Health Care Reform At the Frontier of Research and Policy Decisions

Dr. Sanguan Nitayarumphong

editor



Office of Health Care Reform Ministry of Public Health Tivanont Rd; Nontaburi Thailand, 11000

Reforming the Health Care Sector: Science and Politics, Research and Muddling Through

Prof. W. Van Lerberghe Dr. G. Kegels

"Man is a conjecture making animal: he does not stop inventing and trying hypotheses and jumping to bold "conclusions" about their worth. The scientific attitude is not to forbid such jumps but to keep them under control" 18

Is health care delivery evidence-based?

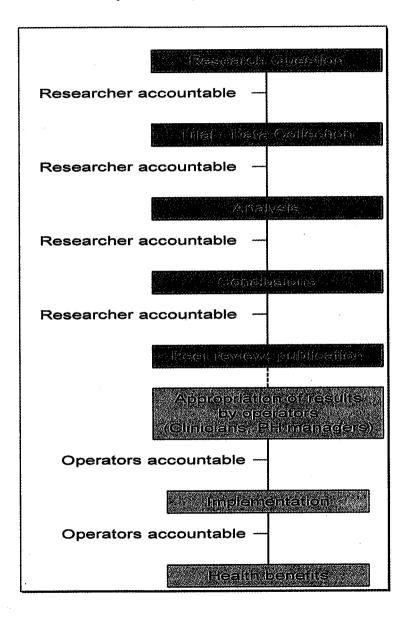
In the late Seventies, Prof. H. Van Balen of the Antwerp Institute of Tropical Medicine did a piece of very thorough and sound research on detection of tuberculosis among schoolchildren in Belgium²¹. The basic conclusion was that screening on the basis of tuberculin tests, in the Belgian epidemiological situation, was something totally inefficient, and even counterproductive. This research was published, and the authorities were informed. Was the screening programme abandoned? By no means, at least not until some years later a child happened to have its leg amputated a few days after a tuberculin test, and the media made an association between the two events. The tuberculin screening programme was then abolished in the Flemish part of the country - a correct decision, but for the wrong reason -.

Policy makers treat researchers with great respect, and then go on not taking them very seriously. They are right, of course. Because it would be an illusion to think that it is on the basis of research results that policy is conceived.

The research community would like it to be so. It imagines some kind of ideal rational world in which a researcher has the inspiration to ask a relevant research question, goes on to collect the data, looks at these data in a neutral, objective and blank way, draws some intelligent and original conclusion that is validated by peer review, and then gets frustrated because the policy people do not implement what he or she has published. Researchers in fact imagine a linear and mechanical relation between research and utilisation of its results, in which their accountability stops with publication (Figure 1).

To be fair, things sometimes happen in this way, and new knowledge and technologies are appropriated by clinical practice and public health much faster nowadays than was the case say twenty years ago. One beautiful example is Vitamin A: observation of differences in mortality among children followed up for ophtalmological problems led to

Figure 1 How research-generated evidence is appropriated by the health care delivery community: the naive linear view



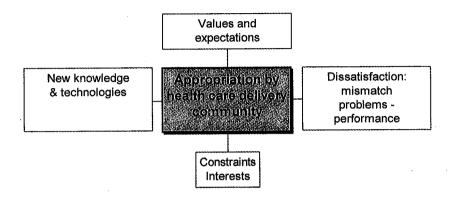
further investigation and eventually to policy recommendations for supplementation that were based on (admittedly still incomplete) evidence²⁰.

Most often, however, even medical practice is not rooted in such factual evidence. Brian Little has analysed the relations between basic research and practice in the field of gynaecology and obstetrics in a detailed way, a frustrating experience for a believer in the importance of sound academic research: he had to face the fact that important advances are not necessarily scientifically examined or presented or even founded in basic science. "My sin of pride was that I believed that all research should be peer reviewed, that the support of excellence and biomedical science was recognized by all as essential, and that true research was more related to basic understanding than to its application, medical politics or clinical practice. In this fantasy the support of science was obligate and a scientist was above accounting for his/her research to the à people or even to supporting agencies"19.

The practice of public health planning and management may have a stronger tradition of valuing hard evidence. Nevertheless, the real world of priority setting, programme development, resource allocation etc., is not one of rational evidence-based decisions. The evidence may not be there, or when it is available, not taken into consideration. This is often blatant when decisions are made that have to do with the allocation of scarce resources such as, for example the choice of medical technology¹⁵. But it also affects the programmatic choices. In the field of maternal health, for example, prenatal care is a widely accepted and implemented strategy, but based on little or no evidence that it actually brings a health benefit²⁴. On the other hand, hospital management of complicated deliveries is based on well established technologies, but in spite of a growing realisation of the importance of the unmet need, this is not translated into action in many countries in the world23; or available information on cancer epidemiology and carcinogenesis fails to be taken into account in cancer related health policies in the US9.

In short, whether a piece of new knowledge or a new technology actually gets used, is appropriated by the service delivery community, depends on a complex set of influences summarised in Figure 2. Rational inclusion of such improvements would require them to be

Figure 2 How research-generated evidence is appropriated by the health care delivery community: a complex set of influences



affordable but also congruent with expectations and demand. Value judgements, implicit or explicit (on the balance between care and cure and between maximisation and optimisation, on efficiency and utility) play an essential role. In practice, however, new technologies are easily introduced by interest groups, even if they do not satisfy these conditions, and appropriation of new knowledge and technologies is notoriously difficult when it goes against the interests of the medical class-especially when it would imply scaling down of lucrative activities.

This, however, does not detract from the fact that medicine is gradually transforming from experience-based practice into evidencebased medicine²². The dominance of today's culture of inquiry and an increasing concern with efficiency also push decisions concerning priorities and programmes further in a similar direction of evidencebased public health. The development of the DALYs, with all their shortcomings, will no doubt accelerate this evolution.. The advantage is that certain decision criteria become more explicit and transparent. But these criteria are only part of what counts, and it would be naïve to think that by using these only, one would have a rational decision making instrument that does the job by itself.

Research and the reform agenda

Health Care Reform-a highly fashionable catchword - is a different animal than management and planning of public health programmes. It has to do with an entire overhaul of the health care system rather than with its fine-tuning, and thus with "broad options": the balance between care, cure and autonomy, the kind of health care one aims for, the question of equity and universal coverage, the public-private debate and the role of the state, etc. Do relations between research generated evidence/knowledge and the process of choosing these broad options follow the same paradigms as for evidence-based public health planning and management?

Here also the research community would like to see its work as a major input in decision making. The ideal situation imagined is one of a dialogue between "decision makers" and "researchers", which can be represented as is done by Sauerborn and Diesfeld on the basis of their experience in Burkina Faso²⁵(Figure 3).

One first observation that should be made on this representation is the time-span: the whole process of interaction in fact covers 14 years. The second is that these researchers apparently were in the enviable position of looking for answers to specific questions of the policy makers. But even to the extent that this interaction is a representation of reality, it is certainly the exception rather than the rule, and does not mention other major factors in policy making that were certainly present. These are schematised in Figure 4.

Note that one cannot possibly say that there is "a decision to proceed with health care sector reform". The recognition that such a reform is needed gradually emerges and coalesces among various actors with different and often contradictory agendas, as a more or less diffuse process. Proceeding with Health Care Reform is in fact the work of coalitions of often strange bedfellows, and it is by no means always led by the same groups. In the USA, for example, the professionals take the lead, probably because of the social salience of medical care and the physician's economic power4. In many other countries where physicians are more proletarised and there is a hierarchical administrative culture, the state, or major NGOs take the lead, or Health Care Reform is put on the agenda by economic groups or international

Figure 3 The relations between health policy making and research in Burkina Faso²⁵.

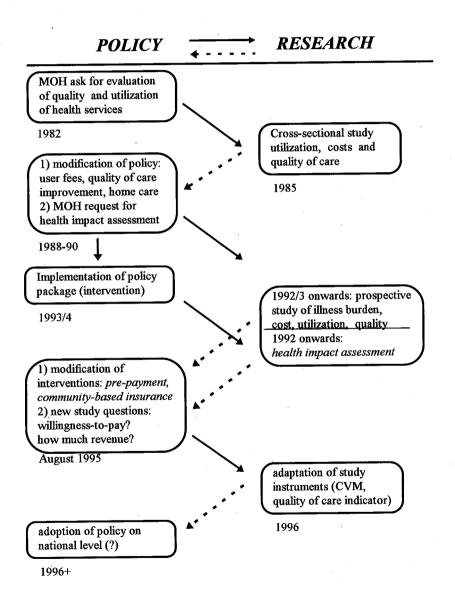
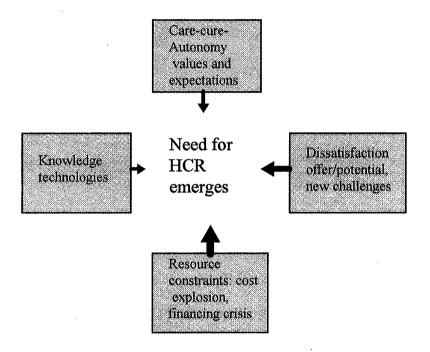


Figure 4 Determinants of a growing concern with Health Care Sector Reform



funding agencies.

If one would rank the importance of the various factors that allow this need to emerge, the problem of resource constraints (the financing crisis of health care, especially with the new challenges that must be faced) would probably come first for a number of key actors-not only in developing countries⁷. But just as important is the change in values in the society, and particularly the tension between the relative values attached to cure, care, and autonomy, which determines what kind of health care system a society strives for. The need for a Health Care Reform will not be felt if there is not a growing pressure resulting from dissatisfaction with what the existing system has to offer: health care reform has a definite political dimension⁸.

Stating the obvious in this way is not trivial. The implication is that health care reform has to offer answers in each of these dimensions, and not only in a single one, such as efficiency or cost-containment.

Evidence in health care reform: between common sense and formal research

The need for Health Care Reform is something that emerges in a diffuse way, on the basis of many factors and influences, and certainly not exclusively on research generated evidence of a need for change. While the need for reform is recognised, tentative policy decisions are made towards new broad re-orientations that then have to be implemented. Do these always depend on evidence generated by formal academic research? By no means. Ask the people involved in the health sector reform in Zambia to what extent they underpin their reform with research, and you will get a candid answer, that "no we really don't do any research, we just try to do sensible things". Muddling through is, if not the norm, the way the real world works.

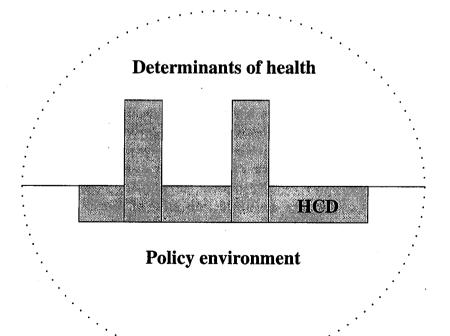
Is that bad? Not necessarily; but if evidence-based medical care has enriched experience-based and intuitive medical practice, it would appear better to work with evidence-based policy options than with mere common sense. The question is really to define what "evidencebased" is about.

If one understands "evidence" as the kind of proof for effect that is generated by research that follows the experimental or clinical trial paradigm, then we would be in a rather embarrassing position. A lot of useful evidence comes from experience and observation, and from the kind of expert common sense that is gradually built up among practitioners of the public health field. Recognising this is difficult for the medical professionals who make up a large part of the decision makers. To accept the value of expertise-as distinct from formal research-does not mean that critical and enquiring attitudes are abandoned. It does not downgrade the value of formal academic research, but merely recognises that relying on expertise corresponds to practice, that it works within certain limits, and that at least it avoids wasting precious resources in "proving" what is self-evident. But there are limits to what can be expected from expertise, as there are limits to what can be expected from formal research.

What kind of research can help make health care reform evidencebased?

The cop-out answer to this question is "Health Systems Research". But this term is so vague and has been abused so much over the last vears that it is not very helpful in narrowing down the field. The difficulty is that almost any type of health related research can be fitted in the many loose descriptions that abound. A subdivision of health related research as a function of the type of problems investigated may help to narrow down the field to what is important for underpinning attempts at reforming the health care sector. This categorisation is based on what one wants to generate knowledge or technologies about: disease systems, determinants of (ill)health, health care delivery systems, or the policy environment (Figure 5).

Figure 5 A categorisation of health research fields, according to four domains in which there is a need for further knowledge and technologies.



Disease systems. The main issue here is the natural history of the disease. This is the kind of knowledge that we should have in order to decide what best to do about a given health problem. Approaching health problems one by one is what we would call vertical research, which is the basis for disease control, through an understanding of the natural history of the disease with its epidemiological, biological and technological dimensions. It is an area that we are only indirectly concerned with when we are talking about Health Care Reform. The typical client for this kind of knowledge is the programme manager and the clinician.

Determinants of (ill) health. Research questions aim at understanding the factors in the social and physical environment and the behavioural elements that have an influence on suffering and wellbeing, or co-determine them. Relevance of research in this field would depend on its explanatory power for understanding disease systems in general and for diminishing risks. Research in this field has resulted in better understanding of underlying causes of ill health e.g. in the areas of the economy⁵ or of politics¹⁰. Others have had a role of advocacy: giving economical arguments for stating that investing in health is worthwhile³, that a return can be expected from investment in improving lifestyle variables, education, nutrition, etc.² 11 12. Research results in this domain have been used to underpin policy measures, e.g. in the area of occupational health legislation, but this was usually the case when these results coincided with political pressure, as e.g. in Canada¹³ or the US¹⁴. Others have proven frustratingly ineffective, such as a study of the health situation in Turkey where the author shows that cross-sectional mortality data could provide ad-hoc information on the most vulnerable groups, but states with regret that "there is little hope of these data being used for intervention unless democratic changes take place"17. Research in this domain is relevant for Health Sector Reform in the broad political sense, but usually has little direct bearing on Health Care Reform, a more limited concept.

Health care delivery systems. Research questions here aim at optimising the functioning of health service structures and health care delivery in general*. Optimisation here means finding a balance

between expectations, needs and efficiency. Optimisation should also take into account the ethical obligation of a health care delivery system: contributing to the liberation of people from their dependency on illness-producing sources of suffering, but also avoiding to make them dependent from their 'liberators' (in other words, increasing people's autonomy, participation and conscious involvement). Researchers in this domain are sometimes called "horizontalists", to distinguish them from the "verticalists" who concentrate on disease systems. Horizontalists rely much less than verticalists on experimental paradigms. They use comparison with a value determined model (implicit or explicit) as the tool to transform observation of and involvement in concrete situations into more generalisable evidence.

Policy environment. The goal here is to generate knowledge on what constrains and what enables the development of the health care systems.. Examples are research on financing, on political constraints of decision making, on decentralisation, on public private mix, etc., but all focusing on better health care delivery. Paradoxically research in this domain is both crucial to Health Care Reform (without the proper policy conditions health care systems cannot be changed and developed), and subordinate to what is aimed for in terms of health care delivery. In academic circles these fields are presently dominated by economists¹⁶; this is no doubt related to the fact that the primum movens of Health Care Reform is the resource constraint. This, however, introduces a considerable bias and, most important, an unlinking of policy research from its ultimate objective: improvement of health care.

It is quite clear to us that if we want to improve health as much as possible, all of the above categories of knowledge, insight and technology are necessary. The ways to obtain these are varied and the investigational disciplines are many, from biomedical research over epidemiology to social and political analyses and the ever present common sense. But when we think of developing knowledge and technologies in support of health care reform, we are primarily thinking of (horizontal) health care delivery systems research and health care policy supporting research. In order to make things happen, a wide variety of technologies need to be developed or need to be available,

including the organisational technology that is necessary to reach the best possible balance (or compromise) between potentially conflicting aims like effectiveness, efficiency, a caring attitude and promotion of autonomy. The good health care policy maker - or even the good health care manager-needs to be able to make the synthesis of available evidence, knowledge and insights in order to fit them into his overall goal of increasing health in the best possible and most acceptable way. This is feasible only if a broad, generalist type of attitude is adopted.

What research topics are the priority?

The WHO forum for Health Sector Reform, in an ongoing effort very much inspired by the World Bank, approaches this problem essentially from a point of view of efficiency and effectiveness. Policy oriented research should aim at closing gaps between what can technically be achieved and what is being achieved, with a view to control rising expenditures.

For choosing priority topics for policy research it has commissioned a series of expert reviews and submitted a questionnaire to health policy makers, system managers, bilateral and international agencies, and researchers. In a draft version they have come up with a set of ranked priorities (Table 1). Related to the research fields categorised above, most would be called 'Policy supporting research', but two would fit better in the category 'Determinants of Health', and be less relevant to Health Care Reform (although they clearly are relevant to Health Sector Reform). Two fit in the category of horizontal research. More important is that most, in our view, cannot be done in an appropriate fashion without explicitly referring to an explicit model of what kind of health care delivery a society wants.

This list of priorities is obviously only a rough indication. As the forum recognises, topics such as human resources development, employment structures and civil service reform, provider payment mechanisms, content mix and packaging of services are missing. What also is missing is the development of the organisational technology required to make health care delivery systems function, and the explicitation of the value systems and objectives of the health care systems different societies strive for-including the relationship and

Table 1 Priority areas for research in support of Health Sector Reform, as identified by the WHO forum for Health Sector Reform.

Rank Order	Priority area for future policy research	Fits in with category	Need for explicit reference to a health care delivery model
1	Setting priorities for the allocation of public resources	Policy Research	+
2	Health Services Financing	Policy Research	+
3	Translating policies into plans and action	Unclear	+
4	Health needs assessment and monitoring systems	Determinants of Health	
5	Decentralisation	Policy Research	+
6	Mix of public and private health service provision and financing	Policy Research	+
7	Standards and quality of care	Horizontal Research	+
8	Involvement with community organisations	Horizontal Research	+
9	Setting the policy agenda	Determinants of Health	
10	Information management	Policy Research	+

balance between care, cure and autonomy. In part this may be due to the international perspective from which the forum works, to its focus on efficiency and effectiveness, and to its view on 'how' research is envisaged.

How is such research to be conducted? The questionable ethics of non-involvement

For the Forum "one important key to progress lies in the systematic generation and utilisation of data that are (at least partially) internationally comparable". This comes down to the question "which policies work and which do not?", leaving out the question "how can we get things to work?"; this last question is not formulated. If we look at the studies given as examples of relevant research in the draft policy paper of the forum we find:

- overviews of studies of the factors influencing the effects of user charges in health systems, multiple countries;
- reviews of published research on the effects of different health insurance schemes, multiple countries;
- review and simulation of the effects of alcohol taxes on motor vehicle crashes:
 - reviews of intervention cost-effectiveness;
- comparative studies on decentralisation and health systems change in 28 countries.

Although such trans-national comparisons can be highly informative and relevant, not every attempt of this kind is illuminating. In one publication levels of health development are used as a tool for comparative research and policy formulation, by stratifying 128 and 163 countries into levels of health development using some basic vital statistics indicators, in order to identify various types of health determinant patterns. This way one restates the obvious, and cannot but go on to recommend future research on how to use the findings in health policy making1.

There appears to be a tendency nowadays to equate health policy research with the long view, international comparisons and descriptive work. Academically that is an area that is highly rewarding - and necessary and justified. But in order to be fully productive and useful. policy supporting research should be rooted in the field and should provide insight in how things work and how they could work better, not only in what works badly. This implies that this kind of research sets out to bring about change, and that local field actors need to be involved. Another way of saying this is that it must be framed in an action-research setting. This is both a question of relevance and of ethics.

One way of approaching this situation is to combine this kind of research activities with, or to include them in development programmes aimed at producing change. In fact, quite a few of these development programmes already contain a research component, and the volume of experience built up in these programmes is almost certainly quite considerable. We can see two problems, though.

The first is that a lot of the evidence or experience produced by these programmes remains the programme's property, so to speak. It remains within, or is carried forward to the future on an individual basis only. This is in the first place a problem of 'diffusion', and strategies can be developed to promote exchange or diffusion, or to create a forum for them. A second problem, related to the first, is how to materialise, or 'crystallise' as it were, this accumulated experience: this has to do with providing support in systematising and interiorising experience. It has to do with offering qualitative support to critical reflection, with helping field actors to build up experience in a more systematic and structured way, to help them communicate it in a structured way, and to digest the experience of others (i.e. to make it theirs - to appropriate it). There is a treasure there of under-exploited expertise and knowledge. Making Health Care Reform evidence-based is not a matter of scholarly analysis only.

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Contribution of Health Research to Health Care Reform

Prof. Prawase Wasi

Changes in the environment necessitate reform of any system that operates in order to be able to maintain balance. In health many transitions are taking place such as epidemiologic, economic, social, environmental and technological. The cost of medical care is rising rapidly, threatening the entire health care system. Without health care reform, coverage and quality of care will be severely disturbed as has happenned in the U.S. Thus health care reform has become a global issue.

But the necessary reform is extremely difficult, if not impossible, to carry out. Even with presidential power, as in the case of President Bill Clinton and health care reform in the U.S. and President Corazon Aquino and the drug system reform in the Philippines, reform could not take place. This is because modern health care is embedded in very complex social structures ridden with many powerful vested interests. With such complexity of modern society, power and ideology are less and less effective. There is a need to mobilize social energy for reforms and any reforms, be they political, governmental, educational or health care. Social energy is generated throuh social learning. Knowledge is necessary for social learning and here is where the roles of researchers come in. Researches are needed to generate knowledge to empower society to support reform.

Health researchers who will contribute to health care reform should ask the following three questions:

1. What is the ideal health care system?

A good health care system should be defined in terms of its structure, function, quality assurance, satisfaction of all parties concerned and financial sustainability. The so-called EQE character of a health care system, i.e. Equity, Quality and Efficiency should be translated into structures and functions. Outcome in term of health of the people should be measurable and measured. Indicators that society can use to monitor the health of the people should be developed to empower the public to monitor the impact of its health care system.

2. What is the existing situations?

Research into the existing situation will reveal mismatches between reality and the ideal defined in one

3. What needs to be done to remove the mismatches?

These will entail health care reform because mismatches will be found to be too large to be changed by continuing to do some as now.

Reform of government's roles, reform of the health care organization and reform of societal roles will be needed to ensure total coverage of basic care and quality and efficiency of the system. Health care finance will play a pivotal role in the reform, because it most strongly affects behaviour of both providers and users of health care. Finance is the major determinant of sustainability of the system.

Thus health care reform requires both system thinking and the managerial approach. These are contrary to doctor's behaviour. Mostly doctors think in terms of the technical dimension and not systemwise. When they want improve things, such as a good referral system, it is merely in terms of wishful thinking, while there is a need to go beyond that to management, particularly financial mechanisms to make it happen.

Health researchers with a range of skills are needed to support health care reform, in addition to experts in epidemiology, clinical science and social science, there is a need to include experts in health economics and management. Universities are important partners in health care reform. To answer the three health research questions stated above the universities will have to rally their resources from various disciplines to work in a very systematic manner and goal oriented approach. By doing this multidisplinary work, the universities will greatly strengthen their research capability. Accumulated research capability and wisdom are very crucial because health care reform is a continuous process. not a one shot effort.

Research findings should not remain merely in academic form, but they should be translated, in style and language, into a form that the general public can understand. Empowerment of the public will create social energy needed to propel reform.

As health research to support health care reform is very difficult for the universities in general, a trial in specific areas such as in a province might help to prepare the universities for the larger task of national health care reform. Because finally a good health care reform law will have to be passed, law experts and legislators should be involved in the research process.