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# Literature Review: Drivers of Public Health Spending in Ireland

An Oifig Buiséid Pharlaiminteach  
Parliamentary Budget Office

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## Séanadh

Is í an Oifig Buiséid Pharlaiminteach (OBP) a d'ullmhaigh an doiciméad seo mar áis do Chomhaltaí Thithe an Oireachtais ina gcuid dualgas parlaiminteach. Ní bheartaítear é a bheith uileghabhálach ná críochnúil. Féadfaidh an OBP aon fhaisnéis atá ann a bhaint as nó a leasú aon tráth gan fógra roimh ré. Níl an OBP freagrach as aon tagairtí d'aon fhaisnéis atá á cothabháil ag tríú páirtithe nó naisc chuig aon fhaisnéis den sórt sin ná as ábhar aon fhaisnéise den sórt sin. Tá baill foirne an OBP ar fáil chun ábhar na bpáipéar seo a phlé le Comhaltaí agus lena gcuid foirne ach ní féidir leo dul i mbun plé leis an mórphobal nó le heagraíochtaí seachtracha.

Is de chineál ginearálta í an Fhaisnéis. Baineann éiginnteacht le ráitis réamhbhreathnaitheacha agus d'fhéadfadh go dtiocfaidh nithe suntasacha chun cinn mar thoradh ar an bhFaisnéis. Ní sholáthraítear ráiteas cinntitheach leis an bhFaisnéis i ndáil le haon saincheist ar leith nó i ndáil le himthoisc phearsanta. Ní comhairle atá san Fhaisnéis. Ní mór a dheimhniú duit féin go bhfuil an Fhaisnéis a sholáthraímidne, an Oifig Buiséid Pharlaiminteach agus Coimisiún an Oireachtais (lena n-áirítear seirbhísigh, gníomhairí agus conraitheoirí na hOifige agus an Choimisiúin) oiriúnach agus iontaoifa. Ní ghlacaimid aon fhreagracht as cruinneas ná oiriúnacht, ná eile, na Faisnéise agus ní thugaimid aon ráthaíocht ná aon ghealltanais ná aon bharánta i leith an chéanna; ná go mbeidh ár leathanaigh ghréasáin nó an Fhaisnéis nó ábhar eile saor ó earráidí, saor ó víris nó saor ó shárú. Ní ghlacaimid aon dliteanas (lena n-áirítear i leith éilimh maoinne intleachtúla) a eascróidh as aon ábhar tríú páirtí nó aon suíomh gréasáin tríú páirtí a gcuirfimid nasc ar fáil chuige nó dá ndéanfaimid tagairt. Ní ghlactar le haon dliteanas ar bith, a mhéid is mó a cheadaítear faoin dlí is infheidhme nó (i) as aon iontaoibh a chuirfear san Fhaisnéis nó san ábhar ar ár leathanaigh ghréasáin nó (ii) as aon chaillteanas nó damáiste a eascróidh as an úsáid a bhainfidh tú as na leathanaigh ghréasáin sin nó i dtaca leis an úsáid sin. Féach ár [bhFógra Séanta cuimsitheach anseo](#). I gcás aon easaontacht a bheith idir an Séanadh seo agus ár bhFógra Séanta cuimsitheach, is ag an gceann deireanach a bheidh an forlámhas.

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# 1. Introduction

This paper aims to summarise relevant published literature on public health spending in Ireland. This paper is intended to supplement the PBO's recent publication *Health Spending in Ireland 2015-2023* (August 2023).

This paper cannot, and does not attempt to, evaluate the efficacy or efficiency of the health services being delivered.

## 1.2 Methodology

This high-level literature review draws on a wide range of sources, including the Parliamentary Budget Office (PBO), Department of Public Expenditure, NDP Delivery and Reform (PENDR), IGEES, Department of Health, the Economic and Social Research Institute (ESRI), and the Irish Fiscal Advisory Council (IFAC). Key terms used to identify relevant literature included combinations of “expenditure/spending”; “public”; and “health/healthcare”. These sources were identified due to their record of publishing on budgetary or health related policy issues. One limitation of this approach is the absence of academic literature in the search results. Furthermore, the review does not consider any changes in health outcomes among the population or patient groups, or in healthcare service efficiency which may be associated with expenditure and investment outlined below.

Following a search of each source's website, a review of publications was undertaken to identify those which contained information on health spending and factors which impact on health spending. This review presents the key findings from 47 publications which focus on healthcare expenditure in Ireland, including drivers and projections. The table below presents a summary of the literature found by area of focus:

**Table 1: Areas of Focus for Health Literature**

Area of Focus	No. of Reports found
Primary and Community Care	6
Acute Care	10
Demand-Led Schemes	2
Capital	5
Workforce	5
Demographic Trends and Impact	5
Pharmaceuticals	1
General	13
<b>Total</b>	<b>47</b>

### 1.3 Identified Literature: Healthcare Expenditure in Ireland

The publications focus on a range of topics related to healthcare spending in Ireland. These include, primary care and acute care, pay and non-pay, current expenditure and capital investment.

The factors identified by these papers as being key drivers of healthcare investment include:

- Staffing requirements and associated pay;
- Demographic pressures;
- Hi-tech drugs;
- Increasing demand for healthcare services;
- Increased national income;
- Capital costs; and
- Price inflation.

It is important to note that the aforementioned factors are not mutually exclusive. For example, demographic pressures in turn can lead to greater demand for healthcare services, which can in turn result in greater demand for hi-tech drugs and increased workforce requirements and capital infrastructure. As a result, there is a significant level of interlinkage between certain factors identified as being key drivers.

Several studies also include spending projects for the short and medium terms, highlighting the required level of investment for the years to come.

**It is important to note the findings from some reports may be dated, particularly those which are older and were published pre-2020.**

**Therefore, caution is required when interpreting these results.**

**However, their findings are still of some relevance for highlighting drivers of expenditure and areas where additional resources are required.**

In addition, a small number of publications set out forecasted costs based on policy changes which may or may not proceed.

### 1.4 Literature Highlights

There is an expansive literature concerning health and healthcare in Ireland (with this paper focusing primarily on research published by public sector bodies). Much of the literature summarised in the following section highlights immediate cost pressures facing the health sector, and into the future, with these costs being driven by both demographic changes (due to a growing and ageing population) and non-demographic factors (such as price inflation, pay increases) and other policy changes.

While the literature referred to has been published over a range of years, it highlights cost pressures of billions of euros over the short-to-medium term even in the absence of policy changes.

**Table 2: Estimated or Measured Costs from the Literature**

Driver	Cost	Estimated / Measured	Timeframe
Reducing waiting list back-logs and maintaining current waiting times	€212 million per year, on average.	Estimated	2021-2025
	€58.4 million per year, on average.	Estimated	2026-3030
	€70.5 million per year, on average.	Estimated	2031-2035
Capital – maintenance costs of community and acute care settings	Community €20 million per year, on average.	Estimated	2023-2028
	Acute €148 million per year, on average.	Estimated	
ELS – Demographic change	Additional €324 million.	Estimated	2022
	Additional €346 million.	Estimated	2023
	Additional €368 million.	Estimated	2024
	Additional €385 million.	Estimated	2025
Demographic change	Additional €4.3 billion	Estimated	2020 - 2030
	Average of +€392 million per annum	Estimated	
Demographic change	€232 million per annum +1.9% per year, on average	Estimated	2015-2021
Demographic change, inflation, increased demand, capital costs	+4.4% per annum, on average	Measured	2015-2022
Agency and Overtime expenditure	Agency from €215 million to €423 million (97+%).	Measured	2012-2019
	Overtime from €255 million to €293 million (15%)	Measured	2012-2019
National Income growth	0.7% per 1% change in national income	Measured	

## 2. Literature (by theme)

Sections 2.1 – 2.8 set out the identified publications since 2012 which discuss various areas of focus for public healthcare spending in Ireland. These are categorised according to the principal area of healthcare delivery they are focused on (sections 2.1 – 2.6); demographic impacts (section 2.7); and non-specific publications (section 2.8). Please note that no distinction is made between costs which are contingent on policy-change, whereby they are the result of political decisions, and those which are the result of drivers such as such as inflation or increased demand. Furthermore, it is important to consider that projected costs based on future policy changes may not materialise.

### 2.1 Primary and Community Care

Report Author, Title (Publication Year)	Key Findings
ESRI, <a href="#"><i>Extending eligibility for general practitioner care in Ireland: cost implications</i></a> (2023)	<ul style="list-style-type: none"> <li>In 2019, c.56% of the population did not have a medical card or GP visit card. Extending free GP care eligibility to all would increase demand for GP visits as the cost of visits falls to zero.</li> <li>Estimated there would be an extra 2.3 million GP visits (a 12% increase) in 2026 relative to no policy change.</li> <li>The projected cost to the State in 2026 of extending eligibility to free GP care to the total population was estimated between €462 million and €881 million using the age-based approach and €381 million to €881 million using the income-based approach.</li> <li>Projected cost estimates were particularly sensitive to take-up rates and payment rates agreed between the Department of Health, HSE and the Irish Medical Organisation.</li> </ul>
ESRI, <a href="#"><i>Projections of Expenditure for Primary, Community and Long-Term Care in Ireland, 2019-2035, based on the Hippocrates Model</i></a> (2021)	<p>This report highlights expenditure is projected to increase across almost all services examined including:</p> <ul style="list-style-type: none"> <li>General Practice: Projected to increase to €1.74 billion in 2035.</li> <li>Public health nursing and primary care community therapy services: Projected to be €574 million.</li> <li>Community pharmaceuticals: Projected to increase to €1.79 billion.</li> <li>Long-Term Residential Care: Projected to increase to €4.39 billion.</li> <li>Home support: Projected to be €1.94 billion in 2035.</li> </ul>
DPENDPR, <a href="#"><i>Exchequer Funding of General Practice</i></a> (2021)	<ul style="list-style-type: none"> <li>Total Expenditure on General Practice Fees and Allowances was €797 million in 2020.</li> <li>Of this, some €628 million can be classified as 'core' expenditure; and €169 million as non-core (Covid-19).</li> </ul>



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<p>Health Vote, DPENDPR, <a href="#">Note: Private Expenditure on General Practice</a> (2020)</p>	<ul style="list-style-type: none"> <li>Estimated the full rollout of free GP care will have a demand effect, resulting in an additional 20% to 40% visits per year among the currently uncovered cohort.</li> <li>This will add additional pressure on the GP system, which is thought in many regions to be near or at capacity.</li> </ul>
<p>Health Vote, DPENDPR, <a href="#">Costing Framework for the Expansion of GP Care</a> (2019)</p>	<ul style="list-style-type: none"> <li>Estimated the Exchequer cost of universal free GP care would be an additional €630 million annually, rising to €850 million over the next ten years.</li> <li>This estimation does not consider any cost implications of implementing a new model of GP care in Ireland which might accompany expansion to universal eligibility.</li> <li>Does not factor in future costs which would likely be subject to upward pressure in negotiation with General Practitioners.</li> </ul>
<p>Labour Market &amp; Enterprise Policy Division, DPENDPR, <a href="#">Staff Paper 2016: Primary Care</a> (2016)</p>	<ul style="list-style-type: none"> <li>In 2016, the budget for core primary care services was €965 million, an 80% increase since 2011.</li> <li>Excluding funding accounted for by the Multi Care Group, funding in 2016 was c. €620 million, a 22% increase since 2011.</li> <li>Increased resourcing is reflected in staff levels with WTEs standing at 10,442 at the end of 2015 – an 8.4% increase since the end of 2012.</li> </ul>

## 2.2 Acute Care

Report Author, Title (Publication Year)	Key Findings
<p>ESRI, <a href="#">Inpatient bed capacity requirements in Ireland in 2023: Evidence on the public acute hospital system</a> (2023)</p>	<ul style="list-style-type: none"> <li>While public acute hospital inpatient bed capacity has increased in recent years (in absolute and per capita terms), large bed capacity deficits remain.</li> <li>Includes scenarios assuming an 85% occupancy rate, it estimated in 2023 there may be a deficit of approximately 1,000 inpatient beds in public acute hospitals.</li> <li>On top of the system's current beds deficit, over 300 additional inpatient beds are required annually to keep up with demand pressures arising from an increasing and ageing population.</li> </ul>
<p>IGEES D/Health, <a href="#">Hospital Performance: An Analysis of Unscheduled Care Activity 2017 – 2022</a> (2023)</p>	<ul style="list-style-type: none"> <li>Unscheduled Care Presentations rose from 1.1 million in 2010 to 1.59 million in 2022. This represents a 45% increase in demand over this period, with the largest periods of growth between 2010 and 2012 (an increase of 200,000 presentations) and an increase of 250,000 presentations between 2021 and 2022.</li> <li>Utilisation rate and admission probability of older patient cohorts is substantially higher than other groups.</li> <li>This has direct implications for forecasting future Unscheduled Care capacity requirements at national and regional level, as an ageing population will likely increase demand pressures in both Unscheduled Care settings and Inpatient facilities.</li> </ul>

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<p>DPENDR, <a href="#"><i>Hospital Performance: An Analysis of National and Hospital Level Trends</i></a> (2023)</p>	<ul style="list-style-type: none"> <li>▪ Unscheduled Care Presentations have risen from 1.1 million in 2010 to 1.59 million in 2022.</li> </ul>
<p>IGEES D/Health, <a href="#"><i>Acute Hospital Waiting Lists and Times: International Comparisons and Trends in Ireland to end 2021</i></a> (2023)</p>	<ul style="list-style-type: none"> <li>▪ Between 2015-2021, there were three large annual increases (+10.5%) in waiting lists - in 2016 and 2017 (pre-pandemic increases were due to rising demand driving rises in waiting list inflows) and in 2020 (due to a COVID supply shock which reduced activity and waiting list outflows).</li> <li>▪ Waiting lists relative to the population were higher in 2021 than in 2014 (with the exception of In-Patient waiting lists). The share of waiting lists accounted for by long waits was also higher in 2021 than in 2014, with notable increases when there were substantial increases in waiting lists.</li> </ul>
<p>ESRI, <a href="#"><i>Projections of Workforce Requirements for Public Acute Hospitals in Ireland, 2019-2035, a Regional Analysis based on the Hippocrates Model</i></a> (2022)</p>	<ul style="list-style-type: none"> <li>▪ Workforce requirements for all staff categories examined are projected to increase substantially by 2035.</li> <li>▪ Large projected increases in older age groups are identified as the dominant driver of underlying service demand and therefore workforce requirements.</li> </ul>
<p>ESRI, <a href="#"><i>Projections of Expenditure for Public Hospitals in Ireland, 2018-2035, based on the Hippocrates Model</i></a> (2020)</p>	<ul style="list-style-type: none"> <li>▪ Public acute hospital gross expenditure in 2018 was €5.91 billion.</li> <li>▪ Reducing current waiting-list backlogs and maintaining waiting times is estimated to require an extra €212 million on average annually from 2021 to 2025.</li> <li>▪ Annual increases of between 3.6% and 5.4% will be required.</li> <li>▪ Pay costs are the largest single driver of expenditure growth.</li> </ul>
<p>Health Vote, DPENDPR, <a href="#"><i>Emergency Departments: Trends 2014 - 2017</i></a> (2019)</p>	<ul style="list-style-type: none"> <li>▪ Between 2014 and 2017 Emergency Department (ED) presentations increased by over 100,000 or 8%.</li> <li>▪ ED presentations can be broken down into new and return presentations. Over the period new presentations increased by 8% while return presentations increased by 16%.</li> </ul>
<p>Health Vote, DPENDPR, <a href="#"><i>Hospital Income – 2013-2017</i></a> (2019)</p>	<ul style="list-style-type: none"> <li>▪ Hospital funding consists of two key components: Exchequer funding (85%) and own resource revenue income (15%).</li> <li>▪ Over the period 2013 – 2017, own resource income grew faster than Exchequer funding.</li> </ul>
<p>Health Vote, DPENDPR, <a href="#"><i>Hospital Inputs and Outputs: 2014 - 2017</i></a> (2018)</p>	<ul style="list-style-type: none"> <li>▪ Spending on the Acute sector increased by 17%, from €4.05 billion to €4.73 billion over the period 2014 to 2017.</li> <li>▪ Despite a €680 million investment, improvements in output levels are marginal.</li> </ul>
<p>Health Vote, DPENDPR, <a href="#"><i>Acute Hospital Expenditure Review</i></a> (2017)</p>	<ul style="list-style-type: none"> <li>▪ The acute hospitals now operate under the management of seven different Hospital Groups.</li> <li>▪ Net expenditure increased by €546 million or 14% between 2011 and 2017.</li> </ul>

- Income increased over the period meaning the 14% growth in net expenditure is understated, while gross expenditure increased by €700 million since 2011.
- The largest increases in expenditure were in the non-pay category. The non-pay non-clinical category has grown by 39% since 2011.
- Spending on non-pay clinical expenses in 2016 was 25% higher than in 2011.

## 2.3 Capital

Report Author, Title (Publication Year)	Key Findings
IGEES D/Health, <a href="#"><i>Analysis of Healthcare Infrastructure Capacity</i></a> (2022)	<ul style="list-style-type: none"> <li>Healthcare infrastructure capacity varies by Regional Health Area, informing considerations around the spread of planned healthcare infrastructure investment.</li> </ul>
IGEES D/Health, <a href="#"><i>Analysis of Built Healthcare Infrastructure</i></a> (2022)	<ul style="list-style-type: none"> <li>The age of both Community and Acute Facilities varies significantly with a large proportion of both portfolios being built over 40 years ago. This likely has negative associated impacts on maintenance costs, patient safety and efficiency in healthcare service delivery.</li> <li>The overall quality of the Community care portfolio is good with over 90% of all sites receiving B or above scores across all 4 categories measured on the HSE Capital &amp; Estates database (space utilisation, engineering, building condition, physical condition). The quality of the stock within the Acute setting is much more varied, with 43% of sites having a quality score below the recommended B rating.</li> <li>The HSE estimates a recommended maintenance cost of €121 million for community care settings, and €887 million for acute care settings over the next five years.</li> </ul>
IGEES D/Health, <a href="#"><i>Dealing with Uncertainty &amp; Risk: The Application of Reference Class Forecasting to Future Capital Investment in Healthcare</i></a> (2021)	<ul style="list-style-type: none"> <li>In the Health sector, a sample of 25 domestic and international healthcare projects had an average cost variance of 100%.</li> <li>Using this sample as the basis of a preliminary reference class forecasting model and applying this to the healthcare National Development Plan (NDP), the model estimates the final costs for six projects valued at more than €100 million which were at Appraisal Stage. The model also highlights a potential 66% increase in costs (€1.4 billion) from the 2018 estimates to deliver the same projects.</li> </ul>
IGEES D/Health, <a href="#"><i>Strategic Considerations for Future Capital</i></a>	<ul style="list-style-type: none"> <li>The long-time horizons involved in the development of infrastructure projects can lead to issues related to cost overruns and multi-annual budgeting.</li> </ul>

*Investment in Healthcare* (2021)

IGEES D/Health, *Analysis of Historical Capital Investment in Healthcare* (2021)

- The paper identifies a lack of centralised strategic direction for healthcare historically, with investment policy not aligned with reports recommending a re-design and consolidation of the fragmented Irish hospital network.
- The paper highlights the strong pro-cyclicality of Irish capital investment decisions historically, limiting the extent to which longer-term strategic investment decisions could be made. This pro-cyclicality is also evident in healthcare investment trends.
- While there are limitations to direct comparison of international health expenditure, available data indicates that Irish healthcare capital spending equated to 66% of the investment made by EU peers from the 1970s up to 1996. While the gap in spend has closed in recent years, it is likely that this has left a legacy of lower capital stock in Ireland relative to international comparators.

## 2.4 Demand-led Schemes

Report Author, Title (Publication Year)	Key Findings
Health Vote, DPENDPR, <i>Review of the Long-Term Illness Scheme</i> (2022)	<ul style="list-style-type: none"> <li>▪ Expenditure associated with the Long-Term Illness Scheme has increased by 175% since 2013, from €106 million to €292 million in 2021.</li> <li>▪ Over this period, the number of claimants increased by 175% (from a total of 71,000 to 195,000 claimants).</li> </ul>
Labour Market & Enterprise Policy Division, DPENDPR, <i>Staff Paper 2015: Primary Care Reimbursement Service</i> (2015)	<ul style="list-style-type: none"> <li>▪ The rollout of free GP services to under 6s and over 70s will result in an increase of approx. 300,000 GP visit cards and an associated increase in expenditure of €64 million.</li> <li>▪ Demographic changes represent a small expenditure pressure in the medium term.</li> <li>▪ Improving cyclical conditions will continue to play a role in reducing the number of medical cards.</li> <li>▪ The high-tech drugs bill is growing at an average annual rate of 12%.</li> </ul>

## 2.5 Pharmaceuticals

Report Author, Title (Publication Year)	Key Findings
Health Vote, DPENDPR, <i>Future Sustainability of Pharmaceutical Expenditure</i> (2017)	<ul style="list-style-type: none"> <li>▪ The key drivers of pharmaceutical expenditure are expensive high-tech drugs and new hospital drugs.</li> <li>▪ In 2014, Ireland ranked among the highest of 14 OECD reference countries in terms of pharmaceutical spend per capita. This high spend was supported by both higher-than-average prices and a high medicine consumption per capita.</li> </ul>

- The State entered a framework agreement with industry for the supply and pricing of medicines in 2016. The framework seeks to contain growth in spend on drugs.

## 2.6 Workforce and Staffing

Report Author, Title (Publication Year)	Key Findings
IGEES D/Health, <a href="#">An Analysis of Medical Workforce Supply</a> (2023).	<ul style="list-style-type: none"> <li>▪ The HSE consultant workforce increased from 2,918 in 2017 to 3,563 in 2021, or by 5.1% on average each year.</li> <li>▪ The number of non-training NCHDs increased from 2,564 to 3,081 over the same period, or by 4.7% on average each year.</li> </ul>
IFAC, <a href="#">Fiscal Assessment Report</a> (2022)	<ul style="list-style-type: none"> <li>▪ Staff pay accounted for, on average, 47% of the health vote costs over the period 2015-2021.</li> <li>▪ Over the period 2016-2021, staffing levels in the public health sector increased by 25,000, or almost 23%.</li> <li>▪ In particular, the number of staff in Acute Services increased by 29%, while there was a 33% increase in the number of consultants. Management and Administration was the largest area of growth, with staff numbers increasing by 25% since 2016.</li> </ul>
IGEES D/Health, <a href="#">A System Dynamics Model of Nursing and Midwifery Workforce Supply</a> (2022)	<ul style="list-style-type: none"> <li>▪ Over the period 2014 to 2021 first-year nursing and midwifery places in Irish Higher Education Institutions (HEIs) grew from 1,570 to 2,032 – an increase of almost 30%.</li> <li>▪ Based on current trends, the proportion of domestically educated nurses and midwives in the WTE workforce will decrease from 54% to approximately 38% over a 20-year projection period which will exacerbate the challenge of reaching national self-sufficiency.</li> </ul>
Health Vote, DPENDPR, <a href="#">Health Expenditure: Nursing &amp; Midwifery</a> (2018)	<ul style="list-style-type: none"> <li>▪ The 2017 expenditure on nurses and midwives is €2.2 billion up from €2 billion at end 2013. This represents 32% of the total €6.9 billion pay bill for the HSE.</li> <li>▪ Between Q4 2013 and Q1 2018, on a like for like basis, the number of nurses and midwives in the Irish public health system increased from 33,768 to 37,328 FTE (+10.5%).</li> <li>▪ Increases in the number of nurses and midwives directly employed since 2014 have not resulted in a reduction the HSE expenditure on agency nurses and midwives which remains 85% above 2007 levels.</li> </ul>
Health Vote, DPENDPR, <a href="#">HSE Staffing Levels: Management and Sustainability</a> (2018)	<ul style="list-style-type: none"> <li>▪ The number of staff employed by the HSE increased by 14,213 WTEs or 15% from the beginning of 2014 to end 2017.</li> <li>▪ From 2014 to 2017, total pay related spending increased from c.€6.1 billion to €6.7 billion. This is an increase of €687 million over a four-year period.</li> <li>▪ HSE estimations around agency staff expenditure have consistently been out of line with actual expenditure.</li> <li>▪ From 2015 to 2017, actual agency spend was greater than expected with actual spend ranging from €52 million to €154 million above the expected agency spend. It appears assumptions underpinning agency pay profiles are not realistic or achievable.</li> </ul>

## 2.7 Demographic Trends and Impacts

Report Author, Title (Publication Year)	Key Findings
IGEES D/Health, <a href="#"><i>Impact of Demographic Change on Health Expenditure 2022-2025</i></a> (2021)	<ul style="list-style-type: none"> <li>Estimated an additional €324 million is required in 2022 to maintain Existing Levels of Service (ELS) when considering only demographic change, rising to €385 million by 2025.</li> <li>This compares with previous estimate of €175 million for 2022 by IGEES (2019), increasing to an average annual cost of €186 million between 2023 - 2026.</li> <li>Main reason for increased estimates is from the use of more age specific data and expanding the scope of service areas modelled.</li> </ul>
DPER, <a href="#"><i>Budgetary Impact of Changing Demographics from 2020 - 2030</i></a> (2019)	<ul style="list-style-type: none"> <li>Estimates indicate the cost of demographics for 2020 at €511 million, this is higher than the 2016 paper estimate of €435 million.</li> <li>Between 2020 and 2030, core demographic spending pressures are estimated to require an additional €4.3 billion. This results in an annual average increase in spending of €392 million.</li> </ul>
PBO, <a href="#"><i>The Effect of Changing Demographics on Irish Health Expenditure – An Analysis of Different Approaches and Findings</i></a> (2019)	<ul style="list-style-type: none"> <li>Population ageing is likely to add significant pressure to the healthcare system and lead to increases in healthcare expenditure in the coming years. However, the level of additional public expenditure needed is unclear.</li> <li>Public Health expenditure has been increasing annually, with a 6.3% increase seen in 2018. Around 27% to 31% can be attributed to demographic change.</li> <li>Non-demographic factors are found to be the main driver of increases in Irish public health expenditure in recent years, including policy changes, price inflation for medical goods, increases in pay and changes in national income.</li> </ul>
Health Vote, DPENDPR, <a href="#"><i>Trends in public Social Care Service Provision and Expenditure for Older Persons</i></a> (2018)	<ul style="list-style-type: none"> <li>Increased expenditure on Services for Older People has been in line with demographic changes.</li> <li>Homecare service provision has increased beyond demographic trends over the last five years.</li> <li>While Home Care Packages (HCPs) show a much larger increase than home help hours, it is unclear what the exact differences in service provision are.</li> <li>The increased number of HCPs contrasts sharply with observed developments in demand for the Nursing Homes Support Scheme.</li> <li>Improved data gathering and collation in this service area is required for a better understanding of the value for money that is being achieved.</li> </ul>
DPER, <a href="#"><i>Budgetary Impact of Changing Demographics 2017-2027</i></a> (2016)	<ul style="list-style-type: none"> <li>While the estimated cost pressure for the acute sector has increased relative to 2015, due to the higher population level, pressure on General Medical Services (GMS) has reduced due to a reduction in medical cards numbers from 2013 to 2014. This reduction in cards provides a lower utilisation rate going forward.</li> </ul>

## 2.8 Non-specific Spending on Health and Healthcare

Report Author, Title (Publication Year)	Key Findings
PBO, <a href="#">Health Spending in Ireland 2015-2023</a> (2023)	<ul style="list-style-type: none"> <li>▪ Health spending has exceeded its allocated budget for 7 of the last 8 years up to 2022, with the average variance being 4.4% above initial allocation.</li> <li>▪ The key drivers of health spending in Ireland include:               <ol style="list-style-type: none"> <li>i. Demographic changes, including a growing and ageing population;</li> <li>ii. Increases in staffing numbers and pay rates;</li> <li>iii. Policy changes;</li> <li>iv. Increased costs of drugs, medicines, and appliances;</li> <li>v. Increased costs of providing primary care demand-led schemes, such as General Medical Service (GMS) medical and GP</li> <li>vi. visit cards, Long Term Illness and Drug Payment Schemes; and</li> <li>vii. Increased capital costs.</li> </ol> </li> </ul>
IGEES D/Health, <a href="#">Towards Population-Based Funding for Health: Evidence Review &amp; Regional Profiles</a> (2022)	<ul style="list-style-type: none"> <li>▪ The CSO Census of Population and the Department of Health's 'Healthy Ireland' Surveys' were found to be the most useful and reliable data sources for the purposes of designing a Population-Based Resource Allocation (PBRA) in Ireland.</li> <li>▪ Ireland's ability to pursue a best practice approach is constrained by the lack of a fit for purpose unique health identifier and inability to match utilisation and cost to other characteristics of people or groups (e.g., socioeconomic status).</li> <li>▪ Paper provides data on the likely drivers of healthcare need in Ireland. Work is ongoing with regard to estimating relationships between need variables and utilisation/expenditure, given data constraints, in order to inform the development of a PBRA model.</li> </ul>
IFAC, <a href="#">The path for Ireland's health budget</a> (2021)	<ul style="list-style-type: none"> <li>▪ Investment spending in health in Ireland has been slightly above the OECD average in the past two decades; however, availability of health infrastructure remains limited compared to other countries.</li> <li>▪ An ageing population and increase in incomes are likely to have played a role in increased health spending.</li> <li>▪ Staffing costs are a significant factor in health spending overruns.</li> </ul>
IGEES D/Health, <a href="#">Factors Affecting Agency and Overtime Expenditure in the Irish Health Service</a> (2021)	<ul style="list-style-type: none"> <li>▪ Agency expenditure has had an almost constant increase from 2012 (€214.9 million) to 2019 (€423 million), with the only decrease in 2015, where expenditure fell 3% (€9 million).</li> <li>▪ Overall growth from 2012 to 2019 was a 97% increase (€208 million).</li> <li>▪ In 2012, overtime expenditure was €255 million. It fell in 2013 and 2014 but increased thereafter.</li> </ul>



## Literature Review: Drivers of Public Health Spending in Ireland

	<ul style="list-style-type: none"> <li>Expenditure on overtime increased by a total of 15% (€38 million) from 2012 to 2019, and 46% (€92 million) from 2014 to 2019.</li> </ul>
DPER, <a href="#"><i>Trends in Public Expenditure</i></a> (2021)	<ul style="list-style-type: none"> <li>From 2011 to 2020, total voted expenditure on healthcare rose from €14.52 billion to €20.8 billion.</li> <li>Total health expenditure increased by 44% from 2015 to 2020, representing significant growth over a short period of time.</li> </ul>
PBO, <a href="#"><i>Drivers of Government Spending on Health: Effect of National Income</i></a> (2020)	<ul style="list-style-type: none"> <li>A 1% change in national income (GNI*) leads to a 0.7% change in health spending.</li> <li>Several studies found that changes in national income is the largest driver of government spending on health internationally.</li> <li>Other major drivers include inflation, technological advances, pressure on wages, structural reforms, and demographic changes.</li> </ul>
Health Vote, DPENDPR, <a href="#"><i>Health Budget Oversight &amp; Management: Alignment of Health Budget and National Service Plan</i></a> (2019)	<ul style="list-style-type: none"> <li>From 2013 outturn to 2018 allocation, health spending increased by around €2.6 billion or 19%. This increase is substantial and averages around an extra €560 million annually.</li> <li>From 2016 onwards the health budget allocation increased by an average of €431 million annually.</li> <li>However, the health sector continued to over-spend with annual supplementary funding provided ranging from €195 million to €645 million.</li> <li>Health sector budget management and planning process could be significantly improved if the annual HSE National Service Plan fulfilled all legislative requirements. This would provide greater transparency and improve the performance monitoring process.</li> </ul>
PBO, <a href="#"><i>Vote 38 Health – Total Gross Voted Allocation: Budget 2017 to Budget 2019</i></a> (2019)	<ul style="list-style-type: none"> <li>Over the period 2017-2019, the Gross Voted Allocation increased by €2.24 billion (16.4%).</li> </ul>
PBO, <a href="#"><i>The Health Vote: What is the link between funding and performance?</i></a> (2019)	<ul style="list-style-type: none"> <li>Performance metrics in the Revised Estimates for Public Services (REV) are not linked to specific spending allocations.</li> <li>This breaks the link between financial inputs and service performance metrics which is integral to performance budgeting.</li> </ul>
DPER, <a href="#"><i>Comparative Levels and Efficiency of Irish Public Spending</i></a> (2018)	<ul style="list-style-type: none"> <li>Based on GNI* and accounting for age, Irish health expenditure is well above the Euro-Area average.</li> </ul>
DPER, <a href="#"><i>Trends in Public Spending</i></a> (2018)	<ul style="list-style-type: none"> <li>From 1997 to 2017, total Government expenditure on healthcare rose from €3.6 billion to €15.6 billion.</li> <li>Total health expenditure increased by 19% from 2014 to 2018, this growth is significant over such a short period of time.</li> </ul>

DPER, [\*Tracking Trends in Public Spending\*](#) (2017)

- From 1996 to 2016, Government expenditure on healthcare grew from €3.1 billion to €15.1 billion.
- In terms of outcomes, Ireland has among the best outlooks in the EU for life expectancy but compares poorly in terms of quality of care.
- Rising demographic pressures and fiscal constraints mean there is a need to ensure that all health resources are deployed as effectively as possible.

DPER, [\*The Irish Government Economic Evaluation Service: Selection of IGEEES Output\*](#) (2017)

- Expenditure forecasting and savings scenario analysis informed the foundation of a new cost containment strategy. Working alongside other stakeholders, a new pricing and supply agreement with the pharmaceutical industry was negotiated. The agreement is estimated to save €750 million over the next 4 years with the strategy ensuring the sustainability of this significant area of expenditure in the medium term.
- Despite increasing demands, the Nursing Homes Support Scheme is affordable and sustainable in the long-term.

### 3. Conclusion

Extensive research and analysis has been undertaken in Ireland to identify the cost of delivering public health and factors underlying the real and potential need for additional investment. In total, this review identified 47 papers from 2012 to 2023 across several high-profile, public-sector bodies, agencies and Departments which examined key aspects of health and healthcare in Ireland.

Several factors were identified as the main drivers of public health spending increases within the Irish public healthcare system. These included demographic changes, such as population aging, adding pressure to the health service, and non-demographic factors, including policy changes, price inflation, and pay increases,

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