

Connolly, Sheelah; Keegan, Conor; O'Malley, Seamus; Regan, Mark

Research Report

Extending eligibility for general practitioner care in Ireland: Cost implications

Research Series, No. 156

Provided in Cooperation with:

The Economic and Social Research Institute (ESRI), Dublin

Suggested Citation: Connolly, Sheelah; Keegan, Conor; O'Malley, Seamus; Regan, Mark (2023) : Extending eligibility for general practitioner care in Ireland: Cost implications, Research Series, No. 156, The Economic and Social Research Institute (ESRI), Dublin, <https://doi.org/10.26504/rs156>

This Version is available at:

<https://hdl.handle.net/10419/298300>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

RESEARCH
SERIES
NUMBER 156
JANUARY
2023

EXTENDING ELIGIBILITY FOR GENERAL PRACTITIONER CARE IN IRELAND: COST IMPLICATIONS

SHEELAH CONNOLLY, CONOR KEEGAN, SEAMUS O'MALLEY AND MARK
REGAN



EXTENDING ELIGIBILITY FOR GENERAL PRACTITIONER CARE IN IRELAND: COST IMPLICATIONS

SHEELAH CONNOLLY
CONOR KEEGAN
SEAMUS O'MALLEY
MARK REGAN

January 2023

RESEARCH SERIES NUMBER 156

Available to download from www.esri.ie
© The Economic and Social Research Institute
Whitaker Square, Sir John Rogerson's Quay, Dublin 2
<https://doi.org/10.26504/rs156>



This Open Access work is licensed under a Creative Commons Attribution 4.0 International License (<https://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly credited.

ABOUT THE ESRI

The mission of the Economic and Social Research Institute (ESRI) is to advance evidence-based policymaking that supports economic sustainability and social progress in Ireland. ESRI researchers apply the highest standards of academic excellence to challenges facing policymakers, focusing on 12 areas of critical importance to 21st-century Ireland.

The Institute was founded in 1960 by a group of senior civil servants led by Dr T.K. Whitaker, who identified the need for independent and in-depth research analysis to provide a robust evidence base for policymaking in Ireland. Since then, the Institute has remained committed to independent research and its work is free of any expressed ideology or political position.

The Institute publishes all research reaching the appropriate academic standard, irrespective of its findings or who funds the research. The quality of its research output is guaranteed by a rigorous peer-review process. ESRI researchers are experts in their fields and are committed to producing work that meets the highest academic standards and practices. The work of the Institute is disseminated widely in books, journal articles and reports. ESRI publications are available to download, free of charge, from its website. Additionally, ESRI staff communicate research findings at regular conferences and seminars.

The ESRI is a company limited by guarantee, answerable to its members and governed by a council comprising 14 members who represent a cross-section of ESRI members from academia, civil services, state agencies, businesses and civil society. The Institute receives an annual grant-in-aid from the Department of Public Expenditure and Reform to support the scientific and public-interest elements of the Institute's activities; the grant accounted for an average of 30 per cent of the Institute's income over the lifetime of the last research strategy. The remaining funding comes from research programmes supported by government departments and agencies, public bodies and competitive research programmes.

Further information is available at www.esri.ie

THE AUTHORS

Sheelah Connolly is a senior research officer at the ESRI and an adjunct associate professor at Trinity College Dublin (TCD). Conor Keegan was a senior research officer at the ESRI, and Seamus O'Malley was a research assistant at the ESRI at the time of completing this research. Mark Regan is a research analyst at the ESRI and an adjunct staff member at TCD.

ACKNOWLEDGEMENTS

Financial support for this research was provided by the Department of Health. The authors would like to thank the members of the Department of Health/ESRI Research Programme on Healthcare Reform Steering Group for their input and direction in completing this analysis. In particular, the authors would like to thank Deirdre Coy and Tiago McCarthy from the Department of Health for their valuable insights. The authors also acknowledge the contribution of Anne Nolan of the ESRI. Valuable comments on the text and suggestions for revision were provided by three anonymous reviewers. We thank all those who provided contributions while acknowledging that the authors bear sole responsibility for the analysis and interpretations presented.

This report has been accepted for publication by the Institute, which does not itself take institutional policy positions. All ESRI Research Series reports are peer-reviewed prior to publication. The author(s) are solely responsible for the content and the views expressed.

CONTENTS

LIST OF TABLES	VI
LIST OF FIGURES	VII
LIST OF BOXES	VII
ABBREVIATIONS	VIII
EXECUTIVE SUMMARY	IX
0.1 Introduction	ix
0.2 Methods.....	ix
0.3 Findings.....	x
0.4 Discussion	xi
CHAPTER 1 INTRODUCTION.....	1
CHAPTER 2 FINANCING GP CARE AND THE ROLE OF USER CHARGES: A REVIEW OF THE LITERATURE.....	3
2.1 Introduction	3
2.2 Financing GP care.....	3
2.3 Cost-sharing for GP services	4
2.4 Extending eligibility and reducing cost-sharing	7
2.5 Summary.....	8
CHAPTER 3 GENERAL PRACTICE IN IRELAND	9
3.1 Introduction	9
3.2 Eligibility.....	9
3.3 Demand	10
3.4 Supply	11
3.5 Summary.....	12
CHAPTER 4 METHODS.....	13
4.1 Overview of approach.....	13
4.2 Population projections.....	16
4.3 Extending eligibility.....	17
4.4 Take-up of eligibility.....	19
4.5 Demand for GP visits.....	20
4.6 Costing free GP care.....	22
4.7 Scenarios.....	26
4.8 Extension: Two free GP visits.....	27
4.9 Sensitivity analysis	28

4.10 Cost estimates for existing cardholders and non-cardholders	28
CHAPTER 5 FINDINGS	29
5.1 Introduction	29
5.2 Current non-cardholders	29
5.3 Extending eligibility: demand implications	30
5.3.1 Extending eligibility by age group	30
5.3.2 Extending eligibility by income group	32
5.4 Extending eligibility: cost implications	35
5.4.1 Extending eligibility by age group	35
5.4.2 Extending eligibility by income group	35
5.5 Sensitivity analysis	36
5.6 Extending eligibility: two free GP visits	37
5.7 Cost for existing cardholders	38
5.8 Cost for non-cardholders	40
CHAPTER 6 DISCUSSION	42
6.1 Summary of findings	42
6.2 Limitations	44
6.3 Policy implications	45
6.3.1 Extending eligibility	45
6.3.2 Paying GPs	47
6.3.3 Achieving universal health care	48
REFERENCES	50

TABLES

0.1	Projection scenario assumptions	x
4.1	Cardholder groups included in the analysis	14
4.2	Summary of main assumptions for population scenarios.....	17
4.3	Extension of eligibility for free GP care based on age group	18
4.4	Number of GP visits per annum by age group, sex and card status	22
4.5	Increase in demand for GP visits on receipt of a medical card or GP visit card	22
4.6	Capitation rates by age and sex, 2019	23
4.7	Proportion of various fees and allowances used in the analysis to estimate the cost of extending eligibility for free GP care to the total population	25
4.8	Projection scenario assumptions	27
5.1	Number of new cardholders if eligibility is extended on the basis of age, 2023–2026	30
5.2	Projected number of GP visits (million): no extension to eligibility and age-based extension to eligibility, 2023–2026, central scenario	31
5.3	Projected number of GP visits (million) by card status using the age-based approach to extending eligibility, 2022–2026, central scenario	31
5.4	Current income limits for a GP visit card and required income limits to cover an additional one-third of population each year	32
5.5	Projected number of GP visits (million); no extension to eligibility and income-based extension to eligibility, 2023–2026, central scenario	34
5.6	Projected number of GP visits by card status using the income-based approach to extending eligibility, 2022–2026, central scenario	34
5.7	Projected cost to the State of extending eligibility for free GP care (new cardholders), age-based approach, €(million), 2023–2026	35
5.8	Projected cost to the State for extending eligibility for free GP care (new cardholders), income-based approach, €(million), 2023–2026	36
5.9	Sensitivity analysis: percentage effect on 2026 cost of changing one assumption (%), central scenario.....	37
5.10	Projected cost to the State of providing two free GP visits (new cardholders), €(million), 2026	37
5.11	Projected cost to the State for GP services for existing cardholders, €(million), 2023–2026	38

FIGURES

4.1	Hippocrates Model framework, new cardholders	16
5.1	Percentage of the population without a medical card or GP visit card, 2019	30
5.2	Percentage of previous non-cardholders that would become eligible in each year if eligibility is extended on the basis of income	33
5.3	Projected cost to the State for existing cardholders and new cardholders using the age-based approach to extending eligibility (€million), 2026, central scenario.....	39
5.4	Projected number of people eligible for free GP care: current eligibility and age-based extension to eligibility (million), 2022–2035, central scenario	40
5.5	Projected out-of-pocket expenditure on GP services by non-cardholders (€ million), 2019–2026, central scenario.....	41

BOXES

4.1	Switch modelling of medical and GP visit cards.....	19
4.2	The Healthy Ireland Survey and GP utilisation.....	21

ABBREVIATIONS

ESRI	Economic and Social Research Institute
GMS	General Medical Services
GP	General Practitioner
HIE	Health Insurance Experiment
HSE	Health Service Executive
IMO	Irish Medical Organisation
OECD	Organisation for Economic Co-operation and Development
PCRS	Primary Care Reimbursement Service
PHI	private health insurance
PIP	Practice Incentive Program
QOF	Quality and Outcomes Framework
SILC	Survey on Income and Living Conditions
SWITCH	Simulating Welfare and Income Tax Childcare and Health
TCD	Trinity College Dublin

EXECUTIVE SUMMARY

0.1 INTRODUCTION

Unlike most European countries, a majority of the population in Ireland pay out of pocket for a range of primary-care services, including general practitioner (GP) care. In 2017, the Committee on the Future of Healthcare published its final report (the *Sláintecare Report*; Houses of the Oireachtas Committee on the Future of Healthcare, 2017) recommending significant reforms for the health-care system including the introduction of universal GP and primary care.

In Ireland, a GP visit card entitles people to GP visits that are free at the point of use. Currently in Ireland, there are two ways to be eligible for a GP visit card: age and income. Children younger than six and people aged 70 and over are entitled to a GP visit card on the grounds of age, while eligibility for other age groups is dependent on income.

The aim of the research in this report is to estimate the demand and cost implications of extending eligibility for GP services (providing a GP visit card) to the whole population. The research examines the cost to the State of alternative approaches to extending eligibility between 2023 and 2026.

0.2 METHODS

Projections of GP demand and cost are estimated using the ESRI's health-care projection model, the Hippocrates Model. In addition to the cost of extending eligibility, the analysis incorporates other cost drivers including population growth and ageing, and growth in the cost of care delivery over time. In the first instance, it is assumed that all individuals would have eligibility for GP services provided free at the point of use.

In keeping with current practice, it is also assumed that not all individuals would avail of this eligibility and that some people would continue to pay out of pocket for GP services. In keeping with the payment method for existing cardholders, this analysis assumes that GPs will be paid through a combination of capitation and other allowances and fees for new cardholders. It also assumes that the extension in eligibility would be introduced on an incremental basis over a four-year period (2023–2026). An additional analysis examines an alternative approach whereby the cost to the State of introducing two free visits for new cardholders is examined.

Two main approaches are used to identify the groups of people that would become eligible in each year: one based on age and the other based on income. In the age-based approach, it is assumed that eligibility for free GP visits will be introduced in

2023 for those aged six and seven, in 2024 for those aged 50–69, in 2025 for those aged 8–17 and, finally, in 2026 for those aged 18–49. Under the income-based approach, it is assumed that current income thresholds for a GP visit card will be extended in 2024, 2025 and 2026 so that approximately one-third of existing non-cardholders become eligible in each year. Estimates of income limits and the proportion of the population that would become eligible for free GP care under the various income limits were derived from the SWITCH model.

In the analysis, three scenarios that reflect different assumptions about population growth, take-up and GP payments are examined: low pressure, central pressure and high pressure (Table 0.1). In addition, a sensitivity analysis is undertaken to identify the sensitivity of projections to changes in key assumptions.

TABLE 0.1 PROJECTION SCENARIO ASSUMPTIONS

	Low pressure	Central pressure	High pressure
Demand assumptions			
Population growth and ageing	Low	Central	High
Uptake of eligibility	85% (age) 70% (income)	85% (age) 70% (income)	100% (income and age)
Cost assumptions			
Capitation rates	75% of current	Current	135% of current
Fees/allowances	Central	Central	High
Cost	No change, 2023–2026	No change, 2023–2026	COSMO upside: projected government-sector wage growth (2.5% p.a. 2023–2026)

In addition to estimating the cost to the State of extending eligibility for GP care, the analysis also projects cost for GP services to 2026 for existing cardholders and non-cardholders.

0.3 FINDINGS

In 2019, approximately 56 per cent of the population did not have a medical card or GP visit card. Extending eligibility for free GP care to all would increase the demand for GP visits as the price of such visits falls to zero. In the age-based approach to extending eligibility, it was estimated that there would be an additional 2.3 million GP visits (representing a 12 per cent increase) in 2026 relative to a situation of no change in eligibility.

The projected cost to the State in 2026 of extending eligibility to free GP care to the total population was estimated to range between €462 million and €881 million

using the age-based approach and €381 million to €881 million using the income-based approach. The lower cost associated with the income-based approach is due to the assumption of a lower uptake rate under this approach. These projected costs incorporate assumptions on projected population growth and ageing, take-up rates, increases in payments to GP between 2019 and 2022 (as detailed in the 2019 agreement between the Department of Health, the Health Service Executive and the Irish Medical Organisation) and additional cost growth between 2023 and 2026.

Projected cost estimates were particularly sensitive to take-up rates and payment rates. For example, reducing the payment rate to GPs from current capitation rates to 75 per cent of current capitation rates would decrease projected costs for 2026 between 10 and 17 per cent. Alternatively, increasing payment rates to 135 per cent of current rates would increase costs between 27 and 31 per cent (depending on the assumption used in relation to fees and allowances). The projected cost to the State in 2026 for new cardholders was relatively insensitive to assumptions on population growth.

For existing cardholders, in 2026, the projected cost to the State was estimated at between €779 million and €1,058 million. If eligibility for free GP care is introduced, out-of-pocket expenditure on GP services in 2026 is projected to decrease from approximately €467 million to between €95 million (age-based extension to eligibility) and €161 million (income-based extension to eligibility).

0.4 DISCUSSION

The *Sláintecare Report* explicitly referenced the need to progressively extend eligibility to the whole population to free GP care. In the analysis in this report, an age-based and income-based approach to extending eligibility were examined. An advantage of the age-based extension to eligibility is that take-up is likely to be higher than for an income-based extension. There are a number of possible reasons for this including clearer eligibility criteria associated with an age-based extension, a less cumbersome application process (with no detail required on income and expenditure), as well as arguably less social stigma associated with the uptake of an age-based benefit compared to an income-based eligibility.

A limitation of the age-based extension is that it could give rise to equity concerns given that some people with higher incomes could gain eligibility for GP care that is free at the point of use before people with lower incomes. If the extension of free GP care to the total population occurs over a relatively short period of time, then an age-based approach could be a pragmatic option to ensure the highest take-up rates as eligibility is rolled out. However, if the extension of eligibility occurred over a longer period of time (e.g., over a ten-year period rather than the

four-year period considered in this analysis), then extending eligibility via the income approach would seem a more equitable option.

The *Sláintecare Report* noted the need to move towards a universal health-care system for Ireland. Increasing the number of people entitled to free GP care would help achieve this objective. However, it is unclear whether there will be a sufficient number of GPs to deliver the additional visits associated with the ageing and growing population, as well as an increase in the number of people eligible for free GP care in the coming years. If there are not sufficient GPs to meet the additional demand for their services, then, while financial barriers to access may be removed, other barriers (including long waits or no availability) could hinder access, thereby undermining the universality of the system.

CHAPTER 1

Introduction

Unlike most other European countries, a majority of the population in Ireland pay out of pocket for a range of primary-care services, including that provided by general practitioners (GPs; known as primary-care physicians in some countries). Currently, there are two main categories of entitlement to public health-care services. Those in 'Category I' (medical-card holders) are largely entitled to free public health-care services, including free GP care. Those in 'Category II' are entitled to subsidised public hospital services and prescription medicines but pay the full cost of GP and other primary-care services.

In 2005, the GP visit card was introduced. GP visit cardholders are entitled to free GP care but otherwise have the same entitlements as Category II individuals. Eligibility for a medical card or GP visit card is assessed primarily via an income means test; however, in 2015, eligibility for a GP visit card was extended to children younger than six and people aged 70 and over.

With regard to affordability of primary-care services, previous research (Kringos et al., 2013) has shown that Ireland performs relatively poorly, having the highest formal co-payments for primary care of the 31 European countries examined – a perhaps unsurprising finding given that recent analysis has estimated the average cost of a GP visit (for those without a medical card or GP visit card) to be approximately €54 (Walsh et al., 2021).

In 2016, an all-party parliamentary committee (the Committee on the Future of Healthcare) was established with the aim of achieving a single long-term vision for health care and the direction of health-care policy in Ireland. The committee's final report (the *Sláintecare Report*) was published in May 2017 (Houses of the Oireachtas Committee on the Future of Healthcare, 2017).

The report made a number of recommendations for reforming the health-care system including the introduction of universal GP and primary care. While there is some ambiguity about the meaning of 'universal' in this context, and the extent to which user charges would remain for primary-care services (Connolly and Wren, 2019), the report did make explicit reference to a progressive extension of entitlement to free GP care.

To date, there has been relatively little progress in implementing the Sláintecare reforms. However, in Budget 2022, it was announced that free GP care would be extended to six- and seven-year-olds. While this has yet to be implemented, Budget 2023 noted that GP services free at the point of use would be extended to more than 400,000 people (including all six- and seven-year-olds).

2 | Extending eligibility for general practitioner care in Ireland

The aim of the research in this report is to estimate the cost of extending eligibility for free GP services at the point of use to the whole population (i.e. if everyone becomes eligible for a GP visit card). The analysis estimates the cost implications for the State of alternative approaches to extending eligibility (based on age and income) and the costs for existing cardholders as well for non-cardholders.

Next, Chapter 2 will identify and discuss some considerations in relation to extending eligibility for GP services in Ireland, with reference to the national and international literature on the subject. After that, Chapter 3 will provide an overview of general practice in Ireland, and Chapter 4 the data sources and methods of the analysis. Chapter 5 will present the findings. Finally, Chapter 6 will summarise these findings, identify the limitations of the analysis, and discuss the implications to policy.

CHAPTER 2

Financing GP care and the role of user charges: A review of the literature

2.1 INTRODUCTION

Different countries adopt different approaches to financing GP care, including the extent to which such services are paid out of pocket by service-users. In this chapter, alternative approaches to financing GP care (including the role of user charges) and their implications for care are examined. The chapter also identifies and discusses countries that have, in recent years, sought to increase eligibility or reduce user charges for GP services.

2.2 FINANCING GP CARE

Internationally, a number of different methods are used to reimburse GPs including fee-for-service, capitation payments, salary and pay for performance. A large range of studies have examined the advantages and limitations of the different approaches (Gosden et al., 2000; Jegers et al., 2002; Kristiansen and Mooney, 1993; Slattery et al., 2013; Steinbrook, 2009).

Under fee-for-service payment, providers receive a fee for each item of service provided. As payments are tied directly to the number of services provided, providers may have a financial incentive to increase activity (Kristiansen and Mooney, 1993) with a resulting increase in potentially inappropriate care and costs. Fee-for-service payment mechanisms may also discourage providers from delegating to other (more appropriate) providers (Saltman and Figueras, 1997) and generally provide little incentive to improve quality of care (Steinbrook, 2009).

Under a system of capitation, health-care providers are generally paid a fixed fee for each patient registered on their list. The payment is usually weighted by patient characteristics, including age and sex, and sometimes deprivation, which influence the need for health care (Brick et al., 2010). As additional activity under a capitation system represents a cost to the provider, providers paid under capitation may prioritise long-term preventive health care. However, capitation payments may encourage practitioners to hold larger-sized patient lists in order to maximise income, which may result in a higher workload and shorter consultations (Gosden et al., 2000). Also, it may encourage 'cream-skimming' as providers seek out low-risk patients (Scott, 2000) and quicker referral to secondary care.

Salaried health-care providers receive a fixed salary, typically to work a set number of hours per week (Wren et al., 2015). Similar to capitation payments, salary

reimbursement may encourage health-care providers to opt for less complex cases in order to reduce their workload (Saltman and Figueras, 1997). It may also encourage providers to pass on more difficult or time-consuming cases to others.

A Cochrane review that evaluated the impact of the different payment methods for primary-care doctors found that fee-for-service resulted in more primary-care contacts, visits to specialists and diagnostic and curative services, but fewer hospital referrals and repeat prescriptions compared with capitation (Gosden et al., 2000).

Recognising the potential impact of different payment schemes, a number of countries have experimented with mixed or blended methods, including a capitation or salary component as well as a fee-for-service or block payments for the provision of certain services or the achievement of a specific objective (Brick et al., 2010). In the UK, for example, while the majority of funding for GPs comes from capitation payments based on the age and sex composition of registered patients, additional needs, list turnover, practice market forces, rurality and the number of patients in nursing and residential homes (Rhys et al., 2010), additional income can be earned through the Quality and Outcomes Framework (QOF). Introduced in 2004, the QOF is a voluntary extra-payment structure intended to link payments to quality of care (Roland and Guthrie, 2016), with 72 indicators across four domains (clinical, organisation, patient experience and additional services).

In Australia, GPs are paid under a fee-for-service model with the public insurer (Medicare) determining fees. GPs can either accept the Medicare determined payment as full compensation or can charge an additional out-of-pocket fee. Similar to the UK, performance incentives (including the Practice Incentive Program, PIP) has been introduced to encourage better quality of care and to decrease the undesired effects of fee-for-service (Taylor et al., 2016).

The available evidence on blended payment schemes is mixed (Eijkenaar et al., 2013; Van Herck et al., 2010), with little evidence of a ‘magic bullet’ to deal with the perverse incentives arising from different payment schemes (Van Herck et al., 2010). In some Organisation for Economic Co-operation and Development (OECD) countries, in recent years, there has been a move towards more innovative ways to pay health-care providers. These include bundled payments for episodes of care for chronic conditions, which aim to improve quality and reduce costs, and population-based payments in which groups of health-care providers receive payment on the basis of the population covered (OECD, 2016).

2.3 COST-SHARING FOR GP SERVICES

In many countries, health-service-users also contribute to the cost of such services. Patient cost-sharing refers to any direct payment made by health-service-users to

providers. The most common type of cost-sharing for GP services are co-payments, where the patient pays a flat amount for each service received.

While different countries adopt different approaches to cost-sharing for GP services, in most European countries (with Ireland being an exception) there is a tendency to lower cost-sharing for primary-care services as much as possible, particularly for GP visits (Kringos et al., 2013). In the UK, Germany and Canada, for example, most GP visits are provided without charge at the point of use (Allin et al., 2020; Blumel and Busse, 2020), although there may be charges for some services (e.g., sick certificates and travel prescribing) and for some groups of people (e.g., non-residents).

In other countries, the extent of cost-sharing tends to be relatively low and is often subject to payment caps. For example, in the French health-care system, the typical fee for a primary-care visit with a registered physician is in the region of €7.50 (Tikkanen et al., 2020). There are a range of safety nets in place with caps on co-payments at €50 per year for physician visits (Durand-Zaleski, 2020) and exemptions for various groups including low-income households. In addition, some people choose to purchase private health insurance (PHI) which covers some co-payments.

In Australia, the federal government sets fees for GP and specialty visits; it pays 100 per cent of the GP fee and 85 per cent of the specialist fee. Patients pay the remaining 15 per cent of specialist fees, as well as any surcharges. GPs and specialists can choose to charge above the set fees, although there is a maximum patient out-of-pocket fee per service. In 2016–2017, about 86 per cent of GP visits were provided without an additional charge to patients (Glover and Woods, 2020).

In Norway, a co-payment of NOK 155–334 (€16–34) is payable for a primary-care visit, with a maximum out-of-pocket contribution for health-care expenses each year (amounting to NOK 2,258 [approximately €233] in 2017; Sperre Saunes, 2020).

Generally, the reason for cost-sharing is to reduce demand for health-care services. The extent to which this happens in practice depends on the price elasticity of demand, defined as the responsiveness of the quantity demanded to a change in price. If cost-sharing is levied on services for which demand is largely price-inelastic (i.e. not responsive to changes in price), it shifts the burden of financing from the public sector to the user. On the other hand, if cost-sharing is used on services for which demand is price-elastic (i.e. responsive to changes in price), co-payments may reduce the demand for such services (Kiil and Houlberg, 2014). Another reason for cost-sharing is to raise revenue.

Much of the early evidence on the impact of cost-sharing came from the RAND Health Insurance Experiment (HIE) in the United States (Keeler, 1992). The study

ran from 1974 to 1977 and included 5,809 people who were randomly assigned into insurance plans that either had no cost-sharing or that had 25 per cent, 50 per cent or 95 per cent cost-sharing (with a maximum annual family out-of-pocket payment of \$1,000). Overall, the experiment found that cost-sharing reduced the use of all types of health-care services. The average price elasticity was calculated to be -0.20 across the different types of health-care services included in the experiment (Manning et al., 1987).

Further analysis within the RAND HIE showed that cost-sharing reduced the demand for effective and ineffective treatments to the same extent (Shapiro et al., 1986) and reduced the demand for health-care services more for low-income groups – in particular low-income children (Lohr et al., 1986). The impact of cost-sharing on health was ambiguous: cost-sharing was found to be associated with poorer blood-pressure control, corrected vision and oral health, but it did not appear to have an impact on other aspects of health (Keeler, 1992).

Since the RAND HIE, a number of other studies have examined the impact of cost-sharing on health-care service usage. Van de Voorde et al. (2001), for example, examined the effects of co-payments on the demand for physician services in Belgium in the period 1986–1995. They found out-of-pocket price elasticities for the general population from -0.39 to -0.28 for GP home visits, -0.16 to -0.12 for GP office visits and -0.10 for specialist visits. These estimates were generally lower for older and disabled people. Considering the Australian case, McRae and Butler (2014) estimated a price elasticity of demand of -0.19 for GP services over an eight-year period.

Reviewing the evidence across a range of health-care services and countries, Kiil and Houlberg (2014) found that for all types of health-care services except hospitalisations, the majority of reviewed studies found a negative effect of co-payments; the estimated price elasticities were all negative and less than 1. They note that the health effect of cost-sharing has only been assessed empirically in a limited number of studies, of which half did not find any significant effects in the short term.

The impact of cost-sharing on health is likely to depend on whether cost-sharing affects the use of ‘appropriate’ or ‘inappropriate’ health-care services. However, the inability of patients to discriminate between appropriate and inappropriate health-care services may be limited, with evidence that people reduce essential as well as non-essential health services (Tamblyn et al., 2001; Rice and Matsuoka, 2004). There is evidence that vulnerable groups reduce their use of health-care services relatively more than the remaining population as a result of co-payments (Kiil and Houlberg, 2014).

A growing body of literature examines how a reduction in cost-sharing for GP services in Ireland might affect utilisation. Nolan (2008), for example, investigated the impact of gaining (and losing) a medical card on number of GP visits among those aged 16 years and older and found that for those gaining a medical card there was an increase in the annual number of GP visits by between 27 and 39 per cent. Ma and Nolan (2017), addressing a similar question for those aged 50 years and over, found that gaining a medical or GP visit card was associated with an additional 1.3 GP visits per annum, equating to an approximate increase of 43 per cent in the number of annual visits. For children, Nolan and Layte (2017) found that gaining a medical or GP visit card resulted in an additional 0.8 visits per annum for those aged nine months (25 per cent increase) and an additional 0.5 visits per annum for those aged nine years (63 per cent increase).

The findings in these studies are based on nationally representative samples of people who gained a medical or GP visit card over a particular time period. However, it is possible that some of the increase in utilisation observed is related to factors other than gaining a card. For example, a person could gain a card because they became ill and they (or their parent) could no longer work. Consequently, a lower family income made them eligible for a card (Nolan and Layte, 2017). The increase in GP utilisation could therefore be partly due to greater need. Consequently, the estimate of increased utilisation is likely to be an upper bound on the true effect of gaining a card on GP utilisation (Nolan and Layte, 2017).

A small number of studies have examined the impact of the introduction of free GP visits for the under-sixes in Ireland (in 2015) on the number of GP visits for this group. O'Callaghan et al. (2018) found that the annual number of visits among the under-sixes increased by 29 per cent for daytime services and 26 per cent for out-of-hours services following the introduction of free GP care for this group. McDonnell et al. (2022) found that the change led to an increase in attendance at daytime GP services of between 20 and 21 per cent and at out-of-hours services of between 21 and 29 per cent. Kirby and Murphy (2022) examined the effect of providing free GP care at the point of use for 16–17-year-olds and found that it would increase the average number of GP visits by 38 per cent per annum.

2.4 EXTENDING ELIGIBILITY AND REDUCING COST-SHARING

As detailed in the previous section, most European countries tend to keep user charges for GP services as low as possible. In some countries, where user charges for such services have tended to be higher, attempts have been made in recent years to reduce such payments. Together with Ireland and Latvia, Cyprus was previously identified as having relatively high co-payments for primary-care services in a European context (Kringos et al., 2013). Prior to 2013, approximately 85 per cent of the population was covered by the publicly financed health-care system. Beneficiaries were divided into two groups, with low user charges for the

largest group and higher user charges for a small group of beneficiaries (Theodorou et al., 2012). Between 2013 and 2019, in response to the financial crisis, entitlement to services decreased and user charges increased; there was a subsequent increase in catastrophic out-of-pocket expenditure (Kontemeniotis and Theodorou, 2020). A major reform was initiated in 2019 to extend coverage to the whole population and to reduce user charges. While user charges remained for some services, GP services were exempt (Kontemeniotis and Theodorou, 2020). To date, there is relatively little evidence on the impact of these changes; however, they are expected to reduce unmet need and financial hardship and to enable Cyprus to make progress towards universal health care (OECD and European Observatory on Health Systems and Policies, 2019).

While potentially of less relevance to the Irish context, a number of low- and middle-income countries have extended eligibility or reduced cost-sharing for various health-care services in recent years. In Africa, for example, several countries have removed cost-sharing in public health-care facilities with subsequent increases in utilisation (Ridde and Diarra, 2009; Nabyonga et al., 2005). In 2001, the government of Uganda abolished user fees at public health-care centres and hospitals. Subsequently, Nabyonga-Orem et al. (2011) examined the impact of the removal of such charges on the frequency of reported illness and health-care utilisation. They found that there was an increase in illness reporting since user charges were removed, especially among poorer groups. Utilisation of health-care services in the period immediately after the abolition of user charges increased, particularly by the poorest group. They also found that there was an increase in the use of lower levels of care with subsequent reductions in the use of hospital services.

2.5 SUMMARY

Different payment methods are used to pay GPs; however (with Ireland being an exception), most European countries attempt to keep cost-sharing for such services relatively low. In recent years, a number of countries (especially low- and middle-income countries) have reduced or removed cost-sharing for GP services.

CHAPTER 3

General practice in Ireland

3.1 INTRODUCTION

This chapter will provide an overview of general practice in Ireland, focusing in particular on eligibility for GP services, as well as the demand and supply for such services.

3.2 ELIGIBILITY

As noted in Chapter 1, there are two main categories of entitlement to publicly funded health-care services in Ireland. Those with a medical card (Category I) are entitled to a range of public health-care services, free at the point of use; those without a medical card (Category II) are entitled to subsidised public-hospital services and prescription medicines but pay the full cost of GP and other primary- and community-care services. In 2005, the GP visit card was introduced, which entitles the holder to free GP visits.

There is some limited entitlement for primary-care services for those without a medical card. For example, all residents are entitled to limited maternity- and infant-care services free at the point of use, while a range of screening and vaccination services are also provided without charge for eligible groups (Connolly et al., 2022).

Eligibility for a medical card or a GP visit card is assessed primarily based on an income means test, with the threshold for GP visit cards set at about 65 per cent higher than for the medical card. The thresholds differ by family status, age, and number and age of dependent children in the family (Connolly et al., 2022). Income limits are higher for families with an adult over the age of 70, relative to those under the age of 70.

Recent analysis found that approximately 31 per cent of individuals eligible for a medical card do not take it up (Keane et al., 2021), with a lack of information about eligibility status and social stigma contributing to the failure to do so. In some cases, individuals who are otherwise ineligible for a full medical card or GP visit card may be granted a card on a 'discretionary' basis if they have particular health needs that would cause them undue hardship.

While, traditionally, income was the primary determinant of eligibility for a medical card or GP visit card, in 2015, a GP visit card was extended to all children younger than six and to people aged 70 and over. In 2020, approximately 32 per cent of the

population had a medical card and 11 per cent had a GP visit card (Department of Health, 2021); the remainder of the population (57 per cent) largely pay out of pocket for GP and other primary-care services.

Alongside the public health-care system, Ireland has a voluntary PHI market. In the main, PHI in Ireland is used to finance hospital-based services, though some policies also provide some cover for GP and other primary-care services.

3.3 DEMAND

General practices are often individuals' first point of contact with the health-care system in Ireland. They provide a variety of diagnostic services and medical treatments and act as gatekeepers for a range of secondary-care services (Nolan, 2007).

No single administrative dataset records the number of visits to general practice in Ireland; however, using survey data, Walsh et al. (2021) estimated that there were 18.8 million GP visits in Ireland in 2019. This number is potentially an underestimate of GP activity because, while it includes out-of-hours visits, it does not include GP visits for those residing in communal establishments (Walsh et al., 2021). Collins and Homeniuk (2021) estimated that there were 21.4 million GP consultations in 2020; while that number includes GP visits to nursing homes, it is based on a survey of GP practices with a 32 per cent response rate and may not be representative of the general population.

GP visiting rates differ by age, sex and cardholder status. In general, visiting rates tend to increase with age; however, relatively high rates are observed in children aged younger than five years (Wren et al., 2017). Between the ages of approximately 12 and 45, visiting rates for female patients tend to be higher than for male patients, likely reflecting visits associated with the management of gynaecological and reproductive issues. And, even though cardholders make up a smaller proportion of the population than non-cardholders (43 per cent relative to 57 per cent in 2020), they account for a higher proportion of GP visits (61 per cent in 2019; Walsh et al., 2021). While it is likely that this is largely explained by the fact that those with cards tend to be older and more socio-economically disadvantaged than those without cards, the price differential for those with and without cards (e.g., free for cardholders and approximately €54 for non-cardholders) could also explain some of the difference.

There is some evidence to suggest that user charges for GP services for those without a medical card or GP visit card may contribute to unmet health-care needs. O'Reilly et al. (2007), for example, examined the role of cost in deterring people from visiting a doctor in Ireland and Northern Ireland (where services are free at the point of delivery). They found that in Ireland, 19 per cent of patients had a

medical problem in the previous year but had not consulted the doctor because of cost. This compared to less than 2 per cent of patients in Northern Ireland. Among paying patients, it was the poorest and those with the worst health who were most affected.

Similar to other health-care services, demand for GP services is expected to increase significantly in the coming years. For example, incorporating estimates of population growth and ageing, assumptions around healthy ageing and addressing current unmet need for GP services, Wren et al. (2017) projected that demand for GP visits would increase by between 20 and 27 per cent between 2015 and 2030.

3.4 SUPPLY

Most GPs in Ireland are self-employed private practitioners, although some GPs are employed by a GP practice. The majority of GPs treat both private patients (non-medical/non-GP visit cardholders) and public patients (medical cardholders and GP visit cardholders). Cardholders are required to register with a particular GP. For private patients, GP practices are largely reimbursed on a fee-for-service basis from individual patients, with the fee determined by individual practices. For public patients, GPs are reimbursed via the General Medical Services (GMS) scheme. Under the scheme, GPs receive an annual capitation payment (i.e., a set amount for each person registered with the GP, adjusted for age and sex) for each medical cardholder and GP visit cardholder on their list, as well as fees for out-of-hours and special items of service provided to medical cardholders and GP visit cardholders (Walsh et al., 2021).

A range of allowances are also available to GPs holding a GMS contract. These cover practice supports (such as employing a practice nurse or a practice secretary), rural practice supports, annual leave, study leave, sick leave and maternity/ paternity/ adoptive leave. GPs (including both those holding a GMS contract and those without a GMS contract) are also paid fees for services delivered under specific schemes, including the Primary Childhood Immunisation Scheme, the National Cancer Screening Service (e.g., cervical screening), the Maternity and Infant Care Scheme and the Chronic Disease Management Programme.

In 2019, there was a new GP agreement between the Department of Health, the Health Service Executive (HSE) and the Irish Medical Organisation (IMO) regarding the development of GP services (Department of Health et al., 2019). It included plans for additional payments to GPs over a phased basis to support three main strands:

1. fee increases under the GMS contract in return for delivery of a package of ‘Service Modernisation and Reform Measures’;
2. the introduction of a new ‘Integrated Model of Chronic Disease Prevention and Management’ and additional special items of service, supported by additional funding;
3. the extension of GP visit cards to all children aged under 13 years.

The composition of GP practices has changed over time. The primary-care strategy of 2001 envisaged the number of GPs working in primary-care teams with other primary-care professionals increasing over time (Department of Health and Children, 2001). However, in practice, relatively few GPs work in such teams (Collins and Homeniuk, 2021; Tierney et al., 2016). Currently, most GPs work in a practice with other GPs, with a recent survey finding that fewer than one in five GPs (responding to the survey) worked in a single GP practice (Collins and Homeniuk, 2021). There has also been an increase in the number of practices employing a practice nurse, with a recent study finding that 94 per cent of practices employed a nurse (Collins and Homeniuk, 2021). A small number of doctors operate in the community outside of the GMS and other publicly funded schemes, including those providing services in walk-in clinics and consultations (often online) for people covered by particular health-insurance policies.

Concerns have been raised about the ability of the existing GP workforce to meet future demand for GP services. Before the COVID-19 pandemic, a majority of people in Ireland were able to get a same-day or next-day appointment with their GP when required (Government of Ireland, 2020). Whether this will continue to be the case in the coming years is uncertain, given the high volume of activity among current GPs (Crosbie et al., 2020), the anticipated increase in demand for GP services arising from population growth and ageing (Wren et al., 2017) and the ageing and feminisation of the GP workforce (Teljeur et al., 2010). Female GPs are more likely to work part-time than male GPs. Furthermore, research (Smith et al., 2019) has shown that the distribution of GPs is not uniform across the country, with the estimated number of full-time-equivalent GPs per 10,000 population ranging from 3.7 GPs in the poorest-served county to 7.7 GPs in the best-served county, suggesting that some areas may be affected by GP shortages more than others.

3.5 SUMMARY

General practice is a central component of health care in Ireland and is often the first point of contact for individuals accessing the health-care system. A growing and ageing population will contribute to an increase in demand for GP services in the coming years. Increasing eligibility for free GP services will increase that demand further. At the same time, the ageing and feminisation of the GP workforce could lead to a decrease in supply. Consequently, the question arises as to whether

there will be a sufficient number of GPs in the future to meet demand for such services.

CHAPTER 4

Methods

This chapter provides an overview of the approach, data sources and methods that have been used to estimate the cost of extending eligibility for GP services in Ireland. As detailed throughout the chapter, the approach to the analysis was informed by discussion with relevant personnel in the Department of Health.

4.1 OVERVIEW OF APPROACH

The projections of GP demand and cost presented in this report use the ESRI's health-care projection tool, the Hippocrates Model. The Hippocrates Model has been developed as a macro-simulation model. Macro-simulation models or cell-based models represent a large and important class of component-based models that group individuals into cells according to key attributes, such as age and sex, and then project from that basis. Hippocrates has already employed these methods to project demand and cost for health-care and social-care services as well as acute hospital-bed capacity (Keegan et al., 2018; Keegan et al., 2020; Keegan et al., 2021; Wren et al., 2017; Walsh et al., 2021).

In this analysis, it is assumed that an increasing number of people become eligible for a GP visit card over time. The Hippocrates Model is extended to project the cost to the State of an assumed expansion of publicly financed GP care to new cardholders. Projections of costs for existing cardholders and non-cardholders are also undertaken. Table 4.1 describes the different groups included in the analysis.

TABLE 4.1 CARDHOLDER GROUPS INCLUDED IN THE ANALYSIS

Group	Description
New cardholders	Those who become eligible and take up a GP visit card
Existing cardholders	Those who already have a medical or GP visit card
Non-cardholders	Those who do not have a card either because they are not eligible or because they decide not to avail of their eligibility

Source: Authors' assumptions.

Note: While previous work in this area (Connolly et al., 2018; Doolan and Prior, 2020) examined the cost to the State of introducing GP care that is free at the point of use in a particular year, this analysis adopts a dynamic approach to costing (using the Hippocrates Model) which incorporates other potential cost drivers, including population growth and ageing, eligibility take-up and growth in the cost of care delivery over time.

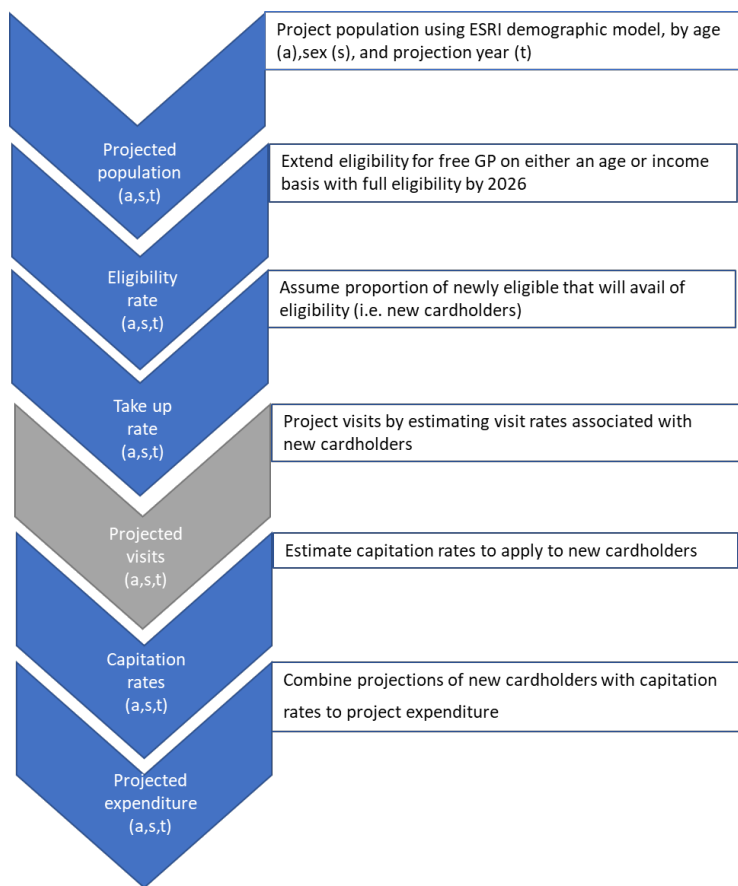
Research shows that not all of those entitled to a GP visit card avail of this eligibility (Keane et al., 2021), and, consequently, different take-up rates are examined. It is

also assumed that the State will continue to purchase care from self-employed, contracted GPs, who may also have private practices. In keeping with the payment method for existing cardholders, this analysis assumes that GPs will be paid through a combination of capitation and other allowances and fees for patients who would become eligible for such services were eligibility to be extended to the total population. Consequently, the cost of providing GP care free at the point of use will depend on the size of the eligible population, their rate of GP visiting and the rate of such payments (as well as the take-up rate).

Reflecting discussions with the Department of Health, it is assumed that GP care that is free at the point of use will be introduced on an incremental basis over a four-year period (2023–2026). Two approaches are used to identify the groups of people who will become eligible in each time period: one based on age and the other based on income (see Section 4.3).

Eligibility is costed based on assumptions in relation to future capitation payments (informed by current capitation payments). An additional analysis, based on discussion with the Department of Health, also examines an alternative demand-based approach whereby the cost to the State of introducing two free visits for new cardholders is considered (Section 4.8).

Figure 4.1 outlines how the Hippocrates Model has been refined to undertake projections of the cost of expanded GP care under the main age- and income-based approaches. The model provides projections by age group (a) and sex (s) for each projection year (t). Given the impact of the COVID-19 pandemic on health-care service utilisation and health-care expenditure in 2020 and 2021, the base year for the analysis is 2019. The following sections provide more detail on each step of the projection process.

FIGURE 4.1 HIPPOCRATES MODEL FRAMEWORK, NEW CARDHOLDERS

Source: Authors' representation.

Note: Visits are projected as part of the modelling framework. However, under the age-based and income-based models, they do not form part of the costing process. (In other words, in line with capitated payment, projected cardholders rather than visits are costed.)

4.2 POPULATION PROJECTIONS

The population projections used in this analysis were developed using the ESRI in-house cohort component demographic projection model. The projections are developed based on assumptions in relation to future trends in fertility, mortality and migration. Migration flows are modelled using the ESRI's macro-econometric model of the Irish economy, COSMO (Bergin et al., 2017). The projections have been adjusted to account for potential short- and medium-term impacts of COVID-19 on population change.

The population projections applied in this report mirror those developed for the 2021 report on projecting expenditure on primary, community and long-term care in Ireland using the Hippocrates Model (Walsh et al., 2021) (Table 4.2).

TABLE 4.2 SUMMARY OF MAIN ASSUMPTIONS FOR POPULATION SCENARIOS

2020 projections	Central scenario	High population scenario	Low population scenario
Mortality			
Mortality rates assumed to decrease with gains in life expectancy at birth from 80.5 years for men and 84.5 years for women in 2019 to:	81.9 years for men and 85.2 years for women in 2026	82.2 years for men and 85.5 years for women in 2026	81.6 years for men and 85.0 years for women in 2026
Migration			
Net immigration over the projection horizon:	Declining from 2019 level of +33,700 to +5,000 until 2022 and then constant at +10,000 p.a. over the long term	Declining from 2019 level of +33,700 to between +15,000 and +20,000 until 2022 and then constant at +25,000 p.a. thereafter	Declining from 2019 level of +33,700 to between –5,000 and zero net migration until 2022 and then constant at 5,000 p.a. thereafter
Fertility			
Total fertility rate	Unchanged from 2019 rate of 1.72 children per woman	Rises from 2019 rate to 1.96 children per woman by 2026 and remains constant thereafter	Declines from 2019 to 1.68 children per woman by 2026

Source: Amended from table in Walsh et al. (2021).

4.3 EXTENDING ELIGIBILITY

Within this analysis, it is assumed that GP care that is free at the point of use for all would be introduced on a gradual basis. In this analysis, two approaches to extending eligibility are examined: one based on age and the other based on income.

In any given year, the number of people eligible for an income-based medical card or GP visit card will fluctuate (even when eligibility criteria remain constant) due to changes in income. In general, during periods of economic growth, the proportion of the population with a card tends to decrease, while in periods of economic stagnation, the proportion of the population with a card increases. For example, 40 per cent of the population had a medical card in 2012 and 2013 (during an economic downturn) relative to 32 per cent in 2020 (Department of Health, 2021). Such fluctuations are not incorporated into the current analysis due to the difficulty in identifying how economic growth will change between 2022 and 2026 and the associated impact on card eligibility and uptake.

4.3.1 Extending eligibility based on age group

In 2015, eligibility for a GP visit card was extended to children younger than six and people aged 70 and over. One of the key measures in Budget 2022 was the proposed extension of free GP care to those aged six and seven. In this analysis, it is assumed that eligibility for free GP services will be introduced in 2023 for those aged six and seven, in 2024 for those aged 50–69, in 2025 for those aged 8–17 and, finally, in 2026 for those aged 18–49 (Table 4.3). Consequently, by 2026, everyone would be eligible for GP care that is free at the point of use.

TABLE 4.3 EXTENSION OF ELIGIBILITY FOR FREE GP CARE BASED ON AGE GROUP

Year	Age-group eligibility
2023	6–7
2024	50–69
2025	8–17
2026	18–49

Source: Authors' assumptions developed in conjunction with the Department of Health.

4.3.2 Extending eligibility based on income

Here it is assumed that an entitlement to free GP care will be extended (between 2024 and 2026) based on income, with lower-income groups the first to become eligible. Current income thresholds will be extended in 2024, 2025 and 2026 so that approximately one-third of existing non-cardholders will become eligible in each year. By 2026, everyone would be eligible for GP care free at the point of use.

Estimates of income limits and the proportion of the population that would become eligible for free GP care under the various income limits were derived from the SWITCH Model (Simulating Welfare and Income Tax Childcare and Health; Box 4.1). SWITCH uses the 2019 Survey on Income and Living Conditions (SILC), reweighted to accurately represent the 2019 population and then uprated to 2022 income levels. The analysis is based on a 2022 population and policy system, i.e., the tax and welfare policies in place in 2022. Therefore, it assumes that all monetary and demographic variables (e.g., population and wages) are static across the time period of analysis (2022–2026).

BOX 4.1 SWITCH MODELLING OF MEDICAL AND GP VISIT CARDS

The SWITCH Model is a tax-benefit micro-simulation model which has been developed to simulate Irish households' tax liabilities and social-welfare entitlement (Keane et al., 2022). The model is based on data drawn from the 2019 SILC. The SILC covers a wide range of issues with a focus on income and living conditions. The survey is carried out annually and includes approximately 4,000 households, or 10,000 individuals, each year (Keane et al., 2022).

Using information on a person's current reported income, the SWITCH Model can estimate eligibility for an income-based medical card or GP visit card (Keane et al., 2021). The modelling of eligibility for a medical card or GP visit card, based on income, closely follows the means test set by the HSE. Assessable income is calculated from all relevant sources. For example, employee income, self-employed income, capital income and secondary properties for both the applicant and their spouse (if applicable); simulated liabilities of income tax, PRSI (Pay Related Social Insurance) and USC (Universal Social Charge) are deducted. Social-welfare income is also included in the assessment of means, including child benefit and the working family payment.

In cases where an applicant's income is solely derived from a social-welfare income source, they are automatically entitled to a medical card. SWITCH also allows for deductions such as housing costs, childcare costs and allowances for dependent children as per HSE guidelines. The assessment of means occurs at the family level, as defined by the HSE. The assessable income is then compared to the relevant income limit, which varies by age and living status (living alone or with family).

Aside from income-based entitlement to cards, the model also includes age-based eligibility, such as, for GP visit cards, those aged 70 and over and those under six. There is a hierarchical structure to the modelling whereby individuals who are simultaneously eligible for a medical card and a GP visit card are modelled as receiving a medical card. (Such a scenario arises only for under-sixes or over-70s who could be entitled to an age-based GP visit card and an income-based medical card.)

The SWITCH Model has been used to formally calculate take-up rates of medical cards (Keane et al., 2021) and has also highlighted a lower take-up of means-tested GP visit cards vis-à-vis means-tested medical cards (Callan et al., 2016). Given this empirical evidence, simulations of card eligibility can be adjusted to incorporate non-take-up. For example, with a take-up rate of 100 per cent, all individuals simulated as eligible for a card apply for and are granted the card. With a take-up rate of 70 per cent, a random 30 per cent of individuals eligible for a card do not receive the card.

4.4 TAKE-UP OF ELIGIBILITY

Not everybody who is eligible for a medical card or GP visit card avails of that eligibility. Recent analysis estimated that 31 per cent of individuals eligible for a medical card do not take up a card (Keane et al., 2021), with a lack of information about eligibility status and social stigma contributing to the non-take-up. Earlier analysis found even lower uptake for the income-based GP visit card (Callan et al., 2016).

However, uptake for age-related GP visit cards appears higher than uptake for income-based cards, with analysis from the SILC showing 85 per cent of those aged younger than six in receipt of a GP visit card (Figure 5.1). The very detailed application form and potential uncertainty about eligibility under the income-based approach may explain the difference in uptake between income-based and age-based cards. However, the reasons for non-take-up are not well understood, and, as such, non-take-up is modelled as a random process.

Based on uptake rates identified above, in this analysis, an uptake rate of 85 per cent is assumed in the age-based approach to extending eligibility, while an uptake rate of 70 per cent is assumed in the income-based approach. The cost implications of a 100 per cent uptake will also be examined.

4.5 DEMAND FOR GP VISITS

To identify the number of GP visits that could be expected for new cardholders if GP care that is free at the point of use was introduced for all, estimates of additional demand were applied to current age-specific GP visiting rates (for those aged 6–70 years) for the new cardholder population. Current age-specific visiting rates for the cardholder and non-cardholder group were estimated from the Healthy Ireland survey using wave 4 and 5 data for adults and wave 5 data for children (Box 4.2). Table 4.4 shows the estimated average number of GP visits by age group, sex and card status. Estimates of visiting rates were applied to the 2019 population to estimate visiting volumes in 2019. The proportion of the population without a medical card or GP visit card was estimated from the 2019 SILC for Ireland.

BOX 4.2 THE HEALTHY IRELAND SURVEY AND GP UTILISATION

The Healthy Ireland survey is an annual face-to-face survey. Interviews are conducted with a representative sample of the population aged 15 and older living in Ireland (Ipsos MRBI, 2018). The sample size is approximately 7,500 people per wave. To date, six waves of the survey have been completed in the following years: 2015, 2016, 2017, 2018, 2019 and 2021. Waves 4 and 5 (relating to 2018 and 2019) included the following question in relation to GP utilisation: ‘When was the last time you consulted a GP or family doctor on your own behalf? (This includes home visits and phone consultations but excludes nurse-only consultations.)’

The following response options were provided:

- Less than 12 months ago;
- More than 12 months ago;
- Never consulted;
- Don’t know;
- Refused.

Those who reported that they had consulted a GP or family doctor less than 12 months ago were asked the following question: ‘How often in the past four weeks did you consult a GP on your own behalf, excluding nurse-only consultations?’

For the first time, wave 5 of the survey included questions relating to children of the survey respondent. Each respondent was asked whether they had children, the age of each child, whether each child attended a GP in the past 12 months and the number of visits in the previous four weeks.

The weighted mean number of GP visits per annum by sex and age bands (16–17, 18–29, 30–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69) for those aged 16 and over for both cardholders and non-cardholders was estimated by multiplying the number of visits in the previous four weeks by 13. These age groups were chosen so that there was a sufficient degree of disaggregation of age groups to incorporate different age breakdowns used in the analysis. (The age-based approach to extending eligibility uses the age categories 6–7, 8–17, 18–49, 50–69, while capitation payment rates (on which the costing analysis is based) uses the following categories: 6–15, 16–44, 45–64, 65–69.)

A similar approach was adopted to estimate GP visiting rates for children for the following age bands: <6, 6–7 and 8–15. No data was collected on the sex or cardholder status of the child. For children aged six and over, it was assumed that they had the same eligibility status as the respondent parent or guardian. As it was not possible to identify those aged younger than six without a GP visit card in this analysis, a constant visiting rate across cardholders and non-cardholders was assumed.

TABLE 4.4 NUMBER OF GP VISITS PER ANNUM BY AGE GROUP, SEX AND CARD STATUS

Age group	Male with card	Male with no card	Female with card	Female with no card
<6	4.8	4.8	4.8	4.8
6–7	2.7	2.6	2.7	2.6
8–15	2.5	1.9	2.5	1.9
16–17	5.2	1.2	6.3	2.7
18–29	4.1	1.4	5.2	2.9
30–39	4.5	1.5	5.8	3.7
40–44	6.3	1.5	7.6	3.1
45–49	5.1	1.3	6.5	3.3
50–54	6.8	1.9	6.2	2.8
55–59	7.2	3.1	7.4	3.3
60–64	8.1	2.8	7.0	4.0
65–69	7.0	4.6	7.4	4.7
70+	6.7	3.5	7.1	5.2

Source: Authors' estimation based on Healthy Ireland Waves 4 (2018) and 5 (2019) for adults (16+) and wave 5 for children (<16)

Note: Card includes both medical cards and GP visit cards. There is no data on the card status of those under six so it is assumed that everyone has the same number of visits. Some caution is required in interpreting these estimates as, for some categories, the number of respondents is relatively small.

Previous research for Ireland estimated the expected increase in demand associated with receipt of a full medical card or GP visit card (Table 4.5). As detailed in Section 2.3, these estimates are likely to be an upper bound on the expected increase in the number of GP visits that would be expected were non-cardholders to become eligible for free GP care. These estimates of additional demand were applied to age-specific GP visiting rates (for those aged 6–70 years) for the new cardholder population to identify the number of GP visits that would be expected for new cardholders if free GP care were introduced.

TABLE 4.5 INCREASE IN DEMAND FOR GP VISITS ON RECEIPT OF A MEDICAL CARD OR GP VISIT CARD

Age group	Additional number of visits per annum (% increase in visits)	Source
6–15	0.5 (63%)	Nolan and Layte, 2017
16–54	0.9–1.3 (27–39%)	Nolan, 2008
55–70	1.3 (43%)	Ma and Nolan, 2017

4.6 COSTING FREE GP CARE

While GPs are paid through a variety of mechanisms and schemes, the main approach to costing an extension of eligibility for GP care in this analysis is based on the current-capitation-rate approach. This approach assumes that GPs receive the age- and sex-specific capitation rate for existing cardholders in 2019 for each

previous non-cardholder (Table 4.6), plus the mean of some other fees payable to GPs (Table 4.7).

The use of current capitation rates means that GPs would receive a level of remuneration for the care of new cardholders equivalent to the amount received for existing cardholders. In general, new cardholders would have better health status than the existing cardholder group and might be expected to have lower visiting rates, even if the price of such visits falls to zero.

When free GP care was extended to all children younger than six in 2015, the agreed capitation rate (which was subsequently applied to existing cardholders as well as to new cardholders) increased from between €42.39 and €74.59 (depending on the age of the child) up to €125. These increased payments were in return for an enhanced service which included free visits for preventive checks and annual reviews of children with asthma (Department of Health, 2015a).

In line with this precedent, this analysis will examine the use of current capitation rates, 75 per cent of current capitation rates and 135 per cent of current capitation rates as potential rates for new cardholders. The lower capitation rates (75 per cent) reflect the expected lower utilisation of GP services amongst new cardholders, while the higher capitation rates capture increased GP activity associated with enhanced service provision.

The 2019 capitation rates are adjusted in line with the rate increases negotiated for those aged 6 and over in 2020 (2.74 per cent), 2021 (10.22 per cent) and 2022 (9.24 per cent) (Department of Health et al., 2019).

TABLE 4.6 CAPITATION RATES BY AGE AND SEX, 2019

Age group	Male	Female
<6	€125	€125
6–15	€51.96	€52.56
16–44	€66.33	€108.47
45–64	€132.49	€145.58
65–69	€139.57	€155.70
70+ (community)	€326.02	€326.02

Source: HSE, 2019.

Note: The rates included here relate to ‘Services rendered by the service provider under the agreement of 2019’. See HSE (2020) for further detail. Capitation rates for nursing-home residents were not used in this analysis as there is no administrative data on the number of GP visits for nursing-home residents. In this analysis the cost of extending eligibility for GP care was only analysed for those aged 6–69 as other age groups are already eligible for GP care.

In addition to capitation payments, GPs receive a range of allowances and fees; Table 4.7 shows the type of fees and allowances that were paid to GPs in 2019. It is not clear to what extent fees and allowances would increase were eligibility for free GP care to be extended to the total population. In this analysis, and in consultation with officials at the Department of Health, fees and allowances were divided into four categories and dealt with separately:

1. It is anticipated that some fees and allowances would not increase if eligibility for free GP care were extended to the total population. These included payments for services already universally available (including the Maternity and Infant Care Scheme and the National Screening Service).
2. Similar to capitation payments, some fees and allowances are expected to increase pro rata with the number of individuals who avail of free GP care, as is currently the case when an individual is enrolled in the GMS system. These include out-of-hours services and superannuation payments.
3. Some fees (in particular those associated with chronic disease management) are payable based on the diagnosis and management of particular conditions. Increasing eligibility to free GP care will result in an increase in GP visits and potentially an increase in the diagnosis of such conditions. While the extent of the increase in diagnosis is unknown, in this analysis it is assumed that expenditure in these categories would increase by between 8 and 16 per cent if eligibility to free GP care was extended to the total population.
4. A range of allowances are payable with the rate paid related to panel size (the number of GMS patients registered with a particular GP/GP practice). For some allowances, the amount payable is constant and maximised for panels of 100 GMS patients or more. For others, the amount payable increases gradually with panel size. It is not known how an increase in eligibility will impact the distribution of patients across GP practices with different panel sizes. In addition, it is not known if some GPs who currently do not participate in the GMS scheme will start if eligibility for free GP care is extended to all. In this analysis, it is assumed that expenditure in these categories would increase by between 50 and 60 per cent if eligibility to free GP care was extended to the total population.

The extent of the increase in the various fees and allowances associated with an increase in eligibility for GP care is unknown and will likely be determined, at least in part, through negotiation between GPs (and their representative organisations) and the Department of Health and the HSE. In addition, it is likely that new categories of payment may be developed over time, reflecting new tasks and activities of GPs. Consequently, the expected percentage increases in fees and allowances used in this analysis should be interpreted with a degree of caution and do not necessarily reflect what should or could happen to fees and allowances if eligibility is to be extended.

Using the percentage increases identified in Table 4.7, the ‘average’ fees and allowances payable to GPs was estimated to be €84 per annum per patient in the central estimate and €90 in the high estimate.

TABLE 4.7 PROPORTION OF VARIOUS FEES AND ALLOWANCES USED IN THE ANALYSIS TO ESTIMATE THE COST OF EXTENDING ELIGIBILITY FOR FREE GP CARE TO THE TOTAL POPULATION

	Central estimate	High estimate
Fees		
Special claims/services	100% (pro rata)	100% (pro rata)
Out-of-hours	100% (pro rata)	100% (pro rata)
Dispensing	0%	0%
Items of service contract	100% (pro rata)	100% (pro rata)
Asylum-seekers	0%	0%
Vaccinations	8%	16%
Asthma registration	8%	16%
Asthma capitation	8%	16%
Contribution for GP height measure and self-zeroing scale	8%	16%
Diabetes capitation	8%	16%
Diabetes registration	8%	16%
Allowances		
Secretarial/nursing	50%	60%
Annual leave	50%	60%
Rostering/out-of-hours	50%	60%
Medical indemnity insurance	50%	60%
Rural practice	0%	0%
Study leave	50%	60%
Maternity leave/paternity leave	50%	60%
Locum and practice expenses	50%	60%
Other		
Benefits to retired district medical officers	0%	0%
Former district medical officers	0%	0%
Superannuation fund	100%	100%
National Screening Services	0%	0%
Opioid substitution treatment scheme	0%	0%
Primary childhood immunisation scheme	0%	0%
Heartwatch	0%	0%
Maternity and Infant Care Scheme	0%	0%
Health (Amendment) Act 1996	0%	0%

Source: The list of fees and allowances was derived from the 2019 Primary Care Reimbursement Service (PCRS) annual report (HSE, 2020) and is based on authors’ assumptions.

Note: The percentages used in this analysis are for illustrative purposes and do not indicate what could or should happen with fees and allowances if eligibility for GP care free at the point of use is extended.

4.7 SCENARIOS

For the main analysis, the approach follows that taken in Wren et al. (2017) and many other health-care projection exercises (Blanco-Moreno et al., 2013; Charlesworth and Johnson, 2018; de la Maisonneuve and Martins Oliveira, 2015) of grouping demand and cost drivers into a range of projection scenarios. Given the uncertainty inherent in any projection exercise, this provides a basis for developing a projection range charting the likely course of future expenditures.

The analysis models a set of low, central and high projection scenarios (Table 4.8). Each scenario varies drivers in relation to projected demand and cost of GP care. Under the central scenario, the population is projected to increase in line with the central population-growth scenario (Table 4.2). Take-up of eligibility is assumed to be 85 per cent under the age-based model and 70 per cent under the income-based model. Under this scenario, the extension of GP eligibility is costed by taking current capitation rates (for existing cardholders) in 2019, adjusting these to reflect negotiated rate increases to 2022 (Department of Health et al., 2019) and using this as a basis for capitated payments between 2023 and 2026.

Under the low projection scenario, the population is projected to increase in line with the low population-growth scenario (Table 4.2). Similar to the central scenario, take-up of eligibility is assumed to be 85 per cent under the age-based model and 70 per cent under the income-based model. Expanded GP eligibility is costed by assuming 75 per cent of current capitation rates in 2019, adjusting these to reflect negotiated rate increases to 2022 (Department of Health et al., 2019) and using this as a basis for capitated payments between 2023 and 2026.

Under the high projection scenario, the population is projected to increase in line with the high population-growth scenario (Table 4.2). Under this scenario, a 100-per-cent take-up of eligibility is assumed under both the age-based and income-based models. Expanded GP eligibility is costed by assuming 135 per cent of the current capitation rates in 2019 and adjusting these to reflect negotiated rate increases to 2022 (Department of Health et al., 2019). A 2.5 per cent per annum increase to the capitated rates is then applied between 2023 and 2026, reflecting assumed government-sector nominal average wage growth based on the ESRI COSMO Model's macroeconomic *Upside* scenario (Walsh et al., 2021).

TABLE 4.8 PROJECTION SCENARIO ASSUMPTIONS

	Low pressure	Central	High pressure
Demand assumptions			
Population growth and ageing	Low	Central	High
Uptake of eligibility	85% (age) 70% (income)	85% (age) 70% (income)	100%
Cost assumptions			
Capitation rates	75% of current	Current	135% of current
Fees/allowances	Central	Central	High
Cost	No change 2023–2026	No change 2023–2026	<i>COSMO Upside:</i> projected government-sector wage growth (2.5% p.a. 2023–2026)

Note: Authors' assumptions.

4.8 EXTENSION: TWO FREE GP VISITS

In the main analysis, it is assumed that all GP visits would be provided free of charge at the point of use; an extension to the analysis includes costing two free GP visits for all new cardholders. Rather than using the capitation-based approach to costing, these two free visits will be costed using a 'unit cost' approach. It is assumed that GPs would receive payment for these two visits even if the actual number of visits was fewer than two.

Under this approach, a unit cost of a publicly financed GP visit was estimated using data on capitation and other payments to GPs for existing cardholders. Capitation payments and fees or allowances paid to GPs in 2019 were divided by the estimated number of GP visits for cardholders to identify the unit cost of a visit (estimated at €41 per visit). The same fees and allowances used in the capitation approach (Table 4.6) to costing were also used here. Data on payments to GPs were obtained from the 2019 PCRS annual report (HSE, 2020), while data on the number of GP visits were estimated by multiplying the age- and sex-specific number of GP visits for cardholders (estimated from the Healthy Ireland survey) by the age- and sex-specific number of cardholders.

A constant unit cost across all age groups is assumed as there is little data to inform how unit costs might differ across age groups. However, it is possible that the cost of a GP visit could differ by age group if, for example, older people were more likely to have multiple morbidities and therefore require a longer visit.

Projection scenarios identified in Table 4.7 are also applied under this approach, with GP payments set at current estimated unit cost, 75 per cent of the current

estimated unit cost and 135 per cent of the current estimated unit cost, respectively.

4.9 SENSITIVITY ANALYSIS

In addition to examining a range of projection scenarios, the analysis includes a sensitivity analysis to demonstrate the sensitivity of cost projections to changes in key assumptions. In line with previous Hippocrates Model analyses (Keegan et al., 2020; Walsh et al., 2021), this is undertaken through examining the percentage effect on 2026 costs, under the central scenario, of changing one key assumption at a time (e.g., population growth, take-up rates, cost of care delivery).

4.10 COST ESTIMATES FOR EXISTING CARDHOLDERS AND NON-CARDHOLDERS

In addition to estimating the cost to the State of extending eligibility for free GP care, the analysis also projects cost to 2026 for existing cardholders and non-cardholders. Projections of cost to the State for existing cardholders (comprising approximately 44 per cent of the population) were estimated using a similar approach to Walsh et al. (2021); however, in this analysis, capitation rates for existing cardholders were updated by (1) adjusting the 2019 capitation rates to reflect negotiated rate increases to 2022 (Department of Health et al., 2019) and using this as a basis for capitated payments between 2023 and 2026; and (2) including a higher capitation rate reflecting the high capitation rates used for new cardholders (135 per cent of existing capitation rates).

Throughout the analysis, it is assumed that some people would continue to pay out of pocket for GP visits even if eligibility for free GP care is extended to the whole population. A similar approach to Walsh et al. (2021) is adopted with projected visits multiplied by the projected out-of-pocket fee for these visits to estimate out-of-pocket costs up to 2026.

CHAPTER 5

Findings

5.1 INTRODUCTION

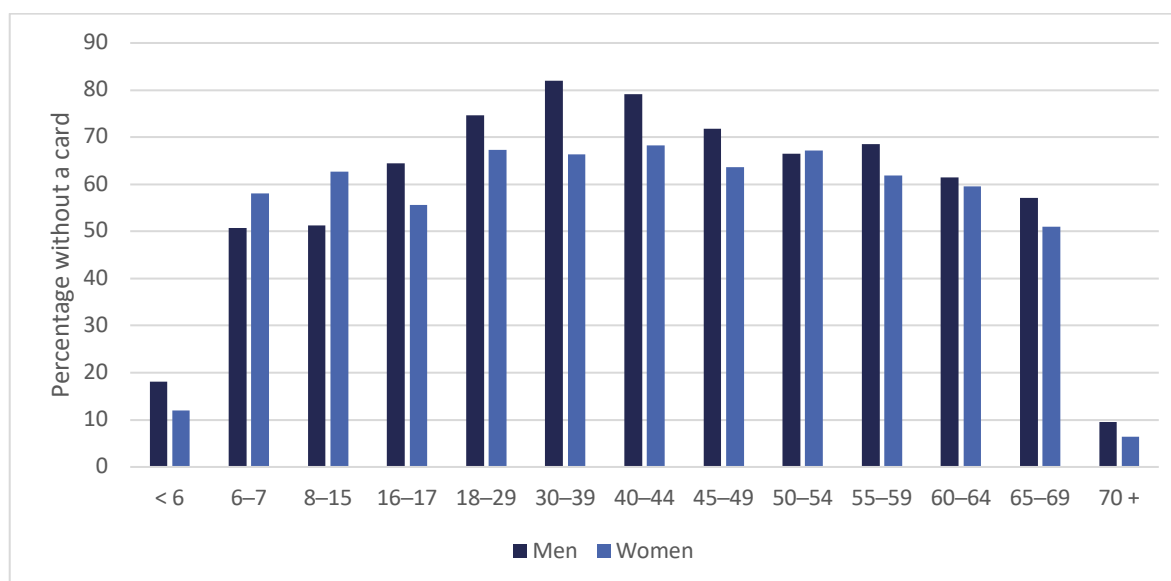
The main aim of the analysis in this report was to estimate the cost to the State of extending GP care that is free at the point of use. The findings of this analysis are discussed in Section 5.4. By way of context, Section 5.2 describes the current non-cardholder population, while Section 5.3 shows the demand implications (in terms of GP visits) of extending eligibility for GP care that is free at the point of use.

Section 5.5 shows how sensitive the cost estimates detailed in Section 5.4 are to changes in various assumptions underlying the analysis. An additional analysis, detailed in Section 5.6, shows the estimated cost to the State of providing two GP visits free at the point of use to current non-cardholders rather than covering all GP visits.

The additional state expenditure associated with increasing eligibility for GP services is in addition to ongoing expenditure for existing cardholders. Section 5.7 details projected state expenditure on GP services for existing cardholders, while Section 5.8 shows out-of-pocket expenditure on GP services for non-cardholders.

5.2 CURRENT NON-CARDHOLDERS

In 2019, approximately 56 per cent of the population did not have a medical card or GP visit card. Figure 5.1 shows the proportion of different age and sex groups that did not hold a card. In general, those in the middle age groups (18–49 years old) were less likely to have a card than younger and older age groups. Within the middle age groups, a larger proportion of men than women did not have a card. Despite all those aged less than six being entitled to a GP visit card, 18 per cent of men and 12 per cent of women reported not having a card. Similarly, 10 per cent of men and 6 per cent of women aged 70 and over reported not having a card despite being eligible for one.

FIGURE 5.1 PERCENTAGE OF THE POPULATION WITHOUT A MEDICAL CARD OR GP VISIT CARD, 2019

Source: SWITCH database based on the SILC 2019 Research Microdata Files.

Note: These proportions are derived from individuals self-reporting whether they hold a medical card or a GP visit card.

5.3 EXTENDING ELIGIBILITY: DEMAND IMPLICATIONS

5.3.1 Extending eligibility by age group

Using the Hippocrates Model, Table 5.1 shows the projected number of new cardholders in 2023–2026 if eligibility for free GP care were incrementally extended on the basis of age (as detailed in Table 4.3), with an 85 and 100 per cent uptake rate. The largest increase is observed in 2026, when eligibility is extended to all those aged 18–49, with the number of new cardholders in that year ranging from 1.3 million with an uptake rate of 85 per cent to 1.6 million with an uptake rate of 100 per cent.

TABLE 5.1 NUMBER OF NEW CARDHOLDERS IF ELIGIBILITY IS EXTENDED ON THE BASIS OF AGE, 2023–2026

	Age group that become eligible	N new cardholders (85% uptake) (Central scenario)	N new cardholders (100 % uptake) (High-pressure scenario)
2023	6–7	57,571	68,254
2024	50–69	625,139	738,353
2025	8–17	340,311	403,889
2026	18–49	1,326,919	1,614,639

Source: Authors' analysis using the Hippocrates Model.

Note: The numbers in the table reflect the central and high-pressure scenarios related to the demand assumptions detailed in Table 4.7.

Based on the methods detailed in Section 4.5, if eligibility for free GP care is extended to the total population, the projected number of GP visits in 2026 would increase from an estimated 20.4 million to 22.7 million (a 12 per cent increase) (Table 5.2). This projected increase is based on the demand assumptions identified in the central scenario (detailed in Table 4.7) and reflects the increase in demand for GP visits associated with the reduction in the user fee for such visits (from approximately €54 to €0; Walsh et al., 2021).

TABLE 5.2 PROJECTED NUMBER OF GP VISITS (MILLION); NO EXTENSION TO ELIGIBILITY AND AGE-BASED EXTENSION TO ELIGIBILITY, 2023–2026, CENTRAL SCENARIO

	No extension to eligibility	Age-based extension to eligibility
2023	19.8	19.9
2024	20.0	21.0
2025	20.2	21.5
2026	20.4	22.7

Source: Authors' analysis using the Hippocrates Model.

Note: The numbers in the table reflect the central scenario detailed in Table 4.7 with a card uptake rate of 85 per cent. These numbers include home visits and phone consultations but exclude nurse-only consultations.

Table 5.3 shows the projected number of GP visits from 2022 to 2026 for existing cardholders, new cardholders and non-cardholders. The number of GP visits for new cardholders increases over time while the number associated with non-cardholders (those who are not eligible for a GP visit card or who choose not to avail of a GP visit card) decreases as the number of people that becomes eligible increases. Overall, there is an approximate 16 per cent increase in the projected number of GP visits between 2022 and 2026, reflecting an increase in the number of people that becomes eligible for free GP visits (and, hence, an increase in demand) as well as the impact of a growing and ageing population.

TABLE 5.3 PROJECTED NUMBER OF GP VISITS (MILLION) BY CARD STATUS USING THE AGE-BASED APPROACH TO EXTENDING ELIGIBILITY, 2022–2026, CENTRAL SCENARIO

	Existing cardholders	New cardholders	Non-cardholders	Total
2022	12.4	0	7.2	19.6
2023	12.5	0.2	7.1	19.9
2024	12.7	3.1	5.1	21.0
2025	12.8	4.2	4.5	21.5
2026	13.0	8.2	1.5	22.7

Source: Authors' analysis using the Hippocrates Model.

Note: The numbers in the table reflect the central scenario detailed in Table 4.7 with a card uptake rate of 85%.

5.3.2 Extending eligibility by income group

With the exception of those aged under six and 70 and over, eligibility for a GP visit card is based on an income means test. The current weekly limits for different household types are shown in Table 5.4. The table also shows the increase in weekly income limits that would be required in Years 1 and 2 to make an additional one-third of existing non-cardholders eligible for a GP visit card in each year. It is assumed that at the end of the three-year period all individuals would be eligible for a GP visit card and no income limits would remain.

TABLE 5.4 CURRENT INCOME LIMITS FOR A GP VISIT CARD AND REQUIRED INCOME LIMITS TO COVER AN ADDITIONAL ONE-THIRD OF POPULATION EACH YEAR

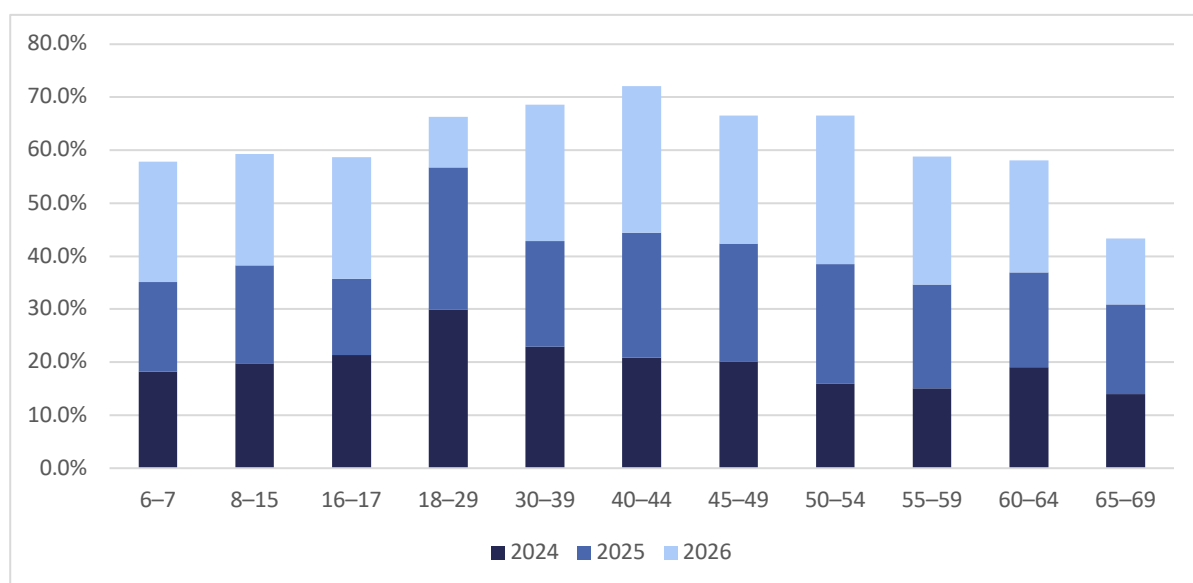
	Baseline (current)	Year 1	Year 2
Under 66			
Singles living alone	€304	€532	€790
Singles living with family	€271	€474	€705
Couples and lone parents	€441	€772	€1,147
66 and over			
Singles living alone	€333	€583	€866
Singles living with family	€286	€501	€744
Couples and lone parents	€492	€861	€1,279

Source: SWITCH, based on SILC 2019 adjusted to 2022 income levels.

Note: Year 1 and Year 2 incomes – employee and self-employed gross incomes – are assumed constant across years.

If eligibility is extended on an income basis over a three-year period, approximately 900,000 people would become newly eligible for a GP visit card in each year. Figure 5.2 shows the percentage of non-cardholders by age and sex that would become eligible in each year. A greater proportion of younger adults (aged 18–29 and 30–39) would gain eligibility in year 1 relative to the younger and older age groups.

FIGURE 5.2 PERCENTAGE OF PREVIOUS NON-CARDHOLDERS THAT WOULD BECOME ELIGIBLE IN EACH YEAR IF ELIGIBILITY IS EXTENDED ON THE BASIS OF INCOME



Source: SWITCH based on SILC 2019 adjusted to 2022 income levels.

Notes: SWITCH is a static micro-simulation model, and the current year (2022) is used as an approximation of 2024, 2025 and 2026. Eligibility for a GP visit card is expanded in each year as per Table 5.4 (Year 1: 2024, Year 2: 2025, and by 2026 roll-out is universal). Non-cardholders are individuals living in households above the relevant GP card income limit at baseline (detailed in Table 5.4, column 1). Those aged above 70 or below six are excluded because eligibility for a GP visit card is universal at these ages. In subsequent analysis, the reported (rather than simulated) caseload of cardholders across age groups (see Figure 5.1) is used as the baseline position. Non-cardholders in this figure are based on simulated estimates of non-cardholders (e.g., households that are eligible for a card based on their income from the SWITCH model) rather than actual cardholders. In subsequent analysis, the relevant proportions of each age group are applied to the actual take-up rates detailed in Figure 5.1.

Similar to the age-based approach above (Table 5.2), if eligibility is extended on an income basis, then the projected number of GP visits in 2026 would increase from approximately 20.4 million to 22.3 million (9 per cent increase) (Table 5.5). The lower number of projected visits associated with the income-based approach to extending eligibility relative to the age-based approach reflects the assumed lower uptake rate associated with the income-based extension to eligibility (in the low and central scenarios).

TABLE 5.5 PROJECTED NUMBER OF GP VISITS (MILLION); NO EXTENSION TO ELIGIBILITY AND INCOME-BASED EXTENSION TO ELIGIBILITY, 2023–2026, CENTRAL SCENARIO

	No extension to eligibility	Income-based extension to eligibility
2023	19.8	19.8
2024	20.0	20.6
2025	20.2	21.4
2026	20.4	22.3

Source: Authors' analysis using the Hippocrates Model.

Note: The numbers in the table reflect the central scenario detailed in Table 4.7, with a card uptake rate of 70 per cent.

Table 5.6 shows the projected number of GP visits in 2022–2026 for those who were existing cardholders, new cardholders and non-cardholders if eligibility is extended on an income basis. The projected number of GP visits for new cardholders increases over time, while the projected number for non-cardholders (those who are not eligible for a GP visit card or who choose not to avail of a GP visit card) decreases as the number of people eligible for a card increases. The observed increase in the number of visits among existing cardholders relates to an increase in the number of older people (with associated higher rates of visiting) over time. Overall, there is an approximate 14 per cent increase in the projected number of GP visits between 2022 and 2026, reflecting an increase in the number of people eligible for free GP visits (and, hence, an increase in demand) as well as an increase in, and ageing of, the population.

TABLE 5.6 PROJECTED NUMBER OF GP VISITS (MILLION) BY CARD STATUS USING THE INCOME-BASED APPROACH TO EXTENDING ELIGIBILITY, 2022–2026, CENTRAL SCENARIO

	Existing cardholders	New cardholders	Non-cardholders	Total
2022	12.4	0	7.2	19.6
2023	12.5	0	7.3	19.8
2024	12.7	2.1	5.8	20.6
2025	12.8	4.3	4.3	21.4
2026	13.0	6.8	2.5	22.3

Source: Authors' analysis using the Hippocrates Model.

Note: The numbers in the table reflect the central scenario detailed in Table 4.7 with a card uptake rate of 70 per cent.

5.4 EXTENDING ELIGIBILITY: COST IMPLICATIONS

5.4.1 Extending eligibility by age group

The central aim of the analysis in this report is to estimate the cost to the State of extending eligibility for free GP care to current non-cardholders. Under the age-based extension of eligibility, it is assumed that eligibility for a GP visit card will be extended to those aged six and seven in 2023 and to the remaining age groups in subsequent years so that by 2026 all individuals would be entitled to a GP visit card. Table 5.7 shows the projected cost in 2023–2026 for new cardholders based on the scenarios detailed in Table 4.7 using the age-based approach to extending eligibility. In 2026, the expected cost to the State of extending eligibility for free GP visits to everyone ranges from €462 million in the low-pressure scenario to €881 million in the high-pressure scenario.

TABLE 5.7 PROJECTED COST TO THE STATE OF EXTENDING ELIGIBILITY FOR FREE GP CARE (NEW CARDHOLDERS), AGE-BASED APPROACH, €(MILLION), 2023–2026

	Low	Central	High
2023	8.7	9.7	13.9
2024	154.3	182.7	282.6
2025	210.3	245.8	386.3
2026	462.0	541.1	881.3

Source: Authors' analysis using the Hippocrates Model.

Note: The assumptions underlying the scenarios are detailed in Table 4.7.

5.4.2 Extending eligibility by income group

Table 5.8 shows the projected cost in 2023–2026 for new cardholders using the income-based approach to extending eligibility. In 2026, the expected cost to the State of extending eligibility for free GP visits to everyone ranges from €381 million in the low-pressure scenario to €881 million in the high-pressure scenario. The lower cost associated with the income-based approach to extending eligibility relative to the age-based approach reflects the assumed lower uptake rate associated with the income-based extension to eligibility (in the low and central scenarios).

TABLE 5.8 PROJECTED COST TO THE STATE FOR EXTENDING ELIGIBILITY FOR FREE GP CARE (NEW CARDHOLDERS), INCOME-BASED APPROACH, €(MILLION), 2023–2026

	Low	Central	High
2023	–	–	–
2024	119.0	138.8	259.4
2025	240.7	281.3	541.1
2026	380.5	445.6	881.3

Source: Authors' analysis using the Hippocrates Model.

Note: The assumptions underlying the scenarios are detailed in Table 4.7.

5.5 SENSITIVITY ANALYSIS

Table 5.9 shows the impact on projected cost in 2026 (based on the age-based extension to eligibility) of changing one of the assumptions detailed in the central scenario in Table 4.7. Changing the assumption on population growth has relatively little impact on projected cost. For example, under a low population scenario (relative to a central population scenario), projected cost in 2026 would be 1 per cent lower, while under a high population scenario, projected cost would be 2 per cent higher.

Projected cost in 2026 is sensitive to take-up rates and the payment rates to GPs. For example, a take-up rate of 70 per cent rather than 85 per cent would reduce projected cost by approximately 18 per cent, while increasing the take-up rate from 85 to 100 per cent would increase projected cost by almost 18 per cent. Reducing the payment rate to GPs from current capitation rates to 75 per cent of current capitation rates would decrease projected cost between 10 and 17 per cent, while increasing payment rates to 135 per cent of current rates would increase cost between 27 and 31 per cent (depending on the assumption used in relation to fees and allowances). Cost would increase by 10 per cent were prices (payments to GPs) to increase by 2.5 per cent per annum between 2023 and 2026 relative to a situation of no price increase over this time period.

TABLE 5.9 SENSITIVITY ANALYSIS: PERCENTAGE EFFECT ON 2026 COST OF CHANGING ONE ASSUMPTION (%), CENTRAL SCENARIO

Age-based capitation	
Projected 2026 cost based on central scenario	€541.1 million
Assumptions	
<i>Population</i>	
Low	-1%
High	2%
<i>Take-up rates</i>	
70%	-18%
100%	18%
<i>Price series</i>	
COSMO Upside	10%
<i>Capitation/fees and allowances</i>	
75% current; central	-17%
75% current; high	-10%
Current; high	4%
Current + 35%; central	27%
Current + 35%; high	31%

Source: Authors' analysis using the Hippocrates Model.

Note: The assumptions underlying the central scenario are detailed in Table 4.7.

5.6 EXTENDING ELIGIBILITY: TWO FREE GP VISITS

The preceding analysis assumed that all current non-cardholders would become eligible for a GP visit card which would entitle them to (unlimited) free GP care. As an alternative, Table 5.10 shows the projected cost to the State in 2026 of providing all current non-cardholders with eligibility for two free GP visits per annum. In this instance, the projected cost would range from €193 million in the low-pressure scenario to €349 million in the high-pressure scenario.

TABLE 5.10 PROJECTED COST TO THE STATE OF PROVIDING TWO FREE GP VISITS (NEW CARDHOLDERS), €(MILLION), 2026

	Low	Central	High
2026	192.6	231.6	348.9

Source: Authors' analysis using the Hippocrates Model.

Note: The assumptions underlying the scenarios are detailed in Table 4.7. The analysis is based on the unit-cost approach detailed in Section 4.8. Extension of eligibility is assumed to occur in one year (2026). It is also assumed that GPs receive payment for these two visits even if an individual has fewer than two visits.

5.7 COST FOR EXISTING CARDHOLDERS

Based on the methods outlined in Section 4.10, Table 5.11 shows the projected cost to the State in 2023–2026 for existing cardholders. Some payments to GPs (e.g., benefits to retired and former district medical officers and payments related to the Maternity and Infant Care Scheme) are not directly related to the provision of care for cardholders and are not included in these estimates. Consequently, overall payments to GPs through the GMS system in this period will be greater than those included in this report.

Expenditure on existing cardholders is projected to be approximately €779 million in 2026 using current capitation rates. If capitation rates increase for new cardholders, it is assumed that this increase would also apply to existing cardholders. Were this the case, projected expenditure for 2026 for existing cardholders would be approximately €1,058 million.

TABLE 5.11 PROJECTED COST TO THE STATE FOR GP SERVICES FOR EXISTING CARDHOLDERS, €(MILLION), 2023–2026

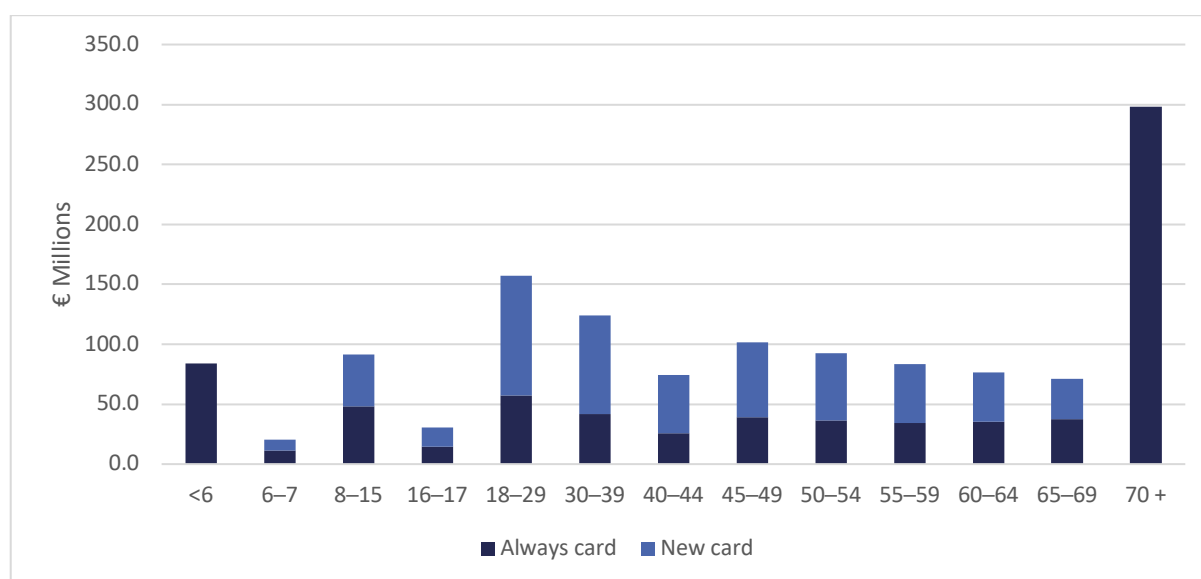
	Central	High
2023	744.3	924.6
2024	755.6	966.7
2025	767.5	1,011.4
2026	779.1	1,057.6

Source: Authors' analysis using the Hippocrates Model.

Note: The assumptions underlying the scenarios are detailed in Table 4.7. The low-pressure scenario was not included because it includes an assumption of capitation rates at 75 per cent of current capitation rates, which, while relevant for new cardholders, would not be relevant for existing cardholders.

Figure 5.3 shows the projected cost to the State in 2026 for free GP care for existing and new cardholders using the age-based approach to extending eligibility (based on the central scenario in Table 4.7). For some age groups (<6 and 70+), there is no additional cost as these groups already have eligibility for free GP care. However, for others (in particular the middle age groups), there will be a significant increase as a relatively large proportion of these age groups do not currently have an entitlement to free GP care.

FIGURE 5.3 PROJECTED COST TO THE STATE FOR EXISTING CARDHOLDERS AND NEW CARDHOLDERS USING THE AGE-BASED APPROACH TO EXTENDING ELIGIBILITY (€ MILLION), 2026, CENTRAL SCENARIO

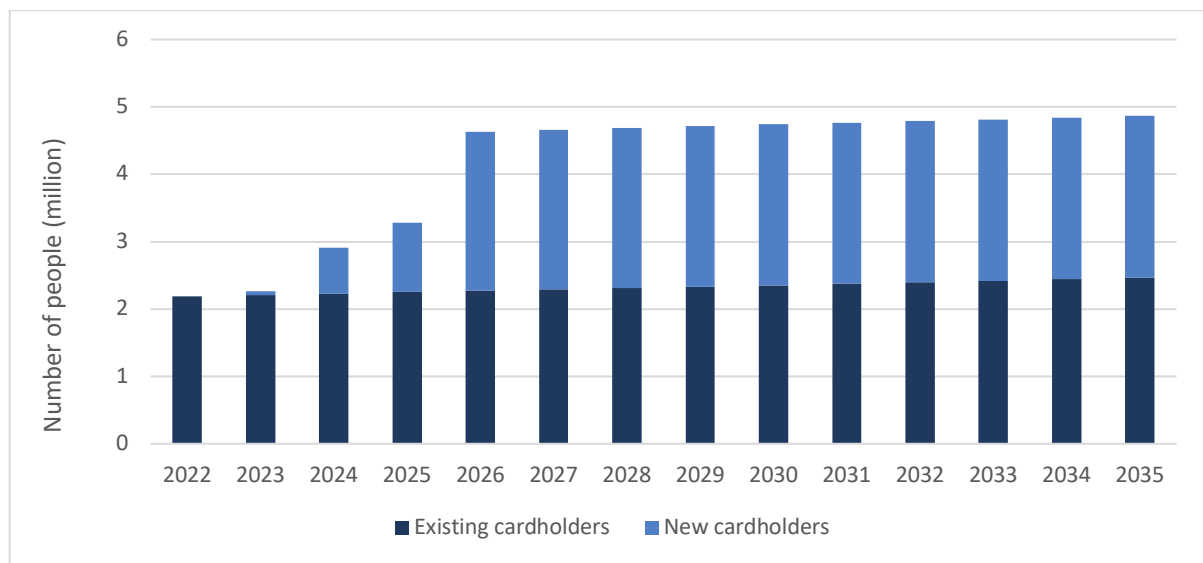


Source: Authors' analysis using the Hippocrates Model.

Notes: This figure is based on the central scenario as detailed in Table 4.7. Some payments to GPs (e.g., benefits to retired and former district medical officers and payments related to the Maternity and Infant Care Scheme) are not directly related to the provision of care for cardholders and are not included in these estimates. Therefore, these payment to GPs do not reflect payments to GPs via the PCRS.

This analysis projects the cost to the State of extending eligibility to free GP care to the total population to 2026. Over the longer term, the projected cost to the State of financing GP care will be heavily influenced by negotiations between the Department of Health, the HSE and the IMO on the rate of payment to GPs for cardholders.

These rates tend not to increase in a linear fashion and can themselves be influenced by factors such as relative bargaining power, future health-care policy and the wider economic and fiscal environment. Consequently, estimating these payments over the longer term incorporates significant uncertainty and is not undertaken as part of this analysis. However, Figure 5.4 shows the number of people who would be eligible for a card under existing eligibility schemes and the number who would become eligible for a card if eligibility were to be extended on the basis of age (so that everyone would have an entitlement by 2026), assuming an 85 per cent uptake rate, out to the year 2035. It shows that even if eligibility is not extended to the total population (and other factors, including the rate of discretionary cards, etc., are held constant), the number of people who would be eligible for a card would increase from approximately 2.2 to 2.6 million between 2022 and 2035 (a 20 per cent increase) due to an increasing number of people aged 70 and over in the population.

FIGURE 5.4 PROJECTED NUMBER OF PEOPLE ELIGIBLE FOR FREE GP CARE; CURRENT ELIGIBILITY AND AGE-BASED EXTENSION TO ELIGIBILITY (MILLION), 2022–2035, CENTRAL SCENARIO

Source: Authors' analysis using the Hippocrates Model.

Note: The figure is based on the central scenario as detailed in Table 4.7.

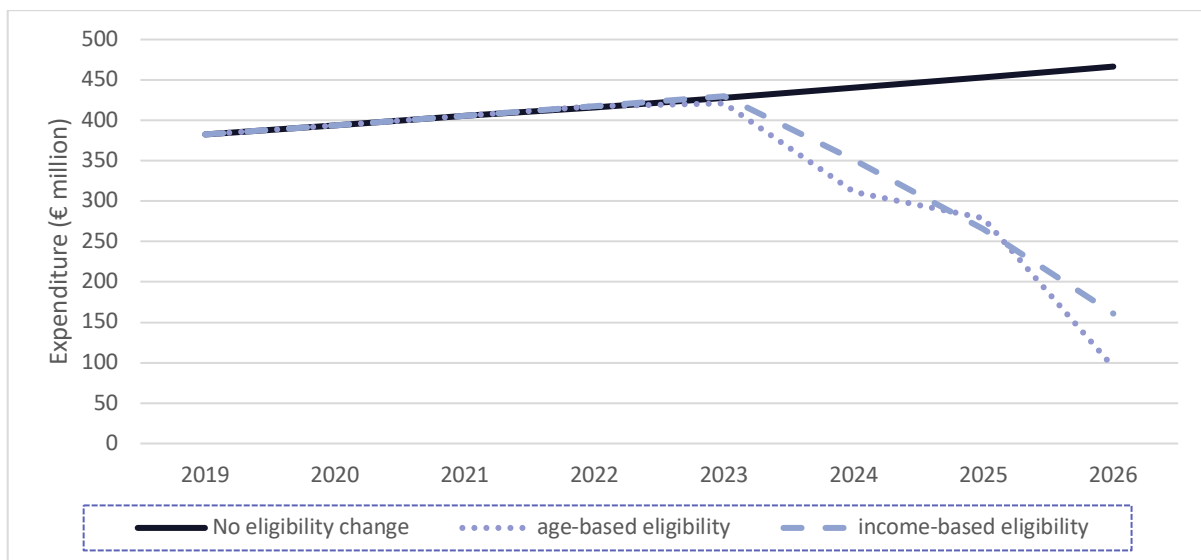
5.8 COST FOR NON-CARDHOLDERS

Figure 5.1 showed that some people do not avail of a GP visit card despite being eligible for one. Consequently, in this analysis it was assumed that some people will continue to pay out of pocket for GP services even if free GP care for all is introduced.

Figure 5.5 shows projected out-of-pocket expenditure by individuals between 2019 and 2026, assuming no change to eligibility, an age-based extension to eligibility and an income-based extension to eligibility. It shows that out-of-pocket expenditure would decrease rapidly from 2023 as eligibility for free GP care increases. In 2026, out-of-pocket expenditure is lower in the age-based extension relative to the income-based extension to entitlement reflecting the assumed higher uptake with the age-based approach.

If eligibility for free GP care is introduced, out-of-pocket expenditure on GP services is projected to decrease from approximately €467 million in 2026 to between €95 million (age basis) and €161 million (income basis).

FIGURE 5.5 PROJECTED OUT-OF-POCKET EXPENDITURE ON GP SERVICES BY NON-CARDHOLDERS (€ MILLION), 2019–2026, CENTRAL SCENARIO



Source: Authors' analysis based on the Hippocrates Model.

Notes: Figure is based on an assumption of central population growth and a 2.5 per cent increase per annum in the unit cost.

CHAPTER 6

Discussion

6.1 SUMMARY OF FINDINGS

The *Sláintecare Report* recommended an extension of eligibility to GP care in Ireland. The aim of the analysis in this report was to estimate the cost to the State of such an extension of eligibility. In this analysis, it was assumed that by 2026 everybody would have eligibility for free GP care by applying for and receiving a GP visit card. However, it was also assumed that not everybody would avail of this entitlement.

In 2019, approximately 56 per cent of the population did not have a medical card or GP visit card and, consequently, paid out of pocket for GP services. Extending eligibility for GP care that is free at the point of use would increase the demand for GP visits because the price of such visits would fall to zero. In the age-based approach to extending eligibility, it was estimated that in 2026 there would be an additional 2.3 million GP visits (representing a 12 per cent increase) relative to a situation of no change in eligibility.

The projected cost to the State in 2026 of extending eligibility to free GP care to the total population ranged from €462 million to €881 million using the age-based approach and €381 million to €881 million using the income-based approach. The large range is explained by differing assumptions on a number of factors including population growth and ageing, take-up rates, payment rates to GPs and economy-wide cost pressures. For example, for the age-based approach, the lower estimate assumes low population growth and ageing, an uptake rate of 85 per cent, capitation rates which are 75 per cent of current capitation rates and no economy-wide increases in wages between 2023 and 2026. Alternatively, the higher estimate assumes high population growth and ageing, a 100 per cent uptake rate, capitation rates that are 135 per cent of current rates and an annual 2.5 per cent increase in economy-wide wages between 2023 and 2026. The lower cost associated with the income-based approach is due to an assumption of a lower uptake rate under this approach.

The projected cost estimates were sensitive to take-up rates and payment rates. For example, under the central scenario in the age-based approach to extending eligibility, reducing take-up of free GP care from 85 per cent to 70 per cent would reduce the projected cost to the State for new cardholders in 2026 by almost 18 per cent, while increasing it to 100 per cent would increase the cost to the State by 18 per cent. Reducing the payment rate to GPs from current capitation rates to 75 per cent of current capitation rates would decrease projected cost between 10 and

17 per cent, while increasing payment rates to 135 per cent of current rates would increase cost between 27 and 31 per cent (depending on the assumption in relation to fees and allowances). The projected cost to the State in 2026 for new non-cardholders was relatively insensitive to assumptions on population growth.

The cost to the State of extending eligibility for free GP care from this analysis should be considered in the wider context of rising health-care expenditure in Ireland in recent years. Estimates from the Central Statistics Office show that total (public and privately financed) expenditure on health increased from approximately €19 billion in 2015 to €23.7 billion in 2019 (Central Statistics Office, 2021). This further increased to €26.5 billion in 2020, reflecting additional expenditure associated with the COVID-19 pandemic (Central Statistics Office, 2021). More recently, publicly financed health-care expenditure in the region of €21 billion was announced in Budget 2023.

Previous research using the Hippocrates Model has shown that current expenditure and projected increases in expenditure on general practice are low relative to other sectors including community pharmaceuticals, long-term residential care and hospital-based care (Keegan et al., 2020; Walsh et al., 2021). For example, in 2019, expenditure on general practice was estimated to be in the region of €1 billion (of which approximately 55 per cent was publicly financed). This compares to expenditure of €2.3 billion on community pharmaceuticals and €2 billion on long-term residential care (Walsh et al., 2021).

While increasing eligibility for GP visits free at the point of use would increase publicly financed expenditure on GP services (reflecting increasing visiting rates associated with a reduction in the price of GP visits), much of the additional publicly financed expenditure is offset by a reduction in private expenditure by previous non-cardholders. Previous research estimated that providing GP care that is free at the point of use in 2018 would increase public health-care expenditure by between 2.4 and 2.7 per cent (Connolly et al., 2022). The increase in total health-care expenditure (including both public and privately financed expenditure) was estimated to be between 0.5 and 0.6 per cent as GP visits paid for out of pocket at the point of use would be publicly financed if eligibility for GP services were extended. Recent increases in payments to GPs (as detailed in the 2019 agreement between the Department of Health, the HSE and the IMO) mean that the impact of extending eligibility on total and public health-care expenditure is likely to be greater than that estimated for by Connolly et al. (2022) for 2018. However, it is likely that, as a proportion of overall health-care expenditure, the additional costs detailed in this analysis would be relatively low.

6.2 LIMITATIONS

There are a number of limitations to the analysis. First, the analyses were somewhat hampered by a poor data infrastructure with limited administrative data on primary care and general practice. Due to the lack of a central register for GPs and the nature of general practice in Ireland, with GPs operating independently, information about both GP numbers and the volume of general-practice consultations is difficult to identify (Collins and Homeniuk, 2021). While the Healthy Ireland survey includes questions on GP utilisation for adults (and, more recently, for children), the survey does not capture utilisation for those residing in communal settings. Consequently, the estimates of GP visiting in this report are likely to be an underestimate of GP workload.

Second, the analysis makes a number of assumptions about what might happen if eligibility for GP care were extended to the whole population; such assumptions are inherently uncertain and should be interpreted with a degree of caution. For example, a number of assumptions were made about what might happen to fees and allowances payable to GPs. These assumptions reflect what might happen to fees and allowances but are not suggestive of what should happen.

Third, the estimates of increased demand in the analysis likely reflect upper bounds on what might happen to demand for GP visits over time were eligibility to increase. It is possible that after an initial increase in demand the increase would decrease over time.

Fourth, a proportion of individuals currently eligible for a medical card or GP visit card do not avail of this eligibility. In this analysis, it is assumed that a proportion of these people will avail of a GP visit card when eligibility is extended to the whole population. The extent to which this will happen in practice is unclear. It could be that such people will continue not to avail of their entitlement; alternatively, such people may decide to avail of their eligibility, if, for example, the application process were simplified (due to eligibility being related to age rather than income) or people became aware of their eligibility.

Fifth, the analysis focuses on the cost to the State of extending eligibility for free GP care to the total population, but it does not consider potential cost implications for other sectors. Reducing or removing financial barriers to GP services could increase or decrease health-care expenditure in other areas. For example, expenditure on prescription drugs could increase if more people are visiting the GP. Such expenditure is likely to be predominantly private out-of-pocket expenditure because free GP care does not confer an entitlement to free prescription drugs, with the majority of non-medical-cardholders required to pay for prescription items up to a value of €80 per month.

Alternatively, costs could decrease in the hospital sector because previous Irish research has shown that investment in primary care could reduce demands on the hospital sector relating to ambulatory care sensitive conditions (McDarby and Smyth, 2019; Keegan et al., 2020). In terms of expenditure on GP services, even if eligibility for such services does not change, expenditure would likely increase over time as the number of people aged 70 and over (and therefore eligible for a GP visit card) increases. Further, the analysis does not include the expected reduction in tax relief that would be associated with a reduction in out-of-pocket payments for GP services.

Sixth, SWITCH is a static model that does not project population ageing and income growth to 2026. Consequently, the income limits modelled here would need to be shifted in line with market income growth to achieve one-third coverage per year.

Finally, while previous analysis using the Hippocrates Model projected costs to 2035, in this analysis projections of cost of GP services were made to 2026. Projections beyond this are subject to a lot of uncertainty, in particular around payments to GPs. If there is to be eligibility for free GP care in Ireland for all, then consideration is required of payment methods and rates for GPs. For example, for existing cardholders, an age- and sex-adjusted capitation payment is made for all cardholders. In the future, if eligibility is extended to the total population, then an additional indicator relating to need (as is used in the UK) for GP services might be required in the capitation payment so that GPs operating in areas with a larger proportion of people with greater need (e.g., deprived areas) are not disadvantaged. Given these uncertainties around GP payments in the future, the projections on this report did not extend beyond 2026.

6.3 POLICY IMPLICATIONS

There are a number of considerations for policymakers arising from this report. These include how best to extend eligibility for GP services that are free at the point of use to the whole population; how GPs should be paid for such services; and the extent to which extending eligibility for GP care would help achieve universal health care. Each of these are dealt with in turn in the following paragraphs.

6.3.1 Extending eligibility

The *Sláintecare Report* made a number of recommendations for reforming the Irish health-care system including the introduction of universal GP and primary care (Houses of the Oireachtas Committee on the Future of Healthcare, 2017). The report explicitly referenced the need to progressively extend entitlement to the whole population to GP care that is free at the point of use. In the analysis in this report, two main ways of progressively extending eligibility were examined: an age-based approach and an income-based approach.

An advantage of the age-based approach to extending eligibility is that take-up rates are likely to be higher than for an income-based approach. There are a number of reasons for this including clearer eligibility criteria associated with an age-based extension, a potentially less cumbersome application process (with no detail required on income and expenditure) and potentially less social stigma associated with the uptake of an age-based eligibility relative to an income-based eligibility (Keane et al., 2021).

In addition, it is likely that the cost of administering a scheme based on an age-based approach would be lower than one based on income, which involves an extensive means-testing process. However, a limitation of the age-based extension is that it could give rise to equity concerns given that some higher-income people would gain eligibility to free GP care before some lower-income people.

The World Health Organization, when discussing how to extend universal health care, noted that to include more people fairly countries should first expand coverage for low-income groups and other groups disadvantaged in terms of service coverage, health or both (World Health Organization, 2014). If (as is examined in this report) the extension of free GP care to the total population occurs over a relatively short period of time, then an age-based approach could be a pragmatic option to ensure the highest take-up rates as eligibility is rolled out. However, if the extension of eligibility occurred over a longer period of time (e.g., over a ten-year period rather than the four-year period considered in this analysis), or if eligibility was only to be extended to part of the population, then extending eligibility via the income approach would seem a more equitable option.

The analysis in this report also examined the cost implications of providing two free GP visits to all current non-cardholders (with additional visits paid at the point of use by the individual). An advantage of this approach to extending eligibility for GP services is that there would likely be less of an administrative burden on the State compared to, for example, an income-based approach to extending eligibility. Also, relative to providing free GP care for all, the additional demand for GP services is likely to be less and the cost implications for the State are reduced.

Such an approach would give rise to equity concerns. In particular, more unhealthy individuals, who require more than two GP visits per annum, would have to pay out of pocket for these additional visits, while more healthy individuals, who only require two or fewer visits, would have no additional payments to make. In countries that implement user charges, the approach generally involves applying a (relatively) small co-payment for each item of services. If user charges are to be a feature when extending eligibility for GP services, then a similar co-payment approach is likely to be more equitable than providing everyone with two free visits per annum.

Consideration is required as to why uptake for GP visit and medical cards is below 100 per cent. There are a number of potential reasons for this including people being unaware of their entitlement, a reluctance to move GP (for those individuals whose GP is not participating in the scheme) or a lack of GPs in a particular area participating in the scheme. If GP care that is free at the point of use is to be extended to the total population, an information campaign would be required to ensure that everyone is aware of their entitlement, with particular targeting of some disadvantaged groups who might otherwise be unaware of their eligibility.

In addition, it is essential that a sufficient number of GPs participate in any scheme that increases eligibility for free GP care. In 2015, more than 92 per cent of GPs under the medical card scheme signed up to the contract providing for free GP visits for the under-sixes (Department of Health, 2015b). However, the introduction of free GP care for children aged under six was initially opposed by some GP organisations (Goodey, 2015). There were two possible reasons for this: (1) concerns about the equity implications of extending free GP care to segments of the population based on their age while others, perhaps with greater affordability issues, continued to pay for such care; and (2) concerns about the potential impact of increased demand following the removal of fees (Goodey, 2015).

The first of these concerns would be addressed if eligibility for free GP care was extended to the total population rather than specific age groups or if eligibility was extended on income grounds. However, demand for GP care will increase in the coming years due to population growth and ageing (Walsh et al., 2021), and extending eligibility will lead to further increases in this demand. It is not clear if there are a sufficient number of GPs available to meet this additional demand in the coming years (see below).

If there are an insufficient number of GPs participating in the scheme to extend eligibility, a significant proportion of the population may be required to continue to pay out of pocket for GP services. This could give rise to a two-tier system of access to general practice, undermining a key principle of Sláintecare reform. Given the incentives associated with different payment methods, as discussed in Chapter 3, this is a particular risk if GPs are paid via fee-for-service for private patients paying out of pocket and via capitation for patients with a medical card or GP visit card.

6.3.2 Paying GPs

Consideration is required as to how and to what extent GPs are paid to provide services to new cardholders. In this analysis, it was assumed that GPs would be paid for new cardholders via age- and sex-adjusted capitation rates with additional fees and allowances. The literature review in Chapter 3 noted that a potential limitation of capitation payments is that they may encourage practitioners to hold larger patient lists in order to maximise income, which could result in shorter

consultations or long waits, cream-skimming (as providers seek out low-risk patients) and transfer of patients to other personnel and sectors (e.g., hospital), particularly if demand for services is very high.

A number of countries have introduced blended payment schemes, which include a capitation or salary component as well as a fee-for-service or block payments for the provision of certain services or the achievement of a specific objective (Brick et al., 2010). The available evidence suggests that there is no ‘magic bullet’ to deal with the perverse incentives arising from different payment schemes (Van Herck et al., 2010).

If eligibility for GP care is to be extended to the total population, careful consideration of payment systems and their potential implications are required. In particular, payment systems should be aligned with health policy objectives. If, for example, the aim of policy is to reorient the health-care system more towards primary care, then consideration is needed of how financial incentives can be used to ensure this happens in practice.

6.3.3 Achieving universal health care

The *Sláintecare Report* noted the need to move towards a universal health-care system for Ireland. However, there is some ambiguity about the meaning of ‘universal’ in this context (Connolly and Wren, 2019). A commonly used definition of universal health care, conceived by the Council of the European Union (2006: 2), notes that

Universality means that no one is barred access to health care; solidarity is closely linked to the financial arrangement of our national health systems and the need to ensure accessibility to all; equity relates to equal access according to need regardless of ethnicity, gender, age, social status or ability to pay.

Increasing the number of people entitled to free GP care would go some way to achieve this objective by ensuring that people have equal access regardless of ability to pay. However, the question arises as to whether there will be a sufficient number of GPs to deliver the additional GP visits associated with the ageing and growing population, as well as an increase in the number of people eligible for free GP care. If there are not a sufficient number of GPs to meet the additional demand for their services in the coming years, then, while financial barriers to access may be removed, other barriers (including long waits or no availability) could equally hinder access, thereby undermining the universality of the system.

Before the COVID-19 pandemic, the majority of people in Ireland were able to get a same-day or next-day appointment with their GP (Government of Ireland, 2020). Now, there is growing concern as to whether or not this will continue to be the case

in coming years. Crosbie et al. (2020), for example, found a very high volume of activity among existing GPs, while previous research has highlighted potential shortages in the number of GPs in future years (Teljeur et al., 2010) as many current GPs reach retirement age and as demand for services increases in line with population growth and ageing (Wren et al., 2017).

Previous research for Ireland identified four strategies to address future GP shortages including (1) increasing training places for GPs; (2) importing GPs from abroad; (3) delayed retirement; and (4) increasing nurse substitution (Teljeur et al., 2010). While there is no one source of the number of working GPs in Ireland, OECD data suggests that there has been an increase in the number of GPs in recent years from 0.56 per 1,000 population in 2010 to 0.84 in 2018 (OECD, 2020), as well as an increase in the number of GP training places. However, it is not clear whether there are a sufficient number of GPs to deal with the growing demand for GP services in the coming years.

To address this issue, a recent publication from the Irish College of General Practitioners (2022) identified ten potential solutions to the expected shortage of GPs in Ireland in the coming years including an increase in the number of general-practice nurses, increased use of remote consulting, incentives for GPs to set up in rural areas, encouraging more graduates to enter general practice and sustained investment in GP data information systems.

REFERENCES

- Allin, S., G. Marchildon and A. Peckham (2020). 'The Canadian health care system', in R. Tikkanen, R. Osborn, E. Mossialos, A. Djordjevic and G. Wharton (Eds.), *International profiles of health care systems*, New York: The Commonwealth Fund, pp. 27–35.
- Bergin, A., N. Conroy, A. Garcia Rodriguez, D. Holland, N. McNerney, E. Morgenroth and D. Smith (2017). *COSMO: A new COre Structural MOdel for Ireland*, Dublin: Economic and Social Research Institute. www.esri.ie/publications/cosmo-a-new-core-structural-model-for-ireland
- Blanco-Moreno, Á., R.M. Urbanos-Garrido and I.J. Thuissard-Vasallo (2013). 'Public healthcare expenditure in Spain: Measuring the impact of driving factors', *Health Policy*, Vol. 111, No. 1, pp. 34–42.
- Blumel, M., and R. Busse (2020). 'The German health care system', in R. Tikkanen, R. Osborn, E. Mossialos, A. Djordjevic and G. Wharton (Eds.), *International profiles of health care systems*, New York: The Commonwealth Fund, pp. 83–92.
- Brick, A., A. Nolan, J. O'Reilly and S. Smith (2010). *Resource allocation, financing and sustainability in health care: Evidence for the expert group on resource allocation and financing in the health sector*, Dublin: Economic and Social Research Institute. www.esri.ie/publications/resource-allocation-financing-and-sustainability-in-health-care-evidence-for-the
- Callan, T., B. Colgan, C. Keane, C. Logue and J.R. Walsh (2016). 'Income-tested health entitlements: Microsimulation modelling using SILC', *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol. 46, pp. 97–109.
- Central Statistics Office (2021). *Provisional health expenditure estimates*, Dublin: Central Statistics Office.
- Charlesworth, A., and P. Johnson (2018). *Securing the future: Funding health and social care to the 2030s*, London: The Institute for Fiscal Studies.
- Collins, C., and R. Homeniuk (2021). 'How many general practice consultations occur in Ireland annually? Cross-sectional data from a survey of general practices', *BMC Family Practice*, Vol. 22, Art. 40.
- Connolly, S., A. Brick, C. O'Neill and M. O'Callaghan (2022). *An analysis of the primary care systems of Ireland and Northern Ireland*, Dublin: Economic and Social Research Institute. https://www.esri.ie/system/files/publications/RS137_0.pdf
- Connolly, S., A. Nolan, B. Walsh and M.A. Wren (2018). 'Universal GP care in Ireland: Potential cost implications', *Economic and Social Review*, Vol. 49, No. 1, pp. 93–109.

- Connolly, S., and M.A. Wren (2019). 'Universal health care in Ireland: What are the prospects for reform?' *Health Systems and Reform*, Vol. 5, No. 2, pp. 94–99.
- Connolly, S., M.A. Wren, C. Keegan and A. Garcia Rodriguez (2022). 'Universal primary care in Ireland: Cost and workforce implication', *Economic and Social Review*, Vol. 53, No. 4, pp. 281–298.
- Council of the European Union (2006). *Council conclusions on common values and principles in EU health systems*, Brussels: Council of the European Union.
- Crosbie, B., M.E. O'Callaghan, S. O'Flanagan, D. Brennan, G. Keane and W. Behan (2020). 'A real-time measurement of general practice workload in the Republic of Ireland: A prospective study', *British Journal of General Practice*, Vol. 70, No. 696, pp. e489–e496.
- de la Maisonneuve, C., and J. Martins Oliveira (2015). *The future of health and long-term care spending*, Paris: Organisation for Economic Co-operation and Development.
- Department of Health (2015a). 'Press release: Ministers welcome agreement with IMO on free GP care for under-6s'.
- Department of Health (2015b). 'Press release: Over 163,000 children and 23,000 people over 70 sign up for GP care'.
- Department of Health (2021). *Health in Ireland: Key trends 2021*, Dublin: Department of Health. <https://www.gov.ie/en/publication/350b7-health-in-ireland-key-trends-2021/>
- Department of Health and Children (2001). *Primary care: A new direction*, Dublin: The Stationery Office.
- Department of Health, Health Service Executive and the Irish Medical Organisation (2019). *Terms of agreement between the Department of Health, the HSE and the IMO regarding GP contractual reform and service development*, Dublin: Health Service Executive.
- Doolan, M., and S. Prior (2020). Spending review 2020: Note – Private expenditure on general practice, Dublin: Department of Public Expenditure and Reform. <https://igees.gov.ie/wp-content/uploads/2020/11/Private-Expenditure-on-GP-Care-in-Ireland.pdf>
- Durand-Zaleski, I. (2020). 'The French health care system', in R. Tikkanen, R. Osborn, E. Mossialos, A. Djordjevic and G. Wharton (Eds.), *International profiles of health care systems*, New York: The Commonwealth Fund, pp. 71–81.
- Eijkenaar, F., M. Emmert, M. Scheppach and O. Schöffski (2013). 'Effects of pay for performance in health care: A systematic review of systematic reviews', *Health Policy*, Vol. 110, No. 2–3, pp. 115–130.

- Glover, L., and M. Woods (2020). 'The Australian health care system', in R. Tikkanen, R. Osborn, E. Mossialos, A. Djordjevic and G. Wharton (Eds.), *International profiles of health care systems*, New York: The Commonwealth Fund, pp. 7–15.
- Goodey, C. (2015). *Why GPs oppose free care for children under 6*, Dublin: National Association of General Practitioners.
- Gosden, T., F. Forland, I.S. Kristiansen, M. Sutton, B. Leese, A. Giuffrida, M. Sergison and L. Pedersen (2000). 'Capitation, salary, fee-for-service and mixed systems of payment: Effects on the behaviour of primary care physicians', *Cochrane Database Systematic Reviews*, Vol. 3, CD002215.
- Government of Ireland (2020). *Healthy Ireland summary report 2019*, Dublin: Government Publications. <https://assets.gov.ie/41141/e5d6fea3a59a4720b081893e11fe299e.pdf>
- Health Service Executive (2019). *Primary care reimbursement service: Statistical analysis of claims and payments 2019*, Dublin: Health Service Executive. <https://www.hse.ie/eng/staff/pcrs/pcrs-publications/annual-report-2019.pdf>
- Health Service Executive (2020). *Primary care reimbursement service: Statistical analysis of claims and payments 2020*, Dublin: Health Service Executive. <https://www.hse.ie/eng/staff/pcrs/pcrs-publications/annual-report-20201.pdf>
- Houses of the Oireachtas Committee on the Future of Healthcare (2017). *Sláintecare report*, Dublin: Houses of the Oireachtas. https://data.oireachtas.ie/ie/oireachtas/committee/dail/32/committee_on_the_future_of_healthcare/reports/2017/2017-05-30_slaintecare-report_en.pdf
- Ipsos MRBI (2018). *Healthy Ireland survey 2018: Technical report*, Dublin: Department of Health. <https://assets.gov.ie/7636/c234db602d434af7aff47dd7e7559ea9.pdf>
- Irish College of General Practitioners (2022). *Shaping the future: A discussion paper on the workforce and workload crisis in general practice in Ireland*, Dublin: Irish College of General Practitioners. <https://www.icgp.ie/speck/properties/asset/asset.cfm?type=LibraryAsset&id=9D6A8295%2D73F2%2D4623%2D816F366DC386B2A1&property=asset&revision=tip&disposition=inline&app=icgp&filename=Shaping%5Fthe%5FFuture%5F%2D%5FICGP%5FDiscussion%5FPaper%5FWorkforce%5FWorkload%5FCrisis%5Fin%5FGeneral%5FPractice%5FOctober%5F2022%2Epdf>
- Jegers, M., K. Kesteloot, D. De Graeve and W. Gilles (2002). 'A typology for provider payment systems in health care', *Health Policy*, Vol. 60, No. 3, pp. 255–273.
- Keane, C., K. Doorley, T. Kakoulidou and S. O'Malley (2022). *SWITCH: A tax-benefit model for Ireland linked to survey and register data*. Dublin: Economic and Social Research Institute. https://www.esri.ie/system/files/publications/WP723_0.pdf

- Keane, C., M. Regan, and B. Walsh (2021). 'Failure to take-up public healthcare entitlements: Evidence from the Medical Card system in Ireland', *Social Science and Medicine*, Vol. 281, Art. 114069.
- Keegan, C., A. Brick, A. Bergin, M.A. Wren, E. Henry and R. Whyte (2020). *Projections of expenditure for public hospitals in Ireland, 2018–2035, based on the Hippocrates Model*. Dublin: Economic and Social Research Institute.
- Keegan, C., A. Brick, E. Henry and A. Bergin (2021). 'Projected private hospital expenditure in Ireland, 2018–2035: What role for demographics, cost, and Sláintecare?', *International Journal of Health Planning and Management*, Vol. 37, No. 2, pp. 999–1017.
- Keegan, C., A. Brick, B. Walsh, A. Bergin, J. Eighan and M.A. Wren (2018). 'How many beds? Capacity implications of hospital care demand projections in the Irish hospital system, 2015–2030', *International Journal of Health Planning and Management*, Vol. 34, No. 1, pp. e569–e582.
- Keeler, E. (1992). *Effects of cost sharing on use of medical services and health*, Santa Monica, CA: RAND Corporation. www.rand.org/pubs/reprints/RP1114.html
- Kiil, A., and K. Houlberg (2014). 'How does copayment for health care services affect demand, health and redistribution? A systematic review of the empirical evidence from 1990 to 2011', *European Journal of Health Economics*, Vol. 15, No. 8, pp. 813–828.
- Kirby, A., and A. Murphy (2022). 'Would universal general practitioner care impact Irish adolescents' utilisation?', *Health Policy*, Vol. 126, No. 7, pp. 652–660.
- Kontemeniotis, A., and M. Theodorou (2020). *Can people afford to pay for health care? New evidence on financial protection in Cyprus*, Copenhagen: WHO Regional Office for Europe.
- Kringos, D., W. Boerma, Y. Bourgueil, T. Cartier, T. Dedeu, T. Hasvold, A. Hutchinson, M. Lember, M. Oleszczyk, D. Rotar Pavlic, I. Svab, P. Tedeschi, S. Wilm, A. Wilson, A. Windak, J. Van der Zee and P. Groenewegen (2013). 'The strength of primary care in Europe: An international comparative study', *British Journal of General Practice*, Vol. 63, No. 616, pp. e742–750.
- Kristiansen, I.S., and G. Mooney (1993). 'The general practitioner's use of time: Is it influenced by the remuneration system?', *Social Science and Medicine*, Vol. 37, No. 3, pp. 393–399.
- Lohr, K.N., R.H. Brook, C.J. Kamberg, G.A. Goldberg, A. Leibowitz, J. Keesey, D. Reboussin and J.P. Newhouse (1986). 'Use of medical care in the RAND Health Insurance Experiment: Diagnosis- and service-specific analyses in a randomized controlled trial', *Medical Care*, Vol. 24, No. 9 Suppl., pp. S1–87.

- Ma, Y., and A. Nolan (2017). 'Public healthcare entitlements and healthcare utilisation among the older population in Ireland', *Health Economics*, Vol. 26, No. 11, pp. 1412–1428.
- Manning, W.G., J.P. Newhouse, N. Duan, E.B. Keeler, A. Leibowitz and M.S. Marquis (1987). 'Health insurance and the demand for medical care: Evidence from a randomized experiment', *American Economic Review*, Vol. 77, No. 3, pp. 251–277.
- McDarby, G., and B. Smyth (2019). 'Identifying priorities for primary care investment in Ireland through a population-based analysis of avoidable hospital admissions for ambulatory care sensitive conditions (ACSC)', *BMJ Open*, Vol. 9, No. 11, e028744.
- McDonnell, T., E. Nicholson, G. Bury, C. Collins, C. Conlon, K. Denny, M. O'Callaghan and E. McAuliffe (2022). 'Policy of free GP care for children under 6 years: The impact on daytime and out-of-hours general practice', *Social Science and Medicine*, Vol. 296, Art. 114792.
- McRae, I., and J.R. Butler (2014). 'Supply and demand in physician markets: A panel data analysis of GP services in Australia', *International Journal of Health Care Finance and Economics*, Vol. 14, No. 3, pp. 269–287.
- Nabyonga, J., M. Desmet, H. Karamagi, P.Y. Kadama, F.G. Omaswa, and O. Walker (2005). 'Abolition of cost-sharing is pro-poor: Evidence from Uganda', *Health Policy and Planning*, Vol. 20, No. 2, pp. 100–108.
- Nabyonga-Orem, J., F. Mugisha, C. Kirunga, J. Macq and B. Criel (2011). 'Abolition of user fees: The Uganda paradox', *Health Policy and Planning*, Vol. 26, No. 2, pp. ii41–ii51.
- Nolan, A. (2007). 'The financing and delivery of GP services in Ireland', in B. Nolan (Ed.), *The provision and use of health services, health inequalities and health and social gain*, Dublin: Economic and Social Research Institute, pp. 1–20.
- Nolan, A. (2008). 'Evaluating the impact of eligibility for free care on the use of general practitioner (GP) services: A difference-in-difference matching approach', *Social Science and Medicine*, Vol. 67, No. 7, pp. 1164–1172.
- Nolan, A., and R. Layte (2017). 'The impact of transitions in insurance coverage on GP visiting among children in Ireland', *Social Science and Medicine*, Vol. 180, pp. 94–100.
- O'Callaghan, M.E., L. Zgaga, D. O'Ciardha and T. O'Dowd (2018), 'Free children's visits and general practice attendance', *Annals of Family Medicine*, Vol. 16, No. 3, pp. 246–249.
- O'Reilly, D., T. O'Dowd, K.J. Galway, A.W. Murphy, C. O'Neill, E. Shryane, K. Steele, G. Bury, A. Gilliland and A. Kelly (2007). 'Consultation charges in Ireland deter a large

- proportion of patients from seeing the GP: Results of a cross-sectional survey', *European Journal of General Practice*, Vol. 13, No. 4, pp. 231–236.
- Organisation for Economic Co-operation and Development (2016). *Better ways to pay for health care*, Paris: Organisation for Economic Co-operation and Development.
- Organisation for Economic Co-operation and Development (2020). *OECD health statistics*, Paris: Organisation for Economic Co-operation and Development.
- Organisation for Economic Co-operation and Development and European Observatory on Health Systems and Policies (2019). *Cyprus: Country health profile 2019*. Paris: Organisation for Economic Co-operation and Development. <https://www.oecd-ilibrary.org/docserver/2078ba2a-en.pdf?expires=1670265920&id=id&accname=guest&checksum=3893D40C2C4EA331193573653D413BC1>
- Rhys, G., H. Beerstecher and C.L. Morgan (2010). 'Primary care capitation payments in the UK: An observational study', *BMC Health Services Research*, Vol. 10, Art. 156.
- Rice, T., and K.Y. Matsuoka (2004). 'The impact of cost-sharing on appropriate utilization and health status: A review of the literature on seniors', *Medical Care Research and Review*, Vol. 61, No. 4, pp. 415–452.
- Ridde, V., and A. Diarra (2009). 'A process evaluation of user fees abolition for pregnant women and children under five years in two districts in Niger (West Africa)', *BMC Health Services Research*, Vol. 9, Art. 89.
- Roland, M., and B. Guthrie (2016). 'Quality and outcomes framework: What have we learnt?', *British Medical Journal*, Vol. 354, i4060.
- Saltman, R., and J. Figueras (1997), *European health reform: Analysis of current strategies*, Copenhagen: World Health Organization.
- Scott, A. (2000). 'Economics of general practice', in A. Culyer and J.P. Newhouse (Eds.), *Handbook of health economics*, Volume A, Amsterdam: North-Holland.
- Shapiro, M.F., J.E. Ware, Jr., and C.D. Sherbourne (1986). 'Effects of cost sharing on seeking care for serious and minor symptoms: Results of a randomized controlled trial', *Annals of Internal Medicine*, Vol. 104, No. 2, pp. 246–251.
- Slattery, E., K.X. Clancy, G.C. Harewood, F.E. Murray and S. Patchett (2013). 'Does the cost of care differ for patients with fee-for-service vs. capitation of payment? A case-control study in gastroenterology', *Irish Journal of Medical Science*, Vol. 182, No. 4, pp. 669–672.
- Smith, S., B. Walsh, M. Wren, S. Barron, E. Morgenroth, J. Eighan and S. Lyons (2019). *Geographic profile of healthcare needs and non-acute healthcare supply in Ireland*, Dublin: Economic and Social Research Institute. https://www.esri.ie/system/files/publications/RS90_1.pdf

- Sperre Saunes, I. (2020). 'The Norwegian health care system', in R. Tikkanen, R. Osborn, E. Mossialos, A. Djordjevic and G. Wharton (Eds.), *International profiles of health care systems*, New York: The Commonwealth Fund, pp. 159–168.
- Steinbrook, R. (2009). 'The end of fee-for-service medicine? Proposals for payment reform in Massachusetts', *New England Journal of Medicine*, Vol. 361, No. 11, pp. 1036–1038.
- Tamblyn, R., R. Laprise, J.A. Hanley, M. Abrahamowicz, S. Scott, N. Mayo, J. Hurley, R. Grad, E. Latimer, R. Perreault, P. McLeod, A. Huang, P. Larochelle and L. Mallet (2001). 'Adverse events associated with prescription drug cost-sharing among poor and elderly persons', *Journal of the American Medical Association*, Vol. 285, No. 4, pp. 421–429.
- Taylor, C.J., M. Wright, C.L. Jackson and R. Hobbs (2016). 'Grass is greener? General practice in England and Australia', *British Journal of General Practice*, Vol. 66, No. 649, pp. 428–429.
- Teljeur, C., S. Thomas, F.D. O'Kelly and T. O'Dowd (2010). 'General practitioner workforce planning: Assessment of four policy directions', *BMC Health Services Research*, Vol. 10, Art. 148.
- Theodorou, M., C. Charalambous, C. Petrou and J. Cylus (2012). 'Cyprus: Health system review', *Health Systems in Transition*, Vol. 14, No. 6, pp. 1–128.
- Tierney, E., M. O'Sullivan, L. Hickey, A. Hannigan, C. May, W. Cullen, N. Kennedy, L. Kineen and A. MacFarlane (2016). 'Do primary care professionals agree about progress with implementation of primary care teams: Results from a cross sectional study', *BMC Family Practice*, Vol. 17, Art. 163.
- Tikkanen, R., R. Osborn, E. Mossialos, A. Djordjevic and G. Wharton (Eds.) (2020). *International profiles of health care systems*, New York: The Commonwealth Fund.
- Van de Voorde, C., E. Van Doorslaer and E. Schokkaert (2001). 'Effects of cost sharing on physician utilization under favourable conditions for supplier-induced demand', *Health Economics*, Vol. 10, No. 5, pp. 457–471.
- Van Herck, P., D. De Smedt, L. Annemans, R. Remmen, M.B. Rosenthal and W. Sermeus (2010). 'Systematic review: Effects, design choices, and context of pay-for-performance in health care', *BMC Health Services Research*, Vol. 10, Art. 247.
- Walsh, B., C. Keegan, A. Brick, S. Connolly, A. Bergin, M.A. Wren, S. Lyons, L. Hill and S. Smith (2021). *Projections of expenditure for primary, community and long-term care in Ireland, 2019–2035, based on the Hippocrates Model*, Dublin: Economic and Social Research Institute.

- World Health Organization (2014). *Making fair choices on the path to universal health coverage: Final report of the WHO consultative group on equity and universal health coverage*, Geneva: World Health Organization.
- Wren, M.A., S. Connolly and N. Cunningham (2015). *An examination of the potential costs of universal health insurance in Ireland*, Dublin: Economic and Social Research Institute.
- Wren, M.A., C. Keegan, B. Walsh, A. Bergin, J. Eighan, A. Brick, S. Connolly, D. Watson and J. Banks (2017). *Projections of demand for healthcare in Ireland, 2015–2030: First report from the Hippocrates Model*, Dublin: Economic and Social Research Institute.

Whitaker Square,
Sir John Rogerson's Quay,
Dublin 2
Telephone **+353 1 863 2000**
Email **admin@esri.ie**
Web **www.esri.ie**
Twitter **@ESRIDublin**