

Comparative research and analysis methods for shared learning from health system reforms

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Abstract

The pace and breadth of health reforms point to the need for a comparative methodology to support shared learning from country experiences. A common understanding of health reforms is a first prerequisite for comparative research. Dimensions characterising content, sequence, process, purpose and scope of policy change are identified on the basis of a literature review. Reforms can have a gradual build up, starting with piecemeal policy changes that can be eventually integrated to enhance their benefits. Comprehensive reforms can be defined as policy formulation and implementation that comprises the systemic, programmatic, organisational and instrumental policy levels through explicit strategies sustained in well-documented experiences and theories and implemented with the support of a specialised agency with consensus-building capacity. A minimum-data set is proposed on the basis of an extensive literature review to support the comparability of health reform case studies and descriptions. Its components are: the current health system, its background and context, the reform rationale, the specific proposals, political actors and processes, achievements and limitations, and lastly the reform's wider impact. Case studies can be compared historically, through particularistic comparisons, using ideal types and by means of exemplars. The advantages and limitation of each method are analysed as well as how they can be combined to frame the research questions and minimise resources. Finally, the International Clearinghouse for Health System Reform Initiatives is described as an instrument to disseminate comparative research and analysis in support of shared learning. © 1997 Elsevier Science Ireland Ltd.

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1. Introduction

In many countries throughout the world health financing and service institutions are being reformed to meet diverse yet conflicting pressures: on the one hand, there are structural adjustments of national economies to meet fiscal crisis and national debt, leading to a shrinking role of the state. On the other, there is a growing pressure on health systems due to rising health needs and costlier technology. These conflicting forces meet in the context of globalisation, a process whereby nations increase their interrelatedness and interdependency through the spread of democracy, the dominance of market forces, the integration of economies in a world-wide market, the transformation of production systems and labour markets, the spread of technological change and, last but not least, the media revolution [1]. Globalisation has the impact of contributing to better health, for example through the benefits of democracy on equity, coverage, choice, quality services and dignified care. However, globalisation can also mean greater financial instability while freedom of choice for some may imply restrictions to others and the widening of social differentiation.

Globalisation is leading to the establishment of trading blocks such as the European Union (EU) and the North American Free Trade Agreement (NAFTA). The EU exemplifies the trend where public affairs such as the regulation of drugs and the environment and the support of vital research areas are increasingly taken up by supra-national governing bodies. On the other hand, NAFTA exemplifies a trend where manufacturing jobs are exported to Mexico while the United States and Canada become ever more highly specialised service economies. Meanwhile, social security is being redefined in these three countries in an effort to increase their international competitiveness. There is a trend towards more individualised benefits, more limited public responsibilities and greater burden in the family to care for the elderly and the sick.

Much of the transformation of the State has been informed by orthodox neo-liberal models. Yet the peculiar nature of health and disease and the values that guide the provision of health services require an appropriate theory to guide the processes of health reform towards equity, efficiency, quality and sustainability. A comprehensive economic and social theory is required that takes account of the peculiar nature and objectives that societies assign to health and to health systems [2]. An adequate theory must enable the restructuring of the state to assure the transition of health systems to a realm of social and economic accountability, while recognising and supporting the values, principles and purposes that are appropriate to health and that meet the criteria for sustainable development [3]. Furthermore, health reformers in developing countries must be cautious when emulating experiences from developed nations and which demand capabilities that may be non-existent [4].

An appropriate theory for health reform in the context of globalisation requires grounding on empirical research and shared learning of experiences in a wide range of countries. Several industrialised nations are well advanced in this direction and numerous analytical and critical publications are emerging, together with networks and clearinghouses to support analysis and research [5,7,8]. In developing countries that have embarked on health reform international exchange of experiences are now in vogue [9]. A recent WHO-led request for proposals to support health system reform research met with 217 valid responses from 49 countries [10]. Furthermore, the Pan American Health Organisation recently obtained reports on health reform initiatives purportedly under way in most of its member nations [11]. A bibliometric analysis of the indexed journal articles covering health policy change in developing countries from 1992 to 1996 reveals intense reform activity in China, Vietnam, South Africa, Israel, Brazil, Chile and Mexico, while important health policy changes are reported for at least 41 of the 115 developing countries [10].

However, the vast majority of health reform research in developing countries focuses on case studies without consensus on a minimum data-set to assure their comparability. The handful of comparative studies have been undertaken with a diversity of methods, whose potential for shared learning needs to be further analysed. Health reform has become a 'fuzzy concept' due to the vagaries of description as well as the complexity of the policy process itself [12].

This article discusses, first, the need for shared learning of health reform experiences and the role of comparative research in this effort. A framework for the understanding of health reforms is then presented to establish, from a variety of perspectives, the identity and the range of variation in the object of study. A minimum data-set is then proposed to facilitate the comparison and aggregation of case studies. More ambitious comparative methods are analysed that have the potential to contribute to international research design and project coordination. The application of these methods is exemplified with a real case to offer a perspective on how they can be combined to fulfil various requirements and suit diverse circumstances. Finally, the International Clearinghouse of Health System Reform Initiatives (ICHSRI) is described as an instrument to disseminate experiences in support of shared learning.

2. Towards shared learning through comparative research

Shared learning on the experiences with health reforms is becoming necessary and possible. It is necessary to sound warnings on policies that are ineffective in particular contexts as well as to disseminate successful experiences. The proper understanding of the health system's role and potential and the scope of inter-sectoral action can only emerge from a thorough understanding of international experiences that are being subjected to similar pressures from globalisation as well as responding through comparable policies. The possibility of shared learning arises also as a result of globalisation, through increased communications infrastructure and the willingness to learn from other countries.

Comparative research and policy analysis has been identified as a key method to empower shared learning. However, the development of comparative methodology has not kept pace with the current changes. WHO's recent report *Investing in Health Research and Development* [13] concluded that

“many countries are reforming their health systems today without the benefit of comparative data to tell them which policies work and which do not. Researchers world wide have neglected health policy. They have made few attempts to measure or compare the performance of different health systems or to develop common currencies for comparing the impact of different sectors on health” ([13] p.77).

International comparisons of health systems can play a fundamental role for the diffusion of innovations, help anticipate problems in policy development and, given the high costs of research, are often the only means to obtain guidance for national policies. Compendia of world health systems reveal trends in each of the major system components and, controlling for socio-economic conditions, facilitate the generalisation of experiences [14]. Comparative studies are often the only means to control the effects of confounding variables on key policy processes and results [15].

Comparative models are being proposed to explain the characteristics of and determinants behind health reforms in developing countries [3,9,16,17] or the world at large [18]. Other comparative studies derive lessons for developing countries from the experience of health reforms in Europe [4,19,20]. A growing body of literature seeks to identify trends in health system structure and processes in developing countries, yet in most cases there is no explicit reference to the comparative methodology used to generalise from case studies [21–39]. These studies as well as those on the European experience [40] focus on key variables that could be usefully brought together in a minimum data-set in support of comparative research on health reforms.

WHO has recommended that researchers and governments agree on the principles for building strong national knowledge bases and data-sets that will enable countries to learn from each other's experiences. International research must be carefully designed to avoid weakening local capacity or the shifting away from local priorities. It is important to give national and local policy-makers a clear role in, and sense of ownership over, the project to assure the best possible impact of results. There is a need to harmonise as much as it is practically possible the national and international research agendas [41].

Three main approaches have thus far been identified to process and compare international data: (a) international agencies or multi-centric international projects define variables and collect data through shared instruments; (b) different countries co-operate towards harmonising data and provide it to a single unit for compilation and comparison; (c) the analyst collects available data routinely and tries to adapt it to a common unit of comparison [5]. The last approach has been used by agencies

such as the OECD as a means to obtain timely data, although recognising a trade-off with data consistency, integrity and homogeneity.

More recently and with the advent of the Internet a trend towards interactive data-gathering has been evident. The European Union sponsored the European Network on Health Reform Initiatives, whereby country associates collaborate to integrate a data-base following a common set of topical guidelines and procedures [6]. An International Clearinghouse of Health System Reform Initiatives has also been implemented following similar methodology but focusing on developing country reform experiences (see below). In both cases the emphasis is in summarising non-published accounts and ‘grey literature’ and in offering health reform narratives on the Internet.

3. A framework for understanding health reforms

Comparative research on health reforms requires a minimum agreement on definitions concerning policy change and health system reform. At its most general, reform refers to the removal of evil or corrupt elements out of the body politic, or to the willed evolution of the social system towards ‘better’ stages of being [42]. Health system reforms have been characterised in terms of content, sequence, process, purpose and scope. A continuum can be identified in what is termed ‘reform’, ranging from piecemeal policy change to comprehensive restructuring.

3.1. Content

Health system reforms have been defined in terms of the content of specific policies, distinguishing between bureaucratic and market reforms [43]. Mills distinguishes the former into: (a) structural changes, such as the creation of new health authorities and decentralisation; (b) financing reforms, such as the introduction or modification of health insurance; (c) policy process improvements, such as the introduction of cost-efficiency methods for the selection of health service packages; and (d) improvements in health management such as conferring hospitals more autonomy for decision-making. Market reforms aim to introduce market pressures within public services, either through creating ‘internal markets’ within public institutions or involving the private sector. Competition can be limited to providers or may include financing agencies such as private insurance (Fig. 1).

Bureaucratic reforms have usually been implemented before market reforms. Among the former, structural change has preceded managerial reforms. Examples are the creation of the National Health Service in the United Kingdom or social security and ministry of health institutions in Latin America, followed decades after in the case of the UK by attempts at budgetary regulation in the 1970s and management interventions in the 1980s [44], and in the case of Latin America by decentralisation. Three generations of reform can be distinguished: the first corresponds to structural consolidation, the second to managerial changes and the third to the introduction of market pressures.

3.2. Policy process

Health reforms have been characterised as policy processes demonstrating sustained change beyond one-time efforts or sudden windfall. Reforms make a real difference in the way things work over time. Reforms include provision for their own maintenance and continuation as well as information and decision systems capable of influencing their course [3]. Reforms mean change at both the institutional and the policy levels, that is, how things are done and how they are decided [41]. Health reforms are supported by an adequate knowledge base which, according to Seedhouse [45], must: (a) delineate the area of activity which is to be reformed; (b) specify the originally desired overall purpose of the delineated activities; (c) establish why the existing set-up is not achieving the desired overall purpose(s) or is achieving them with known disadvantages; and (d) identify proven and viable strategies to deal with the above.

3.3. Purpose and scope

Reforms are comprehensive approaches to improve efficiency, equity and quality, based on a diagnosis of underlying societal, demographic political and economic issues. Reforms propose strategies aiming to restructure the system as a whole, preparing it to contend effectively with pre-existing and future needs. Comprehensive reforms propose changes at four, inter-related policy levels: systemic, programmatic, organisational, and instrumental [16]. Furthermore, comprehensive reforms would propose substantive changes beyond health care financing and provision to include health reform through the formulation of ‘healthy policies’ in the economic sector and through the identification, support and monitoring of health-promoting strategies in the social sector in general [17].

The systemic level deals with the structure and the functions of the system, by specifying the institutional arrangements for regulation, financing, and delivery of services; the programmatic level refers to the substantive content of the system, by specifying its priorities, for example through a universal package of health care interventions; the organisational level is concerned with the actual production of services, by focusing on issues of quality assurance and technical efficiency; and the

		Competition in	
		Provider	Financing
Participation of	Public agencies	Internal markets	Purchasing
	Private agencies	Private contracting	Private insurance

Adapted from Mills (43)

Fig. 1. Types of market reforms in the health. Adapted from Mills [43].

Policy level	Main objectives	Issues
Systemic	Equity, quality and efficiency	Basis for population eligibility Institutional arrangements <ul style="list-style-type: none"> • Public agencies involved in health care • Levels of government • Public-private mix • Population involvement • Resource generators • Other setcors with effects on health
Programmatic	Allocational efficiency	Priority setting Cost-effectiveness of interventions
Organizational	Technical efficiency and quality	Organizational design, incentives Organizational development, values Productivity, performance
Instrumental	Performance enhancement	Information systems Scientific research Technological Human resource development

Fig. 2. Health system reform. Policy levels, objectives and issues. From Frenk [16].

instrumental level generates the institutional intelligence for improving system performance through information, research, technological innovation, and human resource development (Fig. 2).

It can be argued that what Mills [43] identifies as specific types of reform according to content can be associated with policy change at different levels according to the purpose and scope of change. Structural reforms would certainly involve the systemic level, but could have implications for the other three levels. Managerial reforms would be mainly located at the organisational level, yet they could also imply the instrumental level insofar as human resource development is involved. Policy process reforms refer to decision-making tools which are generally developed at the instrumental level by specialised agencies producing technology and research, but are applied mainly at the systemic and programmatic levels.

The various perspectives on health reforms point towards the possibility of a gradual build up, from piecemeal policy change passing through what could be termed 'integral' health system reform. The formulation and implementation of programmatic, organisational or instrumental policies can lead to integral reform insofar as non-formulated but demonstrable consequences relate such changes to the systemic level. For example, a policy to extend health services to the poor through a package of basic services could eventually lead to institutionalise a significant redistribution of public expenditure or to the definition of new responsibilities from different levels of government. Systemic level change per se would also likely lead to integral reform given the determining nature of structural change. Thus a decentralisation policy would open opportunities for priority setting and for

new forms of participation in the provision of services, which would be formulated in a second stage and by different authorities.

Gradual build-up of health reform can be distinguished from comprehensive reform, defined as policy formulation and implementation that comprises the systemic, programmatic, organisational and instrumental policy levels through explicit strategies sustained in well-documented experiences and theories and implemented with the support of a specialised, authoritative agency with consensus-building capacity. This is an 'ideal type' that could be useful to assess and compare actual health reforms in terms of their purpose and scope.

Once health policy change and health system reforms have been understood in terms of content, process, purpose and scope a minimum data-set can be developed to support comparative research and analysis.

4. Minimum data-set for comparative health system reform analysis

A framework and minimum data-set should consider the most useful units in explaining a system's structure, function and transformation [46]. Independent studies guided by such a framework would permit an understanding of how specific experiences relate to each other and to regional patterns, historical trends, theoretical constructs and prototypes. Furthermore, such studies would enable the discovery of trends and regional patterns and processes and to generate hypotheses concerning possible transformations. Any two case studies coordinated by a given framework and minimum data-set are rendered comparable at any time through meta-analysis.

Health policy analysts have developed various frameworks and categories which have become common in international comparative analysis. However, many of these standards have dated while the realities described have grown more complex and inter-related. As Moran states, "a cacophony of ways of presenting the data has emerged, enriching the scope of social sciences but making it increasingly difficult to carry out comparative studies" ([46], p. xii). A comparative framework and minimum data-set can be suggested from the categories employed in case studies of current health reforms as well from works that construct typologies of health systems or that attempt to guide their systematic descriptions [47].

WHO's European Regional Office proposed a production template data-set to describe health systems in the region considering three parts: introduction and historical background, the health care system, and health reforms. More than two-thirds of the template focuses on the health system description, perhaps because it purports to obtain detailed data on the rapidly changing Eastern European systems for which no updated information exists. Furthermore, the template is designed to be used by appointed and specially trained consultants who are asked to produce exact tables, forms and graphs.

The data-set here suggested differs from WHO's in several respects. First of all, it is intended to guide the collection of minimum information, to be used and enriched by independent researchers and analysts and for varied purposes, includ-

ing the undertaking of country case studies. The framework therefore requests indicators at a higher level of aggregation and does not stipulate specific formats. Secondly, there is more emphasis in describing the health reform process rather than the current system. This is partly because updated health system descriptions for most developing countries are already available [14]. However, the main reason is that it is precisely the policy formulation, implementation and evaluation process which is at the heart of health reforms, yet this information is much less commonly made available.

The proposed minimum data-set proposes seven broad categories and over 20 sub-categories (Fig. 3).

4.1. The current health system

Following Hurst [48], two dimensions are suggested to describe the current health system: (a) actors and (b) interactions among actors. Actors are categorised into: (i) consumers/patients; (ii) first level providers; (iii) second level providers; (iv) insurers (third-party payers); and (v) government as regulator. The interactions are: (i) provision of services; (ii) referrals; (iii) payment for services; (iv) payment for insurance; (v) payment for insurance claims; and (vi) regulation. Not all of these actors and interactions may be present in all systems, while others may include additional actors and interactions. Another significant achievement of Hurst's work is the graphic representation of actors and interactions following a simple box diagram that facilitates comparison across countries. Fig. 4 is based on this model.

Hurst classifies health system models based on two dimensions and variants within each: whether service financing is voluntary or compulsory, and whether payment is out of pocket with or without reimbursement or if it is via third parties through contracts or through budgets and salaries. The resulting and actually existing models are: (1) voluntary, out-of-pocket; (2) voluntary insurance with reimbursement to patients; (3) compulsory insurance with reimbursement to patients; (4) voluntary insurance with contract between insurer and provider; (5) compulsory insurance with contract between insurer and provider; (6) voluntary insurance integrated to provider; (7) compulsory insurance integrated to provider.

Hurst's classification is useful because it focuses on two of the most important macro dimensions in health policy. However, in developing countries a mix of models is likely to occur as a diversity of policies exist for different population groups. In contrast, health systems in developed countries tend to fall predominantly under one model. To characterise the situation of model mix it is useful to further distinguish the extent to which health policies encourage segregation of social groups for the purpose of accessing health services, or whether horizontal integration is promoted [38]. If segregation is the rule then it is likely that each population segment will have access to a differentiated system according to Hurst's classification.

Health system coverage and equity can be offered in terms of public and private per capita expenditures and resource ratios for each population segment such as physicians and hospital beds. Effectiveness of the health system and general health

conditions can be identified through general, maternal and infant mortality rates, morbidity rates of preventable diseases as well as coverage of basic programmes such as immunisations. The use of disability-adjusted life years is a promissory standard.

A. CURRENT HEALTH SYSTEM	Actors	Consumers/patients, first level providers, second level providers, insurers (third party payers) and government as regulator.
	Interactions	Provision of services, referrals, payment for services, payment for insurance, payment for insurance claims and regulation.
	Population coverage	Population segmentation/integration. Expenditures, resource ratios, service coverage.
B. GENERAL BACKGROUND	Social indicators	Economic, education, housing, culture.
	Health status indicators	Morbidity, mortality rates, disability-adjusted life years.
	Health system evolution	Reform experiences from 1940 to present.
	Government	The state, economic policy, social policy.
C. RATIONALE OF REFORM	Problems on agenda	Health needs, problems and opportunities faced by the health sector and other sectors impacting health.
	Ideological and ethical issues	Social values, ethical principles, main purposes of government.
D. POLITICAL ACTORS AND PROCESSES	Political actors	Identity of actors and interests affected by health reform.
	Policy processes	Who influences whom, indicating decision making processes, levels of participation and outcomes.
E. SPECIFIC PROPOSALS	Systemic level	Institutional arrangements for regulation, financing and delivery of services.
	Programmatic level	Health care priorities such as essential packages, drug lists.
	Organisational level	Production and management of services, quality assurance and technical efficiency.
	Instrumental level	Information systems, research, technological innovation, human resource development, pharmaceutical production.
F. ACHIEVEMENTS AND LIMITATIONS	Achievements	Programmed results of reform, what has been achieved and when.
	Limitations	What policies have failed, why reform may have been delayed, barriers to implementation.
G. IMPACT	Positive effects	Beneficial outcomes (intended or unintended) in health sector and to society at large.
	Negative effects	Harmful outcomes (intended or unintended) in health sector and to society at large.

Fig. 3. Minimum data-set for description of health narratives.

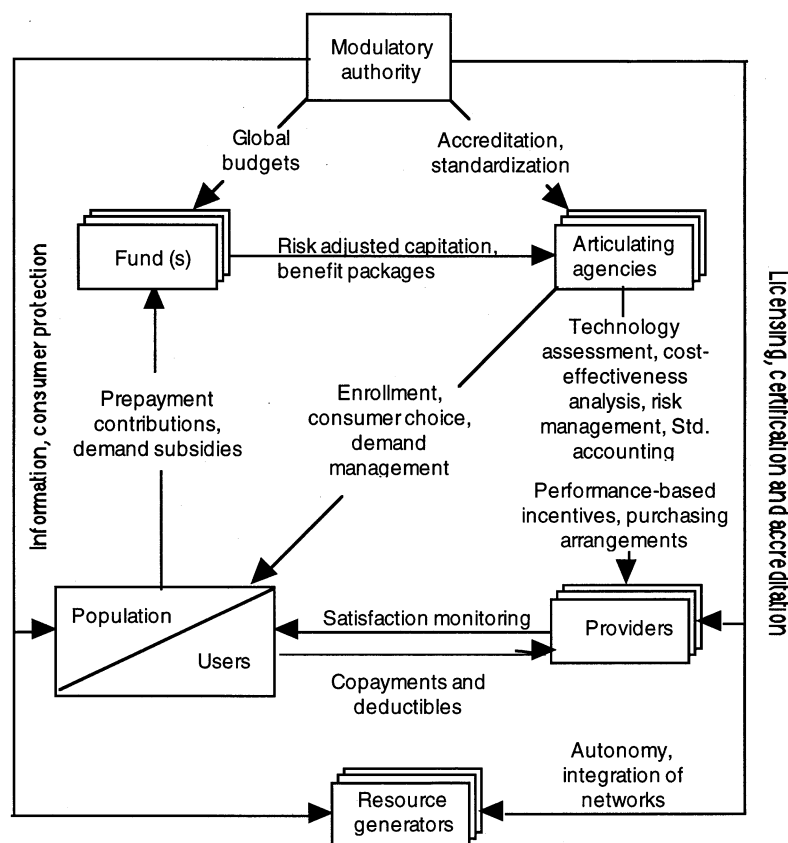


Fig. 4. The Londoño–Frenk [40] ideal type of health systems for Latin America.

4.2. Health system background and context

The health system's evolution is commonly traced to the 1940s, when many developed and developing countries responded to the challenges of the post-war era with first-generation reforms [44]. Second-generation reforms would also be highlighted here. The context of the health system corresponds to current demographic and social conditions as well as the trends in economic and social policy and democratisation [49]. Structural adjustment programmes are here particularly relevant to understand trends in health reform [50–52]. The political context in which the health system operates would be identified by characterising each country's political system and the political relevance of health [53–55].

4.3. Reform rationale

This set of variables defines why reforms are carried out. Two broad issues can be identified: on the one hand, ideological and ethical issues and, on the other,

problems that have been set on the agenda demanding solutions. Ideological issues can be of the nature of health as a social right, individual responsibility and equal opportunities to all. Ethical principles can be solidarity, pluralism and citizenship [56–59]. The problems demanding solution can be economic such as cost containment and financial crisis, together with efficiency, quality and equity [60,61]; political problems dealing with electoral demands or other pressures; epidemiological and demographic changes, such as the ageing of the population or the burden of preventable diseases [62]; and problems related to the structure and organisation of the health system [63], including past or even current reform efforts [58].

4.4. Specific proposals

This set of variables identifies the specific proposals of reform according to the content, purpose and scope of each policy change as discussed above. Descriptions may be arranged in the four policy levels suggested: systemic, organisational, programmatic and instrumental. Specific proposals would be characterised by the strategies for each level and how levels are interrelated at the policy formulation and implementation stages and through time. Initiatives can be classified along the continuum between piecemeal health policy changes going through partial health system reforms to comprehensive health reform.

4.5. Political actors and processes

A description of political processes would account for the interplay between collective actors with diverse interests and motivations and how they affect agenda setting, policy formulation, implementation and formulation of public policy [19,64–66]. Two sets of variables are relevant: political actors [67,68] and policy process [69]. These sets of variables identify the main actors whose agendas are affected by health reform or who target reform as an important aspect of their political future. Therein follows the description of the policy process: who influences whom during formulation, implementation and evaluation, what is the extent of participation of the target groups through democratic means versus authoritarian implementation and how reform efforts actually develop as a result of this interplay [42].

4.6. Achievements and limitations

To thoroughly assess health system reforms it is necessary to follow the different stages of the implementation process [70–72]. These variables identify the timing and the outcomes of reform: what has been achieved and when. Furthermore, considering that reform is not an all-or-nothing process, it also identifies why

reform may have been delayed, what objectives have been transformed and what policies failed [73–75]. Governmental evaluations are useful sources to assess achievements and limitations, although external evidence is complementary.

4.7. Impact

This factor accounts for the unintended positive or negative effects of health system reform, that is, effects beyond what was formulated in the policy framework. Impact is generally assessed on the basis of research pointing to desirable and undesirable consequences of reform not only on health, but on other dimensions of society such as the economy, politics, and education [33,76,77]. It also assesses unexpected effects of reform, such as the possible impact of new physician payment schemes based on productivity upon the induction of unnecessary interventions or the impact of hospital autonomy on investment in unnecessary high technology as a means of obtaining additional revenue.

5. Approaches to compare health reforms

The employment of a descriptive framework to undertake case studies with a minimum data-set is in itself a comparative methodology requiring the least coordination across individual projects. However, four methods can be identified for comparative research beyond the usage of a minimum data-set: the historical approach, the particularistic comparison of a reduced set of experiences, the contrasting of initiatives against an ideal type or construct and the analysis of the benefits and limitations of exemplary health systems.

5.1. Historical approach

This method has been employed to analyse the health system's long-term development, identifying and contrasting successive reforms and critical junctures. One example is the analysis of the Chinese rural health financing after the collapse of the Co-operative Medical System (CMS) [78]. The strengths and weaknesses of the CMS are analysed under the collective economy of its heyday in order to examine policy options to reorganise and revamp this financing system under a market-oriented economic context. The historical method is used here to assess a given policy under different contexts.

A different use of this method is exemplified by the analysis of process and context of health reforms in four periods in Chilean history, going from a national, centralised health service offering similar care to most of the population in the 1960s, to a decentralised system relying on the private sector and with increasing differentiation in access and quality of services in the 1980s [53]. The question is how these policies are related to their epidemiological, political and economic contexts and to interest group and consensus-building processes. The historical method is used to assess how different policies are related to changing social and economic circumstances.

The advantages of the historical method are that factors such as culture are held constant as policies or contexts change. However, historical research faces loss of data and variations in the criteria for data-gathering. These studies are complementary to other comparative approaches as they contribute to understand current reform initiatives and their similarities and differences with those of other countries.

5.2. *Particularistic comparisons*

This method compares health reform initiatives across a reduced set of countries. Reich [55] studies the political dynamics of health sector reform in poor countries by contrasting pharmaceutical policy reforms in Sri Lanka, Bangladesh, and the Philippines. The study reveals common conditions that make reforms politically feasible and identifies the most important political factors behind them. Another example of this method is the outcome assessment of similar reform in countries with like socio-economic conditions (Botswana, Tanzania, Mozambique and Zambia) but with differing policy context and approaches. The study tests the advantages of comprehensive over selective approaches to reform as well as the impact of different preconditions of the system [79].

The particularistic comparative method has the advantage that detailed attention can be given to country policies using local categories. Case studies are of value in themselves even before they are compared. Policy-makers are more likely to accept the findings of studies undertaken in countries familiar to them. However, this method limits the number and range of countries that can be studied, while comparisons may be obstructed if cases are selected without an adequate framework.

5.3. *Ideal types*

This comparative approach contrasts reform initiatives against a health system construct composed of actors with clearly defined characteristics and interactions. Comparisons establish the degree to which reforms are intended to approach or have actually achieved the ideal type, the promoting and obstructing factors in the way and the differences between actual and expected performance. An example of this approach is the comparison of countries in Latin America against the ideal type of 'structured pluralism' [39]. This construct poses the increasing separation of financing and provider agencies and the establishment of articulating agencies to manage risks and access to defined sets of benefits, among other functions. The construct also poses the separation, specialisation and strengthening of the regulatory and support functions of the State (Fig. 4). Several development paths are identified for each of four types of health systems on the basis of the institutional changes that would have to be implemented to approximate the model.

Another example of the ideal type method has been proposed by abstracting institutional arrangements and processes from existing health systems in industrialised countries to obtain "a model unconstrained by political, social, cultural or other institutional arrangements of any existing nation" [80]. The model in question

maximises—in a given theory—efficiency, responsiveness, accountability and solidarity through an appropriate public and private mix of financing, delivery and regulation. The study contrasts reforms in each country, establishing their advantages and limitations in the process of transforming current health systems towards the desired goal.

The use of ideal type method seems promising given its capacity to compare multiple reform initiatives. The increase in the number of cases as well as the possibility of specifying how each of them stands in relation to the ideal type strengthens the possibility of suggesting generalisations with respect to context, process and actor conditions that may explain the success or limitations of reforms. However, this method has as drawbacks the difficulty in assimilating existing actors and institutions to the abstract concepts that are used as referents. Charges of oversimplification could be levied, leading to the need to reduce the range of countries considered for comparison. The employment of abstractions may also alienate decision-makers who could not relate their concrete reality to elaborated models. Furthermore, most ideal types are normative constructs, either because they are inducted from actual norms, or because they are advanced to represent better state of being.

5.4. Exemplars

Health reform initiatives have been modelled on the basis of comparisons with model health systems that are considered worth imitating (or avoiding in some cases). Such has been the role played by the Canadian system in the debate concerning health reform in the United States [81]. The lower costs of the Canadian system, private–public mix, equity, decentralisation and universal public insurance have been praised as constituting an ideal health system. Detractors emphasise the contrasting values orienting financing and delivery in the two countries: peace, order and good government in Canada, versus the individualistic creed of life, liberty and the pursuit of happiness in the United States.

To compare a given reform initiative with an exemplary system several questions have to be asked in a comparative perspective: is the model health system truly exemplary and worth importing? Can it be adapted? And is it politically feasible? [81]. The claims for the model system must be established in relation to the problem system. The question of adaptation is approached by establishing which are the truly essential institutions of the exemplary system that render it superior. Each model institution should then be analysed to identify its counterpart or the new arrangement that could render the same or approximate benefits within the problem system. A study of the history of exemplary institutions can suggest implementation stages or institutional alternatives. Political feasibility is answered by considering the social actors that favour and oppose the policies in both the exemplary and the problem countries.

The advantages of using exemplars for comparative purposes are that real systems with demonstrable benefits can be more convincing to policy makers. In fact, model health systems have been widely used to design reforms. The main

disadvantage of exemplars is that decision-makers prefer to justify changes on the basis of native experiences. However, if the method is employed rigorously it can be a valuable development tool.

6. Undertaking comparative research

Researchers may employ a combination of comparative methods to solve theoretical questions concerning health systems, to assess their development along a given reform path or to help decide on the merits or limitations of specific choices. Which combination of methods are used will depend on questions that have to do with the kind of research problem at hand, the resources and research capabilities available, the extent to which each country case study must comply with national reporting requirements and how the international research team has been or can be constituted.

The development of a comparative research project exemplifies the choice and combination of methods under real circumstances. Researchers from Argentina, Brazil, Chile, Colombia, Mexico, Nicaragua and Peru decided to network in order to pursue opportunities to undertake research on policies concerning human resources in health. Their networking pursued as its priority the strengthening of national research through a strategy of aggregating knowledge and experiences. Therefore, as many countries as possible were included in a regional network, closed only by topical interest and research capacity. However, hard decisions had to be taken considering actual countries involved once a particular project was made possible through a specific international research initiative. In this case, the Argentinean and Chilean cases had to be excluded mainly due to financial limitations, but also considering that data could already be available for these countries and that in one country the network participant lacked research skills.

The specific topics tackled by the network in its transit towards a research consortium was how clinical autonomy and forms of physician payment are being transformed by ongoing health reforms, and how regulatory processes intervene to adjust physician performance to the new health system rationality and assure adequate resource utilisation. The project proposed to describe current regulatory process situations to identify regional patterns and propose alternative regulatory policies.

To finalise the research design, outlines of health system structure and reform experiences were produced for each country. Thereafter, three ideal type of physician employment (liberal, bureaucratic and managed care) were presented to establish a comparative framework of trends across the five countries under study. The possible consequences of each country's health reform on clinical autonomy and modes of payment were then assessed by contrasting the intended reform with the ideal types. Managed care was considered to describe most adequately the direction of changes being produced by reforms across the board.

Predictions were then made of the impact of reforms on clinical autonomy and payment and the role of regulation. On this basis researchers identified the units of

analysis on which they would focus, in this case regulatory processes and mechanisms (Fig. 5). Thereafter the units of observation were identified, mainly the actors and documentation that would be observed. The units of analysis and observation were cross tabulated to identify the countries that would be included for each sub-project and the instruments of observation that would be deployed.

Interest representation and payment modalities were deemed important enough to be studied in the five countries. However, the other four processes would only be studied in some countries. Reduction in their number was deemed necessary and appropriate for several reasons. First, and perhaps most importantly, only countries where the regulatory mechanisms would likely be affected along contrasting lines or with significant magnitude were included for study as a matter of scientific parsimony. The second criterion for inclusion was the degree of interest on the part of specific country researchers to undertake a case study of a specific regulatory mechanism as a matter of national priority. A third criterion for inclusion of specific countries was the need to achieve a balance between required diversity, on the one hand, and financial resources available, on the other. The final criterion for

Analysis Observation	Regulation of work process	Interest representa- tion-	Standardisa- tion of medical work	Payment modalities	Legisla- tion	Citizen empower- ment
State regulators						Peru Brazil Nicaragua
Health institutions	Brazil Mexico		Brazil Mexico	Colombia Brazil Peru Mexico Nicaragua		Peru Nicaragua
Financing agencies						Nicaragua Peru
Trade unions			Brazil Mexico			Nicaragua Peru
Customers		Colombia Brazil Peru Mexico Nicaragua	Brazil Mexico			
Professions	Brazil Mexico	Colombia Brazil Peru Mexico Nicaragua	Brazil Mexico	Colombia Brazil Peru Mexico Nicaragua	Brazil Colombia	

Fig. 5. Units of analysis and observation by country in a comparative study on professional regulation of physicians in Latin America. Source: G. Nigenda and M.A. Machado (Coordinators), Impact of health system reform on the professional regulation of physicians in Latin America. A comparative study. Research protocol submitted to ICHSRI. Mexico, Fundación Mexicana para la Salud, 1996.

inclusion was the need to assign research responsibilities according to the qualifications of team participants.

Each regulatory process or mechanism was identified as a specific sub-project under the responsibility of a researcher, who was chosen in terms of his or her expertise. He or she would be in charge of developing sub-project observation instruments, co-ordinating and supervising their application by country researchers and, finally, of interpreting and writing a report. This required a matrix type of organisation, where individual researchers participated in one or more sub-projects, while they also could be coordinators of one of them. This is a complex design that requires clear definition of tasks and timelines as well as fluid communication channels, preferably through the Internet. A general coordinator was thus appointed, free of sub-project responsibilities and committed to oversee all tasks and to take responsibility for final project write-up.

The end result of research design was a mix of comparative methods. The team agreed that the ideal type approach would guide inferences on the regulatory mechanisms and processes observed across all countries. Particularistic comparisons were favoured for sub-projects where only two or three countries were involved. The historical method would be employed to illuminate specific regulatory mechanisms and processes in specific countries, while the use of the exemplary method was left as an option to contrast specific findings with published reports on the regulatory processes of model countries not included in the comparative set.

7. The International Clearinghouse of Health System Reform Initiatives

Shared learning of health reform experiences through comparative research and analysis has to be supported through specific, international and widely accessible instruments that bring together, analyse, classify and disseminate research results, reform news and updates. This challenge has been taken up by the International Clearinghouse of Health System Reform Initiatives (ICHSRI), a consortium between the World Health Organisation and the Joint Programme for Research on Health Systems and Policies of the Mexican Health Foundation and the National Institute of Public Health of Mexico.

ICHSRI links with networks of health policy analysts and researchers in Africa, Asia and Latin America and the Caribbean. Most are already involved in health systems and policy research, while ICHSRI promotes comparative work through competitive funding. Regional and topical workshops are celebrated where participants define a common set of issues which merit cross-national comparison. Ongoing research projects or new protocols are analysed to strengthen their methods and objectives on the basis of international experiences and opportunities. As the analytical work advances, preliminary results and reviews of relevant literature are published in an information base on the Internet and summarised in a newsletter. A cadre of over 20 Country Correspondents are also contributing to develop an information base with health reform narratives following a standardised format.

The ICHSRI infobase on the Internet (<http://www.insp.mx/ichsri>) gives access to three kinds of resources: health reform information and analysis, interactive resources and development tools. The first component includes in turn three databases: health reform narratives, health policy document abstracts and references to journal articles dealing with health policy, particularly health reform. Narratives and document abstracts are written by Country Correspondents and ICHSRI researchers. Journal references are selected from on-line services on the basis of relevance criteria and are periodically updated. A bibliometric analysis is performed to highlight information and analysis trends and gaps.

Interactive resources consist of electronic conferences or links to off-site facilities in support of specific research projects and sub-regional networks as well as to implement discussion and analysis organised by ICHSRI. Health system and policy development tools are also provided, mainly to support Country Correspondents and researchers within the ICHSRI programme, but of use for a wider audience. They consist of a framework for the analysis of health systems and the understanding and comparison of the process and impact of health reforms. A thesaurus, glossary and guidelines for the writing and classification of health reforms and document abstracts is also being developed and updated on-line. Letters of intent and research protocols received and developed by ICHSRI are posted to help indicate the demand for comparative research funding in health policy and health reform in the developing world and to contribute to ascertain research patterns and gaps.

8. Conclusions

The process of globalisation is imposing new and often severe restrictions to health system development and reform in most countries. Shared learning on a global scale is now required not only to counter negative trends but, more importantly, to observe how countries cope with similar problems and learn from their success or failure. Comparative research and analysis can help contribute to overcome the limitations of case studies that face enormous complexity, yet are often undertaken with limited and haphazard methods.

Health reforms can be studied as a coherent set of policies and processes with varying degrees of scope and impact on the health system. The concepts of health reform can be useful to design appropriate policy strategies that successfully surmounts problems in the short and long run. They can also be used to analyse the extent of change and its implications beyond the institutional spheres that are directly tackled. Health reforms can therefore be compared in a continuum that goes from isolated policy change to comprehensive health reform.

Comparative methods need to be developed to contend with the complexity of health systems and policies, just as they are being developed for other complex fields such as the environment. It is precisely in areas where many variables interact and where their isolation is problematic that comparative research can be of value for policy makers, while it can also save research resources by extending the validity

of data across comparable countries. The dissemination of minimum data-sets for the description of health reforms can thus be a cost-effective tool to harmonise independent research protocols and to identify questions amenable for coordinated research among multi-national teams.

The few existing comparative studies on health reform in developing countries help identify and demonstrate the value of various methods. The historical method is particularly suited to countries that have undergone recent and drastic changes in their health systems affording important lessons for policy design. However, the formulation and implementation of health reform is in itself a historical process with complex interactions and feed-backs. The comparative study of particular country experiences is perhaps the most amenable method given its characteristics. It can help focus on the design and development of specific health reform tools such as essential service packages or the application of price subsidies. The use of ideal types helps identify trends and common characteristics across several countries and is perhaps most suited to assess macro-level issues with the health system. The employment of exemplars or comparisons against model countries is a useful tool given its capacity to demonstrate tangible benefits, but care must be taken to undertake adequate assessments of the convenience and possibility of adapting specific policies across nations.

Comparative research and analysis in health policy as a tool for shared learning can be significantly enhanced by efforts to collect, analyse and disseminate information, as demonstrated by the International Clearinghouse of Health System Reform Initiatives and the European Network and Database on Health System Reform. These initiatives can help support the design and funding of research projects that harmonise national research priorities with the 'public good' afforded by cross-national knowledge and experience.

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