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ARTICLE

The roads to managed competition for mixed public–private health systems: a conceptual framework

Josefa Henriquez[1], Wynand van de Ven[2], Adrian Melia[1] and Francesco Paolucci[1,3]

[1]College of Human and Social Futures, Newcastle Business School, University of Newcastle, Callaghan, NSW, Australia, [2]Erasmus School of Health Policy & Management, Health Systems and Insurance (HSI), Erasmus University, Rotterdam, The Netherlands and [3]Department of Sociology and Business Law, School of Economics and Statistics, University of Bologna, Bologna, Italy

Corresponding author: Josefa Henriquez; Email: josefa.henriquez@gmail.com

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Abstract

Health systems' insurance/funding can be organised in several ways. Some countries have adopted systems with a mixture of public–private involvement (e.g. Australia, Chile, Ireland, South Africa, New Zealand) which creates two-tier health systems, allowing consumers (groups) to have preferential access to the basic standard of care (e.g. skipping waiting times). The degree to which efficiency and equity are achieved in these types of systems is questioned. In this paper, we consider integration of the two tiers by means of a managed competition model, which underpins Social Health Insurance (SHI) systems. We elaborate a two-part conceptual framework, where, first, we review and update the existing pre-requisites for the model of managed competition to fit a broader definition of health systems, and second, we typologise possible roadmaps to achieve that model in terms of the insurance function, and focus on the consequences on providers and governance/stewardship.

Keywords: managed competition; conceptual framework; public–private mix; universal healthcare; health insurance

1. Introduction

Health systems' funding/insurance can be organised in several ways. Some countries have adopted systems with a mixture of public–private involvement. A specific form of these systems can be found in countries such as Australia, Chile, Ireland, South Africa and New Zealand where a public single payer interacts with voluntary private health insurance. Within these countries, the public scheme covers either 100 per cent of the population (e.g. Australia, Ireland, New Zealand) or a significant portion (e.g. South Africa, Chile), with the private scheme offering funding for either primary (e.g. Chile) or duplicative/supplementary cover (e.g. South Africa, Australia, Ireland and New Zealand) to a relevant percentage of the population. All of these private schemes share a common feature, namely, that they have tints of regulation that reflects the managed competition model (Enthoven, 1978). Moreover, public and private providers coexist, and constitute important options to consumers for the delivery of care.

Such organisation creates two-tier health systems, as by construction, it allows consumers (groups) to have differential access to the basic standard of care typically offered by the public scheme (e.g. lower or skipping waiting times). Additionally, in these countries, a segmentation in terms of providers will arise, serving the different groups. Two-tiered health systems face several problems which stem from the nature of the public scheme, private scheme and their interaction. On one hand, in the public schemes, waiting times/lists are commonly found given zero or

low cost-sharing at the point of use, capacity constraints and budget control, paired with increased demand (Siciliani *et al.*, 2013). On the other hand, the private schemes may suffer from issues related to accessibility (e.g. free markets leading to high premiums, restricted enrolment, high cost-sharing) if without the appropriate regulation, and high administrative costs due to reduced competition and sustainability/adverse selection due to their voluntary nature. Moreover, the fragmented nature of the two-tier system, with separate funding mechanisms and varying levels of regulation creates issues related to their interaction, such as differential access to care, cost overburdening towards the public scheme, duplication of services and costs, and related issues of moral hazard, higher overall administration costs and lack of coordination.

To solve the problems arising with two-tier systems, countries may want to integrate their health system by going to one of the two classical typologies: National Health Service (NHS) (e.g. United Kingdom, Italy, Spain) or Social Health Insurance (SHI) (e.g. Germany, the Netherlands). The objective of the integration would be to increase the systems efficiency, equity, sustainability and resilience. Integrating the systems would establish one set of regulatory rules for the health system participants, thereby levelling the playing field. In this paper, we explore integration of the two tiers by means of a managed competition model, which underpins SHI systems. Several characteristics in theory place the model in an advantageous position to balance equity and efficiency. It is worthy to make explicit what is meant by the two terms before providing a description of the model.

By equity, we refer to Enthoven (1988: 307–308) definition:

> I mean that a just and humane society can define a minimum standard of medical care that should be available to all its members-essentially all the costworthy medical care that can effectively prevent or cure disease, relieve suffering, and correct dysfunction. (By 'costworthy' I mean that marginal benefits equal marginal costs for persons of average incomes.) Denial of anything that meets that standard is morally unacceptable. Care above that standard can be considered a discretionary luxury. No person should be denied the minimum standard of care because he or she cannot pay, and no person should be subjected to great financial hardship to pay for care.(…) The market-determined distribution of income alone cannot produce an equitable distribution of health care. However, justice does not demand that everybody have exactly the same system and style of care. (…) Advocates of complete egalitarianism fail to recognize that there are legitimate differences in priorities and tastes.

As per the definition, we concentrate on equity in contrast to equality. Our definition of equity states that the whole population has access to the basic standard of care, while there are possible choice options to recognise differences in preferences. Equality would completely restrict choice.

By efficiency, we refer to the several dimensions described by Van Kleef *et al.* (2018): of production (given a quality level, costs are minimised), of health plan design (plans serve consumers preferences), of consumer sorting into the market (those who value insurance purchase insurance) and across plans (that consumer buy the plan which they most value).

The managed competition model envisioned by Enthoven outlines tools to use market dynamics such as competition and choice to achieve efficiency, while establishing a single set of rules to enforce equity (e.g. increase access and avoid cream-skimming, and quality skimping). By introducing consumer choice between risk-bearing insurers and products, the model encourages efficiency by enhancing insurers' responsiveness to consumers. Moreover, the regulator ensures equity by establishing open enrolment (i.e. no pre-existing condition restrictions), basic coverage accessibility and affordable premiums. Insurers will contract on a defined and standardised benefit package (e.g. establishing a basic benefit package, simplifying cost-sharing design) to providers on behalf of their enrolees and will compete in prices (premium) with respect to the health plans they offer, thereby facilitating comparability, easing

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switching by decreasing bureaucracy and providing quality-related information to empower individuals to make value-based choices. The model permits some cost-sharing to encourage cost-conscious consumer decisions.

In healthcare systems design, the managed competition framework is the main model that uses market mechanisms and market regulation to integrate the three health system functions of insurance, provision and governance/stewardship; with the objective of achieving equity and efficiency. The presence of two-tier systems introduces complexities in striking a balance between equity and efficiency. Managed competition offers a range of tools and strategies to address the existing challenges in two-tier systems. One such tool is choice of insurer and plan, which fosters competition. In two-tiered health system introducing competitive tensions help address the need for non-priced rationing strategies to contain demand. Furthermore, measures like open enrolment, eliminating pre-existing condition restrictions and ensuring affordable premiums can alleviate equity-related issues typical of private schemes. By streamlining regulation, eliminating duplication and fostering better coordination among healthcare providers, the managed competition model enables more effective resource allocation and reduces unnecessary costs. As a result, it becomes the appropriate approach for achieving increased efficiency, equity, sustainability and resilience in two-tier health systems.

Several countries with mixed public–private healthcare systems have explored the possibility of implementing managed competition. For instance, in Australia the National Health and Hospital Reform Commission (2009) proposed 'Medicare Select'. In Ireland Fine Gael and Labour (2011) Programme suggested adopting Universal Health Insurance through competition the 'Dutch way'. Chile's former President introduced the idea in 2018 (Sebastian Piñera, 2018), while New Zealand considered it in 1992 under '*Your Health and the Public Health*'. South Africa informally implemented it during post-Apartheid reforms in 1994. Other countries including the Netherlands, Germany, Colombia, the UK (and other countries with internal market reforms) have also introduced managed competition or its components. This is the 'third wave' of reforms identified by Cutler (2002), following increased access (first wave), and controls, rationing and expenditure caps (second wave), reforms have aimed at using competition to create long-run cost containment and efficiency incentives. Many countries have turned to this model to increase healthcare efficiency and address perverse incentives in the provider sector, while balancing equity.

Contemporarily, Van de Ven *et al.* (2013) have translated the theoretical model of Enthoven into a set of 10 preconditions to achieve the goals of equity and efficiency in selected countries that have already set some rules of managed competition in their health systems (e.g. Israel, Switzerland, Germany, The Netherlands, Belgium). Adding to this literature, we consider a setting where initially, that model is not prevailing, and therefore, do not completely fit the predominant theoretical work (due to their initial differences as well as base assumptions used).

In this paper, we elaborate on a two-part conceptual framework. First, we describe the requisites for achieving equity and efficiency under managed competition where we update the original framework of preconditions, complementing the existing and adding new preconditions to be able to cover a broader range of health system settings. Second, we typologise and describe possible roadmaps to achieve that model in terms of the funding function, and focus on the consequences on providers and governance/stewardship.

The remaining of the paper is structured as follows. Section 2 summarises, revises and introduces new preconditions to achieve efficiency and equity. Section 3 discusses the roadmaps to transition to the managed competition model. Finally, Section 4 provides some concluding remarks. At the end of the document the references can be found.

2. The preconditions for efficiency and equity updated

This section describes the set of preconditions to achieve the managed competition model and the societal goals of efficiency and equity as defined. These requisites are the ones that will

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need constant monitoring once the system has been established. It should be noted that they are necessary conditions but not sufficient in themselves. If any are not fulfilled, there is a risk that society's objectives of equity and efficiency are not met (fully, or to the wanted extent).

2.1 Summary and revision of the ten preconditions

In this subsection, we offer a summary of the descriptions and specific assessment tools described by Van de Ven *et al.* (2013) for the ten preconditions. For comprehensive explanations, readers are encouraged to refer to the referenced work. In addition, we highlight specific updates of the existing framework, resulting in three additional preconditions.

2.1.1 Summary of the original ten preconditions

Van de Ven *et al.* (2013) outline ten preconditions linked to the goals of efficiency and equity. Preconditions 1–6 and 9 aim at efficiency, and draw on economic theory on competitive markets. These conditions consider the requirements for market functionality, and address market failures. The preconditions emphasise the role of consumer choice on disciplining the market, thereby driving down prices. These conditions ensure responsiveness to consumer needs and preferences, and address information asymmetries, thus working optimally to bring the market outcome closer to a competitive one. The second set of preconditions pertains to equity. They ensure access to affordable insurance, setting a system of subsidies which reduces risk selection and free-riding, and quality safeguards as protection against cost-cutting measures to maintain the desired levels.

Precondition #1, free consumer choice of insurer, establishes choice as a fundamental element of managed competition to motivate responsiveness of the market and competition in price/quality. To ensure choice, there should be no barriers such as underwriting, waiting periods and tie-in products (Paolucci *et al.*, 2007), while facilitators like open enrolment, easy switching and a sufficient number of insurers should be available. Additionally, mediating regulation such as contract length can help balance choice and ensure correct pricing by insurers.

Precondition #2, consumer information and market transparency, highlights the need for transparent information on price, quality and other aspects of medical services/products to be made public to avoid competition based on quality skimping. Moreover, transparency and comparability of insurance products through a standardised benefit package is needed to allow value-based comparisons and prevent choice overload.

Preconditions #3, risk-bearing buyers and sellers, states that to achieve efficiency, insurers and providers should bear financial responsibility for their respective roles. For this, payment schemes should transfer risk to providers, while insurers enforce contracts. Subsidies should align with product price differences. Individuals should bear some risk through cost-sharing, referral mechanisms or prior authorisations to reduce moral hazard.

Precondition #4, contestable markets, another precondition for efficiency, requires removing unnecessary entry and exit barriers for the provider and insurance markets. Barriers in provider markets (e.g. subsidies, capital investments, long training times for physicians) limit competition, while barriers in insurance markets (e.g. prudential requirements) are needed to protect consumers but may hinder entry. Balancing regulation is crucial for market efficiency and consumer protection.

Precondition #5, freedom to contract and integrate is required so that insurers can perform their third payer/purchaser functions. This implies that contracting should be free within certain regulations that prevent free market failures. Insurers and providers should have freedom to (selectively) contract, negotiate prices, establish payment mechanisms and integrate vertically for efficiency, while competition regulation should balance potential anti-competitive effects. Providers should be free to set up an insurer, and insurers should be free to provide care through their own healthcare facilities.

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Precondition #6, effective competition regulation, relates to the need and measures to stop anticompetitive practices such as cartels, the abuse of dominance and mergers and takeovers that are not considered in consumers' best interests. In the context of healthcare markets where the geographic definition of the appropriate sub-market is unclear, competition policy is complex.

Precondition #7, cross-subsidies without incentives for risk selection, establishes that given the outcomes of competitive markets that tend to lead to differentiated premiums that affect equity, emphasis should be placed to ensure affordable premiums for all income and risk groups. Various measures can be implemented, such as subsidies based on income through external or internal arrangements (Van Kleef *et al.*, 2018), premium rate restrictions (community rating) and risk adjustment to address risk selection incentives. Overall, the regulator needs to calculate accurate payments. Premium-related subsidies can also be employed for specific groups facing high premiums (Zweifel and Breuer, 2006) to avoid shortcomings (Van de Ven, 2006). Additionally, ex-post compensations and risk-sharing mechanisms such as proportional risk sharing, reinsurance, risk corridors and high-risk pools can be considered (McGuire and van Kleef, 2018*b*), although they may reduce incentives for cost containment.

Precondition #8, cross-subsidies without opportunities for free riding, is needed to achieve equity, as all individuals should be covered, and people that avoid paying cross subsidies should be mitigated. Alternatively, it will lead to opportunistic behaviours (e.g. taking insurance about to incur medical expenses or individuals may choose to underinsure while healthy and insure/over insure while sick). The main signal for potentials for free riding mentioned is the possibility to opt out of mandatory basic coverage.

Precondition #9, effective quality supervision, another precondition for efficiency, states that consumers should be protected against poor quality service delivery by both insurers and particularly by medical providers. Reimbursement arrangements, on-going quality assessment and the publishing of performance league tables are specific tools to achieve this. The measurement of quality is not straight-forward and requires a well-resourced quality supervisory institution.

Finally, precondition #10, guaranteed access to basic care. This guarantee may be given by government, insurers, employers or another 'third-party'. It could be the responsibility of insurers as the purchasers of care to ensure timely access without using provider availability as an excuse, by providing adequate solutions (e.g. transport services, or flexibility to contract with new or different providers) to meet demand.

2.1.2 Further considerations concerning the original ten preconditions

We give some further considerations concerning the preconditions #7 cross-subsidies without incentives for risk selection, and #8 cross subsidies without the opportunity of free riding. These considerations are aimed at fitting a broader set of countries.

In terms of precondition #7, we add upon the discussion of the financing sources of subsidies. While tax-based contributions have been seen as the ultimate way of achieving progressive contributions, several challenges exist. As taxes are typically managed by the Ministry of Finance, and thus by politicians, they might be subject to capture. More extremely, an extensive tax system might not exist thereby making collecting resources complicated. Other options to achieve income solidarity are for premiums to be income related (in whole or part). These contributions are not within the direct access of politicians. A tax on income can have similar repercussions as income-related contributions in terms of market distortions (i.e. tax on labour). Some key differences are that income-related contributions are typically proportional to income, and a progressive income tax system would make tax paid as a proportion of income increase as income increases.

Moreover, complementing on the challenges arising from community rating, risk selection by consumers (i.e. adverse selection) may also be a problem which requires regulatory solutions. A strong insurance mandate would be a first-order tool. Additionally, pricing some of the unpriced

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risk leads to risk selection after risk equalisation in the case of community rating (allowing some freedom to set the premiums (i.e. risk rate)). Nevertheless, high premium variations could threaten affordable care for high risk. Risk equalisation in this case will serve another purpose, to reduce premium differences between groups, while decreasing incentives for adverse selection in these markets (Klein *et al.*, 2023).

Moreover, it is not given that a technically robust system of risk equalisation can be introduced in a broader set of countries, while it being needed. Two factors are important: first, even in with an unsophisticated model, a well-established and trusted institution should be in charge of this. The risk equalisation scheme could become susceptible to lobbying (as it will distribute potentially large amounts of funding), increasing the importance for a solid governance framework in this area. The institution setting the pricing/contribution/maybe even taxes could be independent of politicians and the funds could not be under the control of politicians as much as possible. This would contribute to a stable system over time. By publicly hearing the details of the risk equalisation system and giving room for insurers to contest the system, it will be quite hard to corrupt the system in itself. Second, feasibility (e.g. related to data availability) may hinder potential risk equalisation models. The incorporation of risk sharing into the risk equalisation formula (McGuire and van Kleef, 2018*b*) can be an easy and effective way to improve the scheme (and therefore, diminishing incentives for risk selection), when information constraints exist (Henriquez *et al.*, 2023*a*, 2023*b*).

Last, corresponding to precondition #8, additional tools can ensure free riding is minimised: a mandate to pay a solidarity contribution; establishing a basic benefit package (see subsection 2.2); allow for premium rating, considering the trade-off between 'increasing efficiency and reducing incentives for risk selection by insurers' and equity; and directing premium subsidies to those who otherwise might opt out (e.g. low-risks), with some loss of efficiency.

2.2 Additional preconditions

In this subsection, we add three preconditions to adjust for the differences between two-tiered systems based on mixed public–private insurance and provision, and the countries where the framework was originally envisioned. Although the existence of a basic benefit package and 'affordable out-of-pocket payments' are essential elements of the preconditions 'guaranteed access to basic care' (#10) and the 'existence of cross-subsidies' (#7 and #8) we give explicit attention to these issues by formulating them explicitly as additional preconditions (#11 and #12). In addition, we formulate the additional precondition 'no conflict of interest by the regulator' (#13) that in the original set of countries implicitly was assumed to be a sufficiently fulfilled 'general precondition', but that is relevant for a broader set of countries.

2.2.1 #11 Basic benefit package

The existence of a basic benefit package is central to 'guaranteed access to basic care' (#10) and also to 'free consumer choice of insurer' (#1), 'consumer information and market transparency' (#2), 'freedom to contract and integrate' (#5) and 'cross subsidies without the opportunity of free riding' (#8). This is the reference point for our equity measure.

To ensure a minimum standard of care to all, the Government needs to explicitly outline a standard package of services that should be covered by all insurers in the system (Schreyogg *et al.*, 2005).

The benefit package should be comprehensive (ranging from primary care, outpatient specialised care, to hospital services, pharmaceuticals, medical devices, palliative care, to rehabilitation services and others), to maximise access, and minimise complementary and supplementary markets (it's important to mention that a two-tier system could still exist even if the system has been integrated, as secondary markets could emerge) that may undermine the principles of equity and

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efficiency in the primary market. To some extent the insurers in the system can offer non-medical 'luxury', for those willing to pay.

Health technology assessment and health economic evaluation will become essential in deciding what should be included. A specialised institution might exist, or might need to be created or improved. Due to the nature of the task, this might be an area prone to external pressures and influence (e.g. corruption), leading to negative outcomes.

The establishment of the package should be done carefully to prevent total cost of delivering healthcare becoming unmanageable. If for example, the package of benefits gave individuals access to services beyond that available within one of the existing systems then the total cost is likely to increase.

2.2.2 #12 Affordable out-of-pocket payments

In the precondition 'risk bearing buyers and sellers' (#3), cost sharing is established to avoid moral hazard. A trade-off arises as higher out-of-pocket payments will be detrimental for the poor and sick; financially and in terms of quality of life (e.g. delay in necessary care). Moreover, excessive out-of-pocket payments could encourage people to seek further coverage in secondary markets. This goes against integrating the health system, and reduces the effects of cost-sharing in deterring moral hazard. Therefore, the cost-sharing design should not be excessive, and should capture the insureds' ability to pay, establishing a progressive design. Several tools are available, including co-payments, co-insurance rates, deductibles and safety nets (out-of-pocket limits).

2.2.3 #13 No conflict of interest by the regulator

Three main functions exist in healthcare systems: insurance, provision and governance/stewardship. To ensure accountability for each one of the preconditions, and that capture or bureaucracy by government is minimised, the functions of governance/stewardship need to be separated from those of insurance and provision, and the institutions established need to have clear goals that are not conflicting (Bevan and van de Ven, 2010). While insurers should be the ones who purchase care on behalf of consumers, providers should be the ones offering the services, with room for integration (see 'freedom to contract and integrate'), governance and stewardship should not have invested interests (that reduce their ability to perform) in either the insurance or provision sector, and conflicts between the regulation tasks should be avoided: (a) defining and updating the basic benefit package; (b) access guarantee; (c) revision of product characteristics (e.g. cost-sharing and product architecture, premiums, premium increases); (d) contracts (e.g. provider payments, tariffs) if otherwise market failures would occur; (e) defining and managing the subsidies and risk equalisation payments; (f) financial supervision of the insurers and providers; (g) quality and safety assurances; and (h) competition supervision and consumer protection.

2.3 General preconditions

In the original framework, some general preconditions are outlined, but not further investigated as they are fulfilled to sufficient extent in those cases. However, it is important to recognise the significance of these preconditions and elaborate on them further. These are conditions that are not particular to the healthcare market but are relevant for the functioning of the system and for example, would include a law-abiding government, stable and effective banking system, property rights that are enforceable, a comprehensive tax system, among others.

We wish to highlight two of them: law-abiding government (and also efficient or less bureaucratic, i.e. modernizing the government) and comprehensive tax system. Establishing a risk equalisation fund, which gathers significant funding, could be subject to corruption interests.

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In countries where there are high degrees of informality, the non-existence of a comprehensive tax system, meaning that some people 'do not appear in the system', may make the sustainability of the system difficult and require novel ways to deal with financing.

3. Typologies of pathways to transition to managed competition

This section first describes the typologies of pathways to achieve the model of managed competition in terms of the funding function, which is necessary to fulfil the precondition 'free consumer choice of insurer', and 'cross-subsidies without the incentives for free riding'. Second, as this movement has consequences on providers and governance/stewardship, we addressed the challenges that arise in relation to provider regulation to fulfil the preconditions of 'freedom to contract and integrate', 'contestable markets', 'guaranteed access to basic care' and 'risk bearing buyers and sellers'; and we outline guiding principles that should rule the governance/stewardship reforms in order to fulfil the precondition 'no conflict of interest by the regulator', 'effective quality supervision', 'effective competition regulation', 'cross-subsidies without the incentives for risk selection', 'basic benefit package' and 'affordable out-of-pocket payments'.

3.1 Pathways to fulfil the precondition 'free consumer choice of insurer'

In the following, three broad typologies of reform pathways are described in detail to achieve the precondition of 'free consumer choice of insurer'. The starting point will be the model that the authors consider the most feasible due to historical, technical and political reasons in general terms.

For a successful transition, we identify an additional precondition: 'long-term goals by government and politicians'. The importance of this precondition lies in that the political cycles could affect the correct achievement of the transition path, and that experience from other countries (e.g. in The Netherlands) shows reforms of this type take a long time to implement (Jeurissen and Maarse, 2021). This precondition should include a health programme that elaborates on clear steps and goals, is enforceable, which means that it must be public, followed up and reported in its advances.

3.1.1 Convergence of the public and private scheme

Convergence of the public and private scheme would entail the public scheme to gradually become an insurer and compete with the private scheme, which in turn, would gradually adopt social insurance characteristics. Consumers would be mandated to choose amongst the competing insurers (irrespective of their ownership – public or private, or nature – commercial or non-commercial).

Participating insurers must have a clear purchasing role on behalf of their enrolees. If this role is absent or underdeveloped, it would have to be established. This is especially important for the public scheme, which often lags in this area. To effectively perform its purchasing role, it is important that there are tools in place to facilitate this task and that constraints such as the government being a market participant (in the insurer and provision markets) and market regulator are minimised or eliminated. For instance, this latter reason was argued in the selling of state-owned Medibank private in Australia during 2014–2015, with the sale removing the 'perceived conflict' (Buckmaster and Davidson, 2006; Department of Finance, 2020). Concretely, allowing a degree of independence can enhance the purchasing role of the public insurer, decrease risks of capture by interest groups and bureaucracy, increase political neutrality, and attainment of long-term health goals, stability, as well as increased technical specialisation, efficacy and functionality. Independence can be organised in different ways, including for the public insurer to be completely privatised (see *Privatizing the public scheme, and establishing the principles of*

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managed competition within the private scheme (Department of Finance, 2020)), by establishing an independent agency,[1] or a State enterprise.[2]

In this convergence, the nature of the 'private' insurers may differ. By nature, we mean commercial (e.g. USA) or non-commercial (e.g. as in sickness funds in Germany or Switzerland, or not-for-profit 'cooperatives' with a social mission such as in The Netherlands). The main difference between the two is their profit orientation. Drawing from economic theory, competition drives businesses to efficiency (e.g. reducing costs while maintaining quality) by expected lower prices (through making hard cost-cutting decisions) to increase market shares. However, potential drawbacks exist if essential preconditions are not fulfilled, such as greater willingness to game the system (e.g. through risk selection) and losing the focus on quality. For-profit insurers are motivated by increasing their profits to shareholders, while not-for-profit insurers are motivated by a 'social-entrepreneurship' spirit, maintaining their 'reputation' with the underlying fear of 'losing their license to operate', and the 'intrinsic motivation' to cut costs and improve quality to better serve their patients. A drawback could relate to incentives to inflate costs into a similar earning of a profit-seeking equilibrium. All in all, this is a context-specific and empirical discussion (Dafney, 2019), as theory could point out to gains and losses from both modalities.

A relevant steppingstone to reach this model of convergence is the possibility to allow choice through opting out of the public scheme and going private (Paolucci *et al.*, 2011). This means, people who leave the public scheme are mandated to buy the basic benefit package elsewhere. Different reasons sustain this transition path. In settings where there is duplication in the funding (e.g. Australia, Ireland), meaning that at the point of services there are two possible purchasers of care, allowing people to leave the public scheme would structure the options available as mutually exclusive, removing duplication. No duplication in the system is required for several reasons: to assign the financial responsibility and purchasing power correctly among the actors in the system, to allow people to become conscious of their purchasing decisions, and to increase competition in the system. A practical example of this structure is the prevailing health system in Germany, where its mandatory to have health insurance, but certain individuals whose income is above a certain threshold (and other strict rules) can choose to opt out of the statutory scheme to purchase private health insurance (Wasem *et al.*, 2018). This option becomes a relevant way for policymakers to manage the risks in the transition. The existence of entry restrictions (e.g. no open enrolment) (e.g. like in the private scheme in Chile) creates a scenario where establishing 'free consumer choice of insurer' would significantly impact the prevailing risk structures (which are segmented) through adverse selection, which could be exacerbated by risk averse insurers confronted to higher borne risk given the uncertainty of the risk pool potentially causing severe financial sustainability problems for both schemes.

In terms of sequence of regulatory steps, for the opting out model to work, people must be followed by a risk-adjusted payment that allows funding to flow between the systems in a way that risks (especially high risks), and income (low-income individuals) is considered. In the convergence model, this is achieved integrally through a unique funding pool and risk equalisation. In the transition, while the latter is being developed, a simple risk equalisation paired with reinsurance and/or risk corridors could be implemented to protect insurers against adverse selection. These measures were included, for example, in the ACA Marketplaces in the US (Layton *et al.*, 2016).

1An independent agency is inserted in the State apparatus but acts with relative independence of the government.

2State enterprises are defined as those where State participation is majority either through ownership or influence with other than purely non-financial incentives.

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3.1.2 Abolishing the private scheme and establishing the principles of managed competition within the public scheme

In a nutshell, if only the public scheme remains, managed competition would mean consumers can choose from different, competing, public purchasers. Such purchasers could be local health networks or decentralised health authorities, which would offer the basic benefit package, and could vary their offering in terms of provider networks and cost-sharing designs. Within the public scheme, a monopsonistic integrated arrangement between purchaser and provider is commonly prevailing, meaning there is no purchaser–provider split. Van de Ven *et al.* (1994) hypothesised that installing managed competition with that starting point would require (1) separation of purchasers and providers (similar to removing the market participant–market regulator link), resembling Enthoven's (1991) idea of an internal market, (2) competition among the providers and (3) competition among the purchasers.

The first element, separation of purchaser and providers, is rooted in the premise that restructuring hierarchical relationships is essential. This separation defines who provides the services and who pays for them. Its necessity arises where integration between purchasers and providers is inefficient. Inefficiencies might be rooted in underdeveloped function of financial responsibility and purchaser's accountability and self-driven provider organisations. In cases where contracting is inferior and limited to a few areas, a balance needs to be struck.

The second element, competition among the providers, has main purpose efficiency (more value for money). Competition stimulates efficiency, especially within the constraints of limited resources and heightened demand. Providers cease to enjoy a monopoly status; instead, they face competitors. Those excelling in their services will thrive, while those falling short may face failure. This new incentive structure aims to foster improvements in service delivery through cost-containment, improved quality, responsiveness to patient needs following the 'money that follows the patient' principle and increased organisational flexibility.

The last element, competition among purchasers, means consumers will need to have a choice among purchasers; this would act as a way to discipline the purchaser by 'voting with their feet' principle. Desirable characteristics of the purchaser include a certain degree of independence, to bear the financial risk and be accountable for purchasing the defined benefit package. The purchasers will have to make 'hard choices' (i.e. stop financing a provider that is not delivering as promised) (see subsection 3.2 for the typologised problems in the provision market that would likely need reforms to allow for this). Within the path of establishing competition among purchasers, three steps are additionally outlined by Bevan and van de Ven (2010): choice of purchaser with no competition, constraint competition and full competition. In the case of choice with no competition, this would mean allowing individuals options as an end in itself, and not for reasons related to disciplining the market. This would for example, require (and allow for) gathering individual-level information for purposes of funding. In what refers to constraint competition, this would imply that there is little to no variation in terms of the product offering or the possibility that the purchaser has to differentiate their product, but within a geographic area, existing local bodies (that may e.g. be the grouping of providers or coordinators of the health networks, or even groups of primary care practice – the exact arrangement depends on the country) to act as purchasers of care (in this case, the issues that are described in subsection 3.2 *Number and distribution of providers* would have to be kept in mind).

As at the end, consumer should be able to choose amongst public entities, the process to get there could follow successive transitions: from monopsonist contract, where there is one purchaser which is disintegrated to providers, and acts as a prudent buyer, and has a degree of independence to further strengthen the split; to a regional monopsony, where more buyers – by geographically defined areas – are present but still there is no choice; following, when these regional entities have the sufficient knowledge to buy care and information is available, they could turn to a competitive contract, where choice is allowed between the entities. Finally, it would be possible to allow for a greater degree of integration (as in the 'freedom to contract

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and integrate' precondition), with one of the possible forms being an HMO type arrangement (Van de Ven *et al*., 1994). If there is effective competition, multiple integrated delivery systems will be held accountable by the consumers for the price and quality of health services provided.

3.1.3 Privatizing the public scheme, and establishing the principles of managed competition within the private system

This option implies privatizing the public insurer. The nature of existing participants (i.e. commercial, non-commercial) may change. A key political issue to overcome would be the large sums of public money to private enterprises, and the incorporation of the public providers for contracting possibilities of the private insurers. For the latter, the ability of these providers to contract with the purchaser and to deliver contracted services would have to be assessed and reformed to 'level the playing field' *vis-a-vis* their private counterparts. The concrete challenges to address are described in subsection 3.2. A similar arrangement can be found in Switzerland, where non-profit private insurers contract with hospitals that are owned and run by local governments (Schmid and Beck, 2018).

3.2 Challenges in provider regulation to fulfil the preconditions

Several challenges in the market of providers will have to be dealt with as a consequence of transitioning the funding function to one based on managed competition, and meet the preconditions, as in the base setting, public and private providers coexist and operate under different rules.

3.2.1 Contracting

One obstruction to competition which closely relates to the precondition 'freedom to contract and integrate' are purchasing restrictions. These can be direct or indirect. In terms of direct restrictions, legal requirement of contracting (only) specific types of providers (i.e. only purchasing off public or private providers) reduces (or even eliminates) the contracting options, and shifts power to providers, which ultimately means there is no credible threat of not purchasing, decreasing incentives for efficiency. This restriction could also refer to services. This is incompatible with establishing a broad basic package of care. As well, restrictions in terms of budget allocation could exist. This means that the planner can only allocate the budget to certain services (e.g. hospital care but not primary care), or it can only spend a certain amount of the budget in private (or public) providers. The analysis is analogous as before. Some examples include legal barriers to the way providers are paid (which restrict establishing payment models that incentivise production of, and value of care).

Lifting these restrictions as a 'big bang' will most likely prove to be both technically (e.g. information might be lacking to implement changes) and politically unfeasible. In the transition, gradually increasing the risk providers face, and the ability of the public scheme to establish fruitful arrangements would be a more realistic strategy, including changes needed in the *governance of providers*.

The design of these contracts will include elements such as provider payments, information on quality and performance. Provider payments are a key way of aligning incentives. A particular point of interest is integration of care (Stokes *et al*., 2018). If there is more competition, a result of a consequence of meeting the preconditions of 'risk bearing buyers and sellers' and 'freedom to contract and integrate' will be that provider payments will move away from fee-for-service (as providers are to become cost-conscious of the whole treatment of the patient). Moreover, it will imply contracting for the complete benefit package (which may not be the prevailing). These two points combined mean that the purchaser would have to contract primary care, and that they can act as gatekeepers to specialist care, or people could have choice of GP and specialist. Provider payments that connect referrals are important to keep incentives of treatment at the primary level. Despite it not being a feature of provider payments, it is not unusual that gaps

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between payments and actual prices are transferred to consumers. The regulator should first ensure the market functions with minimal frictions (e.g. the preconditions necessary for effective choice are largely met), and second, decide to set maximum prices or mitigate this through ensuring 'affordability in out-of-pocket payments' by setting fixed out-of-pocket expenses over time. In the transition, establishing temporary default contracts through regulation would be valuable to create an even playing field for the actors in the market.

Last, an issue that will need active consideration is in relation to how private and public hospitals and free-standing providers can compete. The medical case-mix of these two types of hospitals is different, the geographic sub-markets in which they operate are different in many cases, as well as some of their orientation (i.e. fund a large proportion of the cost of medical education). To facilitate competition between the heterogeneous medical providers, some mechanism may be required to rebalance the cost between the providers. For example, providers that do not use the market (e.g. public providers) could engage in a similar situation to what new private providers would. Under information asymmetry, they would undergo a price discovery process. The regulator might want to facilitate mechanisms (whereby information on prices are made public) to help the public sector engage.

3.2.2 Human resources

The topic of human resources in the health system spans from broader policies to minimise shortages in specialists or consultants, education in the medical profession, incentive schemes or the way medical professionals are paid, the knowledge and skills of health service managers, to the relative political power they exert in the system that can be determinant of reforms.

It is common in mixed public–private systems that institutional features have created uneven conditions in terms of medical professionals contracting. Particularly, these conditions produce an uneven distribution of the workforce and dual practice. Typically, these incentives draw them, to private providers. Homogenizing these differences is key to take away the perverse incentives. If there is real competition among providers (and insurers), insurers will contract the most cost-effective care, and the insurer will not allow for the perverse incentives (e.g. inframural care, channelling patients to private practice) or they will ask money for it.

Last, an often-overlooked aspect that could impact any reform or change is the medical profession. The health sector has become a dominating employer in many countries. This has increased the power they have to influence and affect the course of reforms. Managing their political power is of increased interest to any modifications to be enacted in the health system.

3.2.3 Number and distribution of providers

The insurers' ability to contract prudently is diminished if there are few providers in an area (i.e. the threat of losing a contract is lower, market power of the provider is higher). Also, choice for the consumers is restricted. Despite this problem being a determinant of the contracting's possibility of success, it is necessary to make a particular point of it as it will involve further action by regulation to fulfil also the precondition of 'effective competition regulation'. In areas with limited providers, the competition authority will have to ensure for the negative consequences of provider monopoly/duopoly to be minimised, while in areas with a great number of hospitals, the competition authority will have to make sure anti-competitive practices don't occur.

3.2.4 Governance of the providers

By governance of providers, we mean their organisational structure (i.e. the way their internal hierarchies work in order to effectively provide health services and have the ability to manage their side on the contracting with the insurers). In practice, this translates to their management (e.g. unipersonal or through an executive board), their legal form (e.g. trusts, state enterprise, private corporation) and if they are profit seeking or not, their orientation towards medical education, or degree of complexity of cases they are able to accommodate. Deficits in the governance of

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providers may exist because the prevailing planning arrangements have required little sophistication in the administration of information, among others. In addition, organisational structures may have been highly dependent on the planner (and therefore, political cycles). For providers to incorporate into the new framework of contracting, a movement towards self-governance is needed.

3.3 Guiding principles for the reform of the governance/stewardship function

The World Health Organization (n.d.) defines health system governance/stewardship as: 'a wide range of steering and rule-making related functions carried out by governments/decision makers as they seek to achieve national health policy objectives that are conducive to universal health coverage'.

The governance function will be carried out by the regulator. The model, in principle, uses the market to achieve efficiency, while the regulator interferes when the public goals agreed by society are threatened. It's role, therefore, can be stated as protecting and defending the consumer, by organizing the cross-subsidies (equity) and by setting the rules in the interest of the consumer. Several tasks pertaining the governance function underlie the preconditions (see 'no conflict of interest by the regulator'). The way in which these tasks are achieved will be highly country specific as there is no 'one size fits all' approach to governance. Here, we outline guiding principles the regulator should keep in mind.

3.3.1 Allocating all the tasks

All the tasks need to be assigned to existing or new institutions to be able to fulfil the preconditions. If one task is not allocated, it may threaten the goals of efficiency and equity.

3.3.2 Establishing the task in the institution that 'knows best'

This will imply assessing the level of technical knowledge or political linkage needed for the task, among others. A practical example is the definition and updating of the benefit package, a key precondition. This will require high expertise related to health technology assessment. Additionally, this can become a contentious point for consumers or interest groups, when services are not included and there is no coverage. The institution in charge will have to be able to conduct a technical process means to clearly justify its decisions to solve these conflicts.

3.3.3 Avoiding the 'judge, jury and executioner' problem

It is generally not advisable for institutions to both propose and implement policies, as well as monitor and evaluate their success, except for certain exceptions. This approach can lead to inherent conflicts of interest. It becomes challenging for the institution to objectively assess the effectiveness of their own work. This would derive in less-than-optimal outcomes. Therefore, the regulator must be mindful or directly separate the proposal/implementation of the monitoring/evaluation.

3.3.4 Formulating a clear goal and accountability mechanisms for their achievement

When an institution is burdened with multiple responsibilities, it can struggle to accomplish its objectives effectively. Without proper accountability measures in place, it becomes difficult to assess if anything is being achieved at all. For example, if the institution responsible for accrediting providers has no periodic monitoring of the established standards, accreditation loses its value. Furthermore, if the institution is also in charge of prudential supervision, its attention is diverted, and its focus diminished.

3.3.5 Avoiding political capture and political cycles

Political capture and political cycles could induce too much variation between terms of government, undermining the achievement of the task. This may be the case with the risk equalisation scheme. The amount of money that will be gathered is subject to corruption and if the political

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cycles affect the way resources are distributed and the formula is improved, then it may cause serious equity problems.

4. Conclusion and discussions

This paper constructs a two-part conceptual framework to study, first, the pre-requisites for achieving equity and efficiency under the managed competition model and, second, the road-maps for mixed public–private health systems to transition to managed competition and meet the preconditions.

The study of the pre-requisites resulted in some further considerations concerning the existing preconditions and in three additional preconditions. Particularly highlighting a discussion on financing sources for subsidies and adverse selection problems arising from community rating and how to address them, and challenges to establishing a risk equalisation scheme; last, we extended the tools available to minimise free riding. Moreover, three preconditions were added (basic benefit package, affordable out-of-pocket payments and no conflict of interest by the regulator), highlighted some additional general preconditions (e.g. non-corrupt government and comprehensive tax system) to adjust the framework to a broader range of health system types, and identified a key transition precondition for mixed public–private health systems to move towards managed competition (i.e. long-term goals by the politicians). In this transition, there are two major political issues likely to need to be confronted. First, the impact of the risk equalisation scheme and its transfers of incomes from the high-income to the low-income people, and second, how to deal with the large differences in healthcare prices in the current public–private mix. For the latter, a plausible solution is the establishment of default contracts.

In addition, we outlined three options to transition the funding of mixed public–private health systems into managed competition and fulfil the precondition of 'free consumer choice of insurer': convergence of the public and private schemes, including an intermediate step of opt out of the public scheme to go private; allowing choice of 'purchaser' in the public scheme; and establishing a fully private scheme. We described the consequences on providers, which are needed to meet the preconditions of 'freedom to contract and integrate', 'contestable markets', 'guaranteed access to basic care' highlighting contracting, human resources, number and distribution of providers and governance of providers; and finally, five guiding principles to address the challenges of setting up a governance/stewardship function (allocating all the tasks, establishing the task in the institution that 'knows best', avoiding the 'judge, jury executioner' problem, formulating a clear goal and accountability mechanisms for their achievement and avoiding political capture and political cycles).

In this paper, we highlighted problems in terms of equity and efficiency that arise in mixed public–private health system which result in two-tier health systems. It is important to note that the negative outcomes can occur in other types of health funding arrangements. Moreover, our proposed solution of integrating the system through a managed competition framework is no guarantee that the problems will be solved. The degree to which the managed competition model is able to solve these issues relates to the level of fulfilment of the preconditions. For instance, independent of the health system funding arrangement, if the benefit package is not comprehensive or out-of-pocket payments are not affordable, there is space for secondary markets where individuals with purchasing power may seek out coverage for excluded services or cost-sharing. This brings us to an interesting finding from this study. Implementing managed competition requires the complex interaction of moving parts: the fulfilment of one precondition is linked to another, and changes in the funding function will not guarantee a smooth transition, as there are consequences on providers and governance that need to be addressed.

Some limitations exist since we did not consider costs or timelines and have not conducted specific feasibility tests. The reason is that cost assessment is not practical until the extent of

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the benefit package is determined. Additionally, the healthcare costs, the transition costs and the timelines depend on each country's context. However, it is worth mentioning that while structural reforms can be complex and time-consuming (e.g. The Netherlands), several elements of the managed competition model might already be in place, easing the process. We acknowledge that the practical implementation of managed competition poses considerable challenges for two-tiered systems based on mixed public–private schemes. Developing a comprehensive feasibility framework is beyond the scope of this paper, but represents an interesting area of future research. Nevertheless, it's important to highlight that improvements to the current systems based on the managed competition model could be introduced. This includes open enrolment in settings where enrolment is restricted (e.g. Chile), incorporation (e.g. South Africa) or improvements to the risk equalisation formulas (e.g. Ireland and Australia), as well as the implementation of more effective quality supervision with varying levels of difficulty. Further reforms could focus on pooling all the public resources collected by various sources and centralise them into a single pool for health services purchasing, while creating a system for financial responsibility and accountability which might be lacking. Last, when assessing feasibility, political economy factors should be considered, such as the market power of existing stakeholders and their roles.

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