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### Financing Dementia

**What money is available, what does dementia need  
and will the required resources be received?**

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## Abstract

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How health services are financed can form a barrier between what should be done in the best interest of a service users and what can be done given the limited resources available within a system. Economics is the study of how and why certain *stakeholders* make decisions about the use of scarce resources. This paper presents an examination of what money is entering the Irish health system, what mechanisms exist to distribute these funds to patients and ask what proportion of funds is required for dementia services in Ireland. The paper concludes by presenting current theory on the best methods to ensure households supporting persons with dementia receives the appropriate potential benefit of these monetary resources.

## Financing Healthcare in Ireland

In recent times Ireland's increase in public healthcare expenditure has outpaced the country's economic growth (Department of Health and Children 2001) and this has brought Irish expenditure in line with the OECD average (Figure 1).

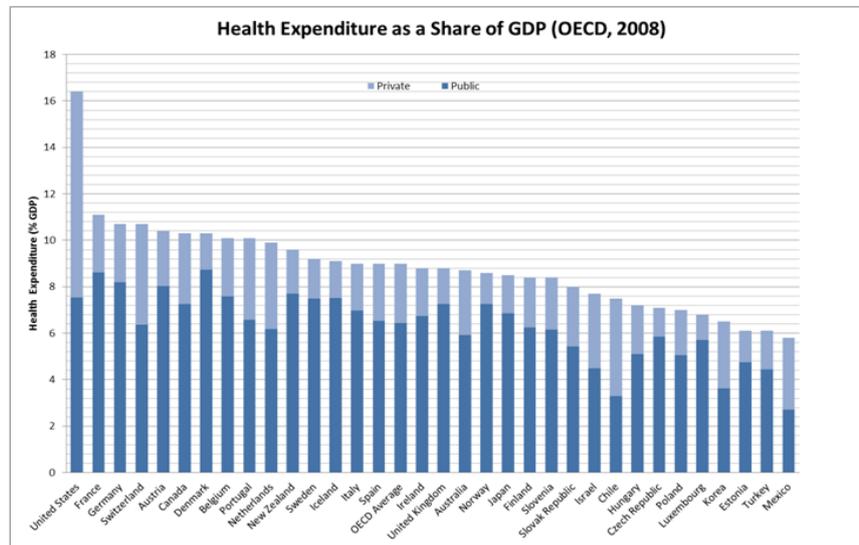


Figure 1: Health Expenditure as a Share of GDP [Source: OECD, 2008]

The total health expenditure per capita reached €3,254 in 2008 following a ten year annual average growth rate of 7.8% (OCED 2010). In this period, the largest change in expenditure occurred between 2007 and 2008 when the percentage of Gross Domestic Product (GDP) devoted to health grew from 7.5% to 8.7%. Despite reaching health care expenditure equivalent to the OECD average, Ireland's available services for long term care (including dementia) was half the OECD average (Figure 2).

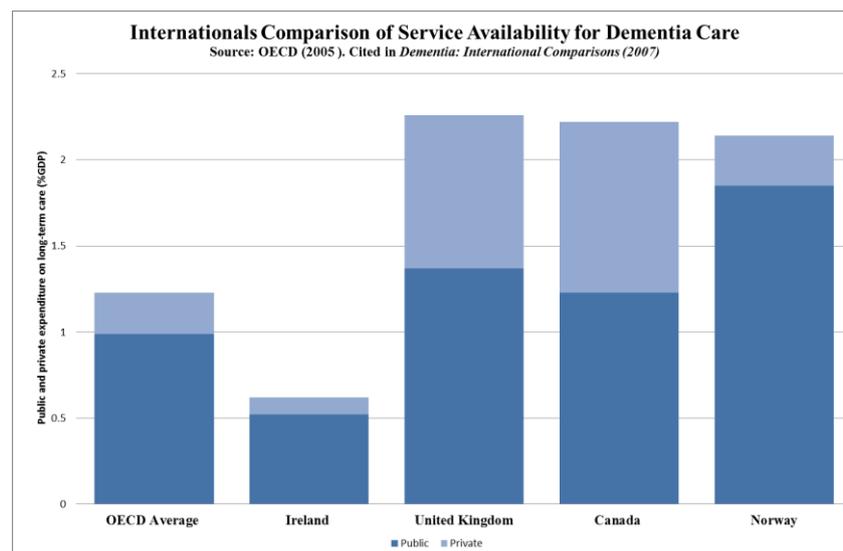


Figure 2: International Comparison of Long-Term Care [Source: OECD, 2005]

Up until 2008, the share of GDP spent on health was initially expected to further grow over the forthcoming years. Given the economic downturn, projections by the OECD suggest that Irish health expenditure is likely to be one of two projected scenarios (Scherer and Devaux

2010). The first projection examines the scenario should health spending per capita remain constant in which the national share of GDP on health would experience growth by 1%. The second scenario is based on the more likely assumption that real per capita health expenditure will not remain constant during the recession but will increase at the same rate; here Ireland percentage of GDP for health would grow at an unsustainable rate of 1.9%. As these forecasts suggested, levels of health expenditure proved to be unsustainable and expenditure was cut by 0.70 billion in 2010 and a further 0.74 billion in 2011<sup>1</sup>.

During an economic downturn, such budgetary cuts are often inevitable. But a quintessential responsibility of a functioning healthcare system should be to ensure that increasingly scarce *financial* resources are distributed fairly based on the level of need. Revenue for healthcare is collected in a variety of ways (reviewed in the next section) and differing mechanisms and the degree of hybridisation can have a direct effect on the services that will be subsequently available (Schmid, Cacace et al. 2010). Irrespective of the financing mechanisms at work, democratic societies generally assume that a healthcare system functions under a 'social contract' (that is an agreement between society and the elected government that individuals will be insured against exposure to the full cost of healthcare in the event that such care is required). Therefore a further property of a health system is to provide a regulatory framework to monitor and respond appropriately to the budgetary and wider fiscal environment without any discriminatory effects directly (or indirectly) related to service users socioeconomic status.

The OECD (2000) defined a *System of Health Accounts* (SHA) to address on-going concerns regarding the adequacy of resource levels for healthcare and the way that those resources are used (OECD 2000). The framework forms general boundaries within three major categories: Health Care Functions (ICHA-HC), Health Care Providers (ICHA-HP) and Health Care Financing Schemes (ICHA-HF).

ICHA-HC divides personal healthcare (such as curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (such as public health services and health administration).

ICHA-HP classifies all organisations that contribute to the provision of healthcare goods and services, forming providers into units that are common and internationally comparable.

ICHA-HF provides an accounting framework on country specific healthcare financing and also encompasses the concept of institutional units of health financing related to financing agents (ICHA-FA), thereby allowing for more detailed national analysis.

Health accounts are increasingly expected to provide inputs (along with other statistical information) that will improve the monitoring and assessment of health system performance. Unlike most countries in the OECD, a system of health accounts is not currently available for Ireland reducing the visibility of the units of expenditure between functions within the healthcare system.

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<sup>1</sup>[http://www.dohc.ie/statistics/key\\_trends/health\\_service\\_expenditure/table\\_6-1.html](http://www.dohc.ie/statistics/key_trends/health_service_expenditure/table_6-1.html)

Importantly, the absence of such accounting processes, a system will have a diminished ability to regulate expenditure whilst maintaining health outcomes. In short, rationing may adversely affect service users.

National governments have a contractual responsibility to demonstrate that health budget cuts are primarily targeted at inefficiencies within the health systems and do not inadvertently affecting the quality levels of patient of outcomes.

To summarise, despite a period of impressive growth in health expenditure, the prognosis for the health system in Ireland remain uncertain. The system infrastructure still requires appropriate regulatory apparatus to respond to changing requirements. But why has a period of increased expenditure not made a sustainable impact on the health system? The next section examines the method of distributing the finance in the Irish healthcare system, revealing inherent flaws for appropriate change.

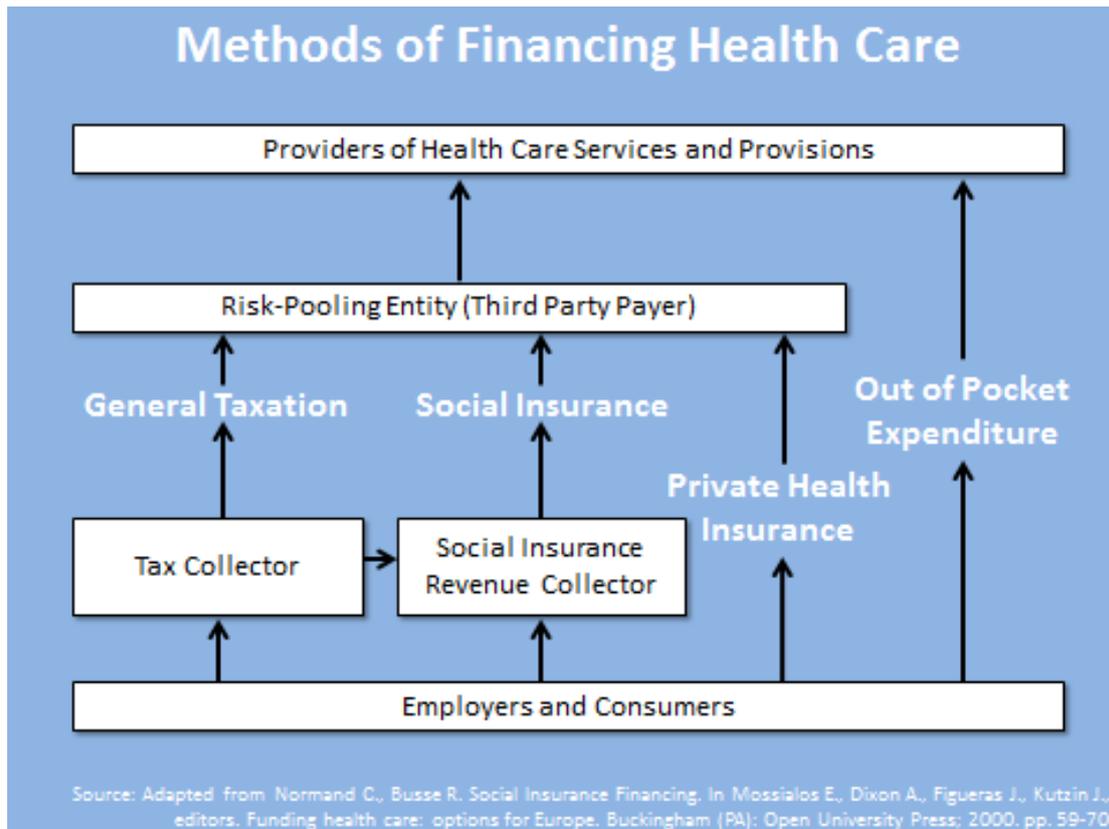
### **Healthcare Funds in Ireland**

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Healthcare systems can be defined as collections of funding bodies (public or private) forming a financial pool to redistribute resources through health services. Ideally, a system will function like insurance to ensure that a consumer is not exposed to the full costs of care. Financing schemes are key for purchasing healthcare but should also be classified by their collection and how they form pools of resources. This section provides an overview of the various funding arrangements to ensure health and highlights how the complex mix of public and private financing may function to the detriment of those seeking dementia care.

#### Revenue for Healthcare

One central function of a health system is to collect revenue to form a pool of financial resources which are allocated for the health needs of the population. Healthcare is generally financed by four methods: general taxation, social health insurance, voluntary or private health insurance and out-of-pocket payments (see Figure 3)



**Figure 3: Schematic Illustrating the Various Method of Health Financing [Adapted from Normand *et al*, 2000]**

General taxation, social health insurance and private health insurance are varying methods to form financial pools to spread the financial risk of healthcare across populations. In this contract, a third party payer becomes responsible for reimbursing healthcare providers and ensuring that this ‘insurance contract’ is upheld for the consumer. Therefore, this third party payer may be a Government office (e.g. Department of Health), executive body (e.g. HSE) or a private firm (an insurer), and as payers, should be equal in their contractual responsibility to ensure that the needs of the service population are met.

In contrast, ‘out of pocket payment’ is where the expense of a service is directly transferred from the consumer to provider, and is not later reimbursed. In health, such payments are generally found in low-income countries where no prepayment mechanism exists. In the absence of coverage, the cost is defined as catastrophic where a household must reduce its basic expenditure to cover the costs of health care. The World Health Organisation therefore states that fairness in health finance protects the *household* against such catastrophic medical expenses (Shaw 2002).

Given the uncertainty with health and associated expenditure, health insurance mechanisms exist to provide the prospective healthcare consumers with the opportunity to collectively pool the potential costs across a group and, more importantly, through time (Zweifel 2007). A health insurance contract is defined as a monetary transfer between insurers and patients characterised by risk sharing and profit taking on the part of the for-profit insurer.

A health insurance system is then formed by the interaction of health insurance providers, consumers demand for health insurance and regulatory efforts of Government. Ireland has a *two-tier* health insurance system; tax-based social health insurance system (which exhibits many of the characteristics of a monopoly) and the 'alternative' system created by private firms competing in a *voluntary* health insurance market. This creates a distinct grouping of healthcare consumers having a wider reaching effect on the quality of the healthcare system for both public and private patients; to better understand these dynamics let us examine Ireland's private-public mix further.

### **The Public-Private Mix**

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The Irish healthcare system receives a mix of public funds collected via taxation and private fees for services paid by either a private insurer or through personal out-of-pocket payments. This section will explain the public and private arrangements separately, highlight who uses them and explains how their interaction affects the healthcare market function to provide services across the population.

#### Public Health Insurance in Ireland

The Health Service Executive (HSE) currently manages Ireland's public health system and is funded through the *Department of Health* by general tax and co-payment. Tax payments are historically been paid in the form of *Health Levy* and *Income Levy*. Co-payments are also required paid direct by the consumer to access services, which under circumstances are reimbursed by voluntary health insurance policies.

The health levy of 2% is paid on income above €480 per week. Certain groups are exempt from these payments (such as those over 70 and medical card holders). The income levy is payable on gross income (taken before any tax reliefs, capital allowances, losses or pension contributions) and the rate of payment increases with increased earning. Co-payments for healthcare are required by all people except those issued *medical cards* and *GP visit card* by the HSE.

The medical card entitles holders to free hospital care, GP visits, dental services, optical services, aural services, prescription drugs and medical appliances. Holders are exempt from the health levy and income levy. To qualify for this medical card, individuals are *means tested* on their sole income. Also, between 2001 and 2007, everyone aged over 70 were entitled to the medical card. Following a budgetary decision in 2009, a gross income limit was introduced to those over 70 meaning that individuals over a specified threshold were not entitled to coverage under the medical card system.

Those who do not qualify for the medical card may also apply for the *GP visits card*, which is also means tested, but the income limits are 50% higher than for the medical card. Unlike the medical card, only GP visits are covered. As the average cost of accessing a primary care physician is currently €60 for anyone over 6 months of age, the GP visit card still represents a significant benefit.

Apart from national schemes, the European Health Insurance Card entitles those living in Ireland (as well as visitors) to free maintenance and treatment in public beds in the HSE and voluntary hospitals<sup>2</sup>.

Since the 1950s, numerous attempts have been made to introduce free universal access to healthcare for various vulnerable groups but have been opposed by healthcare providers (O'Morain 2007). In the most recent general election (25<sup>th</sup> February, 2011), the now *Minister for Health* (Dr. James Reilly) proposed a reform to the Irish health system to phase in universal health insurance (UHI) and committed to implementing free universal access in primary care in the next five years. Part of the reform aims to address funding problems in mental health by extending insurance coverage to include mental health and dispensing with dysfunctional budgetary divisions.

#### Private Health Insurance in Ireland

As people who do not qualify for medical cards are at risk of additional *out of pocket* co-payment for hospital care, GP visits and various other healthcare costs, various private firms offer private health insurance to mitigate this risk.

In Ireland, the *Voluntary Health Insurance Board* (VHI) or in Irish '*An Bord Árachais Sláinte Shaorálaigh*' was founded as a statutory corporation in 1957 under the *Voluntary Health Insurance Act, 1957*. The intention was to provide insurance for people requiring private medical care in Ireland, which at the time was intended for the top 15% highest earners in the population. Until 1996 when BUPA entered the Irish market VHI held a monopoly (O'Morain 2007). According to the Health Insurance Authority (HIA, 2003)<sup>3</sup>, VHI insured 1.55 million or 40% of the Irish population. Following the controversial proposal of introducing risk equalisation, BUPA Ireland withdrew from the market in 2006. Up until recently, Quinn Healthcare and Hibernian Aviva Insurance were VHI's only competitors, however GloHealth have entered the Irish market in 2012.

#### Interaction between private health insurance and public health insurance

Irish healthcare financing is a unique mixture of public and private funding in which private health insurance has recently played a dominant role. The Health Insurance Authority (HIA) indicate that private health insurance peaked (and has broadly remained) at a coverage of 52% of the population in 2005, which would rank it the fourth highest in OECD countries (HIA 2010). The Government maintain an active role in overseeing private health insurers and impose a range of requirements. However, as stated earlier, State-based VHI dominate the market and the market does not display the characteristics of competition seen in other countries.

The OECD describe healthcare financing in Ireland as a mix of the public contract model and private voluntary model (Docteur and Development 2004). In 2000, Ireland was a mix of tax-based, unitary (similar to the UK) and decentralized, private finance. Under System of Health Account (2011) classification of health financing, this private enterprise is classified under voluntary health insurance as a *complementary/supplementary voluntary insurance scheme* (HF.2.1.2). This funding mechanism is unique to Ireland in that it is *complementary* (i.e. can

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<sup>2</sup><http://www.ehic.ie/>

<sup>3</sup><http://www.hia.ie/publication/consumer-surveys.htm>

cover services excluded from the public system or it can cover cost-sharing obligations) and at the same time is *supplementary* (i.e. ensures faster access and/or enhanced consumer choice of providers).

The hybridisation of health financing has resulted in segregated third-party payment systems which serves two tiers of the population; those eligible for the medical card have universal free access to the public system and higher earners are required to privately finance healthcare through a mixture of health insurance and out of pocket payment (Wren 2003). Regardless of whether an individual's funding is public or private, at the point of access, services are provided using a mixture of public and private facilities.

Private health insurance (primarily under the VHI) was originally intended to supply an additional supplementary coverage to the wealthiest 15% of the population. The demand for healthcare insurance has steadily increased from 22% in 1979 to the peaked at 52% in 2005. Currently, 30% of the population are eligible for medical cards which, has remained stable during the same period. Concurrently, coverage by private health insurance has dropped to 43%, with the main stated reason being that "premiums are too expensive"<sup>4</sup>. Despite the duplicate coverage (and means test), interestingly 13% of the population covered by a medical card will still purchase private coverage (Bolhaar, Van der Klaauw et al. 2006).

As already highlighted, healthcare spending per capita has grown at an average rate of 6.4% per year(OECD 2010). Of healthcare spend, over three quarters is Government public spending, 13.3% is out-of-pocket from individuals exempt from medical cards and 6.8% from private health insurance. The rationale behind the relatively low rate of private contribution (given their high market share) is that generally insurance policy is *supplementary* (i.e. to facilitate faster access and better choice) and taxpayers will have already paid for healthcare. As such private healthcare most commonly accessed via private insurance is subsidised by finances of the public system given individuals have already contributed towards through their general taxation (Bolhaar, Van der Klaauw et al. 2006).

Government policies require that private health insurers provide the minimum benefits of services covered. Policies usually indicate the level of hospital beds covered and at the lowest level a policy covers a semi-private bed in a public hospital or the equivalent bed in a private hospital. Of the total stock of beds in Ireland, 61% are public beds, 17% public beds are allotted to private patients and 17% are in private hospitals (Docteur and Development 2004).

Providers working in the public system are reimbursed when their work is private. General Practitioners (GPs) are paid on a capitation basis for treating medical cardholders and receive a fee-for-service from all others. Consultants are paid by salary in public hospitals and by 'fee-for-service' for their private practices. Private consultant fees remain unregulated and are generally established competitively between consultants.

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<sup>4</sup>[http://www.hia.ie/assets/files/publications/Consumer\\_surveys/HIA\\_Consumer\\_Survey\\_2012\\_Report.pdf](http://www.hia.ie/assets/files/publications/Consumer_surveys/HIA_Consumer_Survey_2012_Report.pdf)

### Regulation of private health insurance

Since Ireland's entry into the EU, the potential for private health insurance and its regulation has been greatly affected. Ireland is now expected to conform to EU insurance directives and other applicable EU laws. However VHI present a range of requirements which has limited the extent of legal changes. Further steps have been taken to stimulate competition in this market, which led to BUPA entering the market in 2003, followed by Quinn, Hibernian and Aviva. The current government in Ireland have explicitly recognised the need to reform third party payment mechanism.

General legislation in place stems from the Voluntary Health Insurance Act (1957) and since the emergence of competitors in the private health insurance market, the requirements have been extended to these new entries. Several overlapping standards and schemes are employed to regulate private insurers. These include:

- Benefit standards for policies address benefits that must be covered as well as the minimum reimbursement insurers must provide for a service.
- Insurers must offer open enrolment, meaning that all people under 65 are generally guaranteed the availability of insurance cover at any time.
- Standards to reduce adverse selection are employed through waiting periods and time-limited benefit exclusion.
- Community rating is a system in place to ensure health status is not considered when calculating premiums. This imposes a uniform method of premium calculation and thereby promotes efficient risk pooling.
- Risk equalisation requires payment transfer amongst insurers in accordance with their risk and thereby reduces unfair competitive advantage (Armstrong 2010).

Apart from these, the Irish government also provides tax relief for purchasing private health Insurance. Governmental policy in Ireland encourages private health insurance, as it is believed to promote efficient use of specialists' time and skills while increasing the income of hospitals (DOHC, 1999). Establishing a competitive health insurance market with efficient risk sharing has been impaired by dominant primary provider (VHI) disincentivising new players accessing the market.

A system of community rating (further explained in the following section) was established to avert a 'cream skimming' effect occurring in the insurance system (Barros 2003). Under this scheme, insurance providers must accept consumers irrespective of age, health status and other factors. To ensure community-rating functions as expected, a risk neutralisation mechanism aims to equitably neutralise these differences in insurers' costs that arise due to variations in the age profile of the insurers. VHI tend to cover an older section of the population forming a market dynamic where new entries to the Irish health insurance market would be likely to make net losses through risk equalisation. For example, BUPA entered the Irish market in 1997, captured 3.6% of the market share by 2003 but exited the market when the community rating penalised this new entry for offering an 'age-adjusted plans'. Since then, three new firms have entered the health insurance market in Ireland and have negotiated an amnesty from contribution to risk equalisation. As a result by 2010 VHI has steadily lost market share with Quinn Healthcare<sup>5</sup> increasing to 25% and Aviva now at

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<sup>5</sup>Rebranded to 'Laya' in 2011.

13% (HIA 2010). In 2012 GloHealth entered the Irish health insurance market as a fourth firm.

A survey of purchasing insurance indicated that 88% bought insurance to “avoid large bills” indicating that risk aversion is the highest motivator (Watson, Economic et al. 2001). Timely access to care or avoiding public waiting times was the second most significant reason for purchasing insurance (85%). Quality of service is a prominent reason for purchasing private supplemental coverage and is linked to a perception of lower quality in the public system (Nolan and Wiley 2000). This highlights that access is a prime mechanism associated with the health insurance in Ireland.

Market failure in the Irish health system is highly apparent, particularly when the outputs resulting from the private-public mix are considered. For example, planned admissions of private patients into public hospital beds indicated that private patients account for 30% of planned admissions, despite the fact that only 20% of beds in the public hospital system are designated as private (Leahy and Wiley 1998). Furthermore, the supplemental health insurance provides the means to avert lengthy public waiting lists by preferentially allocating a private bed to the policy holder. Impact on waiting times were highlighted in the Quarterly National Household Survey (Third Quarter, 2011<sup>6</sup>) which found that one quarter of medical card holders would wait over six months for outpatient services, whereas 90% with private cover would be seen within that time.

This raises significant concerns about the equity and efficiency conferred through Ireland’s current healthcare insurance system. In the following section, the financing mechanism and the concerns they raise for dementia care in Ireland are reviewed.

### **Healthcare Finance and Dementia**

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The public healthcare budget for 2010 was €14.83 billion, as part of a national recovery plan was scheduled to reduce by €727 million in 2011 and a total of €1.4 billion by 2014.

Dementia care in Ireland has a budgetary divide from other mental health services and funding for specialist services will be covered by old age services (such as geriatric medicine and old age psychiatry), neurology, a few specialist services (such as memory clinics and specialist nurse services) and community support services (predominantly delivered by charities such as *The Alzheimer Society of Ireland* and the *Carer’s Association*). In the absence of a clear strategy for dementia care, there is no clear definition of the budget spent on dementia care in Ireland.

The most recent estimates of the overall cost of dementia in Ireland (prepared in advance of the proposed National Dementia strategy) would suggest the cost of dementia to be just over €1.69 billion per annum<sup>7</sup>. Of this total figure, 48% of which is attributable to an opportunity cost valuation of informal care provided by family and friends to those living

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<sup>66</sup> [www.cso.ie](http://www.cso.ie)

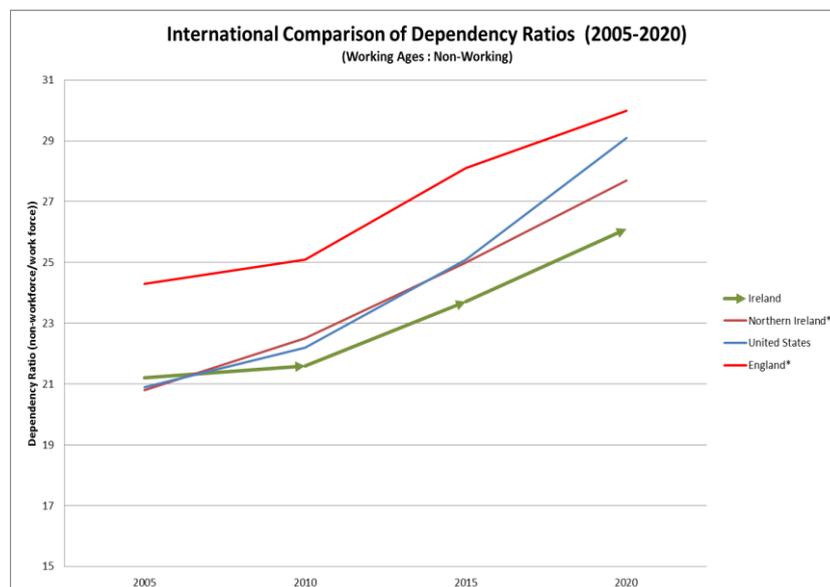
<sup>7</sup> [https://www.tcd.ie/Communications/content/pdf/Creating\\_Excellence\\_in\\_Dementia\\_Care2012.pdf](https://www.tcd.ie/Communications/content/pdf/Creating_Excellence_in_Dementia_Care2012.pdf), p.58.

with dementia in the community. A further 43% is accounted for by residential care, while formal health and social care services contribute only 9% to the total cost of dementia. The normative statement underlying this estimate would indicate that formal provisions available for dementia are inadequately low and are not growing in line with expected demographic changes associated with the elderly population.

These estimates suggest that calls to correctly finance dementia have been ignored for over three decades now. Ireland has a relatively small population and is an economy reliant on foreign investment. A reform of mental health and dementia services has attracted limited political interest. Financing mechanisms in Ireland are inefficient in terms of delivering the required services and regulatory policy is required to correct failure in this sector.

Having established that reform of dementia and general mental health service is required in Ireland, the questions should now be when and how? Given that no formal governance structure has to date been established in tackling dementia, it is fair to assume that this may stay constant. To highlight the urgency in making significant strategic and infrastructural changes to manage the projected growth in population, let us consider the contribution from the labour force towards healthcare in relation to the dementia (predominantly elderly) population.

The dependency ratio is the ratio of the non-labour force population to population aged 15 to 64 to those in working and providing taxes for public goods such as healthcare. Currently the dependency ratio in Ireland is 21.6%, which should suggest that for every five people paying taxes, there is one person who is being sustained by those tax contributions. In the next ten years this ratio is scheduled to increase to 26.1% (see Figure 4), which means there will be one less tax contributor per non-working person.



**Figure 4: International Comparison in the Growth in the Dependency Ratio. Source: Adapted from 'Dementia: International Comparison'(Knapp, Comas-Herrera et al. 2007).**

This change is largely driven by the increasing size of the elderly population which has been shown will directly increase the size of the dementia population. In short, resources for

dementia care will become more scarce whilst the financing mechanism to provide these resources are inefficient; the two problems are inextricably linked and any intervention to address dementia must do so by addressing market failures in Ireland methods of financing healthcare.

### **A Normative Framework for Financing Dementia**

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The decision problem presented to health policy makers is highly complex. Firstly, there is the need to ensure that the correct level of revenue is collected to finance a healthcare system and secondly, that this scarce financial pool is allocated equitably based on need. Whilst complex, the results of these activities are an essential part of sustaining the social fabric of family and community life.

Health and social care requires a clear policy framework to ensure the health, welfare and well-being welfare of citizens which in turn contributes to an effective and sustainable economy now and into the future. Dementia represents a major public health issue in Ireland (and across the world) and failure to appropriately address this matter is likely to present higher costs to the Irish economy in the long term. However, the person with dementia and their carers lack political and social visibility. In order to meaningfully respond to their needs and promote their quality of life, people with dementia (and those who care for them), the “social contract” paid for during the productive years prior needs to be *demonstrably* upheld.

A financial commitment to dementia is needed; one that that focuses on social solidarity, social sustainability and interdependency and one that moves away from the notions of people with dementia as a “burden” and part of an “epidemic”. There is a need for a realisation of the link between the *prepayment* made toward healthcare, the role of a third party (be it via tax or private insurance) and their contractual responsibility to demonstrate quality. This contract”, made in good faith, is based on averting the financial risks associated with ill health and special attention is needed to ensure these expectations are upheld for vulnerable groups, such as those living with dementia.

## REFERENCES

Armstrong, J. (2010). "Risk equalisation and voluntary health insurance markets: the case of Ireland." Health policy**98**(1): 15-26.

Barros, P. P. (2003). "Cream-skimming, incentives for efficiency and payment system." Journal of Health Economics**22**(3): 419-443.

Bolhaar, J., B. Van der Klaauw, et al. (2006). "A Dynamic Analysis of the Demand for Health Insurance and Health Care in Ireland."

Department of Health and Child (2001). Quality and Fairness - A Health System for You. Stationary Office, Dublin.

Docteur, E. and O. f. E. C.-o. a. Development (2004). Towards high-performing health systems: policy studies, OECD Publishing.

HIA (2010). Consumer surveys for the Irish private health insurance market. Stationary Office, Dublin, Health Insurance Authority.

Knapp, M., A. Comas-Herrera, et al. (2007). "Dementia: international comparison." Leahy, A. L. and M. M. Wiley (1998). The Irish health system in the 21st century, Oak Tree Press.

Nolan, B. and M. M. Wiley. (2000). "Private practice in Irish public hospitals." O'Morain, P. (2007). The Health of the Nation: The Irish Healthcare System 1957-2007, Gill & Macmillan.

OCED (2010). OECD Health Data 2010; Eurostat Statistics Database. OECD, OECD.

OECD (2000). A system of health accounts: Version 1.0, OECD Publishing.

OECD (2010). OECD Health Policy Studies Value for Money in Health Spending, OECD Publishing.

Scherer, P. and M. Devaux (2010). The Challenge of Financing Health Care in the Current Crisis: An Analysis Based on the OECD Data, OECD Publishing.

Schmid, A., M. Cacace, et al. (2010). "Explaining Health Care System Change: Problem Pressure and the Emergence of "Hybrid" Health Care Systems." Journal of Health Politics, Policy and Law**35**(4): 455-486.

Shaw, R. P. (2002). "World Health Report 2000 "Financial fairness indicator" : useful compass or crystal ball?" International journal of health services : planning, administration, evaluation**32**(1): 195-203.

Watson, D., Economic, et al. (2001). Perceptions of the quality of health care in the public and private sectors in Ireland : report to the Centre for Insurance Studies, Graduate Business School, University College Dublin. Dublin, Economic and Social Research Institute.

Wren, M.-A. (2003). Unhealthy state: anatomy of a sick society, New Island.

Zweifel, P. (2007). The theory of social health insurance, Now Publishers Inc.