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Pharmaceutical Cost-Containment Policies and Sustainability: Recent Irish Experience

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ABSTRACT

Objective: Our objective is to review and assess the main pharmaceutical cost-containment policies used in Ireland in recent years, and to highlight how a policy that improved fiscal sustainability but worsened economic sustainability could have improved both if an option-based approach was implemented. **Method:** The main public pharmaceutical cost-containment policy measures including reducing the ex-factory price of drugs, pharmacy dispensing fees and community drug scheme coverage, and increasing patient copayments are outlined along with the resulting savings. We quantify the cost implications of a new policy that restricts the entitlement to free prescription drugs of persons older than 70 years and propose an alternative option-based policy that reduces the total cost to both the state and the patient. **Results:** This set of policy measures reduced public spending on community drugs by an estimated €380m in 2011. The policy restricting free prescription drugs for persons older than 70 years, though effective in reducing public cost, increased the total cost of the drugs supplied. The policy-induced cost increase stems from a fees anomaly between the two main community drugs schemes which is circumvented by our alternative option-based policy. **Conclusions:** Our findings highlight the need for policymakers, even when absorbed with reducing cost, to design cost-containment policies that are both fiscally and economically sustainable.

Keywords: community drug schemes, cost-containment policies, pharmaceutical costs, efficiency, option., sustainability.

Introduction

Pharmaceutical expenditure in the European Union (EU) exceeded €180 billion in 2008 and accounted, on average, for around 17% of EU countries' total expenditure on health [1]. The scale and growth of these costs challenge the ongoing sustainability of some national health systems and the key values of universal coverage, solidarity in financing, equity of access, and the provision of high-quality health care (Council of the European Union 2006) that underlie them.

Health system sustainability has been defined by the World Health Organization as the "ability to meet the needs of the present without compromising the ability to meet future needs" [2]. A health system is fiscally sustainable if government is able and willing to meet its health system obligations. It is economically sustainable "so long as the value produced by health care exceeds its opportunity cost" [3]. In Ireland, particular concerns over sustainability have arisen with regard to public expenditure on community medicines, which had increased more than sixfold from €300 million in 1998 to €1.9 billion in 2008 [4]. Irish research has used the shares of pharmaceutical expenditure in total public expenditure and the growth in health expenditure, both public and private, as a proportion of national income as metrics of fiscal and economic sustainability, respectively [5].

Fractured national public finances, headline deficits, and the elevated fiscal risks recently noted by the International Monetary Fund (IMF) have impaired the funding capacity of governments and focused increasing policy attention on fiscal sustainability [6]. Fiscal stress arising from escalating public health costs has resulted in increasing international reliance on pharmaceutical cost-containment policies. A consensus policy strategy that ensures fiscal and economic sustainability, however, has not yet crystallized.

Tele and Groot [7] and Barros [8] assess the effectiveness of policies adopted in the EU27. These include international referencing to benchmark countries with lower prices, internal reference pricing systems to promote price competition in domestic markets, and positive lists for reimbursement to promote consumption of generics (including in some cases substitution by pharmacists of drugs prescribed by physicians). They found no "silver bullet" in the measures they investigated.

Tele and Groot found that most cost-containment policies consist of supply-side measures, as they have proved to be more effective than demand-side measures and that price control policies are most effective in controlling expenditure when accompanied by complementary volume control measures.

Barros found that few measures are universally effective (apart from generic substitution combined with reference pricing). Some, such as positive lists, prescribing budgets, and reference pricing, were effective in some countries but only in the short term [9–13]. Ironically, some cost-containment policies may reduce rather than increase the efficient use of limited health-care resources. For example, volume or profit controls, rebates or paybacks, can achieve short-term savings but by inhibiting access to treatments

Conflicts of interest: The authors have no conflicts of interest to report.

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for patients who need them and discouraging health-care innovation they may negatively impact health outcomes, medical innovation, and long-term health costs [14].

Medicare Part D is a federal program to subsidize the costs of prescription drugs for Medicare beneficiaries in the United States and may be a useful international reference for pharmaceutical cost-containment policies. It was intended to lower cost, increase efficiency, and broaden access to medicines but may have resulted in higher prescription drug prices (25% increase for an elderly person in the year after he or she became eligible) [15], large coverage gaps, higher copayments for brand names, and significant copayment premiums for various patient cohorts [16]. Nobel Prize winner Daniel McFadden concludes, however, that it is too early to establish the long-term consequences of this program [11].

Escalating public health costs and stressed public finances also crystallized the need for fiscal sustainability and have compelled rapid policy change in Ireland. Public health expenditure in Ireland more than doubled between 2000 and 2008, rising to €15.186 billion [17] (75% of all health expenditure) [1]. During this period, Ireland had the third fastest growth rate (7.6% per annum) in per-capita real health expenditure of all Organisation for Economic Co-operation and Development (OECD) countries [18]. In 2008, it spent $3784 per capita on health, more than the OECD average of $3060 (both adjusted for purchasing power parity), even though significantly less than the US expenditure of $7720 per capita [1]. Ireland spent $654 per capita on pharmaceuticals in 2008, third highest in the OECD behind the United States and Canada [1].

The Irish economy has contracted sharply since 2008. Deep recession, historic fiscal deficits, and mounting public debt culminated in an €85 billion EU–IMF funding package granted in November 2010 on condition that the Irish government raises taxes and reduces public spending equivalent to 9% of GDP over 2011-2014 [19]. Faced with such circumstances a government that is unable or unwilling to meet its health system obligations must 1) increase public health revenues, 2) weaken public health obligations, or 3) improve health system conversion of resources into value [3].

Although recent Irish policymaking has applied all three remedies, its focus has been on the third, containing costs and limiting disruption to the supply of public medical services by seeking greater efficiency [20], a theme echoed in The National Recovery Plan 2011-2014: "the focus must be on eliminating inefficiencies . . . and [to] lessen the impact on service provision" [21]. The public health allocation, accounting for 27% of the total public current expenditure, has been cut [20]. The Health Service Executive (HSE), which is responsible for delivering health and social care in Ireland, saw its gross budget fall by 9% from the beginning of 2009 to €13.4 billion by mid-year 2011 [22]. Expenditure on pharmacy drugs/medicines and fees under the General Medical Services (GMS) scheme fell by 18% during the same 30-month period, bringing it back to €1075 million [22].

Our article has three key objectives. The first is to sketch the main policy measures recently adopted to contain public sector pharmaceutical costs in Ireland and to provide estimates of full-year savings for 2011. The second is to examine a policy that increased public health revenue and reduced public health obligations but, because of a pricing anomaly in the "design" of the community drug schemes, did so at the expense of converting resources into value. The third is to show that when the preferred remedy of removing the anomaly is not available, it is still possible to construct a "second-best" option-based remedy to regain both fiscal and economic sustainability.

Methods

First, we categorize and quantify the main policy measures recently adopted to contain public pharmaceutical costs in Ireland under three headings: 1) the ex-factory price of drugs, 2) pharmacy dispensing fees and markups, and 3) scheme coverage and patient copayments.

Second, until January 2009, the GMS scheme, the largest community drug scheme that covers 1.68 million [22] people or 37% of the Irish population, automatically covered all persons older than 70 years as well as all persons who are unable to pay for medical services, including prescribed drugs, "without undue hardship." This meant that the older persons' drug costs were borne fully by the HSE. We identified and extracted these drug costs of persons older than 70 years from the Primary Care Reimbursement Service database prepolicy change.

In January 2009, the Irish government introduced an income-based means test to determine GMS entitlement to free prescription drugs for persons older than 70 years. After this policy change, elderly persons who failed the means test lost GMS cover but became automatically entitled to the less advantageous Drug Payments Services (DPS) scheme. Under this scheme, they pay the first €120 of their monthly expenditure (€1440 per annum) on prescribed drugs and the HSE pays any remaining or excess costs.

The Irish government contracts private pharmacies to dispense doctor-prescribed drugs and medicines to persons covered by its community drug schemes. Pharmacists, however, charge a 20% markup on the medical ingredient cost of drugs dispensed under the DPS scheme. This increases DPS drug prices by 16% because medical ingredients, which exclude payments made for wholesale delivery, pharmacy dispensing fees, and retail markup, typically make up around 80% of total drug costs. No such markup applies to the GMS scheme.

We then calculated the postpolicy cost of these drugs, including the additional markup. We compared the public, private, and total drug costs of persons older than 70 years pre- and postpolicy change. Clearly, a fall in public cost improves fiscal sustainability, but a rise in total cost corrodes economic sustainability.

Third, it is still possible to construct an option-based policy to enhance both fiscal and economic sustainability even if the removal of the DPS markup is resisted. This can be done by offering persons older than 70 years, who are no longer entitled to free GMS scheme drugs, the option to retain this service for a fixed annual option premium or price. Those who do not activate the option remain automatically eligible for the DPS, as before, and are not impacted by the policy.

The patient benefits, provided the annual option premium P is less than the 12 monthly DPS copayments, $12K$, they would otherwise pay. Persons spending more than €120 per month benefit if $P < 12K$ and save $12K - P$ annually.

The HSE benefits from the $12K$ it receives in DPS patient copayments, but because of the DPS markup m, it has to pay an extra mD for the same drugs that formerly cost that patient D when they had GMS cover. The HSE, therefore, receives a net contribution of $12K - mD$ from this DPS patient. If the patient opts instead to hold GMS cover and pays the HSE an option premium P that exceeds $12K - mD$, then the HSE benefits and saves $P - (12K - mD)$.

The HSE would offer the option and the patient would take it up only if it benefits both parties. This requires the option premium to be set in the range $12K - mD < P < 12K$. higher premium benefits the HSE more: a lower premium benefits the patient more; the chosen premium P settles the distribution of the cost saving mD between them.

Efficiency requires the drugs to be supplied at the lowest possible cost D. Accordingly, mD is the cost saving from distributing the same drugs under the GMS scheme instead of the DPS scheme. Implementation costs reduce this gross saving vis-à-vis the preferred alternative of purging the pricing anomaly entirely, but the option has the attraction of being practicable when the pricing status quo is uncorrectable.