EXPANDING ACCESS TO PRIORITY HEALTH INTERVENTIONS: A FRAMEWORK FOR UNDERSTANDING THE CONSTRAINTS TO SCALING-UP

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Abstract: The Commission on Macroeconomics and Health recommended a significant expansion in funding for health interventions in poor countries. However, there are a range of constraints to expanding access to health services: as well as an absolute lack of resources, access to health interventions is hindered by problems of demand, weak service delivery systems, policies at the health and cross-sectoral levels, and constraints related to governance, corruption and geography. This special issue is devoted to analysis of the nature and intensity of these constraints, and how they can best be overcome. Copyright © 2003 John Wiley & Sons, Ltd.

1 INTRODUCTION

The Commission on Macroeconomics and Health (CMH), chaired by Professor Jeffrey Sachs, until recently at Harvard University, was established in January 2000 by Dr Gro Harlem Brundtland, Director-General of the World Health Organization, with the goal of placing health at the top of the development agenda. Its objectives were to analyze the impact of health on development, to produce studies of health-related interventions and their impact on economic growth and equity in developing countries, and to recommend a set of measures to minimize poverty and maximize economic development. The CMH report was released at the end of 2001 (Commission on Macroeconomics and Health, 2001).

The analytical work of the Commission was structured around working groups on key topics. Working Group 5, Improving Health Outcomes for the Poor, had the task of elaborating options and costs for mounting a major global effort to improve dramatically

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the health of the poor over the next 5 and 15 years’ (Commission on Macroeconomics and Health, 2002). It addressed three key questions:

(i) What set of interventions will significantly improve the health of the poor in a relatively short time period?

(ii) What factors hamper the widespread implementation of these interventions amongst the poor, and what options are available to deal with these?

(iii) What are the total costs of expanding coverage of these interventions and sustaining them in differing, but generalizable, scenarios?

Given widespread concerns about the poor performance of the health sector in many low and middle-income countries, and awareness amongst donors of failings of the international aid effort in health, providing helpful analysis of question (ii) was a particularly important task. Four areas of analytical work were undertaken:

- Conceptual thinking on the nature of obstacles (termed constraints) to the achievement of high levels of coverage of priority health services such as immunization, treatment of childhood diseases, maternal health services and interventions for HIV, TB and malaria, and how they might affect the feasibility and returns from rapid expansion of health services.

- Identification of country-level indicators of these constraints, and empirical analysis leading to a categorization or typology of countries according to the prevailing level of constraints.

- A systematic literature review of evidence on how constraints affecting the performance of health systems in low- and middle-income countries might be relaxed, including the role that vertical (categorical) programmes might play.

- Three country case studies (Chad, India and Tanzania) exploring the operation of constraints in practice and examining the experience of attempts to strengthen delivery of health services.

All analytical work adopted the same conceptual categorization of constraints, which provides a common thread throughout the four areas of work. This special issue is made up of papers developed from the analytical work commissioned by the working group of the constraints to expanding access to priority health interventions, and the options for relaxing or eliminating them. This paper presents the conceptual framework, and introduces the six accompanying papers. Section 2 sets out the background and motivation for the work. Section 3 presents the conceptual framework that has been developed to guide the classification of constraints. Section 4 suggests how the framework can be used to guide strategic choices in expanding access to priority health interventions. Section 5 presents conclusions, introduces the other papers in the special issue, and proposes an agenda for further research.

2 BACKGROUND AND MOTIVATION FOR THE ANALYSIS

A major finding of the CMH report was that a relatively small number of health conditions are responsible for the majority of the burden of avoidable mortality\(^1\) in poor countries;

\(^{1}\)Avoidable mortality was estimated by comparing age- and sex-specific mortality rates in low and middle-income countries with those prevailing among non-smokers in high-income countries.
that effective interventions exist to prevent and treat most of these conditions; but that these interventions are not available or accessible to the world’s poor. The Commission recommended that access to priority health services be dramatically expanded so that they are universally available, described in the report as ‘scaling up’. The Commission accepted that health improvement can be gained by actions in other sectors including education, water and sanitation, but argued that these should complement, and not replace, access to health services. The analysis focused particularly on the resources required for a package of 49 priority health interventions, selected on the basis of the size of the health burden they address, their technical efficacy and feasibility of delivery, cost-effectiveness and demand characteristics. Appendix 1 shows the intervention groups and the mortality burden which each would address.

The report argued that the majority of the interventions could be delivered by relatively low-level health facilities, ranging from small hospitals through to health centres, health posts and outreach activities (together making up what is defined as the ‘close-to-client’ (CTC) health system); and that there could be important roles for community health workers, NGOs and the private sector to play in expanding the delivery of some of the interventions. It was clear that scaling up these interventions would in most cases require a generalized strengthening of the performance of the CTC health system. However, in certain circumstances (for example, in complex emergency situations where there is no effective government) it might be possible to achieve significant increases in coverage with selected health interventions by working around the government system and making greater use of alternative providers.

It was recognized early on that there are a number of reasons why health systems have failed to provide universal access to these interventions in the past. First and foremost has been the absolute scarcity of resources. In resource-poor environments, it is impossible to deliver more than a minimal level of services. In addition, scarcity of resources can lead to inefficiencies in the use of those inputs that are available. For example, the tendency of governments to protect salaries at the expense of the availability of complementary inputs such as drugs, medical supplies and maintenance, means that the time of health workers cannot be fully utilized (Gilson, 1995). To address this fundamental shortage of funds, the Commission recommended that donors and national governments spend an additional $40–52 billion on health in 83 low-income and sub-Saharan countries by 2015, in order to increase the scale and quality of health service delivery (Commission on Macroeconomics and Health, 2001).

Money, however, is not the only constraint to effective delivery of health services. How money is spent is at least as important as how much money is spent, if the goal is to improve the health of the poor. A number of countries have succeeded in improving health status well beyond the level that would be expected given the resources available (Halstead et al., 1985; Mehotra, 2000). Analysis of the experience of these countries suggests that government commitment to spending on basic services such as education and health, and the form this spending takes (in particular, a focus on services that are likely to be used by poor people) are critical. In addition, education levels, especially those of women, have been shown to be particularly important in translating social sector spending into improved health.

This was defined by the CMH as the entire population in poor countries (all countries in sub-Saharan Africa plus those with GNP per capita of less than $1200 (1999 US dollars)) and the poorest groups in middle-income countries.
More generally, a range of factors may limit or constrain the rapid expansion of priority health interventions. We define these factors as ‘constraints’, meaning obstacles that restrict or limit the pursuit of desired goals. In our analysis constraints are defined more broadly than inputs alone, and can also include systems, processes, incentives, and values or norms.

In this paper we argue that many of these constraints can be substantially relaxed through the injection of new funds to the health sector, given a favourable policy environment. However, other constraints are likely to be more persistent, and less responsive to additional money alone in the short-to-medium term. For instance, they may operate at levels outside the control of the health sector; a long lead-time may be required for new investments to produce observable improvements; or the difficulties may be rooted in characteristics of the social and political environment that are fixed over the relevant time horizon. There may also be limits to the pace at which new resources can be absorbed by the existing system (often known as ‘absorptive capacity’).

In such cases, strategic decisions will have to be made concerning the choice of health service delivery strategies adopted, the sequencing of actions, and the pace at which services can be expanded. Specific investments in strengthening health systems may, for example, improve the capacity of the system to plan and deliver services within the public sector. Reforms at the sector level may strengthen incentives for efficiency and responsiveness, for example the introduction of contractual relationships (McPake and Hongoro, 1995; Mills, 1998); decentralization of decision making (Mills, 1994); and increased autonomy for health providers (McPake, 1996). Where health systems are especially weak, and political commitment to improve them is absent, it will be necessary to consider options for delivering priority health interventions outside the formal (public) health system. These options could include socially marketed products delivered through the retail sector (for the case of pre-packaged drugs for treatment of sexually-transmitted infections see (Population Services International, 2001)), or contracts with NGOs and other private providers (Mills et al., 2002). A clear understanding of the type and depth of constraints will be invaluable in informing these strategic choices. Moreover, understanding how service delivery options are influenced by a given constraints profile is necessary for calculating the cost of expanding access to priority health interventions.

It should be noted that by using the phrase ‘priority health interventions’ we do not imply that these can be provided in the absence of an infrastructure to support them—clearly delivering effective malaria treatment, for example, requires a supporting infrastructure including human resources, management, supervision and logistics. Nor do we imply that the same set of interventions is relevant everywhere, or that these are the only things the health system should provide. Countries need to make their own choices on the services they wish to make available. The concern of the CMH was that there exist highly effective and relatively low cost interventions that are inaccessible to many millions of people and that therefore should be high priority.

A critical first step in addressing the challenge of how to expand access to priority health interventions is therefore to understand the range and intensity of constraints that apply in specific contexts. Two inputs are needed: first, an analytically useful characterization of constraints; and second, a typology of countries according to the range and intensity of constraints they face. Together, these can help to inform the choice of strategies for strengthening health systems to deliver priority interventions. This paper addresses the first of these requirements; the second is addressed by an accompanying paper (Ranson et al., 2003).
3 CONCEPTUAL FRAMEWORK FOR CATEGORIZING CONSTRAINTS

Analysis of the range and intensity of constraints to delivering priority interventions requires a consistent conceptual framework for classifying them. Such a framework should take the close-to-client health system as its starting point, focusing on the constraints to strengthening the provision and uptake of key health interventions. It should be policy relevant, in the sense that it directs attention to the type of efforts required to relax constraints, and to where responsibility for initiating and implementing such interventions might lie. Finally, it should provide a consistent approach to understanding the ease with which constraints can be relaxed, so that efforts can be channeled appropriately.3

To reflect these concerns, two main dimensions have been identified for our framework: the level at which a constraint operates; and the degree to which the constraint can be relaxed through new funds.

3.1 The Level at Which a Constraint Operates

We have chosen the level at which a constraint operates as the primary organizing principle for our framework because it seems to be most helpful in indicating the appropriate level for intervention to relax a constraint, and whether responsibility for the action lies within the control of the Ministry of Health. Table 1 presents the main constraints that we have identified, organized by level.

The first main point to make about this typology is that it is not definitive: there is room to debate the location in the typology of specific constraints, and there may be other ways of sorting them among levels. For example, regulation is usually initiated by the health sector policy level (Level III), but its effectiveness will depend on higher level political support and political context (corruption, importance of vested interests). The availability and distribution of staff (Level II) will be influenced by civil service rules and remuneration policy (Level IV). Incentive structures (Level III) reflect choices made by government institutions outside the health sector, for example, whether budgeting and planning frameworks link budgets and outputs, and whether the central agencies permit locally generated revenue to be retained at the facility level or require it to revert to treasury.

Second, such a typology helps to identify issues of sectoral control: while interventions to relax some constraints can be taken at the health sector level, others are outside the control of the health sector and require cross-sectoral action. For example, the level of payment of health workers, and decisions about investment in transport and other infrastructure, are often both determined outside the Ministry of Health.

Third, an effort at categorization identifies a number of areas where there are interactions between constraints. Of particular importance are issues related to the deployment of additional resources. In order for these resources to be used to the benefit of the poor, political commitment to the social sectors and to poverty alleviation is needed. Improvements to programme management and supervision are closely linked to feedback

3The framework we propose differs in both its motivation and content from WHO’s framework for assessing health system performance (WHO, 2000). First, the WHO framework does not lead directly to an analysis of what policy measures could be undertaken to improve performance at the individual country level. Second, the WHO framework as a whole looks at the health sector in isolation from the rest of the public sector and from broader societal influences which affect the performance of health systems.
Table 1. Constraints to improving access to priority health interventions, by level

<table>
<thead>
<tr>
<th>Level of constraint</th>
<th>Types of constraint</th>
</tr>
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<tbody>
<tr>
<td>I. Community and household level</td>
<td>Lack of demand for effective interventions</td>
</tr>
<tr>
<td></td>
<td>Barriers to use of effective interventions (physical, financial, social)</td>
</tr>
<tr>
<td>II. Health services delivery level</td>
<td>Shortage and distribution of appropriately qualified staff</td>
</tr>
<tr>
<td></td>
<td>Weak technical guidance, programme management and supervision</td>
</tr>
<tr>
<td></td>
<td>Inadequate drugs and medical supplies</td>
</tr>
<tr>
<td></td>
<td>Lack of equipment and infrastructure, including poor accessibility of health services</td>
</tr>
<tr>
<td>III. Health sector policy and strategic management level</td>
<td>Weak and overly centralized systems for planning and management</td>
</tr>
<tr>
<td></td>
<td>Weak drug policies and supply system</td>
</tr>
<tr>
<td></td>
<td>Inadequate regulation of pharmaceutical and private sectors and improper industry practices</td>
</tr>
<tr>
<td></td>
<td>Lack of intersectoral action and partnership for health between government and civil society</td>
</tr>
<tr>
<td></td>
<td>Weak incentives to use inputs efficiently and respond to user needs and preferences</td>
</tr>
<tr>
<td></td>
<td>Reliance on donor funding that reduces flexibility and ownership</td>
</tr>
<tr>
<td></td>
<td>Donor practices that damage country policies</td>
</tr>
<tr>
<td>IV. Public policies cutting across sectors</td>
<td>Government bureaucracy (civil service rules and remuneration; centralized management system; civil service reforms)</td>
</tr>
<tr>
<td></td>
<td>Poor availability of communication and transport infrastructure</td>
</tr>
<tr>
<td>V. Environmental and contextual characteristics</td>
<td>Governance and overall policy framework</td>
</tr>
<tr>
<td></td>
<td>-Corruption, weak government, weak rule of law and enforceability of contracts</td>
</tr>
<tr>
<td></td>
<td>-Political instability and insecurity</td>
</tr>
<tr>
<td></td>
<td>-Low priority attached to social sectors</td>
</tr>
<tr>
<td></td>
<td>-Weak structures for public accountability</td>
</tr>
<tr>
<td></td>
<td>-Lack of free press</td>
</tr>
<tr>
<td></td>
<td>Physical environment</td>
</tr>
<tr>
<td></td>
<td>-Climatic and geographic predisposition to disease</td>
</tr>
<tr>
<td></td>
<td>-Physical environment unfavourable to service delivery</td>
</tr>
</tbody>
</table>

and reward systems which may have implications for broader civil service reforms. Similarly, for measures aimed at strengthening information and management systems to be effective and sustained, these must be complemented by political commitment and a more appropriate incentive structure.

Finally, in some contexts the impact of governance constraints can change dramatically in a relatively short period of time. For example, in countries undergoing a transition toward more open and democratic structures, attitudes towards corruption and rule of law may be shifting and create new opportunities to influence a range of other constraints (e.g. civil service reforms). In contrast, other constraints may be fixed and not amenable to change at all. These include the effects of climate and geography. Governments must work within these constraints in choosing how best to use their resources to deliver priority interventions.
3.2 Amenability to Improvement Through Additional Funds

The second key dimension of the typology refers to the extent to which additional resource flows into the health sector will be effective in relaxing different constraints. Table 2 attempts to rate such prospects for ‘buy-out’. Clearly any such rating system will be arbitrary and subject to debate, however our intention is to identify those factors which can be rapidly improved in the short-to-medium term with additional funds.

In general, the lower level constraints are likely to be more susceptible to additional funding than higher-level constraints, though there are exceptions.

The constraints that are due to shortage of inputs (e.g. staff, drugs and supplies, infrastructure and equipment) are arguably all highly amenable to resolving through additional expenditure. There is an issue of timeframe for some investments where the lead-time can be longer (for example, infrastructure, production of greater numbers of health workers). However, in both cases the extent to which additional inputs will be deployed to improve service delivery to the poor will depend on non-financial constraints, as discussed above.

The constraints that are related to the performance of processes (for example, planning, regulation, drug management) can also be strengthened through investment in development of new procedures and systems. However, their sustained and effective use will require broader changes to the incentive environment within which health workers operate, which may or may not be achievable through additional funds alone. New resources can be used to strengthen the regulatory system, for instance by increasing the cadre of inspectors and paying them adequately so that they are less vulnerable to regulator capture.

Table 2. Amenability of constraints to relaxation through provision of additional funds

<table>
<thead>
<tr>
<th>Level</th>
<th>Type</th>
<th>Amenability to buy-out*</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Lack of demand</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>Barriers to use (physical, financial, social)</td>
<td>H</td>
</tr>
<tr>
<td>II</td>
<td>Shortage and distribution of staff</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>Weak technical guidance, management, supervision</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>Inadequate drugs and medical supplies</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td>Lack of equipment and infrastructure</td>
<td>H</td>
</tr>
<tr>
<td>III</td>
<td>Weak, overcentralized planning and management</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Weak drug policies and supply system</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Inadequate regulation</td>
<td>M</td>
</tr>
<tr>
<td></td>
<td>Lack of intersectoral action and partnership</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Weak incentives to use inputs efficiently and responsibly</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Reliance on donor funding</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Donor practices</td>
<td>L</td>
</tr>
<tr>
<td>IV</td>
<td>Government bureaucracy</td>
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<td></td>
<td>Poor availability of communication and transport infrastructure</td>
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</tr>
<tr>
<td>V</td>
<td>Governance and overall policy framework</td>
<td>L</td>
</tr>
<tr>
<td></td>
<td>Physical environment</td>
<td>L</td>
</tr>
</tbody>
</table>

*H = High amenability; M = medium; L = low.
Investment in systems can also help to improve the ability of the sector to absorb additional resources. For instance, strengthened planning and budgeting systems may be a prerequisite to increasing expenditure at the district level.

However, there remain constraints that are not primarily financial in nature, and which will not be resolved through additional funding. These would include, for example, the constraints imposed by a reliance on donor funding. The barriers to harmonizing reporting requirements and information systems among donors are not financial but political. The nature of incentives is also important, and is not necessarily a financial constraint. For instance, improving the responsiveness of health service providers to patient expectations and needs may require changing the mechanism through which providers are paid and the incentives that are created, as well as raising the absolute level of payment.

A further subset of constraints is not at all amenable to additional funding. These include the overall governance and policy framework; and the constraints imposed by geography and climate. In choosing how to extend service delivery, governments and their partners will need to take these constraints as given and choose delivery mechanisms which are best suited to these contexts.

A final issue often ignored in the discussions about the impact of increasing funding for health is the downstream effects of relaxing financial constraints. For instance, any increase in the salaries of health workers as a measure to improve their performance and geographic distribution is likely to be met with demands from other sectors for increased wages. Money may be the answer, but the amounts required to address the broader issues of government working conditions may be so vast as to be infeasible. There are also cross-border issues to be considered for tradable inputs: raising health worker salaries in one country may be met by an inflow of labour from neighbouring countries, creating new personnel shortages.

In summary, money is a necessary condition for relaxing many of the constraints impeding the delivery of priority health interventions. However, it is unlikely to be sufficient, as important political and social factors will bear on how the additional resources are used. In addition, some constraints are not primarily financial in nature and can only be addressed through changes in norms, values and attitudes of key partners.

4 INFORMING STRATEGIC CHOICES

The starting point for this analysis was that coverage among the poor of priority health interventions is inadequate, and that this is due to under funded and poorly functioning health systems. Dramatically increasing coverage with these interventions will, in most circumstances, involve strengthening overall health system performance. In the language of our conceptual framework, there are likely to be constraints operating at levels I, II and III in most poor countries. In some countries, there may also be problems of governance and overall policy framework (levels IV and V) that further exacerbate the difficulties of extending access to health services. The primary aim of developing this constraints typology is to inform strategic choices about where additional efforts should be placed. Two further inputs are therefore required. The first is an understanding of which constraints are binding, in other words, which constraints should govern the choice of how to intervene.

The subsequent paper in this issue, by Ranson et al., shows how indicators of different levels of constraints can be used to categorize countries according to the nature of constraints that apply in a given context, and to help prioritize areas for intervention.
The second input required to inform strategic choices is information about the effectiveness of approaches to addressing constraints. Unfortunately, the evidence about how to overcome constraints at levels IV and V is extremely limited. However, to feed into the CMH report we undertook a systematic review of evidence of effectiveness of approaches to strengthen the CTC health system (effectively addressing constraints at levels I, II and III). The results of this review appear in the accompanying paper by Oliveira-Cruz et al. (2003).

5 CONCLUSIONS, SUBSEQUENT PAPERS AND RESEARCH PRIORITIES

Improving access to a core set of priority health interventions would have a dramatic impact on the health of poor people. Increasing the funding available to health systems in the developing world is a necessary, but not sufficient, action for addressing the current problems of inadequate health systems. A range of non-financial constraints also hamper the provision of priority health services, some of which will persist in the medium-to-long term. These non-financial constraints may include the need to develop resources that lie outside the control of the health sector (such as infrastructure or transport systems); that require long lead times to produce (such as attracting and training additional health workers); or dimensions of the socio-political environment that are not amenable to policy intervention and may only change over the long term (such as governance arrangements).

The aim of this paper has been to characterize the full range of constraints and to provide a framework for thinking about how they can be overcome in the short-to-medium term. The analysis can be used to guide discussions about what types of action are needed to increase access to priority interventions, as well as to inform discussions of the resources required for a concerted effort to improve the health outcomes of the poor. The remaining papers in this issue use the same analytical framework, and add to the evidence base about how these constraints can be overcome and access to priority interventions expanded.

The second paper, by Ranson et al., extends the analysis in this paper by using country level data to classify countries by the level of constraints they experience. The motivation for this paper arose from the need to adapt strategies for scaling up priority interventions to specific country circumstances, and a concern to identify the magnitude of the problem of achieving health improvement in the most highly constrained countries. Indicators were identified to act as proxy measures of constraints, and three different approaches were used to analyse country level constraints data. Importantly, the analysis concludes that while there are a number of countries in the 'highly constrained' group where the challenges to expanding access to interventions are the most pronounced, the population in these countries is relatively small (approximately 10 per cent of the population of the group of low-income countries and sub-Saharan countries as a whole, and 12 per cent of those living on less than $1 per day). This lends cause for considerable optimism: the majority of the world's poor live in countries where the constraints to scaling up are less severe. At the same time, it emphasizes the importance of searching for innovative service delivery strategies to extend interventions to the populations living in the most constrained settings.

The effectiveness of specific approaches to strengthening health service delivery is the subject of the third paper in this issue. by Oliveira-Cruz et al. It presents the results of a systematic review of the literature on how to improve the close-to-client health system, focusing on the constraints which affect the household and community level, the health services delivery level, and the health sector policy and strategic management level. While
recognizing the limitations of the evidence base in terms of the quality of studies available, the authors identify a number of approaches that appear to have been effective in low- and middle-income contexts. These include community participation; quality assurance programmes; various approaches to management strengthening; interventions to improve training and supervision of health workers; and integrated approaches to strengthening drug policy. Interventions often fail because they are implemented in isolation from the rest of the health system. The review identifies the importance of a range of facilitating factors, such as the need for an integrated human resources strategy, frequent communication and supervision, and decentralization of managerial authority to the local level, in order for interventions to have a sustained impact.

A longstanding debate concerns the relative effectiveness of vertical versus horizontal approaches to service delivery. This debate has particular salience in light of international concerns to increase coverage rapidly, and arguments that vertical approaches get round the problems of weak health system capacity. Yet adopting such approaches may undermine the achievement of longer-term goals of building a comprehensive health system which meets the majority of needs of the poor. Arguments on both sides are frequently guided more by polemic than by evidence. The fourth paper in this issue, by Oliveira-Cruz et al., contributes to this debate by reviewing the very limited evidence regarding the relative merits of vertical and horizontal delivery modes and the effect of vertical programmes on health systems, and by analyzing the options for delivering priority health interventions. The authors conclude that there is scope for use of both vertical and horizontal delivery mechanisms, and that the choice of delivery mode needs to be guided by the capacity of the specific health system, and how this evolves over time.

The last three papers arise from case studies that were commissioned by Working Group 5 of the CMH to examine these issues in specific country contexts.

Chad provides an example of a highly constrained country, with female literacy, nurses per 100,000 population, DPT coverage and health services accessibility all falling within the lowest quartile of countries. The study by Wyss et al. describes the impact of several successful and unsuccessful interventions aimed at improving coverage of priority health services. Where constraints to both demand and supply of services exist, both must be addressed in order for utilization of priority interventions to increase. A dialogue with community members is needed to integrate users’ perceptions and needs into priority setting processes; and providers need to be encouraged and supported to meet the needs of marginalized groups. Issues relating to the supply and quality of health workers are critical in such resource-poor environments. An integrated approach to human resource management is needed, which looks at training and skill requirements, working conditions and their relationship to geographic distribution of health workers, performance monitoring and supervision, and the development of a coherent career structure. Infrastructure planning must be co-ordinated with human resource planning, to ensure that investments increase effective access to health services. However, given the social and cultural distance between government and the people, and the very weak institutional and governance framework, progress in scaling up is likely to be slow, and innovative approaches to working with communities are badly needed.

Rao Seshadri’s paper on India uses the constraints framework in a comparative case study approach to review evidence on the effectiveness of three quite different types of health intervention (a nutrition programme, an HIV/AIDS control programme, and an intervention to strengthen the secondary health system) in two Indian states, Karnataka and Tamil Nadu. Unlike Chad, India has both a relatively strong institutional framework,
and good availability of human resources. The paper identifies four strategies which have increased the impact of the interventions studied, and which are necessary for successful large scale implementation of programmes. These address all levels of the health system. First is greater community involvement in order to ensure acceptability of interventions. Second, there should be clear objectives and the introduction of information systems for measuring achievements against them. Third, strong technical design based on best practice and available evidence is needed. And finally, innovative approaches are required to address constraints at the policy and strategic management level, such as strengthening and integrating management structures and, where necessary and appropriate, giving them managerial autonomy. However, the comparison of state experiences gives cause for optimism on the potential for scaling up in India.

Munishi’s Tanzanian case study examines the experience of two health sector initiatives: the Community Health Fund (CHF), a prepayment scheme which was initially piloted in one district and then expanded to cover nine districts; and the Dar es Salaam Urban Health Project. A number of important lessons are identified from his analysis. First, sequencing of actions is important: it was necessary to rehabilitate the existing health infrastructure before efforts were made to strengthen skills and management in urban health facilities. Second, it is often easier to relax input-related constraints; however, sustained success of interventions depends on relaxing policy and infrastructural constraints, and on addressing cross-sectoral issues of civil service pay, all of which lie outside the immediate control of the Ministry of Health. In particular, Munishi points out that a failure to implement fully the country’s decentralization policy by developing the necessary legislative and regulatory frameworks has led to bottlenecks in expanding CHF coverage; and has also led to confusions in the division of responsibilities between the Ministry of Health and the Ministry of Regional and Local Government. Tanzania appears to lie between the other two countries in its potential for scaling up, having a much stronger network of services than Chad, but still facing considerable problems of government capacity and human resource availability.

This work has highlighted the weakness of the evidence base on which choices about how to scale up are made, and suggests a number of areas for further research. At the macro level, further analysis is needed to examine the validity of the overall constraints model. A more conclusive analysis will require more comprehensive data so that all levels of constraints can be included; in particular comparable country-level data on health policy variables. More up-to-date information is needed for key variables such as human resource availability and health services access. Data should also capture changes over time, and address variation within countries.

There is a great need to apply the methodological rigour used in epidemiological studies of clinical effectiveness to study the effectiveness of interventions to strengthen health service delivery. Both literature review papers identify the weakness of studies as a constraint to understanding the effectiveness of alternative approaches to improving health systems. Many ‘evaluations’ did not have a control group, did not incorporate a before-and-after perspective, and only covered a short period of implementation so that the long-term consequences and sustainability of interventions could not be ascertained. The reviews also identified very little published data on costs of interventions.

While the country case studies identified a number of conditions necessary for successful scaling up of interventions, they also revealed very little about the optimal sequencing of interventions. Some lessons have been learned from user fee interventions, for example that improvements in infrastructure and quality are needed before people will
be willing to pay user fees for primary care. Munishi’s paper suggests that investment in infrastructure investment was necessary before it was possible to successfully implement interventions to strengthen and decentralize management. And the paper by Wyss et al. argues for a careful pacing of infrastructure and human resources development. This evidence notwithstanding, the temporal dimension of interventions remains largely unexplored in the international health services research literature.

A final gap identified in this literature is the paucity of studies relating specifically to how services can better meet the needs of the poor. Despite the increased focus on achieving the Millennium Development Goals, too often our analyses fail to disaggregate by socioeconomic status, or to focus on those services that are most used by poor people. A commitment to improving the health outcomes of the poor must be accompanied by renewed efforts to bring this issue to the centre of health services research.

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REFERENCES


APPENDIX 1

Condition (millions of deaths in low and middle income countries in 1999) and intervention group

- Maternal mortality (0.5) and perinatal conditions (2.4)
  - Refocused antenatal care
  - Skilled birth attendance
- Childhood mortality (1.6 from vaccine preventable diseases, 1.8 from diarrhoea and 2.1 from ARIs)
  - Immunization services—BCG, OPV, DPT, Hepatitis B & HiB, Measles
  - Integrated management of childhood illnesses (IMCI)—Acute Respiratory Infections
  - IMCI-diarrhea
- Malaria (1.1)
  - Insecticide treated nets and residual indoor spraying
  - Treatment of malaria
- Tuberculosis (1.5)
  - Short course treatment for smear positive and smear negative patients
- Tobacco-related diseases (2.7)
  - Tax greater than 80 per cent of retail price, advertising and promotion bans, consumer information, cessation programs
- HIV/AIDS and STIs (2.5)
  - Interventions outside the health sector (interventions working with sex workers and clients, condom social marketing and distribution, workplace interventions, youth interventions, focused media campaigns, sexually transmitted infections treatment)
  - Other interventions (voluntary counselling & testing, prevention of mother-to-child transmission, mass media campaigns)
  - Palliative care, clinical management of opportunistic illnesses, prevention of opportunistic illnesses, home-based care
  - Anti-retroviral treatment

Source: (Commission on Macroeconomics and Health, 2002).