that is represented in Figures 5.3 and 5.4. The areas with greatest uptake of medical cards Donegal and Mayo are areas of greatest deprivation and with the greatest proportion of adults aged 65 years and over.

Figure 5.5: Percentage of population with a medical card



Source: Department of Health Key Trends 2014

CHRONIC DISEASE IN PRIMARY CARE

Chronic diseases including cancer, cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD) and diabetes are the leading causes of mortality in Ireland (Dept. Health: Key Trends, 2014). When considering age categories, the leading cause of mortality alternates, with cardiovascular disease being the leading cause of mortality in adults aged 65 years and over, representing 35.2% of deaths, and cancer the leading cause of mortality in persons aged less than 65 years, representing 38.3% of deaths. Our leading chronic diseases in Ireland include cardiovascular disease, stroke, heart failure, diabetes, chronic obstructive pulmonary disease (COPD)/asthma, and depression.

Projecting forward the incidence rate (i.e. the number of new cases for a given population occurring in a year) is the best way of outlining the increased activity that will occur in the upcoming year. Unfortunately these data are not currently available at a primary care level in Ireland. In order to

give some indication of the increased activity, an estimate can be made using prevalence data. Caution must be used when assessing this data because prevalence data outlines the number of cases in the population but not necessarily the number of newly diagnosed cases in that year. The TILDA dataset is the most recent and robust validated prevalence data reflecting chronic disease in Ireland. In using this data we must be mindful that this is only reflecting the burden of chronic disease in adults aged 70 years and over. Table 5.2 outlines the prevalence rates of these chronic conditions in Ireland and the predicted increase in cases due to our increasing population.

Table 5.2: Predicted prevalence of chronic disease in people aged 70 years and over

Disease	Prevalence (%)	2015 (n)	2016 (n)	2021 (n)
Angina	11.0	44,320	46,040	55,690
Hypertension	54.3	218,760	227,250	274,890
Stroke	3.2	12,890	13,390	16,200
COPD/Lung Disease	5.0	20,140	20,930	25,310
Diabetes	11.3	45,520	47,290	57,210
Arthritis	41.2	165,980	172,420	208,570

Source: TILDA (2010)

Several models of care have been developed by the clinical care programmes which outline structured approaches to care including early detection, patient education, self-care, medication management and risk factor management. Demonstration projects are underway in four locations to implement asthma, COPD, heart failure and diabetes models of care. The context for these demonstration projects is to move towards the development of a more generic, patient centred, integrated pathway of care for those with chronic disease.

The vision is that chronic disease care is integrated and supported by the other levels of care. Five levels of complexity of services have been identified to implement the models of care and provide adequate support for the management of the majority of chronic disease in Primary Care. These include in-patient specialist care, ambulatory specialist care, Primary Care supports to General Practice, General Practice delivered care and self care support and enablement. Data from these projects and the forthcoming generic model of care will be welcomed for future planning.

An overwhelming body of evidence has established that almost 65% of cardiovascular disease deaths and cases and 35% of cancer deaths and cases of cancer are attributable to a number of known and preventable risk factors – smoking, overweight and obesity, heavy alcohol use, physical inactivity and poor diet, high blood pressure, high cholesterol and atrial fibrillation.

LIFESTYLE RISK FACTORS

To set priorities for health promotion and disease prevention, it is vital that patterns in lifestyle risk factors are understood. Table 5.3 outlines the prevalence of leading risk factors and the projected numbers of individuals affected in 2016 and forecasted for 2021. It is clear if current behaviours continue these risk factors will affect a large proportion of Ireland's population, and will have a significant impact on current and future health and wellbeing. Significant resources are required if preventive services are to meet need (e.g. community dietetic services, smoking cessation services, physical activity services, etc.) and to fully implement current and pending policies. The following provides an overview of patterns of key lifestyles risk factors affecting our population.

Table 5.3: Prevalence of leading lifestyle risk factors and projections to 2016 and 2021

	Prevalence (%)	2014 (n)	2016 (n)	2021 (n)
Smoking				
– 15+ yrs◊	19.5	702,390	709,777	745,299
Teenagers - 15-17 yrs◊	7.9	14,194	14,520	15,630
Young Adults - 18-24 yrs◊	23.7	84,708	83,395	97,294
Alcohol†				
% > 6 std drinks per occasion				
- All (18-75 yrs)	41.9	1,340,612	1,349,221	1,400,696
- 18-24 yrs◊	64.3	227,895	224,363	261,756
Alcohol Dependence†				
– All (18-75 yrs)	6.9	220,769	221,187	230,664
– 18-24 yrs	14.7	52,100	51,293	59,842
Overweight & Obesity				
Adults – All (18-64 yrs)*				
Overweight	37	1,049,504	1,047,802	1,070,163
Obese	24	680,760	679,655	694,160
Men (18-64 yrs)*				
Overweight	43.8	615,666	613,643	625,621
Obese	25.8	362,652	361,461	368,517
Women (18-64 yrs)*				
Overweight	30.9	442,139	442,143	452,368
Obese	21.3	304,775	304,779	311,826
Children – All 3 year olds$				
Overweight	19	13,861	14,409	12,456
Obese	6	4,377	4,550	3,933
Children – All 9 year old∞				
Overweight	19	12,368	12,889	14,499
Obese	7	4,557	4,749	5,342
Do not meet recommended				
Physical Activity Guidelines¥				
All (16+)¥	68.7	2,432,590	2,458,317	2,580,300
(5 – 12 yrs)ŧ	81.0	432,055	450,305	481,505
(13 – 18 yrs)ŧ	88.0	312,622	323,806	354,230

◊ *Hickey and Evans (2015): Smoking in Ireland 2014*
† *HRB (2014): Irish Alcohol Diaries 2013 survey*
* *Irish Universities Nutrition Alliance (2011): National Adult Nutrition Survey*
$ *Growing Up in Ireland (2013): Development from Birth to 3 years*
∞ *Growing Up in Ireland (2011): Overweight and Obesity Among 9 year olds*
¥ *IPSOS MRBI and Irish Sports Council (2013): Irish Sports Monitor Annual report*
ŧ *Woods et al., (2010). The Children's Sport Participation and Physical Activity Study (CSPPA).*

ECONOMIC BENEFITS OF PREVENTION

Primary Care is the first interface between an individual and the healthcare system. It represents the greatest potential for co-ordinated prevention programmes. Prevention increases quality of life and has the potential to reduce spending on health services and costs to society as a whole. UK data have shown that for every 1% improvement in health outcomes from preventive programmes, there would be a reduction in public expenditure of Stg£190million, a reduction in family/societal spending of Stg£700 million, and a lowering of employer costs by Stg£110 million, not to mention the reduction in premature death and disability (Jennings S, Preventing Chronic Disease: Defining the Problem, 2014).

Hypertension is the leading risk factor in the world (Global Burden of Disease, 2010). Hypertension is a risk factor for stroke, heart attack and death. Aetiological factors include obesity, physical inactivity and alcohol consumption. Treating hypertension prevents disease and evidence shows the following benefits: treating 125 persons prevents one death, treating 67 prevents one stroke and treating 100 prevents a heart attack. Anti-hypertensive medicines are cheap and accessible. A co-ordinated approach to prevention, early detection and treatment of hypertension in primary care would have significant effects on our population health.

Atrial fibrillation is a leading risk factor for stroke. It can be detected by feeling the person's pulse. Stroke can have devastating effects on the patient, their family, communities and are very costly to the health system. The cost of a stroke is estimated at between €49,000 and €80,000 per patient (Kelly et al, 2012). A Health Technology Assessment (HTA) is currently underway evaluating the cost effectiveness of population screening for atrial fibrillation and will yield very important results for future planning.

COMMUNITY DIAGNOSTICS

Access to community diagnostics underpins any generic model of care for chronic disease in primary care. The majority of GPs (86%) believe that increased access to diagnostics would reduce their referrals to emergency departments and outpatient departments. Furthermore, in order to encourage early detection and prevention of chronic disease in primary care it is essential that the diagnostic infrastructure is accessible in a timely fashion for both public and private patients. Currently one in five GPs do not have direct access to abdominal or pelvic ultrasound in the public system. 70-80% of GPs have no direct access to CT scans. One quarter of GPs do not have direct access to Dexa scans in the public system (O'Riordan et al, 2013). Cardiac diagnostics are very important for the early detection of vascular conditions and risk factors e.g. hypertension, atrial fibrillation, heart failure. This is vital infrastructure that will be necessary to underpin the development and upscaling of a generic chronic disease model of care. No standardised validated data are currently available that describes the demand in this area and is a significant information gap. Currently a project is underway to provide community abdominal and pelvic ultrasound. Utilisation rates from this project are being collated and outcome data from this will once again be very welcome for future planning.

COMMUNITY SERVICES

Community services are essential in the delivery of healthcare in the community. A range of services are delivered including public health nursing, community physiotherapy, occupational therapy, speech and language therapy, dental service, community psychology, community oncology/ palliative care, audiology, ophthalmology, podiatry and more recently a community diabetes nursing service. Given this range of services, there are limited data available regarding the activity and outcomes of these services. Data are available on the number of accepted referrals for physiotherapy, occupational therapy and speech and language therapy.

We have modelled estimated referrals using our projected population for 2016 based on 2014 actual data. Caution must be used in interpreting these projections because in areas where public access to community services is limited some may opt to use private healthcare and the estimated accepted referrals will represent an underestimate of actual need. In addition, given the current provision of service as of the end of December 2014, 7,433 are more than 12 weeks on the physiotherapy waiting list and 8,141 persons are more than 16 weeks on the occupational therapy waiting list. This further indicates unmet need.

It is estimated that given current provision and our population projections, an additional 5,335 accepted referrals to physiotherapy, 3,953 occupational therapy referrals and 1,336 speech and language therapy referrals are projected from 2014 to 2016. Tables 5.4, 5.5 and 5.6 outline these projections.

Table 5.4: National Physiotherapy referrals

Age Group	Actual Number Referrals 2014	Estimated Number of Referrals 2016	Estimated Number of Referrals 2021
0-17	22,922	23,420	23,810
18-64	85,001	84,860	86,670
65 +	76,022	81,000	94,970
Total	183,945	189,280	205,450

Source: HSE Business Information Unit (BIU)

Table 5.5: National Occupational Therapy referrals

Age Group	Actual Number Referrals 2014	Estimated Number of Referrals 2016	Estimated Number of Referrals 2021
0-17	15,094	15,420	15,680
18-64	15,600	15,570	15,910
65 +	55,873	59,530	69,800
Total	86,567	90,520	101,390

Source: HSE Business Information Unit (BIU)

Table 5.6: National Speech & Language Therapy referrals

Age Group	Actual Number Referrals 2014	Estimated Number of Referrals 2016	Estimated Number of Referrals 2021
0-17	36,187	36,980	37,590
18-64	4,010	4,000	4,090
65 +	8,377	8,930	10,470
Total	48,574	49,910	52,150

Source: HSE Business Information Unit (BIU)

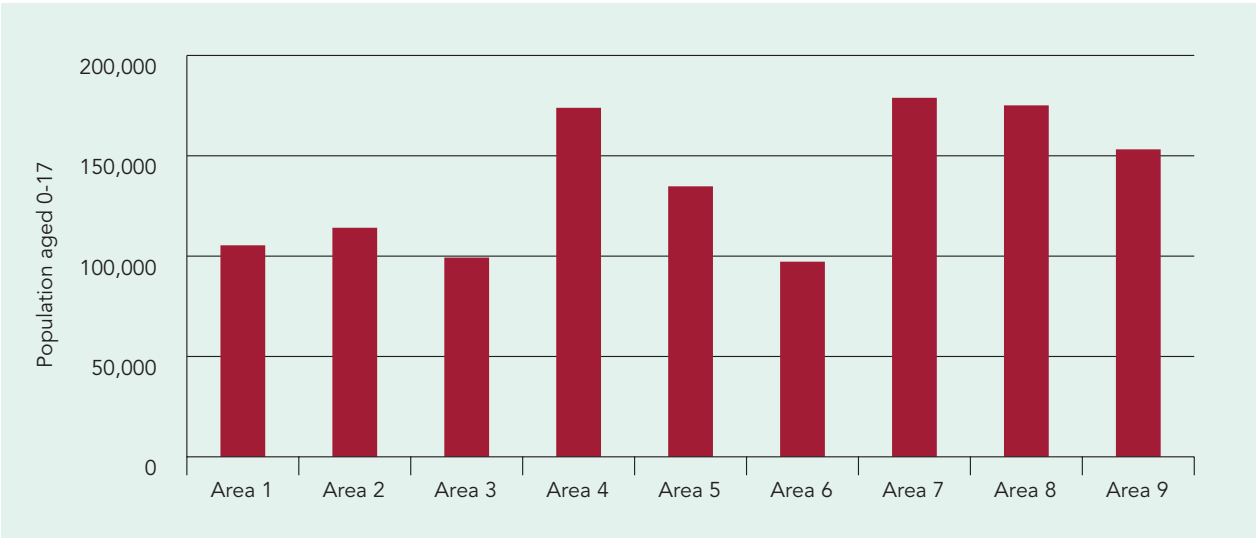
COMMUNITY INTERVENTION TEAMS

Community intervention teams (CIT) are nurse led teams that aim to avoid unnecessary hospital referrals and admissions, and to facilitate early discharge from hospital. In 2014, 14,689 patients were seen by CITs. CITs are providing a very important service and this service has been prioritised within the Programme for Government funds to tackle delayed discharges from acute hospitals. Certain patient groups presenting to the Emergency Department avoid admission and are discharged directly to the care of the CIT which may include intra-venous outpatient antibiotic therapy (OPAT) and are categorised as admission avoidance including OPAT. Other patient groups can be directly referred by GPs and are categorised as hospital avoidance. Additional patients may be discharged early from in-patient care to the care of the CIT and are categorised as early discharge. In 2015, it is planned to increase the number of CITs from seven to nine, to enhance the services in existing teams and increase referrals to 25,926 (HSE Service Plan 2015). Currently there is inter-team variation in relation to accepted referrals and models of care. This is being addressed but for the purpose of this report, data currently collected are not sufficiently robust to model projections.

CHILD HEALTH

The population of children, i.e. those aged between 0 and 17 years is projected to increase by 11,680 between 2015 and 2016. As figure 5.6 shows, the distribution of children varies geographically with almost 180,000 children in CHO area 7 (178,900), area 8 (175,130) and area 4 (173,900), as compared to slightly less than 100,000 in area 3 (99,300) and area 6 (97,240) for 2016. CHO area 8 has the highest proportion of 0-17 year olds (28.6%) followed by area 1 and area 7 which both have 26.6% with area 6 having the lowest proportion of children at 24.4%.

Figure: 5.6: Population aged between 0 and 17 years by CHO Area 2016



Source: CSO

Child health is of paramount importance, its impact is seen not just on the health of the child but it also provides the foundation for health, or predisposition to illness, over a person's lifetime. Future health can be influenced by factors acting at any time from conception right through the life course to old age. In Ireland in 2013 there were 69,267 births of which 5.5% were of low birth weight. The percentage of babies' breastfed on discharge from hospital is 55.7%, with 46.3% exclusively breastfed and a further 9.4% fed using a combination of formula and breastfeeding (Healthcare Pricing Office, 2014). Ireland has one of the lowest rates of breastfeeding in the world and in Europe (Europeristat Project 2013). Breastfed children are less likely to become overweight or obese. One in four children aged nine are overweight or obese and only 19% of primary and 12% of post primary school children currently meet national physical activity guidelines.

Investment in early childhood development, starting from conception, provides one of the most cost effective interventions available to reduce health inequalities and chronic illness in later life. Looking at health and social services, the types of interventions in early childhood which improve health and social outcomes, and which are cost effective, include; home-visiting programmes, promotion of parenting skills, smoking cessation and support for mothers with mental health problems.

The Child Health Screening and Surveillance service which is delivered in primary care is currently being reviewed and the new programme will build on strengths of the current system. The new child health programme will be based on a model of progressive universalism. This provides the framework within which services for children should be developed. It is described as 'a perspective that combines universalism with the targeting of resources on those that have special needs for support or protection; in other words, help to all and extra help for those who need it most.' (Dept. of Health, 2007) It will be the key concept in the proposed Department of Children and Youth Affair's '*Early Years Strategy'* and is a goal of '*Better Outcomes Brighter Future.* In order to incorporate the broader view of child health, the review is being supported by a multidisciplinary steering group, which includes representatives of HSE community professionals (nursing, medical and allied health professionals), management, public health, midwifery and paediatrics; general practice; dental health; TUSLA and the Department of Children and Youth Affairs.

The governance for the delivery of the child health programme is split within the HSE, with the nine new Community Healthcare Organisations (CHO), under the Primary Care Division, being responsible for the operational delivery of the service and the Health and Wellbeing Division being responsible for policy implementation, strategic development, guidance and advice. Performance against health indicators is monitored by the Health and Wellbeing Division while the budget, (excluding vaccine procurement), is mainly held within the Primary Care Division.

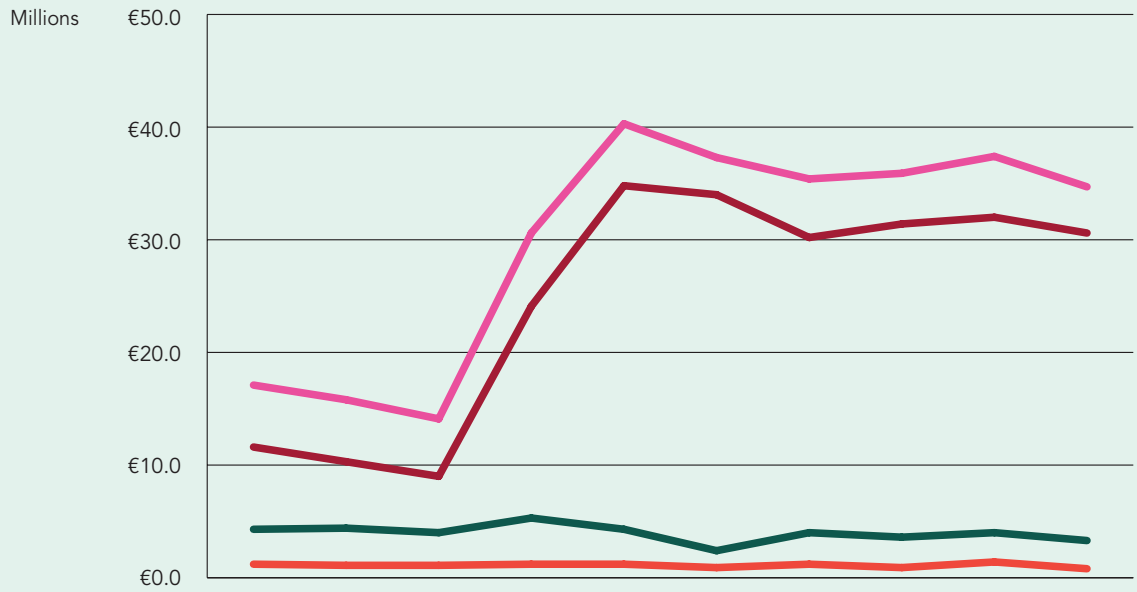
National Immunisation Programme

OVERVIEW AND BACKGROUND

The HSE National Immunisation Office (NIO) manages the procurement of all vaccines required for national immunisation programmes. Although national immunisation programmes are largely delivered in primary care, the Health and Wellbeing division holds the budget.

Vaccine purchase accounts for over 90% of the NIO budget. Since 2005, several new vaccines have been added to the primary childhood immunisation (PCI) and school immunisation programmes and a number of catch up campaigns have also been implemented which has led to a significant increase in expenditure, with PCI and school immunisation programmes currently accounting for 88% of the vaccine budget (Figure 5.7).

Figure 5.7: Vaccine expenditure 2005 – 2014



	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
PCI and schools	€11.6	€10.3	€9.0	€24.1	€34.8	€34.0	€30.2	€31.4	€32.0	€30.6
Flu and PPV	€4.3	€4.4	€4.0	€5.3	€4.3	€2.4	€4.0	€3.6	€4.0	€3.3
Others	€1.2	€1.1	€1.1	€1.2	€1.2	€0.9	€1.2	€0.9	€1.4	€0.8
Total	€17.1	€15.8	€14.1	€30.6	€40.3	€37.3	€35.4	€35.9	€37.4	€34.7

Source: National Immunisation Office

VACCINE PROCUREMENT

Vaccine procurement requires significant forward and contingency planning to ensure continuity of supply as most vaccine manufacturers plan their capacity up to three years in advance. As the manufacturing process takes approximately six to nine months, each vaccine requires forecasting nine to twelve months in advance.

PRIMARY CHILDHOOD IMMUNISATION (PCI) AND SCHOOL IMMUNISATION PROGRAMMES

PCI and the school immunisation programme account for 88% of the vaccine budget. All contracts with vaccine manufacturers for the PCI and schools programmes are for up to three to four years and the number of vaccine doses procured is based on the cohort population and vaccine uptake. Vaccines for the PCI and schools programmes have 20-24 month shelf life on purchase. The only exception to this is the current negotiated four year contract for 960,000 doses of pneumococcal conjugate vaccine (PCV) which commenced in July 2012. This specified that 20,000 doses of vaccine must be purchased monthly for the contract duration. As the birth cohort has dropped from 75,500 in 2011 to 69,000 to 2013-2014 and the contract was 'front loaded' at the start, there will be a surplus of purchased vaccines valued at €7.5 million (nine months supply) at the end of the contract in July 2016. No further procurement of PCV vaccine will be required until March 2017.

SEASONAL INFLUENZA AND PNEUMOCOCCAL POLYSACCHARIDE (PPV) VACCINATION PROGRAMME

Seasonal influenza and PPV account for approximately 10% of the vaccine budget. The process for the procurement of seasonal influenza differs from that for the PCI and school vaccination programmes. A new seasonal influenza vaccine is manufactured each season and the contract for purchase is completed nine months in advance. The amount purchased is based on the target population, the quantity distributed in previous years plus a contingency stock in case of increased demand. Uptake statistics are only available for those aged 65 and older with medical or doctor only cards which accounts for less than 40% of the vaccine distributed. This makes it difficult to estimate the number of influenza vaccines required, with the potential for significant oversupply and wastage.

OTHER VACCINES

Other vaccines account for 2% of the vaccine budget. The NIO has contracts for other vaccines including those for persons who are medically at risk, for occupational health purposes or for outbreak situations.

The annual quantity of pertussis vaccine distributed for use in pregnant women is less than 15% of the cohort therefore consideration should be given to including pertussis (and influenza) vaccination as a component of the mother and baby scheme to help improve vaccine uptake among all pregnant women.

FORECASTING

The National Immunisation Advisory Committee (NIAC) makes recommendations on vaccination policy in Ireland. NIAC recommendations are sent to the Chief Medical Officer in the Department of Health (DoH) and the DoH is responsible for determining immunisation policy (e.g. whether to introduce a new universal vaccine programme). The DoH informs the HSE of the policy decision and the HSE is responsible for the implementation of immunisation policy. The DoH may determine policy changes at any time of year and whilst schedule changes can be forecast, the lead time from when funding is agreed may be very short. It is difficult to plan for such changes which may place pressure on the NIO in terms of achieving timelines for implementation. This process should be reviewed.

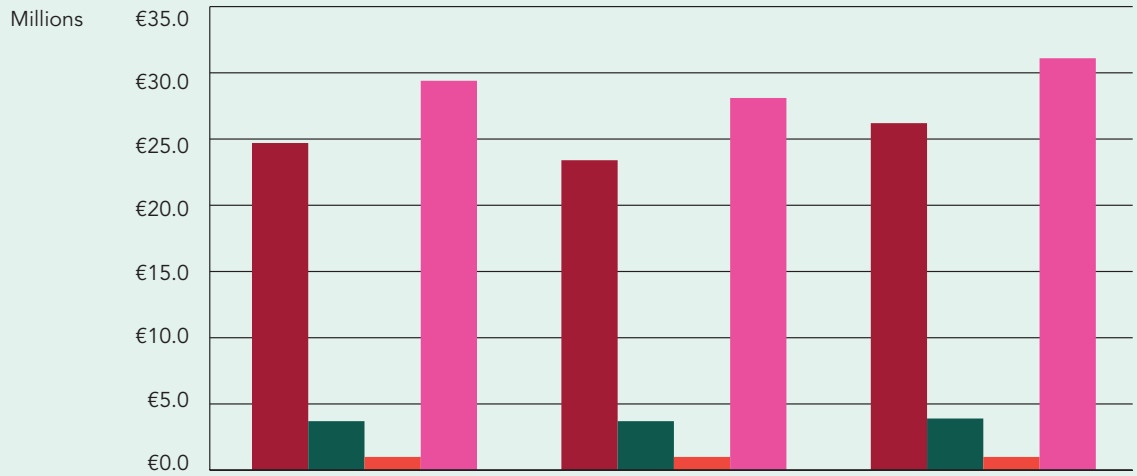
The NIO has forecast vaccine procurement to the end of 2016 based on the cohort population, current vaccine schedule, target vaccine uptake, previous usage and estimated cost of vaccines where new contracts are required. Using population projections (M2F2) from the Central Statistics Office, Table 5.7 outlines the projected populations in these age cohorts for 2016, 2017 and 2021. While the population cohorts for the childhood and the primary schools immunisation programmes are predicted to fall by 13.8% (9,460 children) and 72% (5,340 children) respectively between 2016 and 2021, the cohort for the second level school programme is projected to increase by 14.6% (9,380 children). In addition, the target cohort for the seasonal influenza programme is projected to increase by 8.9% or 107,240 people over the same time period with an overall increase in the cohort population for immunisation programmes increasing by 6.9% or 105,870 additional people.

Table 5.7: Population cohorts and projections for immunisation programmes

	2016	2017	2021
Primary Childhood Immunisation Programme (birth cohort)	68,560	66,510	59,100
Primary School Immunisation Programme (children aged 4 to 5)	74,280	75,750	68,940
Second Level School Immunisation Programme (children aged 12-13)	64,290	65,090	73,670
Seasonal Influenza Programme (population aged 65 and older, those at risk aged 6 months to 64 (estimated at 10% of this population), healthcare workers (approx. 100,000) and pregnant women)	1,193,990	1,208,760	1,301,230
Total	1,539,670	1,556,950	1,645,540

Figure 5.8 shows that vaccine expenditure will decrease from 2015 to 2016 as surplus stock from the current PCV contract outlined above will last from July 2016 to March 2017 and the HPV (human papillomavirus) vaccine required for the 2015-2016 school year was purchased in 2014 (to conclude the existing contract). Evidence from recent tender competitions shows that vaccine prices are increasing so expenditure is predicted to increase in 2017 as new PCV and HPV contracts will be negotiated and full year costs for PCV from 2018 will increase the expenditure further.

Figure 5.8: Forecasted vaccine expenditure 2015 – 2017



	2015	2016	2017
PCI and schools	€24.7	€23.4	€26.2
Flu and PPV	€3.7	€3.7	€3.9
Others	€1.0	€1.0	€1.0
Total	€29.4	€28.1	€31.1

Source: CSO, National Immunisation Office

OTHER ISSUES

A review of models of delivery and governance of immunisation services was undertaken in 2014. One of the key issues identified is that there is no line management structure or accountability between Health and Wellbeing (NIO) and Primary Care (who are responsible for administering vaccines mostly via GPs or the school immunisation programmes). A standardised process would be welcomed which may require a Service Level Agreement for operational governance with Primary Care. A quality improvement initiative is also recommended to improve training requirements and vaccine management in primary care.

Social Inclusion

Social Inclusion plays a key role in supporting access to services and provides targeted interventions to improve the health outcomes of minority groups such as Irish Travellers, members of other diverse ethnic and cultural groups such as asylum seekers, refugees and migrants. Although figures are likely to be underestimates, current data reflect that there are approximately 29,500 white Irish travellers, 4,380 asylum seekers, 3,000 homeless, and approximately up to 9,400 persons availing of drug addiction services. What these populations have in common is that they are identifiable discrete populations. As a result, focused interventions targeted specifically at these populations to address health inequalities and poor health outcomes should be considered.

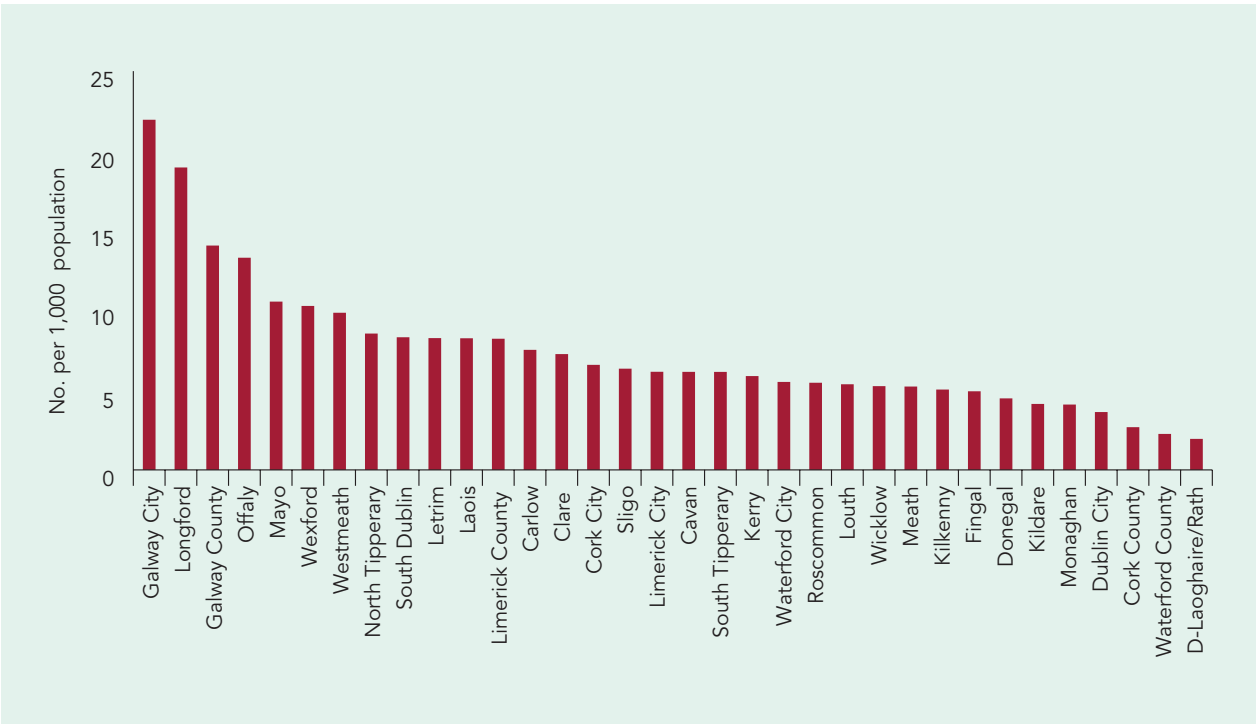
TRAVELLER POPULATION

Travellers make up approximately 0.6% of the population or 29,500 persons (*Census 2011*). Caution must be exerted when assessing these figures as it is likely they are underestimates due to the transient nature of this population. What is clear, as demonstrated in Figures 5.9 and 5.10, is that this population resides predominately in a number of towns and Electoral Divisions (EDs). Focused preventative interventions in targeted areas should be considered to improve the health outcomes of this population.

The average age of Irish Travellers in 2011 was 22.4 years compared to 36.1 years in the general population. Almost 30% of the Irish Traveller population were under nine years of age compared to 14.8% of the general population while only 2.5% of the Irish Traveller population were aged 65 years and over in contrast to the general population where the figure is 11.7%. The mortality rate amongst Travellers is 3.5 times higher than the general population and the infant mortality rate is 3.6 times higher. Poor housing, difficulty in communicating with healthcare professionals, alcohol and substance misuse, violence and experiences of discrimination and racism contribute to poor health. As a result this population requires specialized access to health promotion, preventive and healthcare services for infectious disease, mental health and social care.

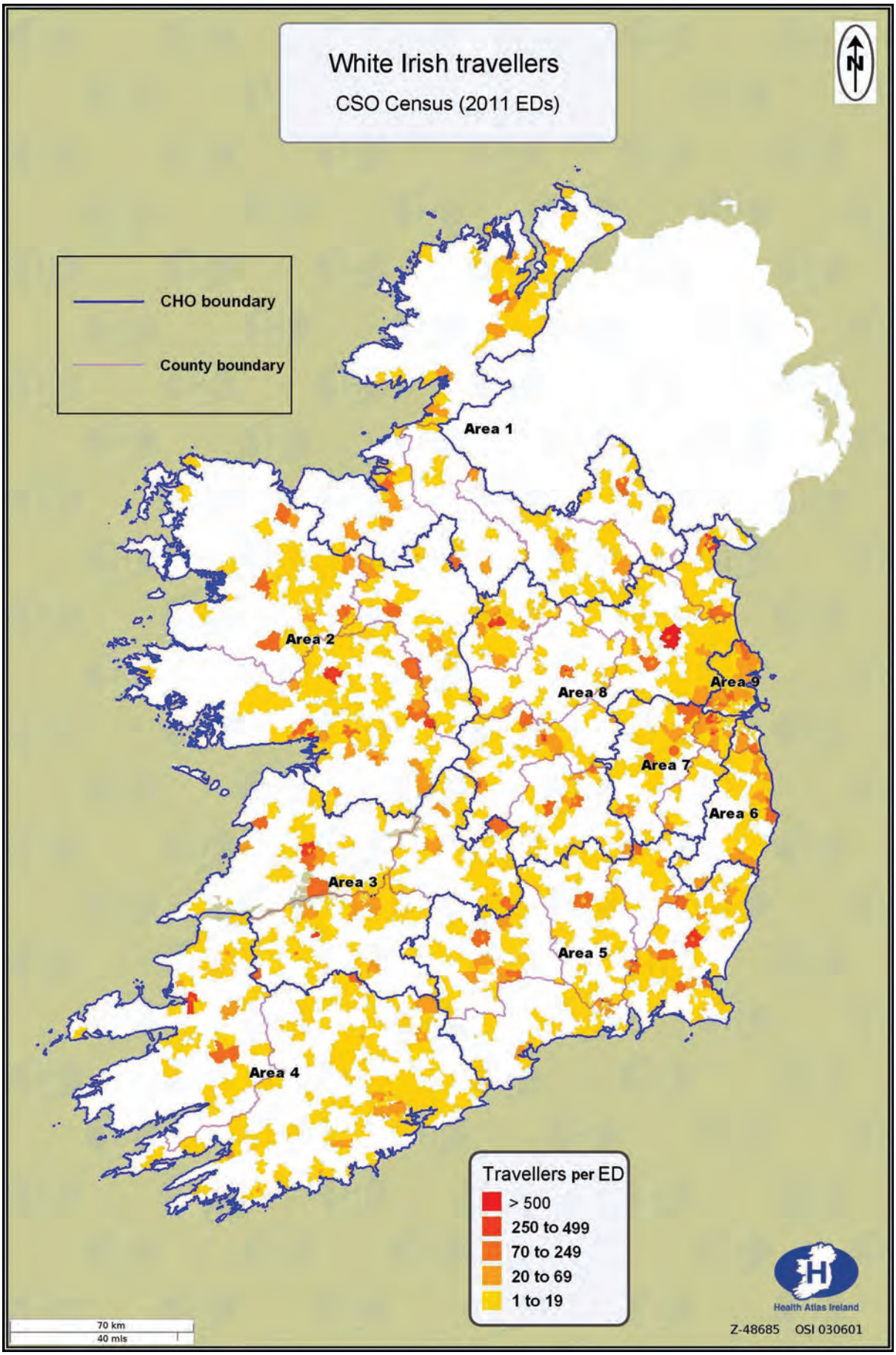
Figure 5.9 shows the location and number of Travellers per 1,000 population of Local Authority Area. Galway City, Longford County, Galway County and Offaly have the largest Traveller community per thousand population. Figure 5.12 outlines the location of Travellers by Electoral Division (ED).

Figure 5.9: Traveller population per thousand by Local Authority Area



Source: CSO

Figure 5.10: Map of Irish Travellers by ED (Census 2011)



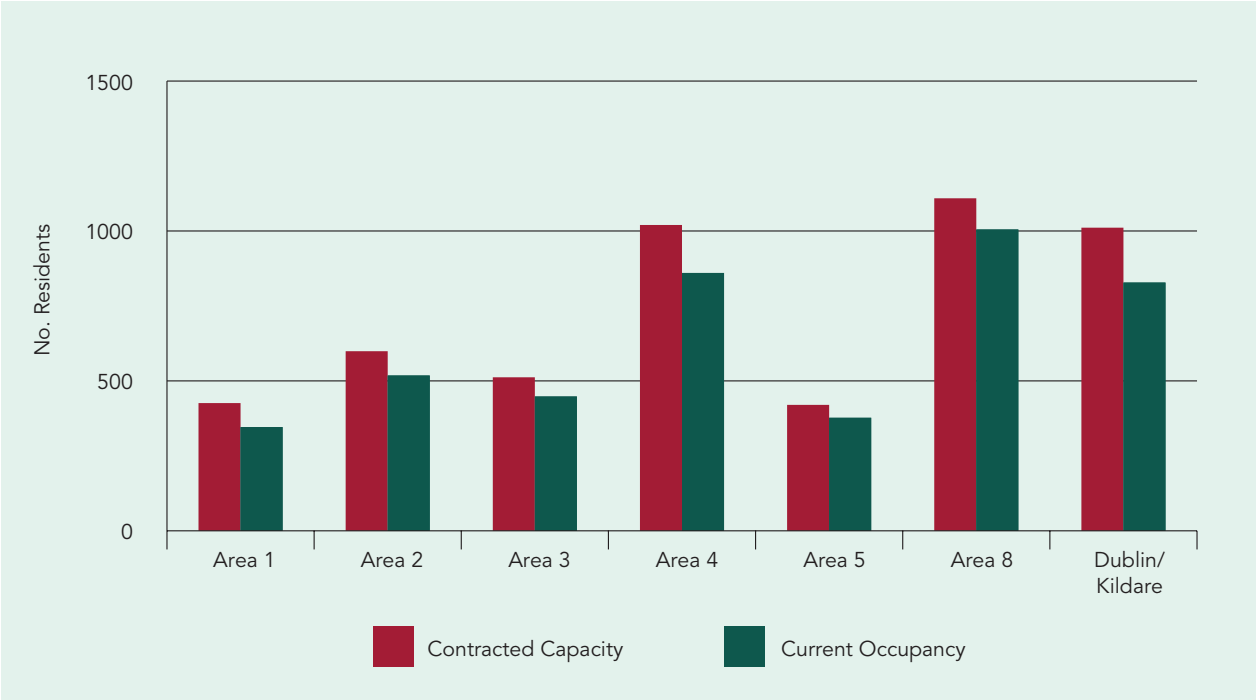
Source: CSO, HSE: Health Intelligence

ASYLUM SEEKERS

The Reception and Integration Agency (RIA) is a functional unit of the Irish Naturalisation and Immigration Service (INIS), a division of the Department of Justice and Equality whose role is to accommodate and provide services to asylum seekers in RIA accommodation centres while their applications for asylum are processed. The most recent monthly report available was January 2015. (*RIA Monthly Statistics Report January 2015*). RIA residents are predominantly a young population with 59.6% aged between 18 and 45 with a further 33.2% under the age of 18. There were 0.4% of residents over the age of 65.

At the end of January 2015 the RIA had 34 centres across 16 counties with 4,382 residents recorded. At this time there was contracted capacity for 5,097 residents. Table C.1 in Appendix C and Figure 5.11 outline the contracted capacity and current occupancy of these centres by CHO. This shows that geographical distribution of the asylum seeker population is concentrated in 16 areas but predominantly in Dublin, Meath and Cork.

Figure 5.11: Contracted capacity and current occupancy of RIA centres by CHO

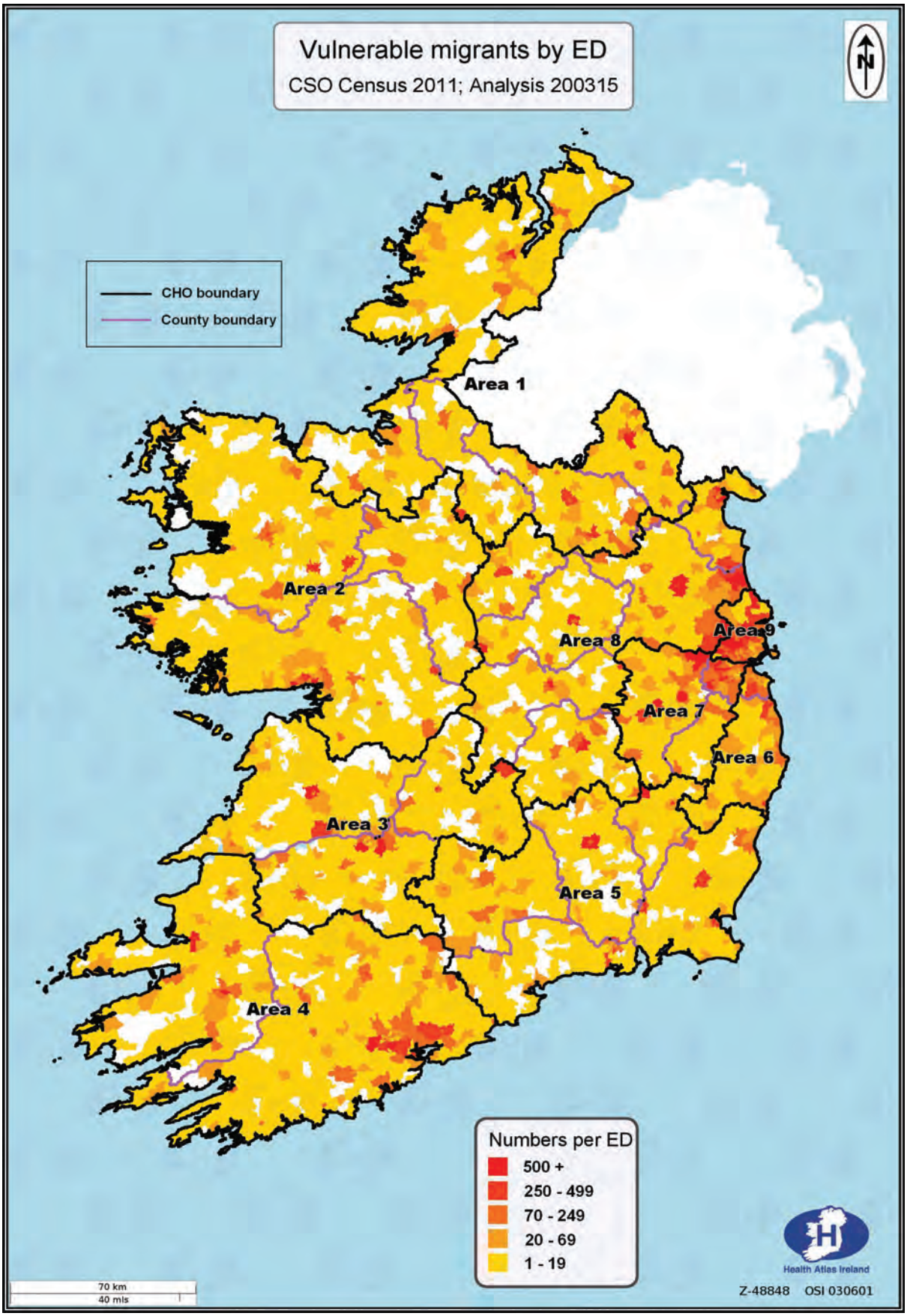


Source: RIA Monthly Statistics Report January 2015

MIGRANTS OF LOWER SOCIO-ECONOMIC CLASS

A data extract was requested from the CSO from Census 2011 data of non-Irish nationalities, excluding those countries where English is the first language, and those with a socio-economic class of G (unskilled), J (agricultural workers) and Z (others gainfully employed and unknown). This captures the proportion of our population that could be deemed as migrants of lower socio-economic (SE) group. There were 153,865 or 3.4% of the general population that could be classified as migrants of lower SE group. This is a younger sub-population with 4.6% over 65 years compared to 11.6% of the general population and almost 74% aged 20-64 years (Table C.2 Appendix C). Similar to the Traveller population, migrants of lower socio-economic class are aggregated in pockets throughout the country. The map in Figure 5.12 outlines the location of these populations.

Figure 5.12: Location of Migrants of Lower Socio-Economic Class



Source: CSO, HSE: Health Intelligence

ADDICTION SERVICES

Addiction Services provide a range of preventive, treatment and rehabilitation services to persons with addiction problems. In 2015, an additional €2.1 million was allocated from the programme for government Primary Care Funds to improve health outcomes for persons with addiction issues. This included progression of the integration of Drug Task Force Projects and developments within the wider addiction services in line with the objectives of the National Drug Strategy 2009-2016 to implement priority actions of this strategy. Persons with addictions have very complex health needs and very often there is more than one diagnosis. Up to 37% of people who abuse alcohol and 53% of people who abuse drugs also have at least one serious mental illness, and 29% of people diagnosed as mentally ill abuse either alcohol or drugs.

Addiction services have repeat clients and new clients. In total 9,339 clients were treated in opioid substitute centres outside prison in 2014. This gives a rate of 202 per 100,000 population. Using this utilisation rate we can predict that in 2016 we would expect 9,470 clients to attend these centres.

When assessing new clients we use incidence rates. There were 7,878 new cases attending treatment for problem drug use in 2010 giving an incidence rate of 173 per 100,000 population (Bellrose et al, 2011). In addition, in 2012 there were 8,336 cases treated for problem alcohol use in Ireland (Carew AM, 2014); the incidence rate was 125.1 per 100,000 population. Assuming rates remain constant, we can use these incidence rates to estimate the number of new cases for 2016 and 2021 as per Table 5.8.

Table: 5.8: Projected number of new problem alcohol and drug users in 2016 and 2021

	Incident Rate	2016 (n)	2021 (n)
Problem alcohol use	125.1/100,000 (2012)	5,860	6,100
Problem drug use	173/100,000 (2010)	8,110	8,430

Source: CSO, Bellrose (2011), Carew (2014)

The majority of cases receive treatment in an outpatient setting, 58% receive counselling, 32% receive brief intervention, 25% methadone substitution and 23% receive education/awareness programmes.

HOMELESSNESS

Accurately quantifying the true extent of homelessness is difficult. Homelessness can mean sleeping rough, staying in emergency hostels, temporary bed and breakfast accommodation or staying with friends and relatives when there is nowhere else to go. Estimates of the numbers of homeless people in Ireland are more than likely underestimates, thus the reader must exert caution in interpreting these figures. Estimates provided by agencies working with homeless people quote a figure of approximately 5,000 persons. (Focus Ireland, Simon Community, Peter McVerry Trust). Data on homeless adults in emergency accommodation is available from April 2014 - Jan 2015 and is noted in Table C.3 Appendix C. In January 2015, 2,980 homeless adults were in emergency accommodation. 1,960 of this population are in Dublin with Limerick accommodating 241 people and Cork accommodating 203. Overall, there has been a 20% increase in the number of adult homeless people between April 2014 and January 2015. A detailed breakdown by gender, age and accommodation type is provided for January 2015 and is shown in Table C.4, Appendix C. The majority are males aged 25-44 years.

This does not include people sleeping rough. The Spring 2014 rough sleeper count, which only takes place in Dublin, identified 127 rough sleepers in the Dublin region and this figure had increased to 168 in the Winter 2014 rough sleeper count (*Dublin Region Homeless Executive*). By April 2015 this figure had decreased to 105.

Homeless people experience significant physical and mental health difficulties (The College of Psychiatry of Ireland, 2011). Hourigan and Evans found that 59% of homeless people in Galway reported physical health problems. In addition 54% had mental health difficulties which compares with 13% in the general population. The CSO census of homeless people (2012) found that 42% had some form of disability (compared to 13% for the general population) with 19% experiencing difficulties with pain, breathing, or other chronic illnesses. In 2013 there were 517 hospital emergency admissions with admission source categorised as "temporary place of residence (excluding tourists)." The most frequently reported diagnosis category of this group of 517 was for "injury, poisoning and certain other consequence of external causes (22%)" and "symptoms, signs, and abnormal clinical and lab findings (19%)." "Syncope and collapse" was the most frequently reported single diagnosis (4%) (HIPE, Health Intelligence Unit, 2015). Whilst homeless people have a high utilisation of emergency and other hospital services they have a low utilisation of planned outpatient facilities (The College of Psychiatry of Ireland, 2011) and are a difficult group to engage in health promotion initiatives (Coles et al, 2012). Targeted initiatives are required to help address their health and accommodation needs.

6 Social Care

6. Social Care

Key Messages

SERVICES FOR THE OLDER PERSON

- Within the general population, the cohort aged 65 years and over will increase by 3.1% between 2015 and 2016 equating to an extra 19,400 people with a further increase of 17.2% (107,500 people) in the five years between 2016 and 2021
- Residential care services for older people can be categorised as either long stay or short stay services
- The current targets used for planning purposes are that 4% of the population aged 65 years and over will require a long stay care bed. Short stay beds (respite, rehabilitation, assessment) are provided at a rate of 0.85% of population aged 65 years and over
- It is projected that an additional 389 long stay beds and 2,509 short stay beds will be required in 2016 to achieve target levels for the increased population aged 65 years and over
- From 2016-2021, it is predicted that 4,696 long stay and 3,424 short stay beds will be required to achieve target levels
- In 2014, Nursing Homes Support Scheme funding was reduced by an amount approximating to services for 991 people. Access to NHSS for the population aged 65 years and over decreased from 4.06% in 2013 to 3.76% in 2014
- Allowing for the additional beds added to the NHSS in 2015, to maintain the same level for support into 2016 and 2021 will require funding of an additional 757 people in 2016 and a further 5,014 by 2021
- The number of applications to the NHSS in 2014 was 9,757. The projected number of applications in 2016 is 10,447 (a 7% increase over the two year period)
- Applying the 2014 utilisation rate per capita, it is projected that 14,062 Standard Home Care Packages and 10.97 million home help hours will be necessary in 2016 to provide solely for the increasing demographic pressure assuming current models of care and levels of provision remain constant. This does not allow for any service improvement initiatives
- The combined pressures of an increase in those aged 65 years and over and the ageing profile of carers translates into increasing demand for residential and home support services
- 4.1% of the population reported providing unpaid care to another person with the number of carers over 15 years of age increasing by 13.7% from 2006 (160,907 people) to 2011 (182,884 people) with the greatest increase occurring in those over 75 years (39%)

DISABILITIES

INTELLECTUAL DISABILITY (ID)

- It is predicted that by 2016 there will be an estimated 28,820 people living with intellectual disability
- In line with general population trends, life expectancy for people with ID has increased and there are now an estimated 3,100 people over 55 years with intellectual disability
- There has been a 44% increase in the number of people with intellectual disability between 1974 and 2013
- 17% of the total population recorded on the National Intellectual Disability Database are in receipt of respite care
- TILDA identified higher levels of multimorbidity in those with intellectual disability compared to the general population requiring greater levels of service input especially in the areas of mental health and neurological services

GENERAL DISABILITY

- 13% of the population reported at least one disability in Census 2011. This equates to 609,240 persons in 2016
- The number of children and adolescents living with disability in the 6-18 age group is projected to increase in 2016 and continue increasing up to 2021 giving rise to an increased demand for school support teams and placements for school leavers
- Self reported disability increases with age, rising to 72.3% of those over 85 years

This chapter is divided into two sections. The first section will focus on services for the older person and the second section will focus on services for people with disabilities. In each section we will examine the pressures that will be placed on services considering our population size, geographic distribution and rate of change by relevant life-course cohort.

Services for Older People

RELEVANT POLICY DOCUMENTS AND STRATEGIES

Two key reports have been published recently outlining national policy in the area of older people. The National Positive Aging Strategy (2013) is a high level document outlining the interdepartmental framework required to support age related policy and service delivery. The Irish National Dementia Strategy (2014) is the first national strategy for dementia in Ireland which focuses on improved care for those with dementia and their carers. It aims to raise awareness and support more timely diagnosis and better access to integrated care for people with dementia.

IMPLICATIONS OF DEMOGRAPHIC CHANGES ON SERVICES FOR THE OLDER PERSON

As previously discussed in the demography chapter, the numbers of older people living in Ireland will increase both in the short term and medium term with the greatest change (6.0% increase) occurring in adults 70-74 years and a 4.2% increase in those 85 years and over between 2015 and 2016. (Table 6.1)

Table 6.1: Projected Population over 65 years by age group 2015, 2016 and 2021 (thousands)

Age Group	2015	2016	Actual Change	% Change	2021
65-69 years	202.0	205.7	3.7	1.8	225.6
70-74 years	148.9	157.8	8.9	6.0	191.6
75-79 years	110.3	112.2	2.0	1.8	139.5
80-84 years	76.7	78.6	1.9	2.5	90.1
85+ years	67.1	69.9	2.9	4.2	85.0
Total	605.0	624.2	19.4	3.1	731.8

Source: CSO Population and Labour Force Projections 2016-2046. April 2013

AGE DEPENDENCY

The old age dependency ratio is the ratio of those aged 65 years and older to the working population (those aged 15-64 years). While there will be a significant rise in population of those aged 65 years and over in the next decades, over the same time period there is a predicted decline in the birth rate. This will result in an increasing old age dependency ratio from 18.1 in 2012 to 26.7 in 2026 based on M2F2 assumptions, meaning less people of working age relative to those aged 65 years and over. This has implications for service delivery as there will be greater pressure on carers of working age and increased reliance on carers who are themselves aged 65 years and over.

RESIDENTIAL SERVICES FOR OLDER PEOPLE

Residential care services for older people can be categorised as either long stay or short stay services. Long stay care is provided to older people who can no longer live at home independently and require supervised care. Long stay care is supported by the Nursing Homes Support Scheme (NHSS). Short stay community beds provide a mixture of short stay beds including step up, step down, convalescence, assessment and review, respite and rehabilitation. They are designed to enable older people to return to their own homes after a period of intervention and support.

RESIDENTIAL BED CAPACITY

There are various estimates of the number of residential beds required by the population 65 years and over. A report by the ESRI in 2009 estimated a residential care utilisation rate of 4.8% for people aged 65 years and over (Layte et al, 2009). A more recent report published by the Centre for Health Policy and Management, TCD (Wren et al 2012) predicted a residential care utilisation rate for adults aged 65 years and over of between 4.2 and 4.7% by 2021. Both these estimates incorporate both long stay and short stay beds. The current targets used for planning purposes are that 4% of the population aged 65 years and over will require a long stay care bed. Short stay beds (respite, rehabilitation, assessment) are provided at a rate of 0.85% of the population aged 65 years and over. The combined total of 4.85% is approximately as outlined in the cited reports.

LONG TERM BED CAPACITY

Current bed capacity in all forms of residential services for older people (long stay and short stay) is 29,059 registered beds as of May 2015 (HIQA, personal communication, HSE Older Persons Services). The number of beds is not directly comparable between 2013 and 2015 due to changes in the method of assigning/recording beds. Within this complement of beds, approximately 5.8% of these beds are used by adults under 65 years and are therefore not available to adults aged 65 years and over. The remaining beds are divided between short stay (9.3%) and long stay (90.7%).

In deriving the number of beds available to adults aged 65 years and over, the number of beds utilised by the under 65s (5.8%) is discounted from the available bed count. Table 6.2 outlines the projected long stay and short stay beds required for 2016 and 2021 when applying population projections for adults aged 65 and over. Target levels used are 4% and 0.85% for long stay and short stay respectively. This demonstrates that an additional 389 long stay beds and 2,509 short stay beds will be required in 2016 if target levels are achieved. The increase in beds provides only for the projected increased population aged 65 years and over. This further increases to 4,696 long stay beds and 3,424 short stay beds respectively by 2021. The current deficit in short stay beds is very striking.

Table 6.2: Projected long stay and short stay beds for 2016 and 2021

		Target			Availability			Variance	
	Estimated Pop. 65+	4% of pop > 65 years (long stay)	0.85% of pop >65 years (short stay)	No. NH beds (long stay & short stay)	Total Beds available for >65 (94.2%)†	Short stay beds >65 (9.3% +250§)	Long stay beds >65	Long stay bed availability & target	Short stay bed availability & target
2014	585,825	23,433	4,980	28,785	27,115	2,522	24,593	1,160	-3,820
2015	604,830	24,193	5,140	29,059*	27,374	2,796§	24,578	385	-2,344
2016	624,180	24,967	5,305	29,059*	27,374	2,796§	24,578	-389	-2,509
2021	731,860	29,274	6,220	29,059*	27,374	2,796§	24,578	-4,696	-3,424

**HIQA designated centres for older people (May 2015)*

†3 yr moving average of % >65 yrs in LTC for Older People from DOH Long stay activity statistics 2013

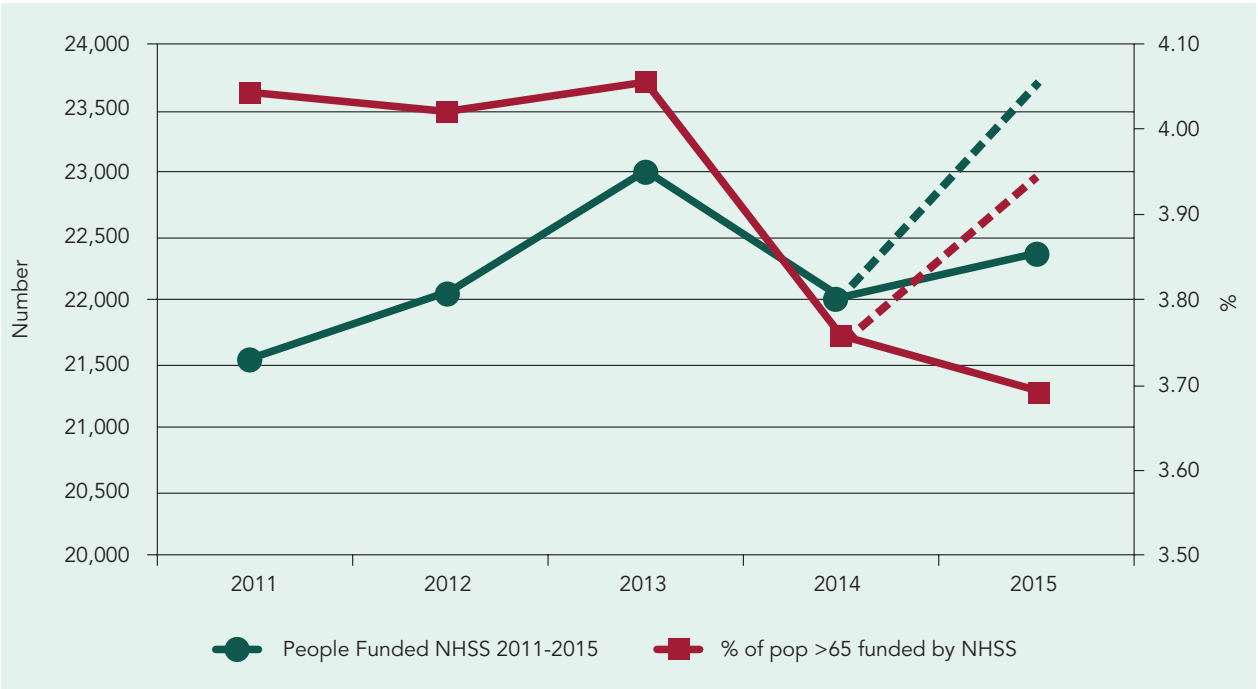
§ Includes 250 short stay beds introduced in 2015 funded by Acute Hospitals and Mount Carmel Community Hospital

It should be noted that Table 6.2 above does not account for vacant beds within the system. Occupancy levels vary between 90.7% and 94.2% at any time (Information Unit, Dept of Health 2011, 2012, 2013, 2014, Long-stay activity statistics). In the absence of improved bed management within the system, deficits may be apparent despite adequate numbers of beds.

NURSING HOMES SUPPORT SCHEME

Nursing Homes Support Scheme (NHSS) provides funding support for long stay care in the public system. Figure 6.1 shows the number of people funded under the NHSS since 2011 and the number of people funded as a percentage of the population aged 65 years and over. From this we see that while the number of people funded has been on an upward trend, with the exception of 2014, this increase has not been keeping pace with the increasing population, with a year on year decrease in people funded per head of population aged over 65 years. The dotted lines in Figure 6.1 demonstrate the effect of the proposed additional 1600 people funded in 2015. This increases the number of people funded as a proportion of the population aged 65 years and over by the NHSS to 3.96% in 2015 from a level of 3.7% in 2014, which is still less than the 2013 level which was 4.06%.

Figure 6.1: Number of people and percentage of population aged 65 years and over funded by NHSS 2011 - 2015



Source: NHSS, Central Statistics Office (CSO)

In 2015 the Nursing Homes Support Scheme (NHSS) aims to support 23,965 people aged 65 years and over in residential care services, this equates to 3.96% of the population over 65 years. To maintain this level of support into 2016 and 2021 would require funding of an additional 757 people in 2016 and a further 5,014 by 2021.

In 2014 there were 9,757 applications to the NHSS. Applying the age-specific application rate in 2014, new applications for 2015, 2016 and 2021 can be projected assuming the models of care and demand remain constant. Table 6.3 outlines projected numbers of applications to NHSS by age group in 2015, 2016 and 2021.

Table 6.3: Applications to NHSS by age group 2014 and projections to 2015, 2016 and 2021

	2014 (n)	% of 2014 population	2015 (n)	2016 (n)	2021 (n)
< 65	531	0.013	532	534	545
65 – 84	4,930	0.95	5,109	5,266	6,145
>85	4,296	6.65	4,460	4,647	5,652
Total	9,757		10,101	10,447	12,342

Source: NHSS

HOME CARE

Home care in Ireland is provided largely informally by family and friends. It can also be provided formally by the State through the HSE or through private companies or voluntary organisations. A report published by the Centre for Health Policy and Management, TCD (Wren et al., 2012) provides a utilisation rate of 8.9% for home help services for the population aged 65 years and over in Ireland. However there are a number of caveats in the report; as this is a utilisation rate, it cannot account for unmet need.

UNMET NEED AND INTERNATIONAL STANDARDS

Currently there is very little evidence internationally as to what proportion of the population aged 65 years and older requires home care, either through home care packages or home help hours. The OECD have quoted a figure that between 10% and 20% of people aged 65 years and over require long term care. Using the figure of 4.85% requiring residential care (both long stay and short stay care as discussed above), and considering 8.9% currently use home help services as described by Wren et al, it is reasonable to assume that approximately 10-11% of people aged 65 years and over require some form of home care. In 2011, we were close to this international standard with 10.1% of the population aged 65 years and over in receipt of home help hours. This has decreased to 8% by 2014 due to changes in the number of clients receiving home help hours and the increasing population base. Home help hours have decreased from 11.98 million in 2011 to 10.3 million in 2014.

Projections 2016-2021

CURRENT UTILISATION

To allow for our demographic change, using the 2014 utilisation rate of 8% home help will be provided to an additional 1,328 clients in 2015 and a further 1,544 in 2016. In relation to home help hours, using the 2014 rate this equates to a need for an additional 300,000 home help hours in 2015 and a further 370,000 in 2016. Once again, this solely provides for the population growth at the 2014 utilisation rate and does not include any improvement in service provision. This is demonstrated in Table 6.4.

Table 6.4: Projected home help hours and home care package 2016 and 2021

	2011	2012	2013	2014	2015	2016†	2021
Pop >65 years	531,560	549,010	567,160	585,825	604,830	624,183	731,860
Home Help Hours (million)	11.98	9.83	9.74	10.3	10.6	10.97	12.9
Home Help clients (excl HCP)*	54,000	44,387	46,454	47,061	48,390	49,934	58,550
% Pop over 65 yrs with HH	10.1%	8.1%	8.2%	8.0%	8.0%	8.0%	8.0%

† Extrapolated from 2014 figures assuming the same level of population coverage and model of care

**home care package*

RETURNING TO INTERNATIONAL STANDARDS

However, to return to 2011 levels of 10.1%, which is closer to the international standard as recommended by the OECD, requires provision of home help hours to increase to a total of 61,090 clients in 2015 and 63,040 clients in 2016. Projecting out to 2021 the required provision would be 73,920 clients. With regard to home help hours, in 2011 the provision was 0.433 hours per week per person 65 years and over. In 2014 this has reduced to 0.338 hours per week per person 65 years and over. Returning to the 2011 rate of 0.433 hours per week requires an additional 3.3 million home help hours in 2015 and a further 450,000 in 2016 (13.6 million in 2015 and 14.05 million in 2016).

HOME CARE PACKAGES

Home care package clients have increased from 10,230 in 2011 to 13,199 in 2014. However the level of provision does not reflect unmet need. In 2014, 13,199 standard home care packages, 15 intensive support home care packages were provided by the HSE. (HSE Performance Assurance Report December 2014). To maintain the same levels of population coverage in 2016 would require an additional 427 home care packages in 2015 and a further additional 436 home care packages in 2016.

CARERS

Demographic trends show a rise in those over 65 years and in particular in the those aged 85 years and over, leading to an increased need for care. At the same time, they also show a decrease in the availability of those traditionally associated with care giving due to reduced family sizes and greater female participation in the labour force. These demographic changes may be partially offset by the increase in male life expectancy leading to a greater number of spousal carers and by the predicted decrease in disability rates amongst the over 65 population.

Overall, 4.1% of the population reported that they provided unpaid care to another person with the number of carers increasing by 13.7% between the census of 2006 and 2011 *(Census 2011*). The greatest percentage increase was seen in older people providing care to others with an increase of 39% in those over 75 providing care. Carers contributed 327 million hours of care in 2011 with the elderly (those over 70 years) providing almost 800,000 hours of care per week.

For the first time in Census 2011, information on caring by those aged 14 and under was requested which revealed that children represent 2.3% of those providing unpaid care and provide an average of 9.2 hours care per week.

These figures indicate that the fastest growing population group providing care is the older population where there is a greater risk of the carer having or developing health problems themselves. Such caring situations require greater supports from the state services and are at greater risk of sudden breakdown leading to a requirement for crisis intervention in situations such as the emergency admission of the carer to hospital.

The findings from TILDA indicate that the vast majority of caregivers for older people living at home are unpaid (89.5%) with the remaining 10.5% paid caregivers. Amongst the unpaid carers, the finding of the spouse as the main carer is further evidence of 'the older carer' becoming an increasingly significant provider of care in the community. The data from TILDA also showed that main caregivers are less likely to be in employment (full time or part time) compared to other caregivers and many suffered from long-term sickness or disability themselves. (Yumiko, K. et al., (2012).

Services for Those Living with Disability

RELEVANT POLICY DOCUMENTS AND STRATEGIES

Four reports published between 2011 and 2012 outline a number of important changes to the provision of services to people living with disabilities. The National Housing Strategy for People with a Disability (2011) outlines the steps required to mainstream the provision of housing for people living with disabilities. It incorporates a five year implementation plan and a reporting structure to the Cabinet Committee on Social Policy. The Congregated Settings Report (2011) has as its primary objective the relocation of over 4,000 individuals from congregated settings to community based settings. It has a seven year implementation plan and reports under the framework of the National Disability Strategy. New Directions (2012) outlines the redevelopment of Day Services for people with disabilities to provide an improved person-focussed service. The Value for Money Review (2012) recommends a major reconfiguration of the Disability Services Programme in terms of governance, funding and focus with the emphasis on person-centred care and away from group based care. Other relevant documents include the National Disability Strategy (2004), A Vision for Change (2006) and the Report of the National Reference Group on Multidisciplinary Disability Services for Children aged 5-18 (2009).

IMPLICATIONS OF DEMOGRAPHIC CHANGES ON DISABILITY SERVICES

There are a number of different sources of information on the number of people living in Ireland with disability. However the use of different definitions and the varying levels of completeness/ coverage of the different datasets result in different figures being used. The most complete sources of data are the Census (2011) and the National Disability Survey (2006) both from the Central Statistics Office (*CSO*). Combining the findings from these gives a population estimate of between one in five to one in six people in Ireland living with disability. The population is projected to increase by 0.7%, or 32,300 persons between 2015 and 2016, indicating an additional 5,383 to 6,400 people with disabilities in 2016. In Census 2011, 13% of the population reported having at least one disability, with reported rates rising with increasing age from 5.4% in the 0-14 age group to 72.3% in people aged 85 and over.

CHILDREN LIVING WITH DISABILITY

Census data allows estimates of population rates of children with self reported disability (either single or multiple disabilities) by single year age group 0-18 to be calculated (*NDA, 2014*). These figures show that the reported prevalence of a single disability increases from 1.6% in those less than 1 year to 8.2% in those aged 18 years. Self reported prevalence of more than one disability shows a similar trend from 0.7% in those less than one year to 3.6% in those aged 18 years. These rates are available by single age but for the purposes of this chapter they have been grouped into two age cohorts – 0-5 and 6-18 years. Applying these prevalence rates to the projected population of children 0-18 years for 2015, 2016 and 2021 shows that the numbers of children with either a single disability or multiple disabilities in the 0-5 year age group is projected to decrease over time and the numbers in the 6-18 years age groups are projected to increase. This would have service implications in the increasing demand for school support teams and an increase in demand for placements for school leavers.

Table 6.5: Number of children 0-5 years and 6-18 years with single or multiple disabilities, 2015, 2016 & 2021

	2015 (n)	2016 (n)	2021 (n)	% Change 2015-2021
National Population 0-5 years	440,776	437,288	357,739	-18.8
Single Disability 0-5 years (n)	14,140	14,124	12,658	-10.5
Multiple Disabilities 0-5 years (n)	6,702	6,698	6,009	-10.3
National Population 6-18 years	836,332	853,126	929,917	11.2%
Single Disability 6-18 years (n)	61,466	62,686	68,575	11.6%
Multiple Disabilities 6-18 years (n)	27,651	28,203	30,820	11.5%

Source: CSO and National Disability Authority (2014)

A full breakdown of the estimated population of children aged 0-5 and 6-18 by CHO area for 2015, 2016 and 2021 is shown in Table D.1 in Appendix D. As can be seen from this table, CHOs 4, 7 and 8 having the largest number of children also have the largest number of children with disability and therefore a greater requirement for service provision.

As stated, the data from Census 2011 indicated that the prevalence of self reported disability increases with increasing age, rising to a high of 72.3% in those over 85 years. Given that those over 85 years are one of the fastest growing sections of our population, this, combined with increasing life expectancy in those living with disability, will increase the demands for support services, both residential and community based. In addition morbidity, both physical and mental health, is more prevalent in those with disability as they age. In 2016, we will expect 5,240 additional persons aged 85 years and over from 2014, which will imply 3,790 additional persons living with disability in this age cohort.

PEOPLE LIVING WITH INTELLECTUAL DISABILITY

The estimated prevalence of people with an intellectual disability is 6.15/1,000 based on figures in the National Intellectual Disability Database (NIDD). Using this prevalence rate and applying it to our projected population it is predicted that by 2016 there will be an estimated 28,820 people living with intellectual disability.

The NIDD shows that the number of people living with intellectual disability has increased by 44% between 1974 (when data were first collected) and 2013. In the same time period, the proportion over the age of 35 years has increased from 29% to 49%. There are an estimated 3,100 older people (over 55 years) with intellectual disability living in Ireland. Despite increases in life expectancy for those with intellectual disability, overall there are fewer older people in this population than the general population - 16.7% over 50 years compared to 26.4% of the general population (HRB, 2009).

The demographic breakdown for those living with intellectual disability shows that nationally, the younger ages (0-19) represent just over a third of this population and those 55 years and older comprise 13% of this population (Table D.2 Appendix D). However, there is geographical variation within this, with Meath and Tipperary SR having almost half their population in the young 0-19 age groups at 47% and Longford having only a quarter (25%) in this age group. At the other end of the age spectrum, Sligo has the highest proportion of population in the 55 years and older age group at 20%, while a number of counties have only 8% of their population in this age group (Longford,

Meath, Wicklow, Roscommon and Cavan). This would indicate a greater requirement for early intervention and school support teams in those areas with high proportion of younger people and a greater requirement for more residential services and residential support services in those areas with greater proportions of older people.

RESIDENTIAL SERVICES FOR PEOPLE LIVING WITH INTELLECTUAL DISABILITY

The majority of people living with intellectual disability live at home. However, the proportion of those living at home varies between counties from 85.1% in Cavan to 45.2% in Sligo, which may be due to variation in the availability of services. Government policy is the mainstreaming of housing provision for people with disabilities (National Disability Strategy, Dept. Justice, 2004). However, the proportion accommodated in community group homes also varies from 26.8% in Sligo to 6.8% in Cavan. Dublin has the greatest proportion of people living in psychiatric hospitals at 2.0% (124 people). Accommodation of people with intellectual disability in psychiatric hospitals is contrary to current policy and this cohort is a priority for accommodation in more appropriate settings. (See table D.3 in Appendix D) Residential services also need to work towards the recently introduced HIQA standards for residential services for those with disabilities (National Standards for Residential Services for Children and Adults with Disabilities, HIQA 2013) which will have cost implications.

CO-MORBIDITIES IN THOSE WITH INTELLECTUAL DISABILITY

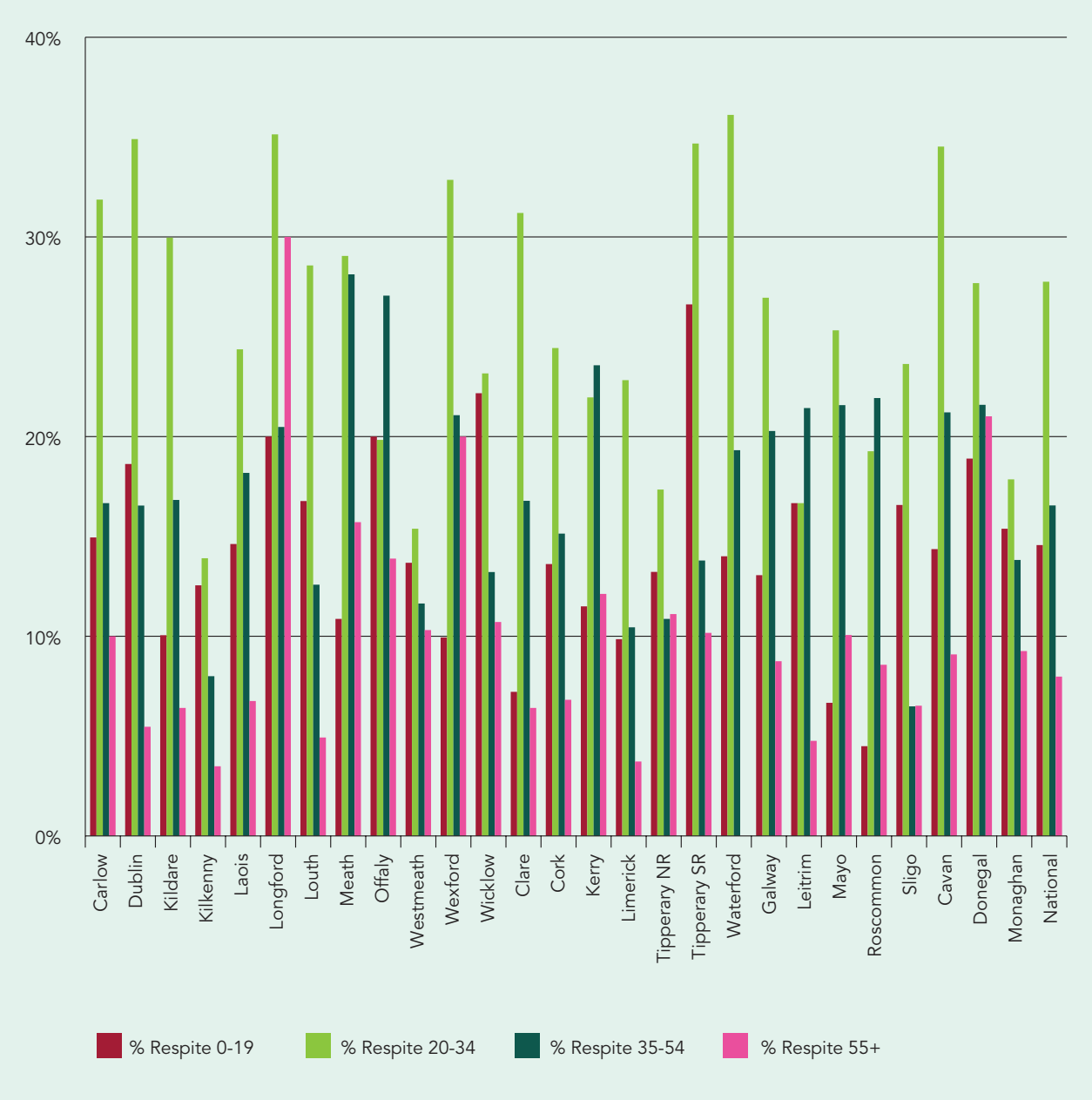
The TILDA Intellectual Disability Supplement has identified higher rates of multimorbidity in those with intellectual disability compared to the general population, with the most prevalent conditions being mental health and neurological conditions (*Advancing years, different challenges: Wave 2 IDS-TILDA 2014*). While the cardio-metabolic risk was higher for those with intellectual disability than the general population, 64.6% versus 53% for the general population, rates of hypertension and myocardial infarction were lower. Rates of osteoporosis and constipation were significantly higher. Lifestyle risk factors were significantly better except for participation in physical activity which was significantly worse. Focused action in the area of physical activity has the potential to reduce cardio-metabolic risk profile, decrease the prevalence of constipation and the risk of osteoporosis.

RESPITE SERVICES

Respite is an essential service for many families living with a person with a disability. In 2013, a total of 4,747 people recorded on the National Intellectual Disability Database (NIDD) were in receipt of respite services. This equates to 17% of the total population recorded on the NIDD. Use of respite services is greatest in the 20-34 year age group in almost all counties with the exception of Kerry and Roscommon. Respite use decreases with increasing age as the use of full-time residential services increases.

The use of respite services varies from a low of 10% of people recorded on the NIDD in Kilkenny to a high of 26% in Tipperary North. There is also variation in the median number of nights of respite provided to clients per year from a low of six in Laois and Carlow to a high of 35 in Tipperary North. The increasing population with intellectual disability combined with the rising age profile of carers will translate into increasing demand for respite service.

Figure 6.2: Percentage of persons on NIDD in receipt of respite 2013 by age group



Source: National Intellectual Disability Database 2013

PEOPLE LIVING WITH PHYSICAL AND SENSORY DISABILITY

It is estimated that the coverage of the National Physical and Sensory Disability Database (NPSDD) is approximately 67%, based on a population estimate of 10.8 persons with a physical/sensory disability per 100,000 population (Department of Health, 2012). Due to the low coverage levels and the national variation in data completeness and timeliness, the NPSDD is currently not robust enough to support service planning.

Table 6.6: Numbers of persons living with physical and sensory disability 2004 - 2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Physical disability only	16,246	17,723	19,686	20,030	16,537	15,442	14,445	13,915	13,580	13,086
Hearing loss/ deafness only	1,347	1,494	1,591	1,634	1,618	1,575	1,448	1,376	1,298	1,336
Visual disability only	1,193	1,250	1,391	1,378	1,381	1,355	1,339	1,292	1,192	1,271
Primary speech & language only	§	313	555	1,152	2,736	2,565	2,572	2,714	2,611	2,388
Multiple disability	890	1,648	2,468	2,990	5,030	5,231	5,431	5,873	6,307	6,310
Total under 18	6,412	7,039	7,807	8,373	8,546	8,043	7,627	8,034	8,000	7,568
Total all ages	19,676	22,428	25,691	27,184	27,302	26,168	25,190	25,170	24,988	24,391
Estimated coverage from NPSDD annual report	60.0%	71.4%	65.6%	65.2%	N/A	67.%*	N/A	66.8%	N/A	N/A
Extrapolated total no with PSSD based on estimated coverage	32,793	31,412	39,163	41,693	N/A	39,057	N/A	37,680	N/A	N/A

*Source: NPSDD Health Research Board. *VFM report 2012; §Primary Speech & Language category not included in 2004*

The NPSDD collects data on current service use and on demand for services (unmet need), however due to difficulties with data collection, these statistics are only reported on those records that were either registered or reviewed in the year covered by the report; in 2013 this comprised 7,671 (31%) records. These records show that the therapy services most commonly used are physiotherapy, occupational therapy and speech and language therapy with over half of all those under 18 years using these services. While the numbers receiving these services reduces in those over 18 years, especially for speech therapy (7%), physiotherapy (35%) and occupational therapy (27%) remain the most utilised services. These services are also the areas with greatest demand with 14% of people having an unmet need for physiotherapy and 9% for occupational therapy.

In the area of personal assistance and supportive services, utilisation rates are highest for home help (9%), personal assistant (7%) and home care attendant (5%). Again, unmet need is highest for these supports with a reported 4% demand for home help, 3% for personal assistant and 1% for home care attendant.

For this cohort in 2013, 57.5% were availing of day services or activities. Once school based services are excluded, the most commonly utilised service is training, work and employment services (13%) followed by activation services which are utilised by 8%. The greatest demand is also for training work and employment services with 4% indicating an unmet need in this area.

7 Mental Health

7. Mental Health

Key Messages

- Our population is growing and this in turn will increase pressure on our mental health services. Although our population of 0-17 year olds will increase by 11,680 from 2015 to 2016, 18-64s by 1,290 the biggest increase is in the over 65 age group growing by 19,400 between 2015 and 2016

CHILD AND ADOLESCENT MENTAL HEALTH SERVICE (CAMHS)

- In 2016 it is projected there will be 289 children aged 0-17 admitted to mental health acute inpatient units and 13,340 referrals to Child and Adolescent Mental Health teams
- 18% of children who attend community CAMHS teams are in contact with or in the care of social services
- Traveller children represent 1.2% of the 0-17 year cohort in the national population. However, they accounted for 2.8% of the total case load of CAMHS nationally and a higher percentage of those presenting in the West of Ireland (5.6%)
- The number of CAMH patients waiting to be seen is increasing and this is as a result of an increase in the demand for the service. There were 2,869 patients on the waiting list at the end of 2014

GENERAL ADULT PSYCHIATRY (GAP)

- In 2016 it is projected that there will be 38,960 accepted referrals to community Adult Mental Health Teams
- By 2021 this will increase to 39,800 accepted referrals in the 18-64 age cohort assuming current models of care continue
- The total number of admissions to psychiatric units has been decreasing over time with all admissions decreasing from 479/100,000 in 2006 to 402/100,000 in 2013
- The majority of admissions are from the age cohort 18-64 representing 88% of total in-patient adult psychiatric admissions

- Based on a three year average for the period 2011–2013, the annual number of admissions is 12,361. In 2016, 12,180 admissions are predicted using our projected population
- Young adults also present with specific mental health problems. In Ireland, females aged 19-24 years are more likely to experience a mood disorder, while males are more likely to have a substance use disorder
- The leading disorders amongst those admitted are depression (27%), schizophrenia (24%), mania (11%) and alcoholic disorders (8%)

PSYCHIATRY OF OLD AGE (POA)

- In 2016 it is projected that there will be 10,890 accepted referrals to the Psychiatry of Old Age Community Mental Health Teams for those aged 65 years and over
- By 2021 this will increase to 12,770 referrals in those aged 65 years and over assuming current models of care remain
- It is projected that there will be 1,940 admissions in adults aged 65 years and over in 2016
- The prevalence of depression in adults aged 65 years and over is 5% and rises to 20% in those aged 80 years and over
- The leading conditions among those aged 65 years and over admitted to our psychiatric hospitals are depression (33%), schizophrenia (20%) and organic mental disorders including dementia (18%)
- Organic mental disorders (dementia) is the leading condition among adults 85 years and over representing almost 50% of admissions

Assumptions

- National Psychiatric In-patient Reporting System data was used to calculate utilisation rates and excludes data from private hospitals, Central Mental Hospital, Carraig Mór Cork, St Joseph's IDS and Phoenix Care Centre
- All underlying assumptions and projections are based on demographic change only and do not take into account any changes in policy, models of care, eligibility and service provision since 2014

Context

The Report of the Expert Group on Mental Health Policy - A Vision for Change, 2006 is the national policy for mental health services and is now in its final year of the 10 year plan. This policy is recovery focused and requires that secondary care mental health services be delivered in the community by multi-disciplinary Community Mental Health Teams (CMHTs). The modern mental health service is integrated with other areas of the wider health service and extends from promoting positive mental health and suicide prevention through to supporting those experiencing severe and disabling mental illness. It includes specialised secondary care services for children and adolescents, adults, older persons and those with both an intellectual disability and a mental illness.

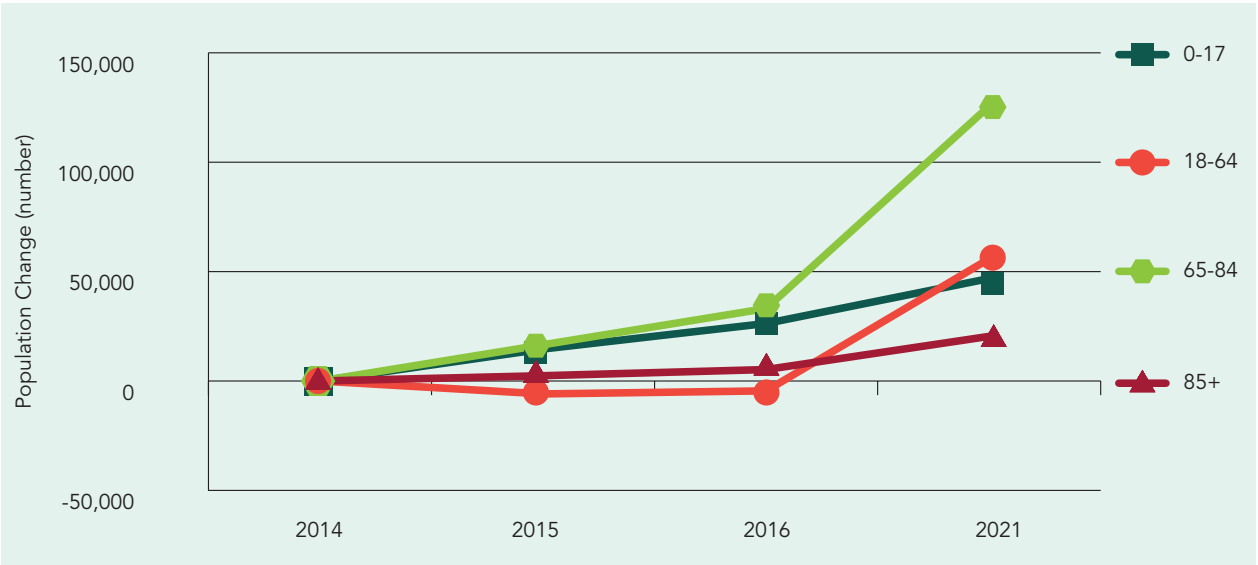
Mental health services can be categorised into the following age cohorts: Child and Adolescent Mental Health Services (CAMHS) aged 0-17 years inclusive; General Adult Psychiatry (GAP) aged 18-64 years and Psychiatry of Old Age (POA) aged 65 years and over. Other specialist services include Liaison Psychiatry Services; Forensic Mental Health Services; mental health services for those with an intellectual disability and mental illness; services for those with a mental illness who are homeless; mental health promotion and suicide prevention. These services are delivered in the following settings; acute in-patient facilities, community mental health centres, day hospitals, day centres, and supported community residences and the service user's own home.

Data on in-patients is collected via the National Psychiatric In-patient Reporting System. In addition data is collected on timely access and discharge to the Community Mental Health teams in Child and Adolescent Mental Health Service, General Adult Psychiatry and Psychiatry of Old Age.

DEMOGRAPHY

Our population is growing and this in turn will increase pressure on our mental health services. Our population aged 0-17 years will increase by 11,680 from 2015-16, those aged 18-64 will increase by 1,290 but the biggest increase we will witness is in the population aged 65 years and over growing by 19,400 between 2015 and 2016. This has implications of increased demand on mental health services.

Figure 7.1: Population change 2014 to 2021 by age group



Source: CSO

Child and Adolescent Mental Health Services (CAMHS)

CONTEXT

Good mental health is a prerequisite for normal growth and development. Most children and adolescents have good mental health, but studies have shown that 1 in 10 children and adolescents suffer from mental health disorders severe enough to cause impairment. Mental health disorder in childhood strongly predicts mental health disorders in adulthood (Cannon et al, Kessler et al, 2005). Young people who had a diagnosable mental health disorder in adolescence were 30% more likely to have a mood, substance use or alcohol disorder and 50% more likely to experience suicidal ideation or engage in suicidal acts in young adulthood. The finding that young people who made contact with mental health services had lower levels of mental health disorders in adulthood highlights the importance of childhood and adolescent mental health services. For those experiencing mental health problems, good outcomes are more likely if the child or adolescent and their family or carer have access to timely, well co-ordinated advice, assessment and evidence based treatment. There is a strong link between CAMHS and social services. In November 2012 18% of children (1,553) who attended Community CAMHS teams were in contact with or in the care of social services; a further 5.7% (485) had a history of contact with social services. In addition marginalised communities represent a higher utilisation rate of CAMHS. Traveller children aged 0-17 years represent 1.2% of this age cohort in the national population. However, they accounted for 2.8% of the total case load of CAMHS nationally and a higher percentage of those presenting in the West of Ireland (5.6%) (HSE CAMHs 5th Annual Report 2012-2013).

CURRENT SERVICE UTILISATION

A Vision for Change recommends that children and adolescents aged 0-17 years who require inpatient admission are admitted to age appropriate child and adolescent acute inpatient units. At the end of 2013, there was a HSE bed capacity of 60 beds in the Child and Adolescent Psychiatric In-patient Service, 48 of which were operational.

The number of admissions of children to a psychiatric hospital setting, both public and private, as a result of a psychiatric condition in 2013 was 408 and involved 322 children. This included 187 admissions to HSE CAMHS Units, 91 to adult psychiatric units and 130 to private units. Combining the number of children admitted to both adult and CAMHS facilities within the HSE service in 2013 (n=278) the HSE utilisation rate of psychiatric in-patient services for children aged 0-17 years is 23.5 per 100,000 population. Based on this utilisation rate the projected admissions for HSE CAMHS, excluding private unit admissions, for 2015, 2016 and 2021 is outlined in Table 7.1.

Table 7.1: Projected admissions for HSE child and adolescent psychiatric in-patient services 2014 - 2021

Year	Population 0-17 years (n)	Projected admissions (n)
2014	1,204,100	282
2015	1,218,720	286
2016	1,230,400	289
2021	1,250,930	294

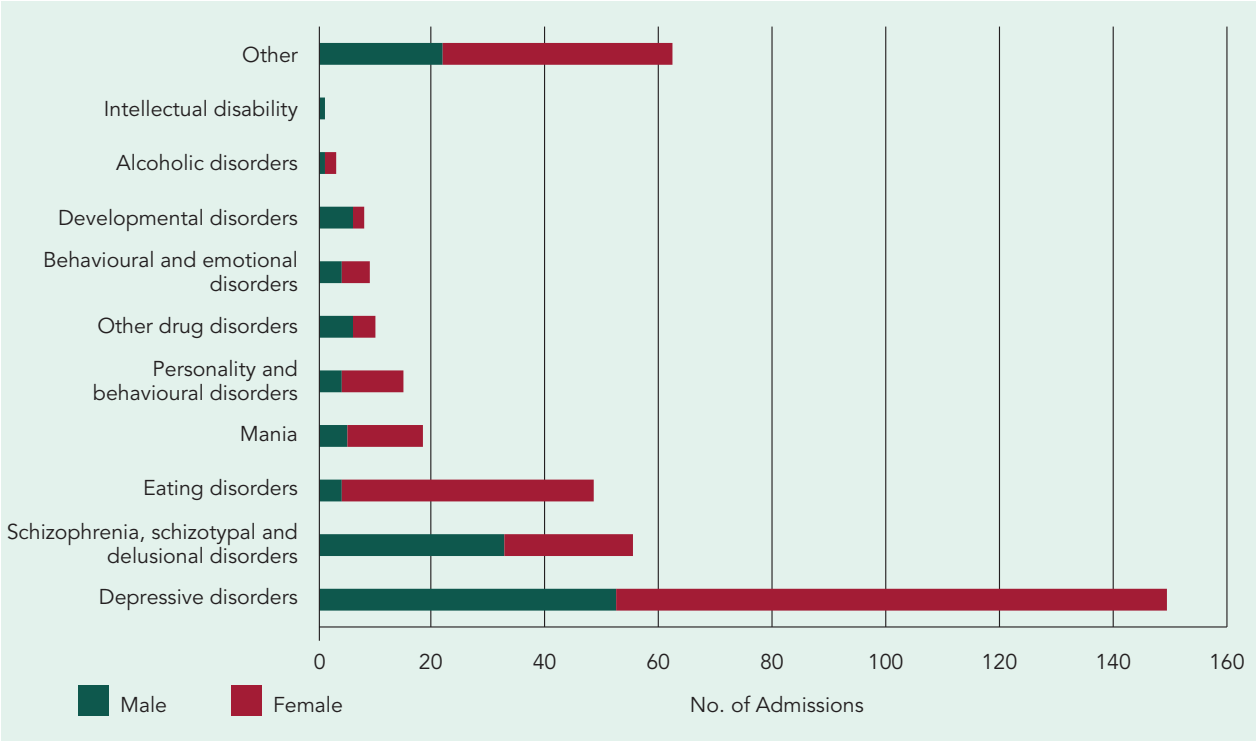
Source: CSO & Mental Health Commission "Working Together for Quality Services – 2013 Annual Report"

The average length of stay in CAMHS was 52 days (median 40 days). Sixty three percent of admissions to child and adolescent units were for periods longer than 4 weeks.

TOP TEN PRIMARY DIAGNOSES

The following graph displays the top ten primary diagnoses for child and adolescent admissions in 2013. Depression is the leading disorder in children 0-17 years representing 36.5% of cases (149/408), schizophrenia, schizotypal and delusional disorders represent 13.5% (55/408), with eating disorders representing 11.8% (48/408). Those presenting with eating disorder were predominately female (44/48). There are variations in admission rates by diagnosis through the age groups, e.g. ADHD is more common amongst the 5-9 years age group, while depressive disorders and eating disorders increase with age.

Figure 7.2: Diagnostic categories by gender 2013



Source: Mental Health Commission

CHILD AND ADOLESCENT ADMISSIONS TO ADULT PSYCHIATRIC UNITS

Admission of children to adult acute inpatient units although decreasing still occurs. In 2013, there were 91 admissions to adult units, relating to 83 children. Thirty-one percent of children admitted to adult units were discharged to a CAMHS in-patient unit. There are a range of factors which can influence the clinical decision to admit a child or adolescent to an Adult Acute Inpatient Unit. Some of these admissions relate to a crisis admission where no adolescent bed is immediately available. Distance to the nearest CAMHs in-patient unit can also be a factor when immediate clinical assessment and treatment may be the requirement. In some cases, the presenting clinical needs of the young person (who may be nearly 18 years old) may be more appropriately assessed and treated in an adult unit.

Community Child and Adolescent Mental Health Service

ADHD/hyperkinetic diagnosis (31.6%) was the most frequently assigned primary presentation by community CAMHS services, followed by anxiety (18.3%). The ADHD/hyperkinetic category peaked in the 5-9 years age group at 43.9% of cases in this age group, dropping to 19% of cases in the 15 years and older age group. Depression, deliberate self-harm and eating disorders increased with age representing 21.1%, 9.5% and 4.5% respectively as primary presentation in children aged 15 years and older.

There has been an increasing trend in referrals to Community CAMHS with accepted referrals increasing by 2,042 from 2011 to 2012 and by 1,614 from 2012 to 2013. The latter increase may be somewhat explained by the increase in the upper age accepted to CAMHs from 16 to 17 years in January 1 2013. A further increase of 743 was seen between 2013 and 2014. Table 7.2 shows the trend in referral to community CAMHS.

Table 7.2: Number of referrals accepted October to September

	2010 (n)	2011 (n)	2012 (n)	2013 (n)	2014 (n)
National	8,070	8,663	10,705	12,319	13,062*

*Source: CAMHS Annual Reports & *Personal Communication: HSE Planning and Business Information Unit*

Using the 2014 figure for accepted referrals of 13,062, we calculate a referral rate of 1,084 per 100,000 population. From this, we can estimate future referral figures based on population change. In addition, 1.57% of the 0-17 population were active cases attending CAMHS in September 2014 (BIU). Table 7.3 outlines a conservative estimate of current and future demand taking into account the previously discussed assumptions.

Table 7.3: Projected accepted referrals to community CAMHS based on 2014 referral rate

Year	Population 0-17 years (n)	Projected Referrals (n)	Projected Active Cases (n)
2015	1,218,721	13,210	19,130
2016	1,230,404	13,340	19,320
2021	1,250,926	13,560	19,640

Source: CSO, HSE BIU

UNMET DEMAND

For the purpose of this report, waiting lists are the only metric available to represent unmet demand. The number of patients waiting to be seen is increasing and this is as a result of an increase in the demand for the service. There were 2,869 patients on the waiting list at the end of 2014 – this compares to 2,541 at the end of September 2013 and 2,056 at the end of September 2012. Referrals are prioritised by clinical need following assessment by the CAMHS Team and offered appointments accordingly.

The 2014 target for waiting time to be seen was set at 75% of new/re-referred cases to be seen within 12 weeks (3 months). In 2014, 68% of new/re-referred cases were seen within that timeframe and 77% of new/re-referred cases were offered an appointment within 12 weeks. However, the number of 'did not attends' (DNAs) resulted in the service not reaching the target as the DNA rate for the first appointment for new or re-referred cases in 2014 was 13%.

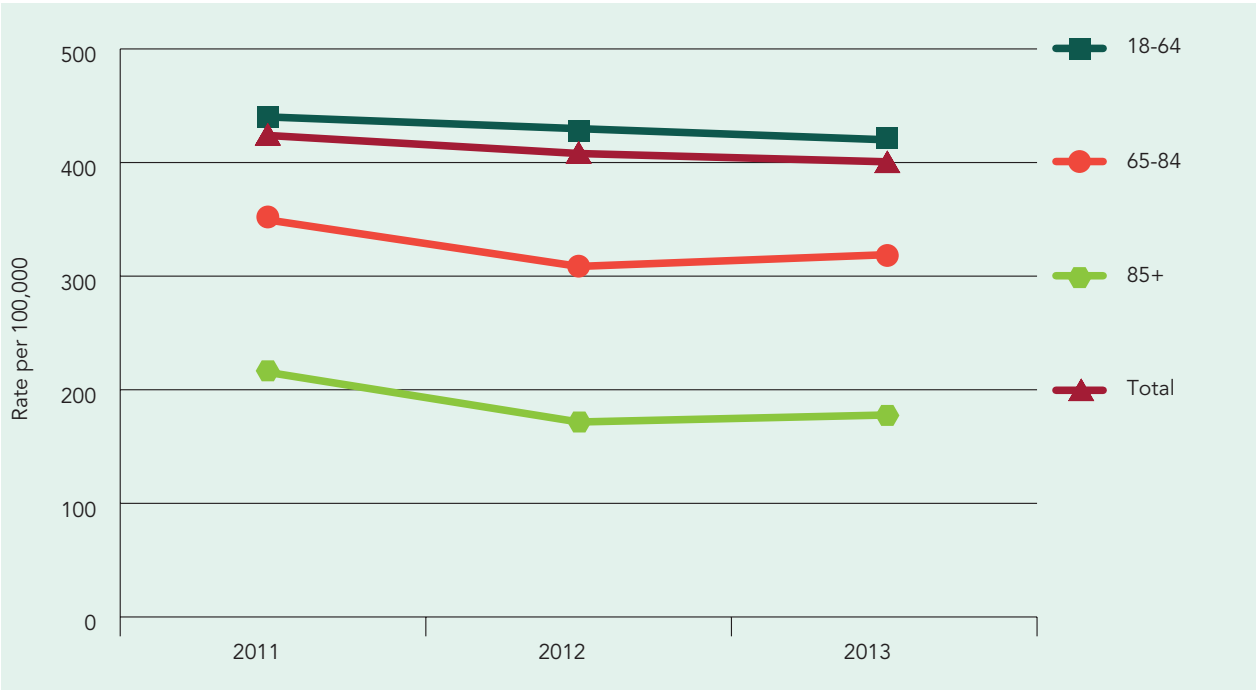
General Adult Psychiatry and Psychiatry of Old Age

Mental health is important because good mental health enables people to lead a fulfilled life and to relate satisfactorily to those around them. Our ageing population has been associated with an increase in the number of people with mental health conditions in older age groups. The prevalence of depression in adults aged 65 years and over is 5% and rises to 20% in the over 80s. The mental health service, specifically psychiatry of old age, has responsibility for people with dementia associated with certain behavioural problems and psychological symptoms.

PSYCHIATRIC UNITS

It is apparent that the total number of admissions to psychiatric units has been decreasing over time with the rate of first admissions remaining relatively constant at 132 per 100,000 population from 2006-2013 and the re-admission rate decreasing from 346 per 100,000 to 270 per 100,000 in the same period. All admissions have decreased from 479 per 100,000 in 2006 to 402 per 100,000 in 2013. The slight increase in hospital admissions in 2013 can be accounted for by the increase in admissions to independent/private and private charitable centres in 2013.

Figure 7.3: Psychiatric unit admission rate per 100,000 by age group 2011 - 2013



Source: National Psychiatric In-Patient Reporting System and CSO

The median length of stay has been relatively stable at 11 days for both general hospital psychiatric units and for psychiatric hospitals, but is significantly longer and has been gradually increasing in the independent/private centres to 31 days in 2012.

The majority of admissions are in the 18-64 years age cohort representing on average 12,361, or 88% of total in-patient general adult psychiatric and old age psychiatry admissions.

ADULTS AGED 18-64

Young adults present with specific mental health problems. In Ireland, females aged 19-24 years were more likely to experience a mood disorder, while males were more likely to suffer from addictions and have a substance use disorder (Cannon et al, 2013). The leading risk factors for mental illness in this age cohort are bisexuality or homosexuality, history of stressful life events, family dysfunction and intimate relationship abuse. Children and young people in care are also a very vulnerable group (Bamford Review of Mental Health and Learning Disability NI, 2006).

The highest number of admissions occurs in the age group 18 – 64 years with an average annual number of admissions of 12,361 (based on a 3-year average for the period 2011 – 2013) and 12,180 projected admissions for 2016. The leading disorders in this age cohort are depression (27%), schizophrenia (24%), mania (11%) and alcoholic disorders (8%). Table 7.4 outlines average utilisation rates for adults 18-64 and projected numbers of admissions for this cohort in 2016 and 2021. Little change is anticipated with this age cohort from 2015-2016 with projected admissions expected to decrease slightly into 2016 before rising back to 2011 levels by 2021.

Table 7.4: Average admission rate for 18-64 year olds 2009-2013 and projections for 2016, 2021

	3 year average rate per 100,000 2011-2013	3 year average 2011 – 2013 (n)	Projected 2016 (n)	Projected 2021 (n)
All Diagnoses	430	12,361	12,180	12,440
Depressive Disorders	114.3	3,286	3,236	3,305
Schizophrenia	104.6	3,006	2,961	3,024
Mania	50.1	1,439	1,418	1,448
Personality & Behaviour Disorders	31.9	950	956	956
Other & Unspecified	31.9	916	936	922
Neuroses	31.3	901	887	906
Alcoholic Disorders	30.8	886	872	891

Source: CSO, National Psychiatric In-Patient Reporting System

ADULTS 65 YEARS AND OVER

Our population aged 65 years and over will increase by 19,400 from 2015 to 2016. Applying our three year average utilisation rate 2011-2013 this is projected to represent a total of 1,940 admissions in 2016.

The leading mental health conditions in this age group admitted to our psychiatric hospitals is depression representing 33% of admissions, schizophrenia (20%) and organic mental disorders including dementia (18%). Organic mental disorders (dementia) are the leading condition among adults aged 85 years and over, representing almost 50% of admissions.

Table 7.5 outlines the leading disorders in adults aged 65 years and over and projected admissions for 2016 and 2021. Further analysis has been carried out on sub-categories 65-84 and over 85 years and these are contained in Appendix E (Tables E.1 and E.2).

Table 7.5: Average utilisation rate for adults aged 65 years and over 2011-2013 and projections for 2016 and 2021

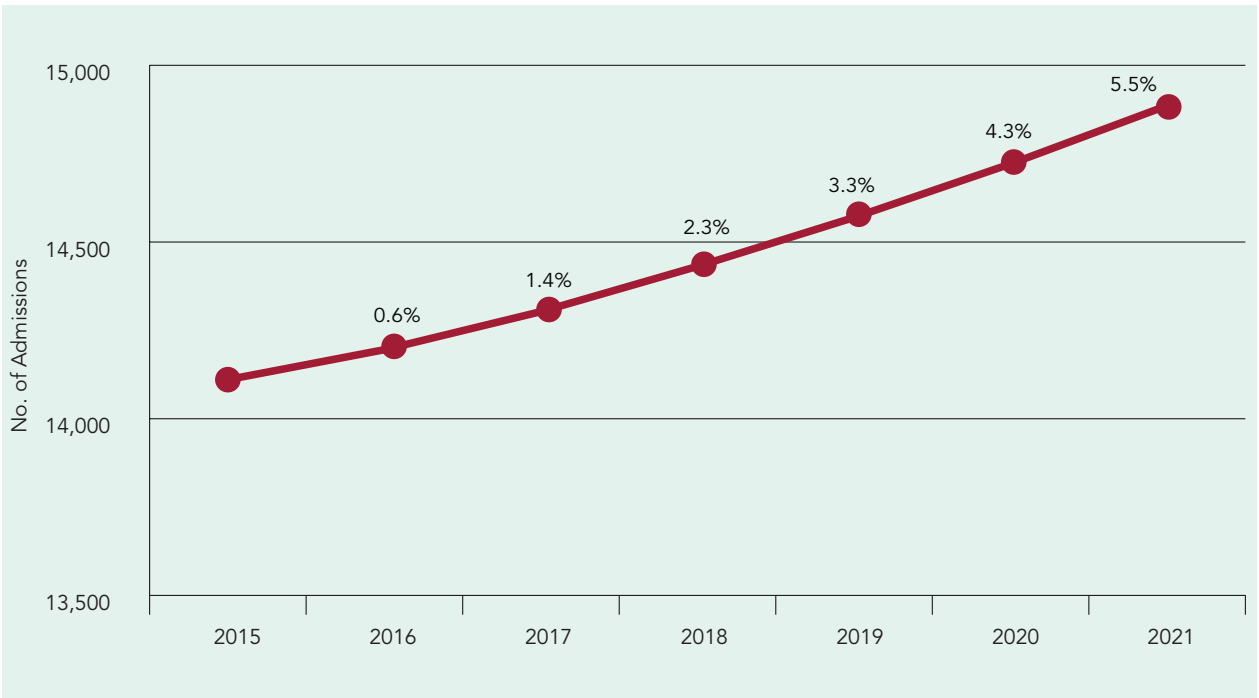
	3 year average rate per 100,000 2011-2013	3 year average 2011 – 2013 (n)	Projected 2016 (n)	Projected 2021 (n)
All Diagnoses	310.3	1,702	1,940	2,270
Depressive Disorders	102.8	564	642	752
Schizophrenia	62.8	345	392	460
Organic Mental Disorders	55.4	304	346	406
Mania	34.5	189	216	253
Other & Unspecified	25.7	141	160	188

Source: CSO, National Psychiatric In-Patient Reporting System

Demographic Effects and Projected Cost Pressure

Using the aforementioned assumptions and utilising a three year average rate to take into account the decreasing trend in admissions, the projected number and cumulative percentage increase in adult admissions to public psychiatric hospitals are shown in figure 7.4.

Figure 7.4: Projected number of adult admissions to public psychiatric hospitals, 2015 - 2021



Source: National Psychiatric In-Patient Reporting System and CSO

PROJECTED COST PRESSURE: 2015-2016

Age-specific costs or casemix indices are not available for acute mental health services. From 2015 to 2016 there will be a 0.6% pure demographic pressure on the adult in-patient service. It is important to bear in mind hospitalisations only represent one element of the mental health service and combined with well developed community based services provide the most beneficial service for overall mental wellbeing.

Community Adult Mental Health Service

Community mental health services are vital for the ongoing care of mental health patients. The current and projected demand for this adult service is outlined in Table 7.6. In 2016 it is projected that there will be 38,960 accepted referrals to community adult mental health services for the 18-64 year old cohort and 10,890 for those aged 65 years and over. By 2021 this will increase to 39,800 accepted referrals in the 18-64 year olds and 12,770 in those aged 65 years and over assuming current models of care remain.

Table 7.6: Projected demand for Community Adult Mental Health Service 2016 and 2021

Age Cohort	2014 (n)	2016 (n)	2021 (n)
18-64	39,027	38,960	39,800
>65	10,223	10,890	12,770

Source: HSE Business Information Unit

Suicide and Deliberate Self-Harm

SUICIDE

Suicide prevention requires a focused multi-faceted, intersectoral and multi-agency approach (Vision for Change, 2006; Connecting for Life, the new national strategic framework to reduce suicide 2015-2020). There is a downward trend in suicide in Ireland with a 5.1% reduction and numbers reducing from 554 in 2011 to 475 in 2013 (provisional figures from the National Suicide Research Foundation). In keeping with previous years, 83% of deaths by suicide were in males (396) with the rate remaining high among 35-64 year olds since 2009. This change may reflect the impact of the recent economic recession affecting middle-age groups more. Information on area of residence for deaths by suicide indicates that Cork City and Limerick City have relatively high rates when averaged over a number of years compared to the other main urban areas, while counties Wexford and Kerry also have relatively high rates. The graph depicting the average death rate by suicide per 100,000 by area of residence of the deceased for 2007 – 2013 is in Appendix E (Figure E.1).

RISK FACTORS

Depression is recognised to be one of the most important risk factors for suicide and deliberate self-harm (Vision for Change, 2006). Deliberate self-harm is the strongest predictor for future suicidal behaviour, fatal and non-fatal with self-harm patients over 42 more times likely to die by suicide than the general population. Other risk factors include socio-economic stresses including economic recession (Mental Health Commission, 2011), family suicide or violence, gender and sexuality concerns, substance abuse, being in prison, homelessness and other mental health illnesses.

DELIBERATE SELF-HARM

Presentations of deliberate self-harm to hospital nationally are recorded by the National Registry of Deliberate Self-Harm. In 2013, 8,772 persons presented to hospital services due to deliberate self-harm. This is an 8% reduction on 2012. The rate is highest in females in the 15-19 age group. The information on rates for deliberate self-harm by area of residence highlights that the rates are higher in urban areas, with Limerick City having the highest rate with more than double the national rate. The graph which depicts the average rates for deliberate self-harm for the years 2007 to 2013 by area of residence is presented in Figure E.2 in Appendix E.

Forensic Mental Health Services

There were 13,055 committals to Irish prisons in 2013. At any one time it is estimated that approximately 10% of the prison population have a major psychiatric disorder (Fazel and Danesh, 2002), with 3% of Irish prisoners having a severe, enduring and disabling mental illness/disorder (Kennedy et al, 2003). In addition, approximately 70% of prisoners are addicted to alcohol and/or other drugs.

The National Forensic Mental Health Service (NFMHS) is based in the Central Mental Hospital. The NFMHS provides three levels of service; prison in-reach and after-care, secure hospital care and forensic rehabilitation and recovery (community supervision). An in-reach psychiatric service is provided to most prisons with a service commencing in 2015 to Castlerea prison. However, there is no in-reach service provided to Cork or Limerick prisons. The demand for this service is increasing with the number of prisoners discharged not keeping pace with admissions, leading to an increased number of 'legally long stay' patients in the Central Mental Hospital (CMH). This results in a reduction in the capacity to admit acutely ill high risk patients from the prisons with lengthening waiting lists.

At the end of December 2014 there were 50 patients under the care of the Forensic Rehabilitation and Recovery Teams who are responsible for a rehabilitation ward, a pre-discharge house, and other patients in supported community living or independent living.

Appendices

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Appendix A: Consultation Process

Initial consultations took place with relevant members of each Senior Management Team (SMT). Consultations took place with the following:

MENTAL HEALTH DIVISION

- Ms. Yvonne O'Neill, Head of Planning, Performance and Programme Management
- Dr. Margo Wrigley, National Clinical Advisor Mental Health
- Mr. Jim Ryan, Head of Operations and Service improvement
- Ms. Anne O'Connor, National Director of Mental Health Division

ACUTE HOSPITALS DIVISION

- Ms. Helen Byrne, Head of Planning and Performance
- Dr. Colm Henry, National Clinical Lead, Acute Hospitals
- Prof. Frank Keane, Mr. Ken Mealy, Clinical Leads, National Surgery Programme
- Mr. Paddy Kenny, Mr, David Moore, Clinical Leads, National Trauma & Orthopaedics Programme
- Prof. Alf Nicholson, Clinical Lead, National Clinical Programme for Paediatrics

PRIMARY CARE DIVISION

- Mr. Brian Murphy, Head of Planning, Performance and Programme Management
- Ms. Shirley Keane, Business Planning and Development Manager

SOCIAL CARE DIVISION

- Ms. Geraldine Crowley, Head of Planning, Performance and Programme Management
- Mr. Michael Fitzgerald, Head of Operations – Older People
- Ms. Marion Meany, Head of Operations – Disability Services
- Ms. Karen Foley, Business Manager

In addition, consultations took place with:

- HSE Chief Operations Office (Ms. Laverne McGuinness)
- National Director for Clinical Strategy and Programmes (Dr. Aine Carroll)
- Healthcare Pricing Office (Ms. Lorna Collins)
- Planning, Performance and Business Information Unit of the HSE (Ms. Bernie Hyland)
- Health Research Board (Ms. Sarah Craig and team)
- HSE Finance Directorate (Mr. Steven Mulvany, Ms. Raymonde O'Sullivan, Dr. Valerie Walshe, Ms. Jennifer O' Callaghan, Mr. Colum Maddox).
- Information Unit of the Department of Health (Mr. Alan Cahill, Ms. Grainne Cosgrove)
- Health Intelligence (Mr. Doug Beaton, Dr Declan McKeown, Mr. Eugene Boyle)
- National Cancer Control Programme (Dr. Mary Hynes, Dr. Marie Laffoy and team)
- Public Health Child Health committee (Dr. Phil Jennings and Ms. Carmel Brennan)
- National Cancer Screening Programmes (Ms. Majella Byrne, Mr. Simon Murtagh)
- Health Protection and Surveillance Centre (Dr. Paul McKeown),
- National Immunisation Office (Dr. Brenda Corcoran, Dr. Anna Clarke)

Appendix B: Demography

Projected Populations (2011 – 2046)

Official population projections were published by the Central Statistics Office (CSO) in 2013 and were based on results of the 2011 Census of Population (*Population and labour force projections 2016-2046*). The CSO produced eight population projections based on four migration assumptions and two fertility assumptions.

The most positive migration assumption (M1) envisages net migration returning to positive by 2016 and rising steadily thereafter to plus 30,000 by 2021. The least positive assumption (M3) envisages net migration remaining negative for the whole period. The middle assumption (M2) envisages net migration returning positive by 2018 and rising thereafter to 10,000 by 2021. An alternative more theoretical assumption (M0) was also produced which has zero net migration for the entire period. In conjunction with the CSO it was agreed that it was appropriate to utilise the middle scenario of M2.

The recent population projection has two fertility scenarios. The high fertility assumption (F1) assumes the total fertility rate will remain at the level observed in 2010 of 2.1 for the lifetime of the projections up to 2046. The low fertility assumption (F2) assumes the total fertility rate will decrease from 2.1 to 1.8 by 2026 and then stabilise at this level until the end of the projection period in 2046. It is uncertain which is more likely to be correct, however, in conjunction with the CSO, it was considered some convergence with EU norms over the time period is likely to take place and the F2 scenario was chosen.

Table B.1: Projected population by age group 2016 and percentage change from 2015 (thousands)

Age Group	2015	2016	Actual Change	% Change
Under 1 year	70.8	68.6	-2.2	-3.1
1-4 years	296.8	295.5	-1.4	-0.5
5-9 years	351.6	360.6	9.0	2.6
10-14 years	317.6	322.0	4.4	1.4
15-19 years	289.0	295.2	6.1	2.1
20-24 years	242.8	237.6	-5.2	-2.1
25-29 years	290.3	281.8	-9.2	-3.2
30-34 years	360.9	343.2	-17.7	-4.9
35-39 years	370.6	375.9	5.3	1.4
40-44 years	351.2	353.3	2.1	0.6
45-49 years	318.8	325.4	6.6	2.1
50-54 years	297.0	300.9	3.9	1.3
55-59 years	260.9	267.9	7.0	2.7
60-64 years	231.1	235.3	4.2	1.8
65-69 years	202.0	205.7	3.7	1.8
70-74 years	148.9	157.8	8.9	6.0
75-79 years	110.3	112.3	2.0	1.8
80-84 years	76.7	78.6	1.9	2.5
85+ years	67.1	69.9	2.9	4.2
Total	4,654.2	4,686.5	32.3	0.7

Source: CSO

Table B.2: Projected population by age group 2021 and percentage change from 2016 (thousands)

Age Group	2016	2021	Actual Change	% Change
Under 1 year	68.6	59.1	-9.5	-13.8
1-4 years	295.5	257.9	-37.6	-12.7
5-9 years	360.6	371.0	10.4	2.9
10-14 years	322.0	365.1	43.1	13.4
15-19 years	295.1	321.2	26.1	8.8
20-24 years	237.6	283.7	46.1	19.4
25-29 years	281.1	255.3	25.8	-9.2
30-34 years	343.2	282.6	-60.6	-17.7
35-39 years	375.9	338.9	-37.0	-9.8
40-44 years	353.3	373.2	19.9	5.6
45-49 years	325.4	352.8	27.4	8.4
50-54 years	300.9	324.3	23.4	7.8
55-59 years	267.9	296.8	28.9	10.8
60-64 years	235.3	261.3	26.0	11.1
65-69 years	205.7	225.6	19.9	9.7
70-74 years	157.8	191.6	33.8	21.5
75-79 years	112.2	139.5	27.3	24.3
80-84 years	78.6	90.1	11.5	14.6
85+ years	69.9	85.0	15.1	21.7
Total	4,686.5	4,875.1	188.6	4.0

Source: CSO

Appendix C: Primary Care

Table C.1: RIA residents by county – end January 2015

Area	County	Contracted Capacity	Current Occupancy	% Occupancy
Dublin/Kildare/ Wicklow	Dublin	921	748	81.2
	Kildare	90	80	88.9
(Areas 6,7,9)	Wicklow	0	0	0
Area 1	Donegal	0	0	0
	Sligo	226	186	82.3
	Leitrim	0	0	0
	Cavan	0	0	0
	Monaghan	200	160	80
Area 2	Galway	332	302	91.0
	Mayo	267	216	80.9
	Roscommon	0	0	0
Area 3	Clare	250	202	80.8
	Limerick	262	246	93.9
	Tipperary North	0	0	0
Area 4	Cork	785	684	87.1
	Kerry	235	176	74.9
Area 5	Carlow	0	0	0
	Kilkenny	0	0	0
	Tipperary South	95	90	94.7
	Waterford	325	287	88.3
	Wexford	0	0	0
Area 8	Laois	165	159	96.4
	Longford	0	0	0
	Offaly	0	0	0
	Westmeath	300	194	64.7
	Louth	44	35	81.8
	Meath	600	616	102.7
Total		5,097	4,382	86.0

Source: RIA Monthly Statistics Report January 2015

Table C.2: Age profile of 'vulnerable' migrants (Census 2011)

Age Group	2011	%
0-4 years	9,270	6.0
5-19 years	24,253	15.8
20-64 years	113,365	73.7
65-84 years	5,781	3.8
85+ years	1,196	0.8
Total	153,865	100

Source: CSO

Table C.3: Homeless adult persons in emergency accommodation by region April 2014 – January 2015

	Apr	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan 15
Dublin	1551	1548	1592	1598	1633	1648	1709	1868	1960
Mid-West	245	243	239	261	260	263	278	278	266
South West	225	202	218	202	211	214	216	221	232
South East	142	152	162	171	173	173	179	174	202
Mid-East	78	87	83	80	78	78	121	121	123
West	137	36	72	109	98	92	95	91	88
Midlands	41	47	54	42	47	48	45	41	42
North East	19	23	37	32	30	30	38	33	35
North West	39	47	52	44	44	34	39	31	32
Total	2477	2385	2509	2539	2574	2580	2720	2858	2980
Monthly Change		-92	124	30	35	6	140	138	122

Source: http://www.environ.ie/en/DevelopmentHousing/Housing/SpecialNeeds/HomelessPeople/

Table C.4: Breakdown of homeless adults in emergency accommodation January 2015

Region	Total	Gender		Age Groups				Accommodation Type*			
		Male	Female	18-24	25-44	45-64	65+	PEA	STA	TEA	Other
Dublin	1960	1222	738	337	1252	354	17	999	1011	65	0
Mid West	266	182	84	47	131	66	22	25	215	2	24
South West	232	165	67	26	143	57	6	39	199	0	0
South East	202	145	57	40	98	57	7	39	161	1	1
Mid East	123	93	30	17	61	33	12	28	58	37	0
West	88	77	11	6	35	43	4	1	87	0	0
Midlands	42	24	18	7	22	13	0	3	0	38	1
North East	35	32	3	5	14	13	3	0	0	31	4
North West	32	23	9	1	21	10	0	0	9	13	10
Total	2980	1963	1017	486	1777	646	71	1134	1740	187	40

Source: http://www.environ.ie/en/DevelopmentHousing/Housing/SpecialNeeds/HomelessPeople/

**Note: Clients may have accessed multiple accommodation types during week of data collation*

PEA = Private Emergency Accommodation (i.e. rented directly from landlords, B&Bs, hotels)

STA = Supported Temporary Accommodation (i.e. hostel accommodation with onsite support from Focus Ireland, Simon community, Crosscare)

TEA = Temporary Emergency Accommodation (hostel accommodation with low or minimal support)

Appendix D: Social Care

Table D.1: Estimated number of children 0-5 & 6-18 living with disability by CHO
(Prevalence estimates NDA applied to population projections for 2015, 2016 & 2021)

CHO	Area 1 – Border			Area 2 – West			Area 3 – Midwest			Area 4 – Southwest			Area 5 – Southeast		
Year	2015	2016	2021	2015	2016	2021	2015	2016	2021	2015	2016	2021	2015	2016	2021
Total pop 0-5	34805	33884	29401	39576	39043	32580	35018	34775	30087	62171	61900	56670	46665	46381	42263
No 1 disability 0-5	1133	1104	959	1275	1269	1077	1118	1121	985	1990	1990	1847	1493	1491	1373
No >1 disability 0-5	538	524	455	605	602	512	530	532	467	943	944	876	707	707	652
Total pop 6-18	75739	76846	78695	79422	80495	85605	68907	69515	73498	118414	120426	130598	94047	95104	99606
No 1 disability 6-18	5579	5663	5840	5845	5924	6325	5075	5120	5422	8706	8850	9624	6926	7006	7355
No >1 disability 6-18	2508	2546	2620	2629	2664	2841	2282	2302	2437	3916	3982	4326	3114	3150	3304

CHO	Area 6 – Wicklow, Dunlaoghaire, Dublin SE			Area 7 – Kildare West Wicklow, Dublin South City, Dublin West, Dublin South West			Area 1 – Midland			Area 9 – Dublin North, Dublin North Central Dublin North West		
Year	2015	2016	2021	2015	2016	2021	2015	2016	2021	2015	2016	2021
Total pop 0-5	34291	34162	30197	66869	66617	58826	61961	61195	54757	59420	59331	52360
No 1 disability 0-5	1103	1109	994	2137	2149	1925	1997	1980	1786	1893	1910	1711
No >1 disability 0-5	523	526	473	1013	1019	914	947	939	848	897	906	813
Total pop 6-18	66129	68015	77420	116926	120346	137256	119283	121814	130320	97465	100565	116919
No 1 disability 6-18	4874	5010	5724	8571	8816	10093	8753	8944	9618	7137	7354	8574
No >1 disability 6-18	2191	2252	2571	3858	3970	4540	3939	4025	4322	3214	3313	3860

Source: NDA 2014, CSO

Table D.2: County of residence of persons with Intellectual Disability by age group

Age Group	0-19		20-34		35-54		55+		Total
County of residence	N	%	N	%	N	%	N	%	N
Carlow	194	45%	91	21%	96	22%	50	12%	431
Dublin	2,287	36%	1,341	21%	1,656	26%	1,006	16%	6,290
Kildare	577	40%	297	21%	416	29%	156	11%	1,446
Kilkenny	247	35%	151	21%	225	32%	86	12%	709
Laois	171	37%	119	26%	99	21%	74	16%	463
Longford	60	25%	74	31%	83	35%	20	8%	237
Louth	316	33%	203	21%	302	31%	142	15%	963
Meath	414	47%	210	24%	192	22%	70	8%	886
Offaly	135	36%	121	32%	85	23%	36	10%	377
Westmeath	212	32%	156	24%	189	29%	97	15%	654
Wexford	332	35%	210	22%	280	30%	115	12%	937
Wicklow	221	32%	177	26%	227	33%	56	8%	681
Clare	194	36%	125	23%	143	26%	78	14%	540
Cork	1,109	36%	708	23%	885	29%	396	13%	3,098
Kerry	374	39%	214	22%	280	29%	99	10%	967
Limerick	548	38%	276	19%	469	32%	161	11%	1,454
Tipperary NR	121	31%	98	25%	138	35%	36	9%	393
Tipperary SR	293	47%	124	20%	145	23%	59	10%	621
Waterford	357	45%	144	18%	176	22%	117	15%	794
Galway	559	35%	371	23%	429	27%	240	15%	1599
Leitrim	60	40%	42	28%	28	19%	21	14%	151
Mayo	375	35%	233	22%	292	28%	159	15%	1,059
Roscommon	178	41%	109	25%	114	26%	35	8%	436
Sligo	181	26%	110	16%	262	38%	138	20%	691
Cavan	181	46%	84	21%	99	25%	33	8%	397
Donegal	381	37%	242	24%	264	26%	138	13%	1,025
Monaghan	104	28%	84	23%	123	34%	54	15%	365
Total	10,181	37%	6,114	22%	7,697	28%	3,672	13%	27,664

Source: National Intellectual Disability Database 2013, Health Research Board

Table D.3: Accommodation setting of people with intellectual disability

	Home		Independent		Comm Grp Home		Residential centres		Intensive placements		Nursing Home		MH comm residence		Psychiatric Hospital		Total
County	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	n
Carlow	340	79.3%	15	3.5%	54	12.6%	8	1.9%	10	2.3%	1	0.2%	0	0.0%	1	0.2%	429
Dublin	4,073	65.2%	229	3.7%	890	14.2%	790	12.6%	124	2.0%	12	0.2%	5	0.1%	124	2.0%	6,247
Kildare	915	63.5%	33	2.3%	211	14.6%	183	12.7%	95	6.6%	5	0.3%	0	0.0%	0	0.0%	1,442
Kilkenny	392	55.3%	42	5.9%	143	20.2%	110	15.5%	16	2.3%	3	0.4%	0	0.0%	3	0.4%	709
Laois	344	75.9%	23	5.1%	66	14.6%	11	2.4%	1	0.2%	3	0.7%	1	0.2%	4	0.9%	453
Longford	167	71.4%	17	7.3%	34	14.5%	12	5.1%	4	1.7%	0	0.0%	0	0.0%	0	0.0%	234
Louth	606	64.6%	40	4.3%	140	14.9%	141	15.0%	6	0.6%	5	0.5%	0	0.0%	0	0.0%	938
Meath	667	75.5%	21	2.4%	121	13.7%	29	3.3%	35	4.0%	10	1.1%	0	0.0%	1	0.1%	884
Offaly	302	81.6%	16	4.3%	41	11.1%	0	0.0%	6	1.6%	3	0.8%	2	0.5%	0	0.0%	370
Westmeath	399	62.1%	34	5.3%	159	24.7%	42	6.5%	8	1.2%	0	0.0%	0	0.0%	1	0.2%	643
Wexford	673	72.0%	57	6.1%	127	13.6%	31	3.3%	13	1.4%	13	1.4%	0	0.0%	21	2.2%	935
Wicklow	447	65.9%	50	7.4%	111	16.4%	9	1.3%	58	8.6%	3	0.4%	0	0.0%	0	0.0%	678
Clare	367	69.5%	11	2.1%	103	19.5%	1	0.2%	10	1.9%	8	1.5%	28	5.3%	0	0.0%	528
Cork	2,086	67.6%	94	3.0%	441	14.3%	304	9.9%	143	4.6%	5	0.2%	2	0.1%	8	0.3%	3,086
Kerry	688	71.2%	44	4.6%	93	9.6%	108	11.2%	7	0.7%	20	2.1%	0	0.0%	6	0.6%	966
Limerick	900	62.2%	35	2.4%	266	18.4%	182	12.6%	42	2.9%	5	0.3%	15	1.0%	2	0.1%	1,447
Tipperary NR	255	64.9%	20	5.1%	69	17.6%	0	0.0%	47	12.0%	2	0.5%	0	0.0%	0	0.0%	393
Tipperary SR	458	73.9%	18	2.9%	89	14.4%	42	6.8%	8	1.3%	3	0.5%	2	0.3%	0	0.0%	620
Waterford	552	69.5%	33	4.2%	134	16.9%	64	8.1%	11	1.4%	0	0.0%	0	0.0%	0	0.0%	794
Galway	1,034	65.4%	91	5.8%	393	24.9%	29	1.8%	8	0.5%	23	1.5%	1	0.1%	2	0.1%	1,581
Leitrim	112	74.7%	15	10.0%	22	14.7%	0	0.0%	0	0.0%	1	0.7%	0	0.0%	0	0.0%	150
Mayo	723	69.1%	72	6.9%	136	13.0%	103	9.8%	4	0.4%	7	0.7%	0	0.0%	1	0.1%	1,046
Roscommon	324	74.7%	28	6.5%	46	10.6%	2	0.5%	30	6.9%	4	0.9%	0	0.0%	0	0.0%	434
Sligo	312	45.2%	39	5.7%	185	26.8%	143	20.7%	10	1.4%	1	0.1%	0	0.0%	0	0.0%	690
Cavan	338	85.1%	22	5.5%	27	6.8%	1	0.3%	0	0.0%	9	2.3%	0	0.0%	0	0.0%	397
Donegal	780	76.7%	65	6.4%	93	9.1%	65	6.4%	12	1.2%	1	0.1%	0	0.0%	1	0.1%	1,017
Monaghan	243	66.8%	17	4.7%	75	20.6%	17	4.7%	6	1.6%	6	1.6%	0	0.0%	0	0.0%	364
Total	18,498	67.3%	1,182	4%	4,269	15.5%	2,427	8.8%	714	2.6%	153	0.6%	56	0.2%	175	0.6%	27,475

Source: National Intellectual Disability Database 2013

Appendix E: Mental Health

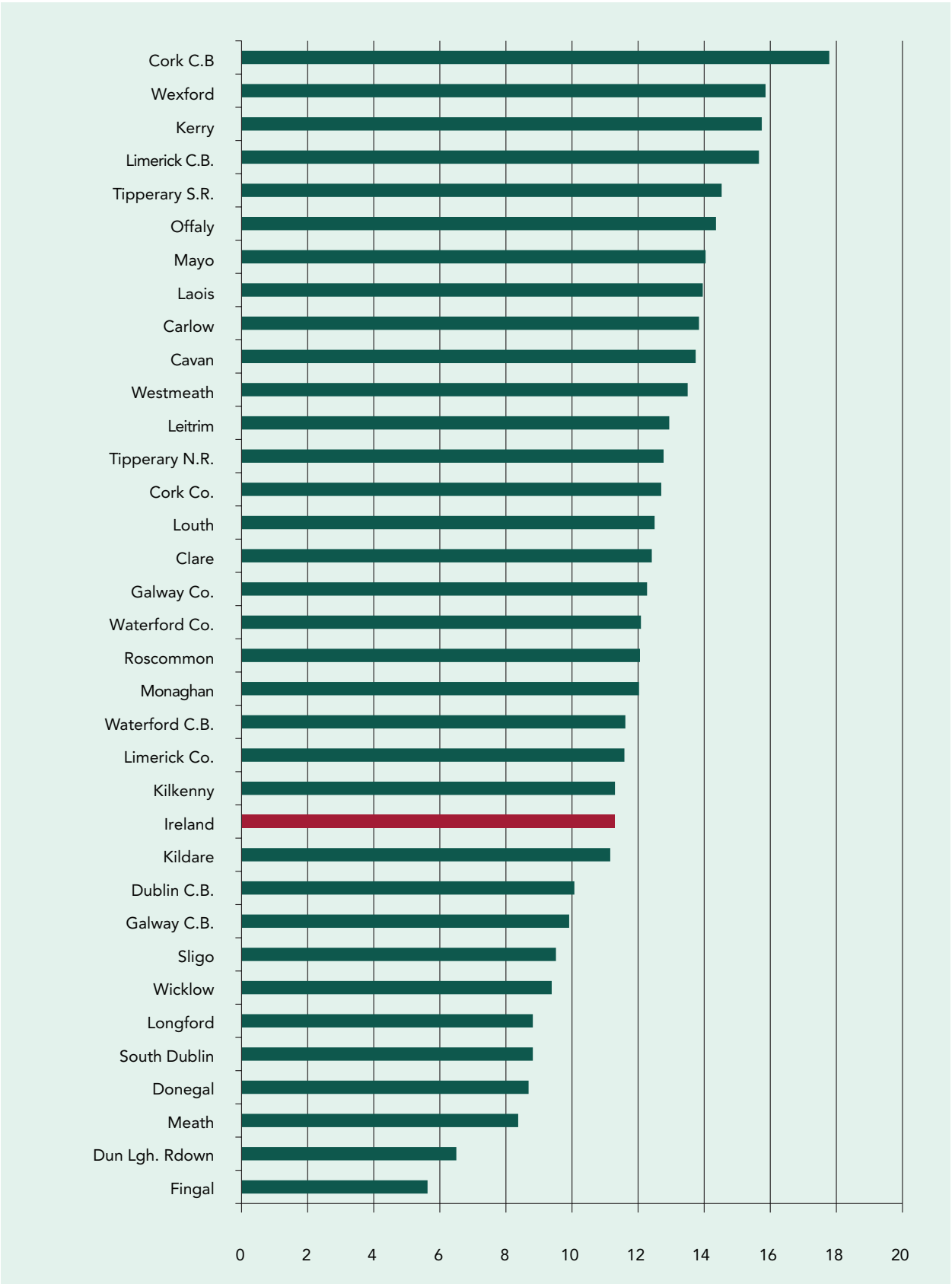
Table E.1: Average Utilisation Rate for 65-84 year olds 2009-2013 and Projections for 2016 and 2021

	3 year average rate/100,000 2011-2013	3 year average 2011 – 2013	Projected 2016	Projected 2021
All Diagnoses	325.4	1,589	1,804	2,105
Depressive Disorders	109.3	534	606	707
Schizophrenia	67.8	331	376	439
Organic Mental Disorders	51.5	252	286	333
Mania	38.8	189	215	251
Other & Unspecified	27.2	133	151	176

Table E.2: Average Utilisation Rate for Over 85s 2011-2013 and Projections for 2016 and 2021

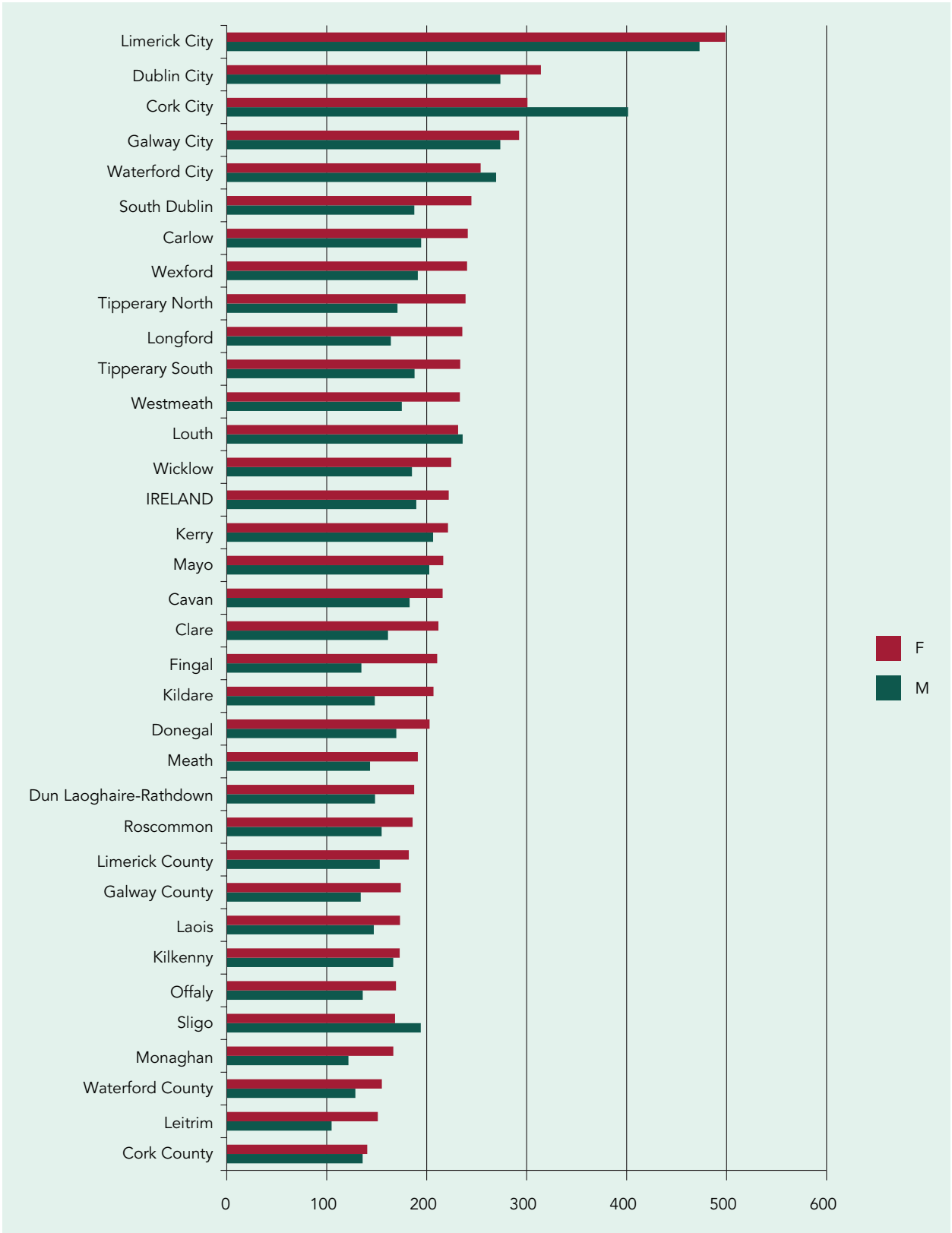
	3 year average rate/100,000 2011-2013	3 year average 2011 – 2013	Projected 2016	Projected 2021
All Diagnoses	188.0	113	131	160
Organic Mental Disorders	87.1	52	61	74
Depressive Disorders	49.7	30	35	42
Schizophrenia	22.6	14	16	19
Other & Unspecified	13.7	8	10	12
Neuroses	8.8	5	6	7

Figure E.1: Rates of deaths by suicide by county of residence: Average 2007-2013



Source: National Suicide Research Foundation2014

Figure E.2: Rate of deliberate self-harm per 100,000 by city and county by gender: Average 2007-2013



Source: National Suicide Research Foundation2014

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