2. The case-study approach

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The case-study approach is a research strategy entailing an empirical investigation of a contemporary phenomenon within its real life context using multiple sources of evidence, and is especially valuable when the boundaries between the phenomenon and context are blurred (Yin, 2009). It is widely used in research fields and disciplines of relevance to HPSR, such as political science, public administration, planning studies, organizational and management studies, community psychology and sociology.

There are three main reasons why this research approach is particularly relevant to HPSR. First, health policy and systems experience is strongly influenced by, and is often embedded in, contextual factors that must themselves become part of the focus of inquiry (Gilson et al. 2011). For example, health worker motivation is influenced by a range of personal, organizational and societal factors, as well as relationships with others; and, in turn, many aspects of the provision of health care are influenced by the motivation of health workers (Franco, Bennett & Kanfer, 2002). Similarly, patients’ decisions to use services or adhere to treatment advice represent responses to many influences, such as:

- their own understandings of illness, and how best to treat it
- advice received from friends and family
- past experience of health providers
- the availability of cash to cover costs
- the gender dynamics influencing household decision-making.

On any health policy and systems issue there are also multiple interpretations of the same experience as different people bring their own contexts to bear on its interpretation.

For example, individual health workers may respond differently to the same set of incentives; and patients vary in their response to treatment advice.

Second, as the examples of motivation and health seeking behaviours show, HPSR questions often require study of the complex behaviours of, and relationships among, actors and agencies; and how those relationships influence change, including change over time. The case-study approach is particularly relevant to such experiences (Thomas, 1998).

Third, as discussed in Part 2 of the Reader, the case-study approach can be used both to support and analyse policy development: it can generate information for policy (for example see Rolfe et al., 2008 in this section) or be used to analyse past policy experiences in detail (see, for example, Shiffman, Stanton & Salazar, 2004 in this section).

Case-study work is also very flexible. In terms of overarching research purposes (see Part 2: Step 2), it can:

- support exploratory inquiry to gain a better understanding of certain situations or to generate ideas and concepts for use in follow-up work;
- allow detailed description of particular experiences;
- enable the investigation of ‘how’ and ‘why’ explanatory questions, supporting analytic generalization through cross-case analysis (see Part 1: Section 7);
- be used as a study approach in emancipatory work, such as action research and participatory inquiry.

Finally, case-study work can involve either single cases (of health policies, for example) or a number of individual cases of the same type (a case-study of different health facilities, for example), or an embedded case approach, where one type of case is nested within a broader case or encompasses other cases. An example of the latter would be the case of a single health policy process that is investigated by examining the overall process and experience at a number of case-study sites within the health system (such as regions, districts, and/or facilities); or the case of a primary health care facility that is recognized as nested in a district health system, requiring investigation of the case at both levels.
The range of ‘cases’, the unit of focus, relevant to and considered in HPSR, therefore, is quite varied. It includes (Robson, 2002; Thomas, 1998; Gilson & Raphaely, 2008):

- individuals, communities, social groups, organizations;
- events, relationships, roles, processes, decisions, particular policies, specific policy development processes, research studies;
- health system decision-making units, particular healthcare facilities, particular countries.

**Rigour in case-study work**

In general terms, the rigour of case-study work is secured by full reporting on the methods of data collection and analysis, so that readers can assess whether the analysis and interpretation is credible. As discussed in Part 2: Step 3, the judgement of credibility is, in essence, one of whether the research procedures suggest that the conclusions derived are trustworthy. Table 10 provides an overview of procedures within the different phases of case-study work that help to ensure trustworthiness (see also Gilson et al., 2011).

Given the areas of weakness in the current body of HPSR work (Gilson & Raphaely, 2008), key areas that require attention in future case-study research in the field include:

- the use of theory to support and enable analysis
- case selection to support analysis
- case contextualization, especially in single cases
- in studies with multiple cases, comparative analytical strategies that support analytic generalization.

These issues are discussed further below, in relation to the papers selected for this section.

Readers are also encouraged to review available texts (for example Yin, 2009; Thomas, 1998) on good case-study practice to strengthen HPSR case-study work.

**Table 10 Procedures to ensure trustworthiness in case-study research** (Source: Yin, 2009)

<table>
<thead>
<tr>
<th>Criterion of trustworthiness</th>
<th>Case-study tactic</th>
<th>Phase of research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmability</td>
<td>• Conduct literature review, identify key concepts&lt;br&gt;• Use multiple sources of evidence&lt;br&gt;• Establish chain of evidence&lt;br&gt;• Ask key informants to review draft research report (member checking)</td>
<td>Research design&lt;br&gt;Data collection&lt;br&gt;Write up of analysis</td>
</tr>
<tr>
<td>Dependability</td>
<td>• Develop case-study protocol (so that others can see the decisions made in developing the study, and why you made them)&lt;br&gt;• Develop case-study database (complete set of data, that others could review)</td>
<td>Data collection</td>
</tr>
<tr>
<td>Credibility</td>
<td>• Look for patterns in data and across cases (pattern matching)&lt;br&gt;• Consider explanations for experiences analysed (explanation building)&lt;br&gt;• Consider rival explanations (alternative explanations for the patterns identified)&lt;br&gt;• Use logic models to think through causal mechanisms&lt;br&gt;• Triangulation – compare and contrast data across respondents, data sources, data types and cases&lt;br&gt;• Consider negative cases (explicitly seek out experiences that contradict your main line of argument, to test that argument and refine it)</td>
<td>Data analysis</td>
</tr>
<tr>
<td>Transferability</td>
<td>• Use theory in single case studies&lt;br&gt;• Use replication logic in multiple case studies (test ideas from one case against subsequent cases)</td>
<td>Research design</td>
</tr>
</tbody>
</table>
References


Overview of selected papers

The papers included in this section were chosen to address a range of issues related to health policy and systems and to show the different cases that can be used in HPSR case-study work, as shown below.

- Atkinson et al. (2000) examine experiences of Brazilian decentralization in three local settings, seeking to understand the ways in which the contextual features of social organization and political culture influence these experiences.

- Murray & Elston (2005) examine the single case of obstetric care in Chile, to understand the influence of a macro level intervention (privatization in both financing and provision of care) over health system organization (meso level) and clinical practice (micro level).

- Mutemwa (2005) examines multiple cases of district level decision-making in the context of Zambian decentralization and in relation to information systems.

- Rolfe et al. (2008) document and categorise the existing experience of private midwifery care across multiple districts in the United Republic of Tanzania, to generate information to guide future regulatory policy development.

- Russell & Gilson (2006) examine, across multiple households, the consequences of health care seeking behaviour for the economic situation, or livelihoods, of households in a low-income Sri Lankan community and the factors influencing this behaviour.

- Shiffman, Stanton & Salazar (2004) examine the single case of the safe motherhood policy in Honduras to understand how and why this policy became a political priority.

Although most papers primarily draw on qualitative data, Russell & Gilson (2006) report a mixed-method study (see also cross-sectional papers) in which an initial structured cross-sectional household survey, representative of the local community, generated findings that provided an overview of household experiences related to the key concerns of the study and the basis for more detailed qualitative work. The survey was specifically used to inform the selection of a small number of household cases for inclusion in a second phase of work, in which detailed understanding of the households’
experiences was generated through application of multiple data collection methods (a combination of qualitative and quantitative data). The analysis also combines data from both phases of the study.

These papers also offer insights into rigorous practice for case-study work, in relation to the four key current areas of weakness in HPSR case-study work, as outlined below.

**The use of theory.** Exploratory and descriptive case-study work may build theory as the basis for more detailed, future inquiry into the issue of focus (see Mutemwa, 2005). However, explanatory work should seek to use theory to design the investigation as well as seeing it as a product of research (Atkinson et al., 2000). When designing the investigation and conducting the analysis (Shiffman, Stanton & Salazar, 2004) theory can help to gain a deeper understanding of the issue, as well as to contribute to the longer term process of theory testing and building (see also Part 1: Section 7).

**Selecting cases.** Unlike survey work, case selection is never based on the logic of representivity. Instead, the choice depends on the main aim of the study and some examples are given below.

- In exploratory work, the aim may be to find as many different types of case as possible to allow limited description of many cases and the generation of categories (see Mutemwa, 2005 and Rolfe et al. 2008).

- In a single case, the aim is to explain how and why something happens by looking in detail at the inner workings of the case. Therefore, the case may be chosen because it is broadly interesting; or is thought to be typical of that type of case (Shiffman, Stanton & Salazar, 2004); or because it is not typical and, indeed, may represent an extreme case that challenges existing ideas or the theory guiding the study (Murray & Elston 2005).

- In multiple cases the aim may be to test theoretical ideas through comparing and contrasting different cases (see Atkinson et al., 2000) or to select different cases to allow analytic generalization on an issue (Russell & Gilson, 2006).

**Contextualization.** All descriptive and explanatory case study work requires ‘thick description’, that is, interpretation of the phenomenon of focus by reference to contextual features (see the section on the ethnographic lens; also see Atkinson et al. 2000; Murray & Elston, 2005; Russell & Gilson, 2006; Shiffman, Stanton & Salazar, 2004);

**Analysis and generalization.** Rich analysis of context, as well as clarification of conflicting perspectives and interpretations of different actors, is particularly important in single-case studies as the value of such work lies in unpicking the complexity of the phenomenon of focus in a detailed narrative of how and why things happen so they can be seen more clearly (Murray & Elston, 2005). Single-case studies can also generate persuasive and rich insights when combined with theory testing (Shiffman, Stanton & Salazar, 2004). Meanwhile, analysis of multiple case studies is based on the principle of replication. Data are not pooled across cases and then analysed by issue; instead each case is treated as a unitary whole and comparison and contrast across these cases supports the development of general insights and conclusions that are considered to have sufficient universality to apply to other settings (see Atkinson et al., 2000; Rolfe et al. 2008; Russell & Gilson, 2006). The principle of replication is central to this process of analytic generalization in that the process of analysis is undertaken iteratively, to see if the analysis of the first case is replicated as expected in the second, third, fourth case, etc. (see Rolfe et al. 2008).
References for selected papers


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Going down to the local: incorporating social organisation and political culture into assessments of decentralised health care

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Abstract

The social organisation and political culture of the society in which an organisation is embedded can have major effects on the way in which organisational policy is implemented and on how that organisation functions. Research on health sector reforms has paid scant attention to this aspect. If the claims made for decentralised management in the health sector are to be evaluated seriously, it is critical to develop concepts and methods to evaluate not only the formal organisation and the outputs of the health system, but also the aspects of local social organisation and political culture within which that local health system is embedded that may mediate their relationship.

The paper explores three cases of district health systems in Northeast Brazil in order to identify aspects of local social organisation and political culture that appear to influence the implementation of the reforms and thereby potentially impact upon the quality of the care provided. The results of the study indicate the importance that aspects of local social organisation and political culture may exert on the operations of a decentralised health system. Key aspects identified are: the space for autonomy; the space for local voice in political life; personalised and institutionalised influences on autonomy and local voice; differences of involvement of health staff with the district; different spaces of acceptable practice and accountability.

These factors are seen to moderate the intent of the health reforms at all stages in their implementation. Three possibilities are discussed for the nature of the interaction in terms of cause and effect between the formal organisation of the health system and its local context. Seeing this relationship as one of a dialogue offers some cautious optimism for the potential of the reform agenda. The paper closes with suggestions on how to take this line of research forward. © 2000 Elsevier Science Ltd. All rights reserved.

Keywords: Health reforms; Social organisation; Political culture; Decentralisation; Brazil

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Decentralised management of health care is a key strategy for restructuring health systems the world over. Although some reservations have been noted (see for example Collins & Green, 1994), decentralisation is mostly presented and accepted as the way to go by all
Colours of the political spectrum. However, as yet, few studies have taken up the challenge of assessing whether the promise decentralisation seems to offer translates into reality (Bossert, 1995; Collins, 1995). Bossert says that there are two key questions in assessing the impact of decentralisation:

“(1) does decentralization improve equity, efficiency, quality of services, health outcomes and democratic processes? and if it does, (2) which forms, mechanisms and processes of decentralisation are most effective in achieving these outcomes and output objectives” (Bossert, 1995, p. 190).

Although the definition of concepts and methods to measure the dependent output variables given by Bossert may be debated, there is nevertheless a growing body of work on designing or adapting existing instruments for application to health services research in developing countries (Roemer & Montoya-Aguilar, 1988; PRICOR, 1988; Garner, Thomason & Donaldson, 1990; Engelkes, 1990; Bryce, Toole, Waldman & Voigt, 1992; Forsberg, Barros & Victoria, 1992; Paine & Wright, 1988; Bruce, 1990; Bruce & Jain, 1991; Jain, 1992; Kanji, Kilima & Munishi, 1992; Atkinson, 1993; Weakliam, 1994; Haran, Dovlo & Offei, 1994; Gattinara, Ibacache, Puente, Giaconi & Caprara, 1995).

What has been addressed very little is the definition of concepts and methods for the independent variables in such an evaluation, that is for the aspects of organisational arrangements that may vary between and within health systems. What has been addressed even less is the potential influence that local social organisation and political culture of the environment in which a health system is embedded may have on how decentralisation transforms into practice in different local contexts (Atkinson, 1995).

Literature on health sector reform manifests a certain unease with regard to the somewhat nebulous aspects of local social organisation and political culture. Increasingly, the influence of these factors is acknowledged but we do not really know what to do with this observation in practical terms. The result is a schism in the literature. On the one hand, there is the social scientist illuminating local politics in all its fascinating detail but with little indication for practice. On the other hand, the health systems researcher focuses on the mutable and manageable aspects of health care and whilst acknowledging political aspects, sometimes with evident frustration, ultimately leaves these to one side as something that is not amenable to change from the health sector. Bossert (1998) has laid out a scheme for comparing the effects of decentralised management of health care on health system goals of equity, efficiency, quality and financial soundness between different countries, and which does include reference to the dynamics of local power. Yet even Bossert himself tends towards putting local social dynamics to one side. For example, in relation to Robert Putnam’s work on social capital in Italy, Bossert (1998) writes,

‘The weakness of this approach is that it does not provide easy policy relevant conclusions… We are left then with the possible conclusion that decentralization will work only in areas with strong histories of social capital and that the rest of the country should be centralized — a conclusion that is not likely to be politically viable’ (p. 1516)

But if factors such as whether a district has a long tradition of local civic organisations and trust are the major influences on which districts will fare best under decentralised government, surely we have to open a dialogue regarding the policy implications of this and possible lines of action. It is our contention that although we have no answers as to what to do about the influence of local social organisation and political culture, it is inadequate to leave them under-discussed and under-researched by those interested in the practice of health care.

This paper then aims to complement Bossert’s framework by exploring in more depth the social and political environment in which health reforms are taking place at the local, within country scale in order to identify aspects which influence the implementation of the reforms and thereby potentially impact upon the quality of the care provided.

**Decentralisation, health system performance and the local context**

The avowed benefits of decentralised management are presented with both frequency and consistency and can be defined as both managerial and political (Con-

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**Fig. 1.** The avowed benefits of decentralised management of health care.
yers, 1986; Mills, Vaughan, Smith & Tabishzadeh, 1990; Flynn, 1993; Bossert, 1998). The key features of the arguments for decentralisation suggest that increased local autonomy over decision-making combined with inputs of voice from the population to be served will increase the responsiveness of health care to local needs, accountability of the actions of the health system to its client population in terms both of the quality of care offered and the use of health system resources and also to social development goals of popular empowerment. This argument is summarised in Fig. 1.

Where decentralised management of health care has been evaluated, studies most often simply compare aspects of health care provision within a country between districts decentralised and those not (for examples Thomason, Newbrander & Kolehmainen-Aitken, 1991; Secretaria de Sade, Ceara, 1992). There are two main problems with this approach. First, those districts chosen for early decentralisation within a region may have distinctive qualities from those not decentralised. In particular, they are likely to be those considered to be providing health care well and to have a strong local management team. Secondly, and more importantly in the long-term, the term decentralisation acts as shorthand for little more than the formal legal status. Beyond this term, a wide range of organisational arrangements may be put into effect locally as part of decentralisation. A simple dichotomy of decentralised/not decentralised fails to explore the variation in organisational arrangements under which health services may be improving and thus has limited practical value in identifying what does and does not work.

There are studies which have aimed to document some of the variation associated with decentralisation, usually by comparing the formal legal and organisational structures and procedures put into place across different countries (WHO, 1995; Collins & Hunter, 1997). These studies move understanding a long way forward by recognising that the formal organisational arrangements associated with the blanket term of decentralisation may show great variation. However, working at the scale of cross-country comparisons means that the main focus will be on the official formal structures and procedures together with aggregated indicators of outputs. The gap that is well known to exist between what is said to be being done by official policy and how organisations actually function in practice can be picked up, but only broad brush indications of major problems can usually be identified. Research from organisation studies and policy analysis has indicated time and time again the power of local scale social and political processes to influence implementation (Pressman & Wildavsky, 1973; Lipsky, 1980; Bolman & Deal, 1991; Pfeffer, 1992), indicating the need for detailed micro-scale studies to complement national comparisons. There is a third group of studies where the realities of implementing a decentralisation policy have been documented and analyzed through detailed case studies. In these cases, the researchers often come from the social and political sciences with a study focus on micro-politics, aspects of bargaining and negotiation that occur in organisations as part of the implementation process (for example, Flynn, 1993; Atkinson, 1997). Thus the link to the quality of the health care provided has not been a concern.

We identified only two studies where organisational components of decentralised units have been linked to quality of care indicators. In Israel, the researchers developed a model to link the formal structures of decentralised management of individual primary care clinics to measures of quality of care in those clinics (Gross et al., 1992). Other studies of quality of care may implicitly have revealed relationships between decentralised management and quality without having necessarily labelled it as such. Studies of individual health facilities, whether primary care clinics or hospitals, are likely to prove easier than studies of local district systems, and may furnish settings in which to develop concepts regarding informal structures. However, the main focus of decentralisation in most countries remains the district and thus it is the structures at the district level that must be described in order to assess their relation to measures of health care quality. In Ethiopia, decentralised health care falls under the management of the elected local government. Barnabas (1997) explored the relationship between formal organisational structures, such as composition of the local government assembly, in terms of gender, occupation, educational level and so forth, and performance in terms of basic coverage indicators (ante-natal care and vaccinations).

No study has been found that tries to identify aspects of social organisation and political cultures and their potential influence on health care quality.

**Study design**

Organisational theory has long stressed the importance of the influence of the wider environment in which an organisation is located (Lawrence & Lorsch, 1969; Hofstede, 1991). We have found it useful to divide this organisational environment into two categories with regard to exploring influences on the implementation of local health systems. First, there are the geographic and demographic characteristics of districts including the following: urban/rural, district size, ecological type, population size and composition, main economic activities. Except in times of sudden population movements, these are largely stable over the
medium-term and it is relatively easy to collect information on them. The second category comprises the dynamic aspects of local social organisation and political culture within which a new policy will be implemented, including the following: social networks, social mores and values, nature of leadership, nature of ‘influence’, relationship of local public workers to the local district. Such factors may also prove stable and resistant to change in the medium-term but it can be difficult to get accurate information in the short time-frame of most surveys. Fig. 2 depicts the formal structure of the local health system embedded within these two domains of the geo-demographic and the socio-political.

The results for this paper are one part of a much larger study of the interactions of government policy reform through the health system with local social organisation and political culture. Three local social scientists spent fourteen months each living in one of the districts in order to accompany the day to day happenings in the district and in the district health system. Data have been collected through observations, informal conversations and more formal open interviews, and have been recorded in the form of transcriptions of taped interviews, daily field notes and diaries and the official documentation of the local government. Interviews have been held with health professionals, local councillors, leaders of local organisations, community health workers and women living in more deprived areas of the three districts. Observations have been made at health centres, at meetings within the health sector such as staff meetings, local health council meetings, at the public meetings of the local government council chamber and at political meetings during the local government election campaign. Since the field researchers lived in the district, they also have had many informal conversations with local people providing information on local opinions about health sector activities and personnel and on social interrelationships.

For the purposes of this paper, the data analysis has focussed on one specific aspect, that is identifying health service-related activities of different actors or groups of actors which might impact upon the quality of the health services and which seem to vary between different districts. The data have been collated for this purpose in three ways. First, the first author held formal interviews with the three field researchers on the experiences they have been witnessing. Secondly, we have read back through the field researchers’ own diaries to identify processes and procedures that are taking place around the health sector of each district. Thirdly, we have analyzed the transcripts of taped interviews to identify the concerns of those interviewed following an approach put forward by Spradley (1979) and Atkinson and Abu El Haj (1996).

The next section sets the context of health reform in Brazil followed by a description of the three study sites in terms of the geo-demographic environment and some basic indicators of health care quality. The main dimensions of social organisation and political culture we consider most important are defined according to three criteria: their likely variation between different districts; potential for impact on health care quality; the ease of identification and collection of information elsewhere without extended periods of fieldwork.

**Political culture and health reform in Brazil**

A new constitution was passed in Brazil in 1988 as part of the return to civilian rule after some twenty years of military dictatorship. The existing health system was highly stratified by socio-economic groups involving: private care for those able to afford it; a public network, largely of curative care, provided by the Ministry of Social Security for those formally employed and thus paying into a social insurance scheme; a mixture of basic health clinics and health programmes provided by the Ministry of Health, state and district health sectors and charitable institutions for those otherwise not covered. During the dictatorship years, community-based organisations, health professionals, students and some segments within the Catholic church formed various local alliances to lobby for improved services for the poor (Machado, 1993). This built into wider social movements amongst which the health reform movement was particularly strong and achieved an explicit commitment in the new constitution towards greater equity in health care provision. The overall policy vision expressed in the Constitution is that health is the right of every citizen and the duty of the State. The key articles within the
Constitution for health reform are translated in Table 1.

Four main strategies were laid down by which reform of the existing health sector would come about: integrating the different public providers into one single system, greater emphasis on preventative rather than curative care, decentralised management of health care provision to the district level and popular participation in the management of the health care system at all levels (Brazilian Constitution, articles 196–200, 1988). The legal framework for health sector reform nationally was developed in the following years through two health laws (Lei Orgânica de Saúde, nos. 8.080/90 and 8.142/90; de Carvalho and Santos, 1992). The model of decentralisation for the management of health care combines a mixture of sectoral autonomy from and subordination to the local district government. The district health sector contracts its formal decentralised status with the federal union and is allocated financial resources in accordance with that contract. The three different forms of contract (incipiente, parcial, semi-plena) operating at the time of the field study are shown in Table 2 (these were revised in 1997). Funds go through a district health fund which falls under the administrative procedures of the district local government. Thus ultimately, the vision of decentralisation is to a geographically defined local government, coordinating and integrating the various sectors, rather than to a sectorally defined district health system relatively independent of the other local activities.

Brazilian society has been built on, and has built up, a tradition of social and political relations characterised by indifference, personal links and paternalism. This has been particularly strong in the Northeast of Brazil since the beginning of this century where oligarchic power, based on ownership of large estates, has built up the system known as coronelismo (Leal, 1975; Faoro, 1991). Despite much talk about restructuring the political domain and opening up the space for popular participation, there is a view that the oligarchic relationships in the Northeast remain unaffected. This lack of impact in the Northeast of Brazil has been attributed to political inertia by the state level governments. This, however, has not been the case in the state of Ceará in which there has been continued political commitment to change by the state government since 1986, through three consecutive governments covering twelve years and continuing still for a further four. In particular, they have institutionalised greater autonomy for local district governments through decentralisation (see Tendler, 1997 for a full discussion of the issues of good governance in Ceará).

Ceará adopted a staged approach in that a selected number of districts were municipalised first (personal communication Silvia Mamede, 1993, then director of planning, State Secretariat of Ceará). As part of its commitment to improving health care, Ceará state has built and equipped a new ‘school’ for in-service training and research in public health (the Escola de Saúde Pública) within the state secretariat of health. The School aims to provide refresher courses both on clinical and preventive care and on various aspects of health service planning and management at the district level. By the time of the field study (1996), 80% (n = 149) of the 184 districts had municipalised at least to the incipiente level. Twelve districts in Ceará state had achieved semi-plena status and each year more are succeeding in their applications. Of our three study sites, one had a semi-plena contract (a traditional urban district) while the other two (a metropolitan and a rural district) only had incipiente status.
Study sites

Formal structures, geo-demographic environment and health care quality

The three different types of districts were selected on the basis that they might present differing social realities. Data on each district are summarised in Table 3.

Table 2
Main characteristics of the contract types for decentralisation

<table>
<thead>
<tr>
<th>Contract type</th>
<th>Responsibilities</th>
<th>Requirements</th>
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<tbody>
<tr>
<td>Incipiente</td>
<td>Register and authorise providers; Plan and authorise in-patient and ambulatorial procedures to be provided by each facility; Monitor and evaluate in-patient and ambulatorial services in public and private not-for-profit facilities; Demonstrate willingness and ability to take on the management of the public ambulatorial facilities existing in the municipio; Integrate the network of basic services and activities — nutrition, education, epidemiological and hygiene surveillance; Develop activities of occupational surveillance</td>
<td>Demonstrate interest in taking on these responsibilities; Regulate, convene district health council; produce minutes/6ms; Regulate, manage district health fund; produce statements/6ms; Develop proposal for integration and management of those public ambulatorial facilities (state or federal) to come under the district; Guarantee appointee responsible for financial payments is not a beneficiary nor linked with any provider contracted; Set up conditions to plan, monitor, control provision of services; Maintain records and monthly remittance of data on live births, mortality, compulsorily notifiable diseases, register of establishments and products of interest to health etc.</td>
</tr>
<tr>
<td>Parcial</td>
<td>Take over planning, authorisation and use of in-patient and ambulatorial procedures to be provided at each facility; Take on management of public ambulatorial facilities in the district; Take on formulation, execution, monitoring of activities of occupational surveillance; Be paid any difference between the financial ceiling established for the district and the payments made by the federal level direct to the hospitals and ambulatorial facilities (public or private not-for-profit)</td>
<td>Present an annual report of activities in relation to the district health plan; Present an annual report regarding management activities; Demonstrate annually that counterpart funds from the district treasury have been given to health; Present evidence that the district is developing or has developed a plan for human resources in the health sector</td>
</tr>
<tr>
<td>Semi-plena</td>
<td>Take over total responsibility for managing the provision of services - planning, registration, contracting, monitoring and payment of in-patient and ambulatorial service providers, public and private-not-for-profit; Take over management of the whole public health network in the district, apart from referral hospitals under state management; Take over monitoring activities in health, nutrition and education and epidemiological, hygiene and occupational surveillance for the district; Receive and control the total financial resources for in-patient and ambulatorial services in line with the established financial ceilings.</td>
<td>Present a plan of the annual targets to be achieved as approved by the district health council; Present indicators of achievement by which to evaluate plan; Failure to meet goals over two successive years can lead to the loss of semi-plena status; The processes of entitling municipios to the semiplena level made at State level will be reviewed at Federal level for final approval; Maintain an information system on in-patient and ambulatorial allocations of financial payments.</td>
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</tbody>
</table>
district was only in the first stage of municipalisation and had established few participatory mechanisms. There is an extensive network of large public health centres offering a wide range of services as well as numerous private clinics, hospitals and pharmacies. On observation, the health centres appeared of good quality in terms of physical infrastructure, the sophisticated range of services offered and quantity and quality of staff employed. Nonetheless, the ratio of both number of health facilities and number of beds to population size is comparatively low by state levels. Open interviews with local members of the population indicate a low level of satisfaction with the health services provided. It is noted that other studies have shown that expectations of health care quality are higher and satisfaction therefore sometimes low compared with poorer rural populations (Haran et al., 1997). However, output and outcome measures also indicate a poor quality of care or at least a poor level of impact on the population’s health (see Table 3).

The second district is a traditional urban district in the interior of the state, located in a hilly area. These districts have a majority of the population based in an urban centre, but also have an important rural component. This town grew as a centre for coffee trade in the last century and was the first town to be linked to the state capital by train. It remains an important centre for the surrounding region. The town has a pri-

<table>
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<th>Table 3</th>
<th>Study sites: Background information on formal health system structures, geo-demographic data and provision of health care*</th>
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<tr>
<td>Legal status</td>
<td>Metropolitan Incipiente</td>
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<tr>
<td><strong>The formal system</strong></td>
<td></td>
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<tr>
<td>Organisation with respect to the health reforms</td>
<td>No local council</td>
</tr>
<tr>
<td>Health Plan and Fund</td>
<td>Health Plan and Fund</td>
</tr>
<tr>
<td>No staffing plan</td>
<td>No staffing plan</td>
</tr>
<tr>
<td>Structured secretariat</td>
<td>Structured secretariat</td>
</tr>
<tr>
<td>Public resources</td>
<td></td>
</tr>
<tr>
<td>31 facilities:</td>
<td>10 facilities:</td>
</tr>
<tr>
<td>4 hospitals, 16 centres, 4 specialist centres, 5 labs, 2 resource banks</td>
<td>1 hospital, 1 centre, 2 birth centres, 6 posts</td>
</tr>
<tr>
<td>357 beds - 0.22/hab</td>
<td>102 beds - 0.35/hab</td>
</tr>
<tr>
<td>CHW = 109</td>
<td>CHW = 55</td>
</tr>
<tr>
<td>Functioning of health facilities</td>
<td></td>
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<tr>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Private facilities</td>
<td></td>
</tr>
<tr>
<td>30 pharmacies</td>
<td>4 pharmacies</td>
</tr>
<tr>
<td>many private clinics, laboratories, hospitals</td>
<td>4 private clinics, 1 laboratory</td>
</tr>
<tr>
<td><strong>Geo-demographic environment</strong></td>
<td></td>
</tr>
<tr>
<td>Ecology</td>
<td>Urban</td>
</tr>
<tr>
<td>Area (km²)</td>
<td>98.60</td>
</tr>
<tr>
<td>Population/km²</td>
<td>1624</td>
</tr>
<tr>
<td>% urbanised</td>
<td>99.52</td>
</tr>
<tr>
<td>% Illiteracy rates</td>
<td>9.39</td>
</tr>
<tr>
<td>Sources of income</td>
<td>Industry, Commerce, Informal activities</td>
</tr>
<tr>
<td><strong>Quality indicators</strong></td>
<td></td>
</tr>
<tr>
<td>IMR</td>
<td>37</td>
</tr>
<tr>
<td>% Measles coverage</td>
<td>100</td>
</tr>
<tr>
<td>Efficiency (% spent/planned)</td>
<td>Average to good</td>
</tr>
<tr>
<td>No. clinical consultations/cap</td>
<td>1.36/hab</td>
</tr>
<tr>
<td>No. clinical procedures/cap</td>
<td>0.03/hab</td>
</tr>
<tr>
<td>No. dental consultations/cap</td>
<td>0.47/hab</td>
</tr>
<tr>
<td>No. radiological exams/cap</td>
<td>0</td>
</tr>
<tr>
<td>No. clinical lab. Tests/cap</td>
<td>0.44/hab</td>
</tr>
<tr>
<td>Population Satisfaction (n = 100)</td>
<td>Poor &lt; 50%</td>
</tr>
</tbody>
</table>

* Sources: Iplance (1997); State Secretariat of Health; Primary data from the study.
vate-not-for-profit hospital and a public health centre. The local health system has a further network of basic health posts around the district. On observation, the various health facilities functioned according to plan. The district had just achieved full municipalisation as we started our study. This was the district where the local health managers spoke the language of the reforms and best established the formal structures and procedures according to the guidelines indicated by the Ministry of Health and the State Secretary of Health. There was an active local health council and a new programme of family health teams that operated in the most needy areas. The local population indicated a better satisfaction with the health care offered than in the other two districts. Health statistics indicate a relatively good quality of health care on the whole (see Table 3).

The third site is a poor, rural district very typical of dry interior region of the Northeast of Brazil called the sertão. The district has one small central town and a couple of other small centres located within a large area of scattered rural settlements. Such rural towns developed historically around sites where those bringing their cattle to the capital for sale would stop to water them en route. The district was only at the first stage of municipalisation, had few formal structures within the local health system. There was a local health council established which did meet reasonably regularly. The town had a small hospital able to cope with uncomplicated births and simple illnesses plus ambulance transport to the adjacent district, an important urban centre. There were four other health posts within the district visited by physicians on certain days of the week and an extensive network of community health workers. On observation, the health centres functioned badly with poor attendance of staff and lack of resources from the district. Assessments of the quality of care from both the population and from health statistics indicate a poor quality of care or health impact, although surprisingly comparable with the metropolitan district (see Table 3).

**Aspects of social organisation and political culture**

The benefits of decentralisation (see Fig. 1) should derive from two primary strategies: the space created for autonomous decision-making and the space created for the voice of the local population to be incorporated into local planning. The social organisation and political culture within which the implementation of these two strategies is embedded affects not only how these strategies operate in reality but also the processes that mediate the intended impact of these strategies on the output in terms of the responsiveness of health care planning, local accountability, quality of care and popular empowerment.

The three study sites proved to be very different from one another in many respects. There is of course, no one correct way of grouping the dynamics experienced and observed. The categories given here seem to us useful in that they group interactional factors under headings that can be related both to the reform process and to organisational frames of reference and in that they provide conceptual dimensions for which indicators may be sought in order to relate these to indicators of health care quality.

**Different spaces for autonomy in planning and decision-making**

The local context directly affects the space that exists in reality for autonomy in planning and decision-making in at least three ways.

**Sources of income**

Although the formal contract with the Federal Union denotes a district as municipalised to a greater or lesser extent, in reality the use of the finance allocated from the Ministry of Health as part of that contract is already tightly determined through formulae. The finance is allocated to pay for ambulatorial (referred to as SIA/SUS) and in-patient care (referred to as AIH) and is calculated with reference to facilities, staffing and population. Thus, regardless of the kind of contract with the Federal Union, in reality a district has relatively little control over the use of these funds. However, the district secretariat of health may also gain income from the State, which may provide finance for specific programmes or projects, and from the district local government. The degree of autonomy that the district health secretariat has over its expenditure therefore depends more on the extent to which its income comes from the Ministry of Health compared with state, or most importantly, district funds. Those districts winning State funding over and above that given for State-wide programmes such as the community health workers programme, tend to be those whose local governments are politically affiliated with the State government. The allocation of district finance to health will depend not only on the political will of local government to support local health related activities, but also on the absolute revenue of the district in the first place. Local revenue comes from various taxes on commercial activities, and these activities are more extensive in the urban and peri-urban districts than the rural ones. The real space for autonomous planning of expenditure is therefore greatly influenced by the political relationship with the state government and the potential for local tax raising, which in turn is generally greater in urban and metropolitan districts than the
rural ones, particularly the more impoverished rural districts.

**Local government**

Whether a potential for autonomous planning created by local tax revenue or state funding transforms into a real space for autonomous planning depends on the local government. Although finance for health care, whatever its source, goes into a district health fund, it is nonetheless ultimately the responsibility of the local government administrative system. This means that not only is the total budget size dependent on the commitment of local government to allocating resources to the health system, but also on the inclination of local government to delegate control over that budget to the district health secretariat. The relative advantages and disadvantages of the local health system being ultimately under the local government administration can be long debated (see Barnabas, 1997 for a discussion), but what is certain is that there is space for great variation in the extent to which the local health system has control over its own resources independently of the local government. In our rural study site, the local government essentially managed the health system, leaving the district health secretariat with control over little more than the community health worker programme, which is funded from the State level. All other decisions were made from the local government office. By contrast in the other two study sites, although purchasing and so forth had to be passed through the local government administrative system, there was no control from the local government over how the health system spent its money.

**Information for planning**

Following on from this, whether a space for local autonomy will be used to plan health care that is more responsive to local needs in part depends on the district health system's own capacity to identify its own health problems in order to plan the allocation of resources. All districts have to collect information monthly which is submitted to the State. This includes the productivity bulletins of patients seen on which payment is dependent, cases of notifiable diseases, deaths and births, as well as data on the activities of the community health workers. Information on mortality profiles of the districts, particularly on Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR), are available at the State level. However, the extent to which the district health secretariat itself maintains an information system, is aware of even basic indicators such as ante-natal care or immunisation coverage and is able to identify priority health issues for the district as a whole and for specific target areas or population groups within the district varied enormously between our three study sites. Although not directly a reflection of local political culture or social organisation, the capacity for information handling is likely to reflect the importance that has been given to information systems in terms of funding and the commitment of health professionals to local planning. The influence of an absolute availability of resources was evident; the richer metropolitan district had a reasonably sophisticated information base, the urban district kept records of its own basic indicators, but no local information was available in the rural district.

The ability to plan locally and respond to local needs is one of the main arguments put forward for decentralised management of health care and thus it is particularly important to assess differences in the space for autonomy. In Northeast Brazil, it is evident that at least three dimensions of local political culture affect the potential and real space for autonomy: the sources of income, the relationship with the local government and the attention given to local data.

**Different spaces for a local voice in planning**

After twenty-five years of military dictatorship, probably the most important aspect of political reform in Brazil has been the push for more democratised institutions. Various types of community-based organisations emerged during the dictatorships as alternative social groupings to the traditional institutions of political parties and unions, which were repressed during this time. These alternatives provided a means through which pressure for improved access to resources and services could be expressed (for examples see Escobar & Alvarez, 1992). Political reform in much of Latin America explicitly attempts to build upon these social movements towards new forms of political involvement in which all groups in society may potentially be represented. In the Brazilian health sector, participatory and decision-making health councils have been established at all levels of the health system (district, state and federal). The existence of a council is a formal requirement for decentralisation, with a fifty–fifty representation of health professionals and lay members. But, beyond this requirement the size, detailed composition and actual functioning can vary immensely. In addition, the previous history of social mobilisation may be critical to outcomes. A long-term study of decentralisation with participation in Italy found that those districts which already had a number of civil, community-based organisations functioned better than those less organised, thus over time increasing inequities between districts rather than the opposite (Putnam, 1993).

In our study, we experienced three very different expressions of the policy directive for participatory district health councils. The urban study site was the
district at that time most clearly committed to the reform programme both in the extent to which district secretariat staff used the reform discourse and in the amount of reform-related activity going on. Here the district health council had been set up to operate in the spirit of the health reform intentions. The council met every month regularly, were consulted about use of funds, were consulted about health programmes and although class and gender differences were evident as influences on participation, many of the lay representatives debated issues keenly and actively. Lay members were selected to represent geographical sub-divisions of the district and civil organisations within the district. There was a reasonable level of civil organisation through residents’ associations, agricultural unions and church groups.

In the rural district, a council existed with a formal fifty–fifty professional–lay membership and met reasonably regularly each month. Civil organisations in the district were few and not much represented through the council. The most important was the agricultural reform movement which did not link much directly with the health council. Residents’ associations were not important. Lay members other than the community health workers were local councillors from geographical sub-divisions of the district. However, since the local government had taken control of managing the health system apart from the community health workers, these normally came along to all the meetings also and in effect the council functioned as a forum in which to tell the community health workers what their activities should be for the forthcoming month.

By contrast, the metropolitan district had a whole mosaic of different civil organisations including strong residents’ associations. However, here the district health council was no longer meeting. The district health secretary took the view that the accounts and so forth were so complicated that even the accountants had difficulties understanding them and thus the idea that either the health professionals or the lay members could make decision about them was ridiculous. The secretary felt the idea of a district health council was just a bureaucratic invention and he was not prepared to waste people’s time on it. A further reflection of this view of the council as a waste of people’s time is that when the health council had existed earlier, it had comprised only health professionals, not lay representatives, despite legal requirements to the contrary.

Thus only in the urban study site did the council appear to meet in line with its agreed formal composition and functions. Awareness of the existence of the councils was poor in all districts. However, named persons to whom people would turn for advice or assistance for health-related problems were often local leaders who were also members of the health councils, so the lack of explicit awareness of the council may be less significant as regards flows of information from the population to the district health secretariat than at first appears. An extension of this point is the observation that the district least concerned with calling health council meetings was almost certainly that with the greatest number and variety of existing civil and community-based organisations already in existence, suggesting other fora for expressing health-related needs might also have been operating.

The proposal that decentralised management of health care will be more responsive to local needs in part depends on decentralisation being accompanied by increased involvement by the catchment population in some way in order to define those needs. The variation between districts in the composition, frequency of meetings and functions of their health councils and the extent of other existing community-based organisations is evident, but the effect of this, if any, on planning or on health service quality needs to be explored.

Thus, the relationship of the district health councils to health services and to the catchment population needs to be assessed in terms of which neighbourhoods and community-based organisations are represented and what proportion of the population this represents, the extent the population is aware of the council and its activities, and what channels people think they would draw upon in order to complain against or lobby for the delivery of health services.

**Personalised and institutionalised influences on autonomy and local voice**

**Management style**

Any formal organisational structure such as indicated by an organogram will show discrepancies with who is really controlling or making critical decisions. A key factor is the management style the district health secretary adopts in terms of the extent of delegation, consultation with or participation of others in decision-making and planning in the district. The metropolitan district could be termed participative with regard to the health staff (the extent of participation of the population is discussed in the next section). The health system was formally structured into different departments and in reality the management of those departments was delegated to their heads. Meetings were held regularly amongst health system staff to discuss progress and problems and so forth, both at the level of the health secretariat and between the health secretariat and the health facility staff. The urban district could be termed consultative in that the health secretary maintained much of the decision-making power but consulted other staff members and the district health council on many matters. In the rural district the power for decision-making was kept firmly by the prefect over most matters, as already indicated in
the previous section. The leadership style of the prefect was thus highly centralised while the style of the secretary of health was largely irrelevant at this time.

**Personalised leadership**

Brazilian society traditionally, like most in Latin America, has been structured along vertical lines of clientelism in which underprivileged members of society align themselves with those in power or aspiring to power who they will support politically in exchange for personal favours (Eisenstadt & Roniger, 1984). These networks of patron-client relationships operate specifically at the local level, such that a prefect, local councillor or other local political figure or any candidate to such position will be expected to assist people to resolve day-to-day problems through a personalised relationship.

Local elections took place during the fieldwork in October, 1996. An issue raised was that many of the political parties in those districts considered most advanced in operationalising the health reforms had failed to get their candidate for prefect re-elected. Clearly, one explanation is that it takes time for benefits from the health reforms to be perceptible to the population, while another is that the reforms may not in fact benefit the population. However, one informant drew attention to the importance of this tradition of personalised leadership. The population has expectations that the prefect and secretaries of the different sectors will be personally involved in individual problems and will personally undertake to resolve them. The informant argued that where local government, including the health system, had put more emphasis on trying to institutionalise new procedures to improve service quality, this has not been so highly visible nor so highly valued. A driver explained to us how good he thought one prefect was because he personally knew which driver should be out in which car on any specific day. Examples were given time and time again by lower cadres of health staff, when explaining why they considered someone a good health secretary, about personal intervention by that person in helping them to resolve a work problem. The importance of a personalised leadership style was evident in all three of our districts. However, in the metropolitan and urban districts there was a strong sense of the leader having obligations to the population, whereas in the rural district the personalised nature of leadership was how things were and indicated the only way to get anything done.

One of the arguments made for the benefits of decentralisation is that a local management layer in the health system will allow for greater consultation with both staff and other sectors which in turn facilitates the planning of more appropriate and responsive services. The tradition of a personalised leadership style does not promote a delegative, consultative style and is unlikely to promote sustainable improvements in service provision. Thus the relationship between leadership styles, consultation and the quality of the health services needs to be evaluated.

**Individual and collective behaviour patterns**

The previous section discussed the effect of personalised leadership on the workings of the health secretariat. The other side of the same feature is the effect on health-seeking behaviour of the catchment population. Many examples emerged during the fieldwork of people resorting to ‘patrons’ in order to resolve their immediate health problems. A patron is someone who has local influence, often involved in local politics, and in exchange for favours, the ‘client’ will give political support in elections. The patron may help with transport either to the health centre or further afield to a hospital in another district, with money to pay for a private consultation, examination or treatment not available at the local health services or by using influence at the health centre to ensure a consultation is given away. Although the use of patron–client networks was found in all three study sites, this was more frequent in the rural district with regard to transport needs and queue hopping, and more common in metropolitan and urban districts with regard to payments for private consultation, examination or treatment. Overall, resort to a patron–client network was least common in the urban district.

The importance of using individual strategies to resolve immediate health problems is that this may well diminish the necessity to engage in collective pressure to get the local health services improved. Thus, the extent to which people draw on patron–client relationships in order to access health care can have an influence on the quality of the health services provided. An additional important point is that where people have succeeded in using such an individual strategy and resolved the health problem, they may well express satisfaction with the health care system and thus user evaluations need to compare the levels of satisfaction of this group with those without patron help.

**Differences in personal involvement with the local district**

The degree of involvement that health staff have with the district may have an influence on whether a space for autonomy is transformed into a more responsive health system. This observation reflects a body of work following Lipsky’s pioneering study on Street Level Bureaucrats (1980) which recognises the power of actors within systems to realise, transform, subvert or completely block policy intentions. The
study sites in Northeast Brazil indicated two striking and related aspects to staff involvement with the district: commitment and continuity.

Commitment

Decentralised management is in essence about providing health care within a defined geographical area within which it is assumed local interrelationships will provide the driving force for responsiveness, appropriateness and accountability. However, health professionals may have little long-term interest in the specific district. This varied greatly between the three study sites.

All three sites were within a few hours drive of the state capital, which in itself exerts an important influence. In the poor rural district, none of the health professionals lived in the district itself. The health secretary, who had been in post for eight years, did herself come from the district and from an important local family, and as such has interests and commitment to the district both in terms of property ownership, political ambitions for self and relatives and in terms of family traditions. Nonetheless, the secretary lived in the state capital and came to the district only two times a week to work in the small district hospital. Similarly, the prefect at the time of the study had property in the district, but a more important business in the state capital and was hardly ever seen in the district. The prefect elect was perceived much more as a local man who was committed to the district as his home. By contrast, the urban district had a core group of physicians resident in the district who eyed with one another for political positions, who worked in the local district hospital (a private not-for-profit facility) and some of whom had their own private clinics in the district also. Nurses and other health staff also lived in the district permanently. A far greater long-term commitment to the district was apparent amongst the health staff in this district. In the metropolitan district, many of the health staff had been working there for many years although not that many were actually resident in the district, being as it was adjacent to the state capital. The staff thus fell into two camps, those who had worked here long-term and those not. A similar pattern was seen between the two district secretaries of health appointed during the research. The secretary of health for most of the study was neither from the district nor resident in the district, although was regularly there and conscientious in his work, whereas the secretary appointed to take over with the in-coming local government had a long history of working in the district and had already been the health secretary under a previous local government.

Continuity

It is evident from the observations above that the continuity of the staff working in a district interlinks with their commitment to the district’s health system development. There are three actors or groups of actors who can affect the continuity of health care provision locally: local government, the health secretary and the health professionals.

First, the local government is elected every four years. Sector heads such as the secretary of health are appointed directly by the prefect and are either political or personal allies or both. This type of appointment is called a ‘post of confidence’ (cargo de confiança) and can be terminated at any time without any need for notice. Thus, all sector heads are closely aligned to the local government and all will change after four years if that party is not re-elected. In two of the study sites (urban and metropolitan), the district health secretary had changed during the four years and changed again after the four years.

Secondly, an elected prefect at this time could only hold office for one term at a time, so even if the same party is re-elected, the person who is the prefect will be different and thus, given the culture of personalised management discussed above, the sector heads may also change. On the other hand, in poorer districts where professionals are limited, a secretary may continue through different local governments. In our rural study site, the secretary of health had already been in post for eight years continuously and was appointed for a further four. As a physician from an important local family, the secretary brings political support for whoever is in power and thus has been able to negotiate the post with different parties.

The third group of actors are the physicians and nurses working in the health facilities. Many health professionals in Brazil will have more than one job, a typical contract being for twenty hours a week. Although most work within the public sector for part of the time, the second contract may not be in the same district and may not be in the public sector. Mobility between jobs even within the public sector can be high, particularly in districts near large urban centres. The continuity of the health professionals in any one district may therefore vary enormously. There are also different types of contracts for health professionals, which have different implications for likely continuity in any one district. Contracts may be held at Federal, State or District level. Entry into the public sphere is officially via a kind of civil service examination (called a concurso) which once passed assures a job for life, although the specific posting and associated perks and bonuses may vary. However, very few districts have established a concurso procedure and thus staff employed by the district do not have such job security. Where there is dramatic change of all top administrative staff every four years, where practitioners are dependent on the goodwill of the health
secretary for their contract continuing and where the health personnel are highly mobile, the probability of good practices in health care delivery continuing over time will be dependent on the action of individuals rather than on procedures being institutionalised into the local system. The factors affecting whether a local system that promotes responsive and good practice locally will be sustainable across the vagaries of local politics has received little attention in research to-date.

Different spaces of acceptable practice and accountability

A final consideration with respect to social organisation and political culture is to define where different groups of actors delineate the boundaries of unacceptable practice by public employees within the health system. In the State of Ceará, after the 1996 local government elections, fifty out of the 184 districts were taken to the State Tribunal under suspicion of malpractice to answer queries regarding their accounts. Cases such as these become highly visible but otherwise identifying local corruption in research studies is almost impossible to do within a practical time limit. On the other hand, variations in norms and values regarding more cotidian practices can be evaluated and their relation to health provision explored (see Sheaff & West, 1997 for an example of a study made in the UK National Health Service). During the fieldwork we recorded various practices in local health systems that in principle violate official procedures. Although cases can always be found of blatantly corrupt practices, serving only the interests of certain members of the system, most fall into a far greyer area ethically regarding acceptability.

Practices such as a health professional referring a patient to their own private clinic can be in the interests of the patient as well as the health professional. This of course can only occur where health professionals have a private clinic in the district. This was the case for the urban and metropolitan districts and no-one from either the staff or the population criticised this practice. We have already commented above on the widespread practice whereby those with political aspirations help potential supporters gain access to health services and health professionals. The acceptance of this was much more ambivalent, depending of course on whether one had access to such a patron or whether one missed getting a consultation because someone jumped in ahead of you. The major complaints came from the rural district and some from the metropolitan. There were few from the urban district. The use of community health workers by politicians in political campaigns is not allowed officially, yet those workers may have political views of their own and want to campaign for a political party in their capacity as a member of the community. Health staff on the whole did not think this acceptable. The community informants and the community health workers had mixed feelings about it. The issue was mainly raised in the rural district. Examples abound of certain individuals keeping medicines at home which they distribute to local people who know to come and seek help there. Such practice is often carried out with a political aim to gain favour locally, the drugs may come from the public health posts and the people distributing them are untrained, and yet in rural areas where there are few health posts and limited transport, this practice can be highly advantageous for the local population. This practice was common in the rural area and no members of the population thought this unacceptable. A number of the health staff objected particularly since the health posts themselves had few drugs in stock.

Although a very complex area merit detailed study in its own right, it is worth trying to access some indication of variation between districts in the norms of acceptability of such practices and its relationship to health care provision. In this study, there was a very broad tolerance towards all kinds of practices beyond official procedures in the rural district. The metropolitan area was somewhat tolerant and the urban district produced relatively few cases.

Going down to the local

The descriptions above illustrate ways in which aspects of local social organisation and political culture can differently affect the implementation of health reforms and the processes by which such reforms improve health care quality across districts. In the case of Brazil, the two main reform strategies are to increase space for local autonomy and local voice. The extent that such spaces are created is clearly dependent not only on the formal contract with the Federal Union but also on a range of more locally determined factors. The processes by which these strategies are assumed to transform into greater empowerment, accountability, responsiveness and quality of health care are moderated at every point by the local social organisation and political culture in which the local health system is embedded. The lines of influence are shown in Fig. 3.

In order to provide a simple summary of the thick description of social organisation and political culture and the aspects of formal organisation and health care quality already presented in Table 3, the three districts are ranked for their performance on all of these and presented in Table 4. The selection of indicators to represent the formal organisation and to evaluate quality of the care is to a large part determined by what
data are available from the districts, the State Secretariat of Health and the State Statistical Institute (Iplance, 1997). These data do however reflect the state’s own definitions of both quality and the important aspects to the formal system. A clear pattern emerges across these three districts.

The urban and rural districts come out consistently well and badly respectively across all three categories. The metropolitan district is rather more interesting in that the formal organisation is comparable with the urban district but the quality of care is surprisingly poor. The extent to which aspects of social organisation and political culture enable or hinder implementation indicates a mixed influence but one which is sufficiently negative to suggest that local social organisation and political culture mediate the gap between formal organisation and resulting quality.

These observations between the three categories of action raise cause and effect questions about the nature of these patterns.

- An environment in terms of social organisation and political culture that favours health reform implementation is the main determinant of the formal organisation of the local health system, successful practice and resulting quality of care.

- A district that puts the formal organisational structures into place may influence the local social organisation and political culture towards a more enabling environment for implementation.

- Neither one is the primary determinant of the other; there is a close dialogue between them that operates as a feedback loop which can escalate the good or bad effects of local health system activities.

The first of these three options is highly pessimistic. No-one working within health reforms would care to reach this conclusion and, as Bossert (1998) noted (cited above), such a conclusion would also be politically unacceptable. The unacceptability of such a conclusion to researchers, practitioners and politicians is not, however, a sufficient reason to deny that it is a possibility. The results from our three case studies can be interpreted in this way. The second of the options is how the health reforms are presented in policy rhetoric and in practice this is the model most practitioners and health systems researchers work within implicitly. The results of this study suggest, not surprisingly, that this is overly optimistic. The experiences of the local health system in the rural area in particular demonstrate how deeply entrenched aspects of social organisation and political culture can dominate how the health reforms are implemented. The third option may offer the most promise in its optimistic caution. Here the importance of local factors is recognised and the likelihood that, without care, decentralisation may serve to increase differences between districts rather than the opposite, as documented by Putnam in Italy (1993). In this study, there are indications that the activities of the health system in turn empower the local population to expect a given quality of health care, but only in the urban district where the social organisation and political culture offer a facilitating environment. However, the dialogic nature of the association does theoretically leave room for influence to go in both directions. In this option, therefore, there can be space for the formal health system to influence local social organisation and political culture and offer a potential for change.

In order to take analyses on these kinds of questions forward, two kinds of further research are needed. First, where some idea of the important aspects of social organisation and political culture is known, extensive surveys incorporating indicators for these can identify factors associated with good health care provision across a wide range of districts. A list of indicators that have been used in Northeast Brazil based on this study is given in Table 5. A study of this nature would aim to cluster districts by the geodemographic and social organisation/political culture indicators and explore whether certain constellations of formal organisational arrangements emerge as associated with good quality of care. Research outputs in
this form can be used in two ways, echoing the discussion above. In a more pessimistic approach, the results can provide a list of options for organisational arrangements that seem to work well in certain types of settings for other districts to draw upon. This assumes that only the formal aspects of health system management are really amenable to controlled change and that social organisation and political culture have to be treated as part of an unalterable given context. It is vital, at the very least, to make explicit recognition of factors that are not amenable to managed change by the health sector. A more cautiously optimistic approach is to use the results as an opportunity to open a dialogue locally with the population, with political leaders and so forth as to what is and is not amenable to managed change, and whether and what activities outside the jurisdiction of the health system might be instigated to provoke change in local social organisation and political culture. Formal activities of the health system might in turn play an important part in such changes.

Secondly, intensive case studies similar to these in different countries can identify a comparative list of aspects of social organisation and political culture that emerge as important for health systems. Brazil, it has been noted before by other writers, may be particularly adept at modifying and transforming formal organisational structures and procedures within its political culture (Hess and DaMatta, 1995; Caldas and Wood, 1997).

‘Many categories and assumptions normally employed in Organization Studies may be of little use or even not applicable within the Brazilian context.’(Caldas & Wood, 1997, p.518)

However, Caldas and Wood also note that they can

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Table 4
Ranking of the three districts for quality, formal organisation and social organisation and political culture

<table>
<thead>
<tr>
<th></th>
<th>Metropolitan</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Quality outputs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMR</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Measles coverage</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Efficiency in use of funds</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Clinical consultations</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Clinical procedures</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Dental consultations</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Radiology</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Population satisfied (n = 100) in each</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>SUM</strong></td>
<td>17</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td><strong>Formal system</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal status</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Organisation: Health council</td>
<td>3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Secretariat structure</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities: no/size/services</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Human resource calibre</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>No. Beds/cap</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>No. CHW</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>No. Family health teams</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Health facility functioning</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>SUM</strong></td>
<td>14</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td><strong>Social organisation and political culture</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United funding</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Local government delegation</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Local information system</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>CMS function</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Clientelism for health care</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Management style</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Personalised leadership</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Commitment</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Continuity</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Boundaries on practice</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>SUM</strong></td>
<td>17</td>
<td>11</td>
<td>28</td>
</tr>
</tbody>
</table>
### Table 5
Indicators of aspects of social organisation and political culture in the context of the Brazilian health system reforms

<table>
<thead>
<tr>
<th>General aspect</th>
<th>Specific aspect</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space for autonomy in planning and decision-making</td>
<td>Source of income</td>
<td>% of district health budget from MoH(SIA/ SUS)</td>
</tr>
<tr>
<td></td>
<td>Local government</td>
<td>% of health budget from district itself</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total budget of district</td>
</tr>
<tr>
<td></td>
<td>Information locally for planning</td>
<td>% of total district budget allocated to health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Who decides use of health budget</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Who approves use of health budget</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Who are the signatories to the health fund</td>
</tr>
<tr>
<td>Space for a local voice in planning</td>
<td>Participation</td>
<td>Agreement on IMR, MMR, coverage levels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agreement on where problem areas are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extent of data use in local priority setting</td>
</tr>
<tr>
<td>Personalised and institutionalised influences on</td>
<td>Management style</td>
<td>Perception of health staff of secretary’s style</td>
</tr>
<tr>
<td>autonomy and local voice</td>
<td>Individual/collective behaviour</td>
<td>Who makes decisions about (1–9 key issues)</td>
</tr>
<tr>
<td></td>
<td>patterns</td>
<td>Who staff go to if want to complain about conditions of work or colleagues</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequency of secretariat meetings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Frequency of meetings of secretariat with health facility managers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community perceptions of secretary’s style</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>Extent of resort to patron to resolve health care needs</td>
</tr>
<tr>
<td>Personal involvement with the local</td>
<td></td>
<td>Birth place and residence of prefect</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Birth place and residence of health secretary</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If prefect or health secretary are physicians, do they work in the district</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(public or private)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Length of time staff have worked in the district</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extent staff are resident in the district</td>
</tr>
<tr>
<td></td>
<td>Continuity</td>
<td>Forms of staff contract — hours, who with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Existence of district public service exam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Political parties in power since 1988</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Health secretaries since 1988</td>
</tr>
<tr>
<td>Space of acceptable practice and accountability</td>
<td></td>
<td>Attitudes to specified practices in terms of acceptability/non-acceptability</td>
</tr>
</tbody>
</table>
see similar tendencies in other Latin American countries and propose wherever a managerial discourse is being introduced from a different culture (usually northern European/North American), a rupture between discourse and praxis, or appearance and substance, is likely to be provoked. The nature of these ruptures in different settings is something international researchers and practitioners in systems development need to know much more about. Although the requirements of ethnography are demanding both in costs and time, such studies are of vital importance to build up a base of knowledge about the contexts of health systems development as a complement to the international work on how to assess quality of health services. Without a body of work documenting the realities of policy implementation in context, we have no record of what is really being changed, we do not know what we are monitoring through quality indicators and we cannot assess relevance of regional and national experiences from one context to another.

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References


At the onset of health system decentralization as a primary health care strategy, which constituted a key feature of health sector reforms across the developing world, efficient and effective health management information systems (HMIS) were widely acknowledged and adopted as a critical element of district health management strengthening programmes. The focal concern was about the performance and long-term sustainability of decentralized district health systems. The underlying logic was that effective and efficient HMIS would provide district health managers with the information required to make effective strategic decisions that are the vehicle for district performance and sustainability in these decentralized health systems.

However, this argument is rooted in normative management and decision theory without significant unequivocal empirical corroboration. Indeed, extensive empirical evidence continues to indicate that managers’ decision-making behaviour and the existence of other forms of information outside the HMIS, within the organizational environment, suggest a far more tenuous relationship between the presence of organizational management information systems (such as HMIS) and effective strategic decision-making. This qualitative comparative case-study conducted in two districts of Zambia focused on investigating the presence and behaviour of five formally identified, different information forms, including that from HMIS, in the strategic decision-making process. The aim was to determine the validity of current arguments for HMIS, and establish implications for current HMIS policies.

Evidence from the eight strategic decision-making processes traced in the study confirmed the existence of different forms of information in the organizational environment, including that provided by the conventional HMIS. These information forms attach themselves to various organizational management processes and key aspects of organizational routine. The study results point to the need for a radical re-think of district health management information solutions in ways that account for the existence of other information forms outside the formal HMIS in the district health system.

Key words: HMIS, information forms, decentralization, strategic decision making, district health systems

Introduction

Since Alma-Ata in 1978, most developing countries have implemented health sector reforms. In almost every case, a central feature of the reform strategy has been a process of structural decentralization: the aim being to vest greater decision-making responsibility in the district health systems. The underpinning primary health care notion is that decentralization thrives on the essential involvement of primary-level health management units in the delivery of health services (WHO 1978). Although the geo-politics vary from country to country, the district tends to be the last formal unit of local government and administration (Mills 1990). Across the variations of decentralization in developing health systems (Mills 1990; Vaughan 1990), the success of decentralization has predominantly been considered to rely significantly on the capability of the district health system to effectively exercise its assigned authority and play its role in the reformed health structure. Thus, there has been a deliberate movement to strengthen the management capacity of district health systems (for instance, Cassels and Janovsky 1996).

One area of focus in district health management strengthening programmes has been health management information systems (HMIS) at the district level (for instance, Acquah 1994; Ankrah and Djan 1996; Lippeveld et al. 1997; Bodart and Sapirie 1998). There are challenges in clearly defining what is meant by HMIS (Lippeveld and Sauerborn 2000). In this study, HMIS is used to refer to the predominant concept of a formal and structured health information system set up to support and facilitate health management decision-making at different levels of any health system (for instance, Ankrah and Djan 1996; Danish Bilharziasis Laboratory 2002; Gladwin et al. 2003). In that light, HMIS is designed to carry both
epidemiological information (health prevalence, incidence, mortality, morbidity statistics) and administrative information (resource inputs and service utilization).

The rationale for HMIS has been that the availability of operational, effective and efficient health management information systems is an essential component of the required district management capacity. The logic is that effective and efficient HMIS will provide district health managers with the information required to make effective strategic decisions that support district performance and sustainability in these decentralized health systems.

However, the arguments for HMIS are not based on unequivocal empirical evidence, or tested theory, that the information carried in HMIS makes a difference, but rather represents a normative view of management capacity. A review of empirical literature reveals a prevalence of HMIS failure problems across a range of country situations in the developing world (Lippeveld et al. 1997), as well as in developed health systems (for instance, Southon et al. 1999; Snyder-Halpern 2001).

Other specific difficulties with far more conceptual implications pertain to the widely recognized problems with the decision-making behaviour of managers in organizations in general, at least when that behaviour is set against normative theories of management and decision-making practice. For instance, empirical studies suggest managers use information for political capital, using information to seek legitimacy for their decisions rather than to make or clarify those decisions (Feldman and March 1988; Guldner and Rifkin 1993). More crucially, it is widely acknowledged that managers use information other than that provided by formal organizational information systems such as HMIS; and this other information may take verbal and observational forms, or may be embedded in the training and experiential background of managers (for instance, Mintzberg 1975).

This paper, therefore, addresses the challenge of reconciling the rhetoric for HMIS in district health systems with observed problems that contradict it, threatens its very integrity, or, at minimum, recognize its limitations in relation to management tasks. The paper describes a comparative study of two district health systems in Zambia, and its main intention is to highlight one major implication of the study findings. The paper describes the core research problem, key objectives of the study, the methods and key findings. It then concludes with a discussion of the major practical implication of the study findings, for HMIS design in developing health systems.

Background

The key research problem confronted by the study was that the interaction between theory and empirical evidence so far indicates that organizations, public or private, still understand little about the nature and behaviour of information within the organizational environment. This problem has to some extent been acknowledged in existing literature. For instance, Liebenau and Backhouse (1990) have pointed out how little we understand about what information is and how it affects us in organizations. More fundamentally, March (1988) and Mintzberg (1975) noted the general gap that exists between findings of research on decision-making and the assertions of classical normative decision-making theory that underpins the current argument for information in organizations. March (1988) argues that this gap is ‘partly attributable to limitations in the theories, rather than limitations in the (decision-maker) behaviour’.

The implications of these critical observations for developing health systems ought to be appreciated sensitively. These are resource-poor economies where new technologies should be continuously and rigorously evaluated in terms of value creation for the health system, for each dollar invested. Yet, the theory-practice gap being flagged up by empirical literature on information and decision-making presents potential problems for cost-benefit analysis in these developing health systems. With divergent trajectories or outcome-projection functions, between theory and actual practice, there is an absence of the necessary agreement on the measurement of benefits, success or indeed failure. The result has been a landscape replete with a plethora of frameworks for measuring information system failure or success (Skok et al. 2001). This condition has not been helpful to practitioners in developing health systems. Developing health systems often set out to strengthen their HMIS based on normative decision theory principles (Acquah 1994; Gladwin et al. 2003), but later have to deal with measuring theoretically unanticipated informational phenomena in evaluation stages of their HMIS programmes.

The theory-practice gap that constitutes the root of this problem is essentially defined by the way in which information is ‘problematic’ in the organizational environment. An expeditious review of literature on information and decision-making reveals three major forms of this ‘problematic’ presentation of information. These three forms of presentation are briefly outlined here.

**Functional versus symbolic use of information**

The principles of normative decision theory are predicated on the functional use of information by decision-makers where, since the onset of Frederick Taylor’s (1911) ‘scientific management’ paradigm, decision-makers use information objectively in making rational decisions. Yet, such works as those by Feldman and March (1981), Feldman (1988), and Dean and Sharfman (1993) represent now common knowledge that people distort and manipulate information for their own goals, and that this is a pervasive phenomenon in organizational life. Information is often used as a symbol of competence, or merely as a signal of appropriate decision-making to secure legitimacy for decisions made. Guldner and Rifkin (1993) observed from their field observations in Vietnam that data were being widely used to justify rather than clarify decisions.
Thus, the symbolic use of information directly defies the traditional logic of the functional value of information to the production process. From the perspective of health systems, information is hence manipulated for goals not necessarily compatible with the explicit aspirations of decentralization.

Use versus non-use of information

Embedded within the logic of normative decision theory is the presumption that decision-makers actually do use information when it is made available, and they behave that consistently towards it. However, for decades now it has been well acknowledged, from observations, that decision-makers gather information and ignore it; they make decisions first and look for the relevant information afterwards (for instance, March 1982). A study by Finau (1994) in the South Pacific highlighted similar problematic behavioural tendencies, that local decision-makers ignored installed formal health information systems and, instead, preferred ‘gut feeling’, hearsay and ad hocry'.

Again, this is a condition that poses HMIS evaluation problems for the health system planner. How credible would any form of systemic performance attributions to the installed HMIS?

Formal HMIS versus other forms of information

Contemporary philosophy of organizational management information systems (including HMIS) is centred on formal structured information systems with, among others, specified formal encoding, transmission and decoding rules that govern those structures (Liebenau and Backhouse 1990; Ward and Griffths 1996; Boman et al. 1997). As Simon (1957) pointed out, formal information systems are based on formal channels of information which may be characterized by 'hard'/paper and/or electronic forms of transmission in the organization. In the study, these forms were collectively referred to as the written form of transmission or information, which includes HMIS.

However, other forms of information have been identified in empirical literature as being present in the organizational environment. In his study of managers, Mintzberg (1975) found that apart from formal management information systems, managers used ‘soft’ information and favoured verbal over written information. The abovementioned study by Finau (1994) points to similar observations. Mintzberg’s study further indicated that managers also use observational information in their work. Experiential and training forms of information are widely acknowledged in the literature as well (for instance, Simon 1976; Melone 1996). All these forms of information are significantly recognized in naturalistic decision theory (a perspective on how decision-making occurs in real world situations). Yet, there still remains conspicuous ignorance of how these information forms operate within the organizational environment. Hence, presently, their practical recognition in HMIS design considerations has been insignificant. This study focused particularly on this third problematic, with a fairly confident theoretical hunch that the informational phenomena presenting the first two problems would still be explainable from this perspective that recognizes the existence of other forms of information outside the formal HMIS.

Study objectives

The aim of the study was, first, to establish the presence of written, verbal, observational, experiential and training information forms in the strategic decision-making process. The focus on the strategic decision-making process represents a major concern for the management capacity of decentralized district health management systems and their sustainability. Local strategic decisions are central to the definition of district health management capacity and the determination of district health system sustainability, in decentralized health systems (Mutemwa 2001).

Secondly, the study aimed to establish the nature of the micro-processes through which the above five information forms influence the strategic decision-making process. The third and final aim was to determine the implications of these findings for HMIS design and operational considerations. However, this paper will not cover the second objective due simply to the complexity of the dynamics involved in the micro-processes. The subject of micro-processes should be better examined in a dedicated, separate paper. Yet, such exclusion does not at all undermine the visibility of overall policy implications from the study, in the findings presented in this paper.

Method

Study design

The study was exploratory. The study did not exclusively set out to only search for the different forms of information identified in the objectives above, but rather the researcher set out with an ‘open mind’. The basic reasoning was that there was still the possibility of finding other forms of information not yet identified in existing literature, or indeed discovering new interesting insights into the strategic decision-making process.

The study was designed as a multi-level, qualitative comparative case study and was conducted in Zambia, where health sector reforms have involved a significant delegation of decision-making responsibility to district health systems (Mutemwa 2001). In Zambia’s decentralized health system structure, there is separation of policy and executive functions in health service provision. At decentralization, the Ministry of Health retained the national-level sectoral strategic functions of health policy and planning, finance and budget, legislation, advocacy and international co-operation (Bergman 1996; MOH 1996).

The government then created a parastatal, the Central Board of Health (CBOH), and delegated to it all the
executive functions of service provision: commissioning health services in the sector, performance support, monitoring and evaluation, national human resource development, and national health facilities planning (Bergman 1996). Responsibility over actual delivery of services was further delegated to district health systems, which were re-constituted into District Health Boards (DHBs). DHBs are legal entities established under the Zambia National Health Services Act of 1995 (MOH 1995). They operate on an annual contractual relationship with the CBOH, and annual service delivery benchmarks are evaluated and reviewed each year-end, against which funding is negotiated and allocated (MOH 1992, 1996). DHBs have extensive strategic and operational decision-making discretion at that primary level, including the legal mandate to raise and manage their own resources. A district can engage in profitable investment activities that it may deem beneficial; plan, recruit and manage its human resources; and engage in any activities that may aid the sustainability and prosperity of the district health system.

For the study, the first level of comparative cases was the district health system context. Zambia’s district health system profile consists of two main types of district groups: rural district health systems, and urban district health systems. A rural district health system in Zambia has a district health service structure that serves a considerable urban population of the district town, and further extends to rural village communities situated outside the town but still falling within the geo-political boundary of the district. A rural district health service will typically comprise a district health office, a referral hospital, at least one urban clinic, and a considerable number of rural health centres and community health posts distributed among the village and farming communities.

Conversely, an urban district health system in Zambia carries a district health service structure that serves an urban community only. An urban district health service will typically comprise a district health office, one or more referral hospitals, and a significant number of urban health centres distributed among the village and peri-urban communities.

These two groups of district health systems experience distinct epidemiological and health management problems and challenges, set within their equally varied respective local socio-economies. Based on the understanding that a number of strategic decision-making processes were to be studied from each district case selected, the researcher estimated that two district health system cases would be sufficiently representative for the study: one rural district and one urban district. These, it was felt, were sufficient to provide empirical insights into how the rural and urban contexts differentially affect managerial decision-making and decision-making processes, particularly in terms of information variety and volume, and decision-making activity.

The second and primary level of comparative cases was the strategic decision-making processes sampled from within the two districts selected for fieldwork. The strategic decision-making processes or cases were compared within each district to establish the degree of intra-district consistency, and across the two districts to determine the degree of inter-district variation in the behaviour of information.

Data collection

Ethical clearance

Ethical clearance was obtained from the national ethical clearance committee, and administrative clearance obtained from the Central Board of Health acting on behalf of the Ministry of Health in Zambia, to conduct the study. Consent was also sought and granted by the selected districts to conduct the study and access written, verbal and observational data sources. Consent to access data sources was also a continuous part of the research process, and was obtained both institutionally, whenever necessary, and from individuals whose personal insight on specific issues was sought through interviews from time to time.

Selecting district cases

One urban district, Lusaka, and one rural district, Monze, were purposively sampled from the national sampling frame of 72 districts in Zambia. The selection process involved several progressive rounds of scoring all the districts in the country on the basis of: whether a district had a functional District Health Management Team (DHMT) and DHB; whether the district was willing to be hospitable to the study; the final two districts had to be located in different provinces to control for regional cultural bias; and a district could not have more than one donor-funded project running during the time scheduled for the study, to control for interference from artificial human and financial resource capacities that accompany such health programmes. Donor programmes were considered not a reliable indicator for long-term district health system sustainability for two main reasons: first, the short-term and definite life-span nature of international development aid; and secondly, the characteristically indeterminate nature of outcome possibilities of development assistance.

On the basis of these four criteria, the list was eventually reduced to the two districts. Lusaka is the capital city of Zambia; while Monze is a rural district in Southern Province, about 200 miles south of Lusaka.

Selecting strategic decision cases

The strategic decision cases were also purposively sampled in a process that was closely guided by the methodology chosen for collecting data on the decision processes. By design, it had been decided that data on the strategic decision-making processes were to be collected using the tracer methodology (Mutemwa 2001). Tracers are concerned with the elucidation of processes and are generally
associated with the description of activities over time (Barnard et al. 1980; Horraby and Symon 1994). Basically, all the strategic decision processes selected for study were going to be traced, from beginning to end, for each decision-making process. Tracing can be done retrospectively on decision cases that have already occurred, or prospectively on decision cases that are concurrent with the study. In retrospective tracing the researcher is often guaranteed complete decision processes that have beginnings and ends, while in prospective tracing it is never assured that a decision process being traced will have resolved before the research project winds up its fieldwork. The particular advantage with prospective tracing is that the researcher is able to witness the decision process as it unfolds, evolves and develops, which offers a different and more intimate experience of decision process reality from that of recalled eye-witness reports or experiential accounts in retrospective tracing. Thus, to optimize the richness of data collected in each district, it was felt some of the strategic decision cases selected for the study were to be historical, for retrospective tracing; while others were to be concurrent with the study, for prospective tracing.

Three criteria were invoked for selection of strategic decision cases in the two districts. A decision process case had to have evidence of availability and reliability of information sources on it; in the case of historical decision processes, there had to be evidence of the process having reached some form of end or resolution; and, the district health office had to give full consent to the study of a selected decision case. To succeed on these criteria, the exercise of selecting strategic decision cases for study in the two districts was deliberately participatory. DHMT members, as executive custodians of strategic decision-making at district level, were involved in the discursive process of recalling, suggesting and listing strategic decision-making processes, historical and on-going, which would be traced in each district. The three selection criteria served as a backdrop to the participatory process. A total of eight strategic decision-making processes were selected for tracing in the study, four from each district. In each district, two of the decision cases were historical, the other two current or concurrent with the study.

Collecting the data

Retrospective tracing of historical strategic decision processes was done through unstructured in-depth interviews and review of organizational documentation. Unstructured in-depth interviews were conducted with key informants on each strategic decision case traced. Key informants were mainly those members of the DHMT or of the broader district health office that had participated in the process. In addition, organizational documentation relating directly and indirectly to the decision process was requested and reviewed. This involved meeting minutes, memos, letters, personal notes, strategic and operational plans, reports and policies. Validation of data was achieved through multi-informant and methodological triangulation (Pettigrew 1990; Mutemwa 2001).

Prospective tracing of on-going or concurrent strategic decision processes was done through unstructured in-depth interviews, review of organizational documentation, and direct observation of decision-making business in the district health office. Observation notes were recorded in field notebooks and a diary. Direct observation took the form of participant observation, the researcher attending and witnessing decision-making sessions without taking active part, but with his status as a researcher known to the actors. To facilitate participant observation, the researcher negotiated for office space within the district health office and focused data collection in each district for 6 months each; that is 12 months in all.

Data analysis

Data analysis was multi-stage. In the initial stage, data on each traced strategic decision were brought together to reconstruct the story of the strategic decision-making process, bringing out, as much as the data could allow, the reality and chronology of its mechanics. The process of data interrogation to reconstruct decision process stories started as part of data collection, in many instances shaping follow-up interviews, documentary reviews and observations. These reconstructed decision process stories were then verified with key informants for validation, and any inconsistencies or misrepresentations corrected.

In the second stage, the eight constructed decision process stories were structured. The search for structure was a search for a common regularity in the decision process cases, which would enable cross-case comparison and meaningful subsequent abstraction. To educate a common structure of the decision process from the eight decision case stories, the emergent theme approach (Mintzberg et al. 1976; Nutt 1984) and critical events principle (Poole and Baldwin 1996) were deployed. Decision process stories were examined using the emergent theme approach, with intuition used to organize the stories into patterns that describe the nature and sequence of key phases and within-phase steps. The critical events principle helped identify key milestones or turning points in the decision case stories, which were used for constructing the frame of the structure.

The last stage of data analysis involved individually breaking down the structured decision stories for, among other aspects: the presence of written, verbal, observational, experiential, training and any other information forms; the source of the present information forms and channels through which the information forms entered the decision process.

Results

Strategic decision-making processes selected for study

As Table 1 shows, a total of eight strategic decision-making processes were traced in the two district health systems. All the four decision processes from Monze were...
about addressing administrative or general management strategic problems, and none were about addressing (epidemiological) health problems. Whereas, in Lusaka, two of the decision processes were about addressing general management problems, and the other two were about (epidemiological) health problems.

There appears to be no other immediate explanation for this distribution in the nature of traced decision processes, apart from the apparent inter-play between the tight decision process selection criteria, coincidence and the timing of the study. For instance, the decision process distribution for Monze does not necessarily imply that there were no health problems in the district at the time of the study. Major decisions worthy of study had been made and health programmes were already running at the time of the study, but these decisions did not exactly satisfy the selection criteria. Moreover, it is significant that, in fact, the administrative or general management decision processes traced in both districts either directly or indirectly, as would be reasonably expected, pertained to health programmes set up to address (epidemiological) health problems.

Structure of the strategic decision-making process

All the eight strategic decision-making processes traced in the study exhibited an identical developmental structure. However, detailed elucidation of how the decision-making process structure operates can only be the subject of a dedicated, separate paper. What will be attempted here is to delineate the form of the decision process structure only as far as it serves as the basic backdrop to the subsequent presentation of data on presence of information, the focal subject of this paper.

Thus, basically, the strategic decision-making process structure that emerged from the data has three stages around which activities in each decision-making process seemed to cluster, from beginning to end. The stages are: problem recognition, investigation and solution development.

Problem recognition

Problem recognition emerged as the first stage of the decision-making process. It covers dynamics by which the decision process is triggered, including the ensuing activities up to the point where the managers arrive at some definition or understanding of what the real or basic problem behind the indicators is. In this stage, managers tended to be pre-occupied with making sense of the presenting problem situation and identifying the problem that they then adopted for targeting.

Investigation

An investigation stage emerged as the second stage of the decision-making process. It covers activities through which the managers get to understand the root cause of the problem, and how much the problem may have impacted on their organization or other aspect of their service. Here, managers or their assigned proxies actively searched for information relating to those aspects of the problem. The investigation stage typically ended at the point where the managers had gained full or part answers on those aspects and they had some general conceptual ideas about the attributes of the ideal solution to the problem. These ideal-solution attributes then provided a reference ‘blueprint’ for the next and final stage of ‘solution development’.

Solution development

Solution development is the third and last stage of the decision-making process. It covers activities about the development of a solution, which in some decision cases came in the form of a relatively complex programme design in bound hardcopy print. In other cases, the solution was nothing more than a simple list of inter-related intervention activities on a one-page internal memo on file (or even listed in meeting minutes as recommendations for action). It is significant that, according to the study findings, solution development does not include implementation of the solution because it was felt ‘implementation’ posed a different set of questions.

A few empirical observations should be made about the three stages of the decision-making process delineated above. First, the structure also recognizes the transitional linkages between the stages, and the activities that constitute these linkages. These transitional activities perform specific functions that ensure the relationships between the stages, and hence provide continuity to the structure.

Secondly, each of the stages is amenable to analysis as an episode with a distinctive set of activities that differentiate it from the other stages in the process. This was particularly useful to the task of breaking down the individual decision-making processes in the search for information in its various forms.

Presence of information in the strategic decision-making process

Firstly, all the five forms of information discussed earlier were found to exist in the strategic decision-making process: written, verbal, observational, experiential and training. District health managers referred to a variety of information forms in the course of strategic decision-making. Table 2 shows, in a comprehensive manner, the information profile across the three decision-making process stages for each of the eight strategic
decision-making processes traced in the study. For instance, in the ‘transport policy’ decision case, the district managers used verbal, written, experiential and training information to recognize the ‘transport’ problem in the district. The managers then used written and observational information to investigate the problem and arrive at some understanding of what the ideal solution to the problem would be. Finally, to develop the ‘transport policy’ as the solution to the problem, the managers again used written, verbal, experiential and training information. Note that although the set of information forms used in the ‘problem recognition’ and ‘solution development’ stages seem identical, their particular contents were different due to the different goals targeted at these stages. For instance, the written information used in the problem recognition stage was different in content to the written information used in the solution development stage. Both are identified as ‘written’ for the reason that both of the information pieces were obtained from written paper and electronic documents.

Tables 3, 4 and 5 present the sources of the information forms identified at each of the three decision process stages in Table 2, for each decision case. For the ‘transport policy’ decision case, Table 3 indicates that, in the problem recognition stage, the managers obtained written information from the HMIS, whereas verbal, training and experiential information were obtained through management meetings. What this simply means is that management meetings served as arenas in which previous experience and professional expertise were pooled and shared, and then applied to understand the transport problem being discussed. This information in management meetings was pooled and shared in verbal form. Note that, in all decision cases, the exact dynamics of this pooling and sharing of information was a subject beyond the remit of the study.

Similarly, Tables 4 and 5 present the sources of information identified in Table 2 under, respectively, the ‘investigation’ and ‘solution development’ stages of the decision process, for each decision case.

Secondly, there was no regular pattern in the presence of these information forms, either across decision-making processes or across the stages within each strategic decision-making process, as illustrated in Table 2. Each decision-making process was informationally distinct; as was each decision-making stage within a process. Thus, as the decision-making process progressed, information in its various forms entered the process for a specific purpose, and exited the process as soon as the purpose was achieved.

In Table 2, the ‘Fuel’ decision process case is listed as having ‘corrupted’ following its first stage, to illustrate the fact that the decision process lost its initial formal focus in the subsequent stages due to political conflict that emerged and preoccupied the process. Thus, the original problem which the ‘Fuel’ decision case set out to address

<table>
<thead>
<tr>
<th>Decision process case</th>
<th>Problem recognition</th>
<th>Investigation</th>
<th>Solution development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport policy</td>
<td>1. Written (HIS, AIS)</td>
<td>1. Written (HIS, AIS)</td>
<td>1. Written (HIS, AIS)</td>
</tr>
<tr>
<td></td>
<td>2. Verbal</td>
<td>2. Observational</td>
<td>2. Verbal</td>
</tr>
<tr>
<td>SEATS</td>
<td>1. Written (HIS 1)</td>
<td>1. Verbal (1)</td>
<td>1. Written (pilot)</td>
</tr>
<tr>
<td></td>
<td>2. Written (HIS 2)</td>
<td>2. Verbal (2)</td>
<td>2. Experiential</td>
</tr>
<tr>
<td>De-linkage of outpatients department</td>
<td>1. Written (AIS)</td>
<td>1. Experiential (1)</td>
<td>1. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td>2. Experiential</td>
<td>2. Experiential (2)</td>
<td>2. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Written (AIS)</td>
<td>(corrupted)</td>
</tr>
<tr>
<td>Fuel</td>
<td>1. Written (AIS)</td>
<td>1. Experiential (1)</td>
<td>1. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td>2. Verbal: formal</td>
<td>2. Experiential (2)</td>
<td>2. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td>informal</td>
<td>3. Written (AIS)</td>
<td>(corrupted)</td>
</tr>
<tr>
<td>Health centre in-charge post</td>
<td>1. Observational</td>
<td>1. Experiential (1)</td>
<td>1. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td>2. Verbal</td>
<td>2. Experiential (2)</td>
<td>2. Training</td>
</tr>
<tr>
<td></td>
<td>3. Written (AIS)</td>
<td>3. Experiential</td>
<td>3. Experiential</td>
</tr>
<tr>
<td></td>
<td>4. Intuition</td>
<td>4. Training</td>
<td></td>
</tr>
<tr>
<td>Strategic environmental health plan</td>
<td>1. Written (HIS)</td>
<td>1. Written (Research 1)</td>
<td>1. Written (Research)</td>
</tr>
<tr>
<td></td>
<td>2. Training</td>
<td>2. Written (Research 2)</td>
<td>2. Verbal</td>
</tr>
<tr>
<td>Health centre staff recruitment programme</td>
<td>1. Verbal</td>
<td>1. Experiential</td>
<td>1. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td>2. Observational</td>
<td>2. Written (AIS)</td>
<td>2. Experiential</td>
</tr>
<tr>
<td></td>
<td>3. Written (AIS)</td>
<td>3. Experiential</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Experiential</td>
<td>4. Training</td>
<td></td>
</tr>
<tr>
<td>Human resource policy</td>
<td>1. Observational</td>
<td>1. Experiential</td>
<td>1. Written (AIS)</td>
</tr>
<tr>
<td></td>
<td>2. Experiential</td>
<td>2. Experiential</td>
<td>2. Experiential</td>
</tr>
</tbody>
</table>

Notes: AIS = administrative information system; HIS = health information system; SEATS = Service Expansion and Technical Support; still in process = unresolved by end of data collection.
<table>
<thead>
<tr>
<th>Decision case</th>
<th>Information type</th>
<th>Experiential</th>
<th>Intuition</th>
<th>Observational</th>
<th>Training</th>
<th>Verbal</th>
<th>Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport policy</td>
<td></td>
<td>Shared by DHMT members in meetings</td>
<td>–</td>
<td>–</td>
<td>Shared by Admin. Man. in meetings</td>
<td>Supervisory visits: meetings with health centre staff</td>
<td>HMIS: HIS and AIS</td>
</tr>
<tr>
<td>SEATS De-linkage of outpatients department Fuel</td>
<td></td>
<td>–</td>
<td>Shared by DHMT members in meetings</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>Health centre in-charge programme</td>
<td></td>
<td>–</td>
<td>By DHMT members in sense-making meetings</td>
<td>Supervisory visits: observation of staff behaviour in health centres</td>
<td>–</td>
<td>–</td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>Strategic environmental health plan</td>
<td></td>
<td>Shared by DHMT members in meetings</td>
<td>–</td>
<td>–</td>
<td>Shared by some DHMT members in meetings</td>
<td>–</td>
<td>HMIS: HIS</td>
</tr>
<tr>
<td>Health centre staff recruitment programme</td>
<td></td>
<td>Shared by DHMT members in meetings</td>
<td>–</td>
<td>Supervisory visits: observation of service provision in health centres</td>
<td>–</td>
<td>Supervisory visits: meetings with health centre staff</td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>Human resource policy</td>
<td></td>
<td>Shared by DHMT members in meetings</td>
<td>–</td>
<td>DHMT observation of administrative practice</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

*Notes: HMIS = health management information system; AIS = administrative information system; HIS = health information system; DHMT = District Health Management Team; SEATS = Service Expansion and Technical Support.*
### Table 4. Routines associated with information types in the investigation stage, across the eight studied strategic decision cases

<table>
<thead>
<tr>
<th>Decision case</th>
<th>Information type</th>
<th>Experiential</th>
<th>Intuition</th>
<th>Observational</th>
<th>Training</th>
<th>Verbal</th>
<th>Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport policy</td>
<td></td>
<td>–</td>
<td>–</td>
<td>Observational</td>
<td>Shared by Admin. Man. in meetings</td>
<td>–</td>
<td>HMIS: HIS and AIS</td>
</tr>
<tr>
<td>SEATS</td>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>De-linkage of outpatients department</td>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td>Corrupted</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Corrupted</td>
</tr>
<tr>
<td>Health centre in-charge programme</td>
<td></td>
<td>Corrupted</td>
<td>Corrupted</td>
<td>Corrupted</td>
<td>Corrupted</td>
<td></td>
<td>HMIS: AIS (research)</td>
</tr>
<tr>
<td>Health centre staff recruitment programme</td>
<td></td>
<td>Corrupted</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>Human resource policy</td>
<td></td>
<td>Shared by task team in meetings</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
</tbody>
</table>

*Notes: HMIS = health management information system; AIS = administrative information system; HIS = health information system; SEATS = Service Expansion and Technical Support; DHMT = District Health Management Team.*

### Table 5. Routines associated with information types in the solution development stage, across the eight studied strategic decision cases

<table>
<thead>
<tr>
<th>Decision case</th>
<th>Information type</th>
<th>Experiential</th>
<th>Intuition</th>
<th>Observational</th>
<th>Training</th>
<th>Verbal</th>
<th>Written</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport policy</td>
<td></td>
<td>Shared by DHMT members in meetings</td>
<td>–</td>
<td>–</td>
<td>Shared by Admin. Man. in meetings</td>
<td>Consultative meetings with health centres, WaterAid, filling station, other staff at district health office</td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>SEATS</td>
<td></td>
<td>Shared by FHSTF in meetings</td>
<td>–</td>
<td>–</td>
<td>Shared by FHSTF in meetings</td>
<td>–</td>
<td>HMIS: HIS and AIS (pilot)</td>
</tr>
<tr>
<td>De-linkage of outpatients department</td>
<td></td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td>Corrupted</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Corrupted</td>
</tr>
<tr>
<td>Health centre in-charge programme</td>
<td></td>
<td>Corrupted</td>
<td>Corrupted</td>
<td>Corrupted</td>
<td>Corrupted</td>
<td></td>
<td>HMIS: AIS</td>
</tr>
<tr>
<td>Strategic environmental health plan</td>
<td></td>
<td>Corrupted</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>HMIS: AIS (research)</td>
</tr>
<tr>
<td>Health centre staff recruitment programme</td>
<td></td>
<td>Corrupted</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Human resource policy</td>
<td></td>
<td>Shared by task team in planning workshop</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>Shared by task team in planning workshop</td>
<td>HMIS: AIS</td>
</tr>
</tbody>
</table>

*Notes: HMIS = health management information system; AIS = administrative information system; HIS = health information system; SEATS = Service Expansion and Technical Support; DHMT = District Health Management Team; FHSTF = Friendly Health Services Task Force.*
remained unresolved by end of the decision-making process.

Thirdly, as Tables 2, 3, 4 and 5 indicate, written information was either from routine HMIS or occasionally commissioned formal investigative research or enquiry report documents that are in circulation within the district health office. For instance, in the ‘Strategic Environmental Health Plan’ decision case, managers engaged investigative research in the investigation and solution development stages to gain required information. The solution development stage of the ‘SEATS’ case involved a pilot study. In some of the traced decision processes, written information took the form of formal one-off letters or informal anonymous notes, as in the following quote from an interview with the District Administrative Manager on the ‘Transport Policy’ decision case:

‘‘...Sometimes somebody would just come and push a note under the door to say transport is not being used as meant for. In fact, not only from the health centre staff but sometimes also from the community. They used to come with a letter to say he (EHT) takes it to Mapanza where he comes from...So we had to decide to put up a measure.’’

Again, in this study, routine HMIS was taken to constitute two components: routine epidemiological health information and routine administrative information. Verbal information equally had formal and informal attributes. Verbal information tended to be shared in formal gatherings, mostly as spoken reports to managers during formal supervisory visits to health centres and visits to local communities. Other formal verbal information reached district managers through consultative meetings with affected constituencies and/or stakeholder organizations during the process of decision making. Informal verbal information was reported to be mostly in the form of informal intimacies about the problem situation; for instance, consider the following interchange between the researcher and the District Administrative Manager during an interview:

Administrative Manager: “...sometimes we used to get the information from (junior) health centre staff that transport is being misused.”

Researcher: “Verbal reports?”

Administrative Manager: “Yeah. Verbal reports. Some of them personal reports to me, that I should consider private and in confidence.”

Experiential and training information existed in the memory stores of the district managers making the decisions. This information was typically ‘downloaded’ and shared in management meetings, during moments of reflecting upon or analyzing the problem at hand. Whereas, observational information reached the managers through direct or vicarious observation or witnessing of organizational activity related to the problem being addressed. In vicarious observation, management typically assigned a member of staff within the district health office to conduct the observation on their behalf.

Fourthly, Table 6 shows the number of times each information form was used in each of the strategic decision-making processes for a specific process activity or purpose. At the bottom of the table are the corresponding crude totals of the information types, indicating their respective contributions to the combined information profile of all the decision cases in the study. Note that, although these figures cannot be taken beyond the eight decision cases in the study, information from formal HMIS was not the top contributor to the traced decision process cases. HMIS was certainly a commonly used source of information, but the most common basis for a decision was experiential information.

Further, there was no ‘observed’ or detected difference, between the two studied districts in the way information behaved in the strategic decision-making process.
Finally, no new significant information form was discovered in the study.

Discussion and conclusion

From the perspective of health system decentralization, this study has shown that decentralized district health systems do engage in decisional activity on matters that affect their long-term survival or performance as health system organizations at that primary level. The study has also demonstrated that different forms of information are brought to bear, in district decision-making, through different channels and from a variety of sources in the district health system. HMIS is only one of those channels or sources. The study has confirmed the presence of written, verbal, observational, experiential and training information forms in managerial decision-making, just as extant decision-making literature has insisted for decades. Yet, this study has gone further to locate these various information forms within the process of decision making, and establish how they tend to be distributed over the decision process space and time.

Probably of most significance for policy is the indication from the study that information in the district health system exists not only in formal HMIS, but is also embedded in and is brought into the decision-making process through the whole process of management and key aspects of organizational routine. In both Lusaka and Monze districts, information also flowed through other channels apart from the HMIS. For instance, routine and other management decision-making meetings were fora for recalling and sharing experiential and training information. Routine supervisory visits to health centres provided a channel for gaining verbal and written information. Routine and specially commissioned monitoring of activity provided the channel for observational information in the district. In addition, task forces specially convened for the decision process also became channels for not only pooling information from various stakeholder experiences and expert knowledge, but also served as entry points for that information into the decision-making process. Commissioned investigative research and pilot testing of prototype solution designs were channels for more written information. For some of the decision processes, consultative meetings with stakeholders and routine communication activities with local communities also provided channels for verbal information.

Thus, information entered the strategic decision-making process through people (district health managers/staff directly participating in the decision process); management/organizational processes (management meetings, supervisory visits, task forces, consultation and communication with local communities); organizational structure (which legitimizes informational contributions); and the HMIS (as currently conceptualized). From this collective of aspects of organization emerged written, verbal, observational, experiential and training information.

It is worth noting that the labels of written and verbal information relate to the formats in which information was delivered or exchanged, while observational, experiential and training pertain to the method or way by which information was gained. Yet, these hints represent some of the fundamental aspects of any information system: collection and delivery of information to the users (Finlay 1994; Ward and Griffiths 1996; Roman et al. 1997). Here, then, it becomes evident that the actual health management information system for a decentralized district health system is by far more integrated and complex than the formal HMIS, and carries organization-wide implications. The study results suggest that the actual health management information system involves all aspects of organization: human resources, management/organizational processes, organizational structure, and organizational systems. The HMIS is only one of the systems in a typical organization (Hardy 1996). In this study, therefore, the realistic informational status of the formal HMIS within the district health office has been revealed.

One immediate practical implication is that when deciding on installing a new HMIS, diagnosing problems in a troubled existing HMIS, or indeed merely evaluating the performance of an established HMIS, practitioners ought to take into account the informational contribution of existing human resources, management/organizational processes and the organizational structure to the total information profile in circulation within the district health office or system. The study findings suggest that each of these three organizational elements must be appreciated as a source and/or conveyor of information. HMIS will not likely succeed in supporting district performance, irrespective of success in adoption rate, if these other components of the organization are not strengthened and aligned for their informational contribution. The very design of HMIS must take into consideration the nature of the information ‘gap’ it is coming to fill in the district health organization, and not only future interactions with prospective users – as predominant practice currently stands. Thus, sponsors of HMIS in district health systems should be concerned not only about technology adoption, as has been the tradition, but also about successful technology ‘docking’ into the complex system that the district health organization is, informationally.

Note that the notion of technology ‘docking’ should not be confused with the systems approach to technology adoption already argued in the literature (for instance, Gladwin et al. 2003). Technology ‘docking’ relies on the identified information gap to be filled by the HMIS in the district health system, and hence necessarily views the other key aspects of the organization as components of the broader management information system. This in itself suggests a need for a radical re-think of the concept and practice of ‘HMIS’.
References


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The opinions expressed in this paper are those of the author alone and do not necessarily reflect formal views of the institutions mentioned.

**Biography**

Richard I Mutemwa is a Research Fellow, Southampton Social Statistics Research Institute, University of Southampton, United Kingdom. He holds a health management MBA and PhD, and has additional previous experience in health and nutrition education and communication mainly in Zambia. Dr Mutemwa is currently based in the Centre for AIDS Research. He is also Co-ordinator for the Community Involvement Group on the Microbicide Development Programme Phase III Clinical Trial (in four African countries) which is funded by DfID through the UK Medical Research Council (MRC), and administered by the MRC Clinical Trials Unit (CTU) and Imperial College in London. His research interests further include health systems, health economics and organizations.

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The crisis in human resources for health care and the potential of a ‘retired’ workforce: case study of the independent midwifery sector in Tanzania

Ben Rolfe, Sebalda Leshabari, Fredrik Rutta and Susan F Murray

The human resource crisis in health care is an important obstacle to attainment of the health-related targets for the Millennium Development Goals. One suggested strategy to alleviate the strain upon government services is to encourage new forms of non-government provision. Detail on implementation and consequences is often lacking, however. This article examines one new element of non-government provision in Tanzania: small-scale independent midwifery practices. A multiple case study analysis over nine districts explored their characteristics, and the drivers and inhibitors acting upon their development since permitted by legislative change.

Private midwifery practices were found concentrated in a ‘new’ workforce of ‘later life entrepreneurs’: retired, or approaching retirement, government-employed nursing officers. Provision was entirely facility-based due to regulatory requirements, with approximately 60 ‘maternity homes’ located mainly in rural or peri-urban areas. Motivational drivers included fear of poverty, desire to maintain professional status, and an ethos of community service. However, inhibitors to success were multiple. Start-up loans were scarce, business training lacking and registration processes bureaucratic. Cost of set-up and maintenance were prohibitively high, registration required levels of construction and equipping similar to government sector dispensaries. Communities were reluctant to pay for services that they expected from government. Thus, despite offering a quality of basic maternity care comparable to that in government facilities, often in poorly-served areas, most private maternity homes were under-utilized and struggling for sustainability.

Because of their location and emphasis on personalized care, small-scale independent practices run by retired midwives could potentially increase rates of skilled attendance at delivery at peripheral level. The model also extends the working life of members of a professional group at a time of shortage. However, the potential remains unrealized. Successful multiplication of this model in...
Introduction

The human resource crisis in health care means that many countries are far from reaching the health-related Millennium Development Goals (MDGs). Factors contributing to this crisis include mal-distribution and low workforce productivity together with an acute shortage of skilled workers in the government health sector. Losses to other health and non-health sectors can be as much as 15–40% per year according to estimates from Zambia, Ghana and Zimbabwe (High Level Forum on the Health MDGs 2004). In sub-Saharan Africa these problems exacerbate an absolute shortage of health workers. The result is chronic under-provision, impacting disproportionately on vulnerable groups such as women and the rural poor (WHO 2006).

One strategy to alleviate the strain upon government services has been to encourage differing forms of non-government provision (Harding and Preker 2003; Marek et al. 2005), but there are concerns that this may contribute to the further drain of scarce expertise from public services (Van Lerberghe et al. 2002), to inequity of access (Wyss et al. 1996; Benson 2001; Brugh and Pritze-Allassime 2003), and to difficulties of stewardship in increasingly fragmented systems (Saltman 2000; Sharma 2001). Certainly, careful analysis of both anticipated and unanticipated consequences of shifts in the balance of mixed economies of health care are required (Hanson et al. 2001; Brugh and Zwi 2002; McKee and McPake 2004). Detailed studies of the contextual dynamics and constraints in specific settings can help develop an understanding of what role non-government forms of provision will have within the achievement or frustration of public health goals.

The consequences for maternity care coverage and outcomes of the general rise in private sector provision are unclear (Brugh and Pritze-Allassime 2003), but there are areas of concern. In many countries, private obstetrician-led services are associated with inappropriately high levels of technological interventions such as induction of labour and Caesarean section (Price and Broomberg 1990; Murray 2000). There are a handful of studies on the attitudes and motivations of doctors in relation to these rates, principally from Latin America (De Mello e Souza 1994; Murray and Elston 2005).

This article presents findings on the drivers and inhibitors acting upon the development of one new element of non-government provision in Tanzania—the small-scale independent midwifery practice—and considers what contribution this sector may be expected to make to the MDG target of increasing skilled attendance at delivery. Such independent midwifery practices have yet to be the subject of much research (Ghana: McGinn et al. 1990, Obuobo et al. 1999; Uganda: Seiber and Robinson-Miller 2004, Agha 2004; Kenya: Yumkella and Githiori 2000), and Southeast Asia (Philippines: John Snow Inc. 2005; Indonesia: Geefhuysen 1999, Suryanigish 2005). They have become an explicit element in Safe Motherhood policy to increase coverage of skilled attendance in Indonesia and have attracted some ‘donor’ attention in Uganda, Kenya and elsewhere (see http://www.psp-one.com).

Deregulation to permit private provision in Tanzania

As yet little consideration has been given to the possible positive and negative effects for the workforce, or for public health, of the expanding private sector in Tanzania. There has been a long tradition of policy focused on creation of a unified health care system provided by government, voluntary faith-based organizations and parastatals with oversight from the Ministry of Health. Facilities run by voluntary faith-based organizations play an important role as ‘designated district hospitals’, in rural areas. Private for-profit ownership of health facilities was banned in 1977, but reinstated in 1991, and by 2001 it accounted for just under 20% of health care facilities in Tanzania. The greatest private for-profit activity is at

Keywords

Human resources, health policy, skilled attendant, retirement, Tanzania, private sector, qualitative, multiple case study

KEY MESSAGES

- Detail on implementation and consequences of non-government health care provision in specific contexts is important for guiding policy on human resources for health.
- Following deregulation in Tanzania, independent midwifery practices began to be established by a ‘new’ workforce of retired Nursing Officers offering personalized care in under-served areas, but delivery coverage is low.
- Sustainability and utilization in poor communities requires supportive measures such as reform of the costly registration procedures and consideration of on-going financing arrangements such as micro-credit, contracting or vouchers.
dispensary level, 21% of which were privately owned in 2001 (Ministry of Health 2002). Significant spatial inequalities have emerged with this process, with a tendency for for-profit providers to congregate in the urban areas with existing government provision (Benson 2001). Seventy-eight per cent of the facilities in Dar es Salaam are provided by the for-profit sector (Ministry of Health 2002).

The challenge of delivery care coverage

Sub-Saharan Africa currently accounts for 47% of all maternal deaths (UN Millennium Project 2005). There are ambitions to dramatically increase (to 90%) the proportion of births assisted by a skilled attendant by 2015 in line with targets set for the MDGs. However, the reality is that levels of skilled attendance at delivery increased by only 1% between 1990 and 2003 (UNDP 2005). Increasing rates of skilled attendance at delivery in the context of poorly functioning health systems presents an enormous challenge. It is widely recognized that innovative models of service delivery are urgently needed.

In Tanzania, the lifetime risk of maternal death is estimated to be one in ten (WHO 2004). The economic crises of previous decades (Commission for Africa 2005), compounded by some out-migration of skilled staff (McKinsey & Co 2005) and by multiple impacts of HIV/AIDS on the workforce (Beckmann and Rai 2004), are reflected in the deterioration of health care provision. In 2005 the Joint Annual Health Sector Review stated that the health worker crisis in Tanzania had reached emergency proportions. The overall nurse-to-population ratio was estimated to be 16:100,000 and declining. In some rural districts it was just 6:100,000 (High Level Forum on the Health MDGs 2004; Maestad 2006). Accurate data on current workforce composition has been lacking, but the 2001–2 Human Resources for Health (HRH) Census indicated that there were approximately 13,300 active nursing staff across government and non-government sectors in Tanzania. From this, Kurowski et al. (2007) estimate that 8,940 fulltime equivalent of nurses and midwives are engaged in Safe Motherhood interventions.

The HRH census also highlighted an ageing health care workforce, with half over the age of 40. Owing to the employment freeze in much of the 1990s, the average age of employed health workers increased significantly and high losses due to retirement are anticipated over the next decade (Kurowski et al. 2004). Recently there has been some increasing momentum around workforce issues, including establishment of a high level Human Resources Working Group in 2003 and plans that include increased zonal training for a range of health cadres, but the challenges are formidable (Dominick and Kurowski 2004; HERA 2006).

Rates of skilled attendance at birth (those attended by doctors, nurses, midwives, clinical officers and assistant clinical officers) fell in Tanzania during the 1990s from an estimated 46% in 1992 to 36% by 1999 (Bureau of Statistics Planning Commission 1993, and National Bureau of Statistics 1999, respectively). Approximately 84% of health workers are employed in rural areas serving 80% of the population (Dominick and Kurowski 2004) but this statistic hides geographical disparities in service coverage and utilization. According to the most recent official survey, over 80% of urban women but only 35% of rural women reported having a skilled attendant for their delivery (National Bureau of Statistics [Tanzania] and ORC Macro 2005). As rural areas are largely served by low-level cadres (Dominick and Kurowski 2004), many women were probably actually attended by nursing assistants with one year of formal training (Maestad 2006). Delivery care by family members and by traditional birth attendants (TBAs) is widespread at 26% and 11% of births, respectively (National Bureau of Statistics [Tanzania] and ORC Macro 2005).

The specific contribution of non-government provision to maternity care coverage is seldom documented and in Tanzania the information is fragmentary. A 2003 estimate of coverage of births in Ilala municipality, Dar es Salaam, indicates that one in six deliveries there takes place in private facilities ranging from large private for-profit and foundation hospitals to small-scale private and NGO-run clinics (Murray and Nyambo 2003). In 1997 legislation specifically permitted the establishment of private nursing and maternity homes by Nursing Officers (Nurses and Midwives Registration Act 1997). Information drawn from the Nursing Council, Ministry of Health, Regional and District Health Offices, and from the Private Nurses’ and Midwives’ Association (PRINMAT) suggests that there are approximately 60 independent midwifery practices, commonly known as ‘maternity homes’. Below we describe and contextualize this nascent independent midwifery sector, and use these findings to consider its potential within a strategy to increase overall skilled attendance at delivery.

Methods

Research clearance was obtained from the Tanzania Commission for Science and Technology, and from Muhimbili University College of Health Sciences Ethics Committee. An initial national situation analysis included 20 key informant interviews with senior health planners and representatives from relevant professional organizations, plus a review of relevant documentary evidence. From these we generated initial hypotheses about the current social context, organization and delivery of independent midwifery care in Tanzania. From mid-2003 to mid-2004, we tested and extended these hypotheses in a multiple case study. The methodology was chosen for its ability to embrace complexity, and to generate and test hypotheses in real world settings, where boundaries between phenomenon and context are not clearly evident (Yin 2003). In order to place the midwife-owned practices within their community and health system, we used local Council districts that included maternity homes within the range of health care provision as the contextual ‘cases’.

Nine case districts (see Tables 1–3) were selected, using a purposive sampling strategy. We aimed to include the breadth of geographical, organizational and socio-economic contexts in which private small-scale midwifery practices were thought to be operating. Information from the incomplete national register was supplemented with information from key informants such as PRINMAT. Case districts contained between 1 and 6 maternity homes each. Overall they included 23 such practices, some 40% of those operating in Tanzania at that time. This range was important in order to build confidence that the hypotheses might hold in a variety of contexts and therefore be relevant for informing future policy development for the larger workforce.
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**Summary of findings**

**M** Average distance from urban centre greater for midwife-owned facilities than for doctor-owned dispensaries

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes

Hypothesis well supported.

**N** Underserved location near transport corridor associated with self-reported clinic sustainability

- Not tested
- Not tested
- Yes
- Yes
- Yes
- Yes
- Unclear
- Yes
- Unclear

Hypothesis supported by theoretical replication. Dar es Salaam not tested due to geographical complexity.

**O** Basic MCH services provided

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Mostly

Hypothesis well supported.

**P** Integrated into district health system

- Limited
- Limited
- Limited
- Limited
- Limited
- Limited
- Yes
- Limited

Hypothesis not well supported. Integrated for referral purposes, but limited support for day-to-day operation (registration, supplies etc.).

**Q** Absence of suitable quality assurance mechanism

- Yes
- Yes
- Yes
- Yes
- Yes
- Partial
- Yes
- Yes
- Yes

Hypothesis well supported. Plans for PEER supervision by Private Nurses and Midwives Association may partially remediate.

**R** Quality of personal care reported by community to be superior to that in government facilities

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes

Hypothesis well supported.

**S** Quality of maternity services provided as good as or better than in nearest government dispensaries

- No
- Yes
- No
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes

Hypothesis well supported but complex. Highly variable quality in both sectors. Many government facilities either do not conduct deliveries or are open short hours.

**T** Few clinical training opportunities available to extend skills

- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Yes
- Partial
- Yes

Hypothesis well supported.

**U** Cell phone technology available for emergency communications

- Yes
- Yes
- Yes
- No
- Yes
- No
- Yes
- No

Hypothesis supported. Situation recently much improved. Limited transport available however.

**V** Local community benefits from improved access to transport for obstetric and other emergencies

- No
- No
- No
- Yes
- No
- No
- Yes
- No

Hypothesis not well supported. Transport facilities similarly poor across sectors. Emergency finance available in private sector.
For each case study, health care provision was mapped. Qualitative and quantitative data were collected from the range of sources listed in Box 1. In total 125 in-depth interviews and 58 focus group discussions (FGDs) were conducted, in English or Kiswahili according to respondent preferences. Case studies were conducted consecutively; the iterative research design allowed further hypotheses to be generated and tested as data collection progressed. Tables 1–3 present the key hypotheses relevant to this article within a data matrix and these are cross-referenced in the text. Hypotheses fell into three broad groupings: those concerned with motivations and relationships to the wider health care system; those concerned with location, range and quality of services; and those concerned with demand-side issues of acceptability and utilization. Each hypothesis was tested against the triangulated data for each case derived from the sources listed in Box 1, and supported or modified through pattern replication over the multiple case studies. Hypotheses could thus be supported by literal replication across multiple case studies (in which theoretically predicted replications occur consistently in data, as in hypothesis D in Table 1) or by theoretical replication (in which contrasting results are theoretically predicted, as in hypothesis F in Table 1).

All respondents gave informed consent to be interviewed, consistent with guidelines for interviewing literate and non-literate subjects (Nuffield Council on Bioethics 2002). Consent of local leaders for conduct of the study in each district and village was also obtained. Instruments were drafted in English and translated and adapted for conceptual equivalence in Kiswahili by bilingual members of the research team. A sample was independently back-translated and checked.

Interviews and FGDs were tape-recorded, transcribed and, where applicable, translated into English by experienced Tanzanian social researchers. In the few interviews where tape recording was not possible detailed notes were taken. The 220 primary documents were analysed in English using Atlas Ti 5 by Scientific Software.

Findings

At the time of the data collection the formal independent midwifery sector in Tanzania consisted of about 60 small-scale facility-based practices providing antenatal and childbirth care within a range of primary care services. Private midwifery practices were found concentrated in a ‘new’ workforce: retired, or approaching retirement, government-employed Nursing Officers (Table 1: A) who made the switch to self-employment late in life and could be characterized as ‘elder’ or ‘later-life entrepreneurs’ (Spoonley et al. 2002; Weber and Schaper 2003). The median age of the 23 owners we interviewed was 54 years. Of these the vast majority were business novices, new to self-employment and entrepreneurship (Table 1: B). A small number had a background of ‘serial’ micro-businesses run in parallel with their main government employment. This is not uncommon in Tanzania where nursing salaries are often supplemented with other petty income-generation activities. Here they were used to generate the capital necessary to set up the independent practice:

I was shown the Ministry of Health guidelines and saw that they had so many requirements. So I started a small business of keeping...
Box 1 Data sources and sampling used in the analysis

National and Regional level health management information system data, interviews with senior managers and documentary review.

At District level in each of nine case study districts:

- District Health Management Team Members interviewed (District Medical and Nursing Officers)
- All owner-managers of existing and recently closed private maternity and nursing homes, in-depth interview.
- All clinical staff members employed at active private maternity homes, in-depth interview.
- Clinic inspection checklist for basic equipment and other physical attributes completed at all active private maternity homes and nearest equivalent public sector facility.
- Public sector staff working at the nearest ‘equivalent public facility’: two oldest midwives on shift at first visit.
- Public sector nurses near retirement, interview: two oldest midwives aged over 55 years on shift at first visit.
- Retired Nursing Officers, FGD: snowball sampled from older nurses at District Hospitals.
- Public and private users, FGD: approximately eight users with youngest children recruited at immunization or growth monitoring clinics.
- Separate female and male community members, FGD: participants recruited using ‘ten cell leader’ nearest the private clinic, where possible one participant from each ‘cell’ or street.
- ‘Younger’ nurses, FGD: all available Nursing Officers under 30 years at district hospital.

pigs, started with one male and two female pigs during the rainy season where it was easy to obtain food to keep them. I got eight piglets from those two females; I sold the first eight piglets and got money to make a local delivery bed. I kept the other eight together with their mothers. Those two females gave birth again, and as the dry season was getting near I decided to sell them all. I went to the mission hospital where I worked before, they sold me some used equipment. (Midwife, Mbeya Region)

Some home owners continued to be involved in micro-business activities such as keeping chickens, but their maternity practices, often with pharmacies attached, were their core work activity and represented a significant investment of scarce financial resources (Table 1: C,D). A strong service ethos was also consistently represented in their accounts of their activity, particularly amongst those falling into the ‘later life entrepreneur’ typology (Table 1: E).

Most of the maternity homes were in rural or peri-urban areas, distinguishing them from doctor-run clinics (Benson 2001; and Table 2: M). Most owners of maternity homes in our study had attempted to locate these in previously under-served areas adjacent to key transport corridors. However, as regulations did not permit them to live in the premises, a location close to their residence was required for provision of 24-hour ‘cover’. Some therefore made compromises on the optimal location, with eventual implications for ease of financial sustainability (Table 2: N).

Government regulations stipulate that services provided by nursing and maternity homes must focus around maternal and child health (Table 2: O). All homes provided antenatal care and were equipped at least in basic fashion to attend deliveries, but we found that most practices actually attended only a few births per month (range 0 to 26; median of 3 births/month; Table 3: W). Most practices also provided more remunerative minor curative care; some employed Clinical Officers. A significant part of income came from selling non-prescription drugs for malaria and minor illnesses. Some also provided home-based care for HIV/AIDS, ‘youth-friendly’ reproductive health services, and child growth monitoring.

Determinants of individual engagement in independent midwifery

The motivational aspirations of these independent providers encompassed economic, caring and professional goals. Reported ‘push’ factors without exception centred around financial insecurity: extremely poor government sector salaries, inadequacy of pensions and fear of a decline into poverty after retirement (Table 1: F).

Reported ‘pull’ factors often focused on financial rewards expressed as a stable income source rather than significant profits. Additionally cited were flexible working hours and what Kendall et al. (2002) call ‘mercantile motivation’—the sense of autonomy and achievement to be gained from running one’s own small business venture. Motives also included concern for the health and well-being of women in labour and satisfaction in meeting the needs of under-served communities (Table 1: E). Sometimes activity had been initiated in response to a perceived need, other times because of repeated requests for services. Respondents frequently expressed the desire to ‘use one’s talents’, not to ‘sit idle’ after retirement from government employment. Linked to this was a desire to maintain social standing through a professional identity (Table 1: G).

Focus groups with soon-to-retire public sector nursing officers and nurse-midwives in all nine districts confirmed the general applicability of these various push and pull factors, and suggested that opening an independent practice may be an attractive idea to many. However, successful multiplication of the small-scale midwifery practice model is dependent also on the dynamics of the social and institutional environment, and here we found there were considerable barriers in spite of the legislated deregulation.

Low levels of demand

The case studies indicate that individual users valued the proximity of the maternity homes. They would trade off the costs of user-fees against the opportunity and financial costs of transport to government services further afield (Table 3: X) and against the unpredictable ‘under the table charges’ (Abel-Smith and Rawal 1992) often encountered there. However, most of the private maternity practices still suffered from chronic under-utilization, in relation to their capacity and to the local
need for midwifery and other health care (Table 3: Y). This was due to low interest in professionally attended childbirth in facilities amongst rural communities, and to seasonally variable incomes and scarcity of cash to spend on health care. It also reflected some antagonism on ideological grounds from communities to private sector expansion (Table 3: Z). Community focus groups indicated that notions of citizen rights to health care are still strong. Where local people had contributed to the building of local public dispensaries, for example, they expected to continue to be provided with government services. Even where extended kinship and tribal networks might seem to provide a natural client base for midwives returning home to their village, the reality can be more complex because of expectations that such neighbourly services be provided without charge.

Such demand-side inhibitors caused demoralization and discouragement among the majority of these private midwifery providers, who were unable to actualize their aspirations for their practices. This was compounded by the lack of business skills (Table 1: H) that might have helped them to adapt their approach to accommodate a relatively hostile environment.

Restrictions on ownership
Legislation restricted ownership of these facilities to Nursing Officers who are a key cadre and compose the most senior third of professional nurse-midwives in the country (http://www.nbs.go.tz/health.htm, accessed 6 July 2006). Other less senior midwives who may have many years of recent ‘hands on’ experience of maternity care had no approved route to self-employment within their profession. While probably serving to contain early- to mid-career ‘leakage’ from the government workforce, this limited the size of the post-retirement pool of self-employed midwives.

Bureaucratic constraints
The complex registration procedures for nursing and maternity homes tended to be poorly understood by local health managers whose role was to inspect the facilities (Table 1: I; Table 2: P). They also required coordination and communication between different levels of the system that was unrealistic for a struggling health care bureaucracy. Many practices reported that they had been unable to complete the registration procedure over a number of years. Tanzanian territory covers some 945 000 km², but to comply with rules for national registration of homes after approval, midwives needed to travel personally to Dar es Salaam to pay the fees, incurring significant travel and opportunity costs. These barriers were compounded by a generally difficult environment for commercial activity. The banking, business licensing and taxation systems all present obstacles to such small-scale entrepreneurs.

Barriers to accessing set-up finance
Shortage of capital and lack of appropriate and unsecured credit represents a major obstacle to the expansion of female enterprises in many settings (Epstein 1993; Mayoux 2001). In Tanzania, women face socio-cultural and institutional barriers, often lacking the ownership title to land and property needed to meet prescribed collateral requirements for commercial loans (Rutashobya 1998; Chijoriga et al. 2002; Stevenson and St-Onge 2005). The midwives consistently reported credit to be expensive and hard to access (Table 1: D). None of those interviewed had the business plan that would normally be required to demonstrate project viability prior to a loan being granted.

Unrealistic specifications
These difficulties were compounded by the high start-up costs of a home (US$5000–10 000), which represented a large financial risk even to those with access to capital. Most maternity home owners in the study had invested their entire savings and pensions into the venture. These high costs were due to infrastructural specifications required by the Ministry of Health which mirrored the physical and human resource criteria specified for public sector dispensaries (an eight-room facility with generator, oxygen and various staff). Such ‘minimum requirements’ were unrealistic for independent providers working at peripheral level and too expensive to be easily sustainable given the prevailing economic conditions in rural areas. None of the owners reported making a profit comparable to the salary that they previously received in the public sector. Some homes did provide employment and informal in-service training for nursing staff, but these certainly posed little threat to the government sector with respect to poaching of staff, as such staff were being paid irregularly (Table 1: K).

Further constraints on profitability
Inconsistent and unclear policy relating to charging structures and taxation compounded difficulties for the maternity home owners. Government pronouncements on exemption from user fees for maternal and child health services were widely understood by the population and some district health managers to imply free services in all sectors, although there was no mechanism to reimburse small-scale providers of care such as the maternity homes. Additionally, small health care facilities were charged for tax and business licences in the same way as profitable commercial businesses. In the context of high start-up costs and low demand from poor communities, such institutional behaviours served to further limit the financial viability of the sector (Table 1: L).

Weak integration in the local health system
Management systems for the regulation of private facilities were extremely weak at all levels. These private practices were less well integrated into referral and administrative networks than equivalent level public facilities (Table 1: J). This was reflected in generally poorer access to on-going training, supplies and supervision. Regulation and support of private facilities was highly dependent on the inclinations of individual District and Regional Medical Officers. Some maternity homes were actively supported and given vaccines, drug fridges and delivery registers from district stores, but many received no support. District supervision of private facilities existed in theory, but it was limited, as it is in the public sector, by lack of vehicles or fuel (Table 2: Q). Reports of experiences from countries such as Ghana (Obuobo et al. 1999) had led to an
initial hypothesis of resistance from government health workers to receiving such referrals from private care. This was not supported in our case studies, often because the maternity home owners could draw upon their long government sector careers for credibility.

Using an independent midwifery practice—what quality of care?
Concerns about obstacles to the maternity homes’ sustainability rest upon an implicit assumption that they can, under current or more favourable circumstances, offer women a good quality service. We used an equipment and services checklist to assess quality of care in the maternity homes, and triangulated the findings with narratives from users. Quality was similarly assessed at the nearest comparable government facility.

Quality of personal care was reported by community members and by providers to be far superior in these private practices to that in government facilities. As a ‘relational good’ (Kendall et al. 2002), personal interactions have important implications for quality of care in pregnancy and particularly in childbirth, but these are often neglected in government facilities. Verbal and sometimes physical abuse by midwives in the public sector featured frequently and consistently in women’s accounts of their care from all the case districts, and it was reported in user focus groups to be a major deterrent to seeking care at the government facilities (Table 2: R).

One study of antenatal care in Dar es Salaam (Boller et al. 2003) highlighted that technical quality of care is related to the cadre of staff providing the care, and found that 80% of antenatal care in their sample of public facilities was provided by MCH Aides, with only a two-year basic training. This can be compounded in rural areas by high vacancy rates and low motivation in staff. We found that some of the private maternity homes also were staffed by lower cadres of staff such as MCH Aides when the owner was absent. Such situations tended to occur in the cases where the owner-manager had other professional commitments elsewhere. The technical quality of care was basic at the maternity homes, but it was similar to that offered by equivalent government facilities (Table 2: S). Shortages of basic drugs and equipment were common to both. In the public sector, these were caused by irregular supplies from medical stores, in the private sector by insufficient capital to pre-purchase from commercial sources and lack of access to discounted supplies from government medical stores.

On-going professional development was extremely limited amongst independent sector midwives, the exception being clinical updates offered by PRINMAT as part of their annual conference events (Table 2: T). Private sector midwives reported that they were almost never invited to update-training arranged by the government sector. However, such resources are in short supply and many public sector midwives also receive little in-service training. At the time of data collection, for example, none of the practising midwives interviewed in either sector in the study districts had received any specialized in-service training in managing obstetric emergencies, and we found only erratic use of the parograph to monitor well-being in labour in both sectors.

Limited skills in the early detection of obstetric complications are compounded when facilities are geographically isolated. The median distance from the maternity home to the nearest district referral hospital was 9 km. The furthest in the case study districts was 65 km. Half were over 30 km away and on very poor roads. Communication and transportation in an obstetric emergency was therefore an important issue. Recent advances in communications technology have been important in reducing some of the isolation of small clinics and most practices surveyed did have telephone communication, usually a cellphone (Table 2: U). None of the maternity homes had a formal emergency transport plan (Table 2: V), but all facilities reported some established method for emergency referral. Transport was much more readily available for those in peri-urban settings—in most cases using public transport (taxi or bus)—and far more limited in rural conditions. The costs of referral were significant and in all cases borne by the client, although some maternity homes reported lending money in emergency cases. Whilst referral for complications was often difficult to accomplish quickly, it was just as difficult for equivalent local government facilities which also lacked their own motor transport, and expected the referred patient to bear the costs of transfer.

Public health implications—what does the independent midwifery sector offer for increasing coverage of skilled attendance for childbirth in countries like Tanzania?
The findings presented here suggest that small-scale independent midwifery practices may have potential to contribute to rates of ‘skilled attendance’8 for delivery at peripheral level. These ‘nursing homes’ or ‘maternity homes’ do not possess some of the negative attributes associated with doctor-owned private for-profit services, such as concentration in better-off urban areas and over-intervention (Mackintosh and Tbandebage 2002). Doctors owning dispensaries often practice multiple job-holding or ‘dual practice’ in public and private sectors (Van Lerberghe et al. 2002; Harrington 2003), but we found little dual practice among these independent sector midwives. Independent practice is currently seen primarily as a post-retirement option,9 so there is little drain on, and more complementarity with, the government sector maternity workforce.

However, this form of provision has yet to make any significant contribution to rates of skilled attendance at delivery. To make a contribution of 1% to national coverage of deliveries,10 for example, all the existing independent midwifery practices would each need to be providing, every week of the year, delivery care to 4–5 women who would not otherwise have obtained professional care from the health care system, and this level of activity is not currently being met. The average volume of deliveries attended in the maternity homes is not high or sustained, for all the reasons already outlined. Furthermore, some of those women using private maternity homes are individuals who are substituting delivery care in the public sector for private sector treatment, representing little net gain in overall rates of skilled attendance.

Structural changes in the health sector labour market, including a public sector employment freeze in 1993 and an increase
in the retirement age from 55 to 60 in 1999 (Kyejo 2001), contributed to an ageing health care workforce (Kurowski et al. 2004). There will be a large cohort of retiring midwives over the next few years, and our data, derived from case studies in a variety of districts, suggests that returning to home villages may be quite a common practice at retirement. However, to harness this resource, and indeed for any significant expansion of this sector, reduction of the legal and institutional barriers will be needed.

**Discussion**

Brugha and Zwi (2002), in their review on the evidence for global approaches to private sector provision, end with a strong plea for caution in implementation of policies to enhance the private sector’s role in delivering health care, and a call for more detailed research to inform this. Health systems need to be understood within their local social and political contexts, and such case studies using multiple sources and methods of data collection are labour intensive, but as Keen and Packwood (2000) argue, they prove valuable in situations where policy change is occurring in ‘messy real world settings’.

One advantage of the approach is its ability to start with generic questions and to become more focused and specific as knowledge of the subject matter increases. We did not know when we set out to map this sector that we would find the post-retirement model of maternity home ownership to be so predominant in Tanzania at the current time. When we then conducted a search for documentation on the mobilization of ‘mature’ or ‘retired’ workforces to compensate for shortages in health care resources, we found recent reference to ‘flexible retirement’ and ‘retire and return’ policies in industrialized countries such as the UK (DoH 2006; Nursing Research Unit 2007) and Australia (NSW DADHC 2000). We did not, however, identify any research studies on the implementation of such strategies in low-income countries. The potential of the untapped pool of skilled health workers represented by retired workers is beginning to be recognized in Africa as one within a series of measures to increase inflows of human resources (High-Level Forum on the Health MDGs 2004; Maslin 2005; Global Health Workforce Alliance 2006). Our findings do suggest that there may be scope, in this Tanzanian context at least, for encouraging retired nurse-midwives to develop independent practices in under-served areas within a network of coordinated and supported health services, although it is necessary to be cautious about extrapolations from a small group of early adopters to the wider workforce. What does seem clear is that for any such scenario to function optimally, changes are needed at several levels and that supply and demand-side barriers need to be taken into consideration.

**Moving forward**

Our study demonstrates the real life complexity of enactment of a policy ‘good idea’. The proprietors of the private practices we studied aspired to combine financial, caring and professional aims, but despite the legislative change, they faced institutional barriers that systematically failed to support these aspirations and prevented other interested midwives from engaging in such activity.

As a result of this research a special working group of the Nursing Council, including private practitioners, drafted new guidelines in late 2004. These are based on the intended care rather than the current blueprint facility-based specification. They will reduce start-up costs and should allow private practitioners to tailor their services according to their skills and local needs, and open up a future possibility of domiciliary care. The Registrar’s office is also considering revising legislation to allow Enrolled Nurse-Midwives and Nursing Officers to set up these practices, thus expanding the potential private midwifery workforce.

Increasing the size of the maternity workforce can only be part of the solution. ‘Skilled attendance’ requires at least two key components: a skilled attendant and an enabling environment that includes equipment, supplies, drugs and transport for referral, and backup emergency obstetric care (EmOC) (Bell et al., 2003). This requires lifting of current restrictions that prohibit midwives from dispensing the full list of drugs suggested for routine delivery and basic EmOC (WHO 2003). Health services in Tanzania are currently undergoing a process of decentralization and the responsibility to ensure facilities have affordable access to essential drugs and equipment falls to district managers. Whilst providing free or discounted supplies to facilities operating on a market model may seem generally counter-intuitive, the supply of basic equipment to self-employed midwives operating on a subsistence basis in under-served areas may keep their practice afloat and affordable.

If retiring nurse-midwives take up the possibility now theoretically open to them, and devise more tailored low cost services that do not simply attempt to replicate government facilities, then their potential to create ‘something new and different’ (Drucker 1985; Faugier 2005) and be more truly ‘entrepreneurial’ may be realized. For example, developing new services and extending into domiciliary clinical practice may be a greater possibility. It remains to be seen whether this is attractive to the midwives themselves. Despite the problems faced, many of the owners we met were immensely proud of their clinics, which represented personal achievement and social standing. It may be that ownership of one’s own clinic will remain a powerful motivator.

If sustainability and the needs of poor communities are to be properly addressed then on-going financing needs to be considered. There would seem to be some real benefits in combining public finance with private provision in this scenario because of the potential to draw in a ‘new’ workforce, rather than simply to replace public with private provision. Other countries offer some examples of targeted micro financing: micro-credit lending to users increased the use of trained TBAs in Bangladesh; micro-loans to private midwives in Uganda contributed to improved quality of services (Walker et al. 2001); and targeted performance-based contracts have been combined with vouchers distributed to potential users in Indonesia (Institute for Health Sector Development 2004). Franchising models piloted in the Philippines (John Snow Inc. 2005) may be possible via a private midwives’ association such as PRINMAT. Such approaches would merit pilot studies in Tanzania.
Because of their location and emphasis on personalized care, small-scale independent practices run by retired midwives could potentially—with the right support—increase rates of skilled attendance at peripheral-level delivery. They cannot be seen as more than one strand in the human resources strategy required to bring skilled attendance at delivery to the majority of Tanzanian mothers, but this model may represent an opportunity to harness currently under-utilized human resources in the push towards Safe Motherhood and the MDGs.

Endnotes

1 Estimated to account for 6% in 1995, rising to 14% in 2002 (Dominick 2004).
2 Private Hospital (Regulation) Act 1977.
4 A ‘skilled attendant’ is defined by the World Health Organization and the professional confederations (WHO, ICM, FIGO 2004) as ‘an accredited health professional...who has been educated and trained to proficiency in the skills necessary to manage normal pregnancy, childbirth and the immediate post partum period, and in the identification and management and referral of complications in women and newborns’.
5 English and Kiswahili versions of the research tools are available online at http://www.kcl.ac.uk/teares/mvnc/research/project/more info.php?id=76&the_group=1.
6 A number of interviews and FGDs were not recorded, usually where a respondent expressed such a preference due to excessive background noise or technical failure.
7 For Nursing Officer grade, the salary is about US$80 a month.
8 The broader question of ensuring skilled attendance requires a well-functioning health system overall. This will require improving training, drugs and equipment supplies, and transportation networks not only for the maternity homes but also across the public sector as already indicated.
9 The age profile of employed midwives has changed in recent years partly due to a public employment freeze in 1993 and partly due to mortality in younger age groups. Fifty per cent of health staff are estimated to be over 40 years old (Kurowski et al. 2004).

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References


Are health services protecting the livelihoods of the urban poor in Sri Lanka? Findings from two low-income areas of Colombo

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Abstract

Investing in pro-poor health services is central to poverty reduction and achievement of the Millennium Development Goals. As health care financing mechanisms have an important influence over access and treatment costs they are central to the debates over health systems and their impact on poverty. This paper examines people’s utilisation of health care services and illness cost burdens in a setting of free public provision, Sri Lanka. It assesses whether and how free health care protected poor and vulnerable households from illness costs and illness-induced impoverishment, using data from a cross-sectional survey (423 households) and longitudinal case study household research (16 households). The findings inform policy debates about how to improve protection levels, including the contribution of free health care services to poverty reduction. Assessment of policy options that can improve health system performance must start from a better understanding of the demand-side influences over performance.

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Keywords: Poverty; Vulnerability; Illness cost; Coping strategy; Sri Lanka

Introduction

Illness can cause impoverishment through a downward spiral of income loss, treatment costs and asset depletion. Investing in pro-poor health services is therefore central to poverty reduction and achievement of the Millennium Development Goals (WHO, 2002; World Bank, 2004). As health care financing mechanisms have an important influence over access and treatment costs they are central to debates over health systems and their impact on poverty (Kawabata, Xu, & Carrin, 2002; World Bank, 2004; Xu et al., 2003). Calls for the removal of user fees at public health care facilities have, thus, once again come to the international policy agenda (Commission for Africa, 2005). Out of pocket payments add to the other barriers that poor people face when seeking health care, and contribute to their experience of social exclusion. Even relatively small health care payments might push vulnerable households into absolute poverty or deepen their poverty (Gilson & McIntyre, 2005).

Discussion of financing policy options to improve health system performance in resource poor settings must, however, start from better understanding of demand-side factors and the consequences of out of pocket payments for household poverty and livelihoods. This paper uses a household livelihood...
Independence government invested basic right for all citizens (Sen, 1988). After state’s responsibility to deliver free health care as a structured a strong policy discourse that makes it the ties, trade unions and public pressure have con- structed by household asset portfolios (physical and financial capital, human capital, social networks) and gaps in coverage, offered to poor households by free public health services.

A household livelihood framework to inform pro-poor health services

Study setting and the conceptual framework used in the research

The research on illness and its livelihood impact was conducted between 1998 and 1999 in two low-income settlements of Colombo, the capital of Sri Lanka. The urban sites were characterised by overcrowded housing, poor sanitation, drug abuse problems and low incomes due to uncertain and daily employment opportunities. These livelihoods contributed to income poverty and vulnerability to wage losses caused by incapacitating illness. The settlements lie a few miles from the centre of Colombo and close to many health care providers: a local municipal dispensary where a GP can be consulted with no charge; several Ministry of Health tertiary hospitals where services are free to the user; and a large number of private GPs, pharmacies and several private hospitals. Although, the research was conducted 8 years ago health service financing and delivery arrangements remain the same at the time of writing. The two case study urban areas were selected because they were typical of many deprived settlements in Colombo.

The research objectives were to record treatment seeking behaviour, measure the household costs of illness, and assess coping strategies and their consequences for the household economy. The conceptual framework that guided the research (see Russell, 2004) was based on inter-disciplinary approaches that have analysed the numerous resources people draw on to promote health or cope with illness costs (Berman, Kendall, & Bhattacharyya, 1994; Wallman & Baker, 1996) as well as a livelihood framework (Scoones, 1998). Direct illness costs and indirect costs are defined, respectively, as expenditure linked with seeking treatment and income losses caused by illness. The term ‘cost burden’ refers to direct or indirect costs expressed as a percentage of household income. Health care spending and income losses will reduce household budgets and threaten members’ minimum basic needs such as food consumption or education, triggering coping strategies such as borrowing or asset sales. The resource strategies used to cope with illness costs were also recorded because such strategies can mitigate or exacerbate the overall economic impact of illness for the household. Together illness costs and coping strategies have implications for household income-poverty and livelihood outcomes, assessed using indicators such as changes to income, working days, assets, consumption levels and food security.

Household vulnerability or resilience to illness costs is defined as the capacity to cope with illness costs without long-term damage to assets and impoverishment. It is linked, first, to illness severity, with higher costs and less sustainable coping strategies likely as severity and duration of illness increase. Second, capacity to cope is influenced by household asset portfolios (physical and financial capital, human capital, social networks) and
policy-related resources that include health services as well as other public policy measures (e.g. education services) or community-based initiatives (e.g. micro-credit institutions) that contribute to resilience. These policy and community-based resources represent entry points for health and other social policy interventions that may protect households.

Research methods

The research design had three phases spanning 18 months. First, individual and group interviews were conducted to generate qualitative data on treatment behaviour and livelihood difficulties. Second, a cross-sectional survey of 423 households and 2197 individuals produced a statistical profile of household income and assets, illness episodes, treatment actions, illness costs and coping strategies. The households were selected by systematic random sampling and the sample covered 20% of the 2100 households in both settlements.

The survey collected data on three categories of illness expected to cause different treatment, cost and coping patterns:

- Acute illness episodes in the previous 2 weeks (except hospital admission).
- Chronic illness in the previous month, categorised as such if the condition had persisted for over 1 month or the respondent knew the diagnosis and the name of the chronic condition (e.g. diabetes, high blood pressure); the recall period allowed the survey to capture patients’ regular monthly visits to providers.
- Hospital inpatient (IP) treatment in the previous year, with the recall period designed to maximise hospitalisation events recorded.

The survey estimated household income using detailed consumption and expenditure questions. There is limited seasonality of casual labour or wage levels in Colombo so expenditure or income levels were not influenced by the timing of the survey. In most cases either the household head (usually male) or their partner (usually wife) was interviewed, and sometimes more than one adult was present. Where possible the wife or mother was asked questions concerning illness and treatment among family members.

All illness cost data were converted to a cost per month figure to allow a total illness cost burden per month to be calculated and analysis of the effect of health care spending on the monthly household budget. Patient and caregiver days off work due to illness were converted to a lost income figure using an average daily wage derived from the local setting (Rs. 150 or US$2.30 per day). Only days lost by economically active members were included in the indirect cost calculations because valuing unpaid activities is both fraught with difficulties and less immediately relevant to understanding the economic burden of illness.

The third phase of the research was an in-depth longitudinal study of 16 case study households over 8 months conducted to allow detailed investigation of illness costs and livelihood impacts over time. Using the survey data as a sampling frame the households were selected purposefully to be ‘typical’ of four per capita income quartile groups and, within each, a range of illness, treatment and cost experiences. Finally, the selection process ensured that households with varying vulnerability or resilience to these costs were included within the case studies. As assets, like income, reflect ability to cope with illness costs and livelihood change, assessment of household vulnerability or resilience was based on a simple audit of assets: the number of workers and security of work; physical capital including house construction; education; and financial capital.

Each household was visited at least every 2 weeks. Structured interviews were used for more quantitative variables (expenditure, illness costs, borrowing), and semi-structured interviews and observation to generate qualitative data. The intensive study of a small number of families over time was necessary to explore the ways that people took action in their every day lives to treat illness and cope with its costs, a well as the multiple factors that mediated the impact of illness on livelihood outcomes.

The knowledge claims from case studies are often criticised on the grounds that the evidence is ‘anecdotal’ or ‘unrepresentative’. But just as clinical science uses cases to understand disease causation, so social science can use cases to understand illness-induced poverty causation. Such understanding must go beyond the identification of vulnerable groups’ characteristics to consider the social processes that cause vulnerability to illness costs and how these operate within households to ‘filter’ policy effects. As case study data are not statistically representative but aim to strengthen understanding of social processes, sample size is of less concern.
than the depth of understanding generated. Generalisation is possible in terms of the concepts or frameworks (e.g. vulnerability) developed from case study analysis that can be applied to other individuals, households and settings (Coast, 1999; Mitchell, 1983).

The policy relevance of case study material does, however, rely on it being ‘typical’ for a larger group of households, requiring the careful selection of cases from different population groups of relevance to the study. Here, use of the survey data enabled the selection of cases that were typical of different household types in the two settlements, providing the basis for the conceptual generalisation of their experiences to other households with similar characteristics in the same communities, such as the income- or asset-rich and poor.

**Illness costs and livelihood change: an overview**

**Cost burdens**

Among the 323 households (out of 423) that experienced illness and self-treated or sought treatment, the median direct cost of illness was US$2.10 (Rs. 138) per household per month or equivalent to just under an average daily wage. The mean direct cost was higher at US$7.50 (Rs. 487) per month because a minority of households experienced a high direct cost. A mix of public and private providers was used (see Section ‘Protecting the poor? Universal coverage and its limitations in Sri Lanka’). The main direct cost components from private sector use were consultation fees and medicine and the main cost item from public sector use was transport. No ‘under the table’ payments were recorded.

The majority of households (77% or 250/323) that experienced illness incurred a low or moderate direct cost burden of 5% or less of monthly income (Fig. 1), either because the illness was mild or because free public services protected against high or catastrophic cost burdens associated with serious illness. Low direct costs were not caused by people failing to seek the medical care that they needed. However, a considerable minority of households experienced what some analysts have called a ‘catastrophic’ direct cost burden in terms of its potential consequences for poverty (Prescott, 1999; Ranson, 2002): 10% of households (n = 32) incurred a direct cost burden above 10% of monthly income (Fig. 1).

The majority of households incurred no or low indirect cost burdens (Fig. 1). Many illnesses did not
cause income loss because children of school age disproportionately suffered from acute illnesses, a large proportion of acute illnesses experienced by economically active adults were not serious enough to affect work, and the majority experiencing chronic illness and hospital admission were economically inactive. However, a minority (11%, \( n = 35 \)) incurred an indirect cost burden above 10% of normal monthly income (Fig. 1).

Combined (total) cost burdens were relatively low for the majority of families surveyed (Fig. 1). However, a fifth (19.2%, \( n = 62 \)) incurred a total cost burden above 10% and most of this group incurred a total cost burden between 10.1% and 40.0%.

Households in the poorest income quartile were disproportionately affected by a catastrophic direct cost burden above 10% because of their particularly low income. However, there was no statistically significant difference in mean direct cost burdens across income groups (Table 1). Low median direct cost burdens reflect the public health system’s coverage of the majority.

Case study households’ average direct (and indirect) cost burdens per month over 8 months are plotted in Fig. 2, with the households grouped into the three vulnerability categories determined from asset portfolios (see Section ‘Illness-related poverty and livelihood change’). The majority experienced a low to moderate direct cost burden per month under 5% of income, but a minority (\( n = 3 \)), all in the middle (vulnerable) group experienced a higher direct cost burden over 5% and one (Geetha) over 10%. Highly vulnerable households’ low average direct cost burden stemmed from their greater use of free public providers. Resilient households’ low direct cost burdens per month were because of their higher incomes and use of public hospitals for IP treatment (see Section ‘Protecting the poor? Universal coverage and its limitations in Sri Lanka’).

For all case study households the average cost burden per month conceals fluctuations over 8 months and usually in 1 or 2 months direct (and indirect) cost burdens were particularly high (see Fig. 3). This ‘lumpy’ feature of illness costs made them harder to manage. Even the peaks in Fig. 3 were average cost burdens over 30 days that smooth higher daily cost burdens, often exceeding 100% of the daily wage. The poorest and most vulnerable households dependent on a low daily wage found it difficult to manage any cost associated with illness, let alone these peaks, and had to borrow or pawn jewellery to cope.

A cost burden figure only indicates the potential or likely consequences of an illness cost for household impoverishment. The actual impact will depend on household income (for a poor household a relatively low cost burden may cause impoverishment but for a non-poor household a burden above 10% may not be ‘catastrophic’) and household capacity to mobilise additional resources (vulnerability or resilience). However, it is still a useful indicator of the extent of protection provided by public health services.

Illness-related poverty and livelihood change

The survey data were analysed to estimate the short-term poverty implications of health care spending, using two indicators: the poverty count (incidence) and the poverty gap. The first calculation estimates the proportion of households pushed below a US$30.00 per capita per month (US$1.00 a day) absolute poverty line by health care spending. Household health expenditure was subtracted from household income and a new household per capita income level calculated. As a result of health care payments the poverty incidence rose from 54.1% (\( n = 229 \)) to 57.0% (\( n = 241 \)): 12 households were pushed below the poverty line. Health care spending therefore added 2.9% to the poverty incidence, a level comparable to estimates from India and Vietnam (Wagstaff, 2002). This analysis assumes that the money spent on health care was no longer available to spend on other essential goods and

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<td>1 (poorest) ( (n = 82) )</td>
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<tr>
<td>Mean (95% confidence interval)</td>
<td>15.2 (–6.6–37.0)</td>
</tr>
<tr>
<td>Median</td>
<td>1.2</td>
</tr>
</tbody>
</table>
services and so pushed households into absolute poverty. It might also be argued that without free health care there would have been higher levels of spending and the potential for more households to have fallen below the poverty line.

The second calculation uses the poverty gap indicator (the average income shortfall from the poverty line) to estimate the deepening of household poverty caused by health care spending. Among the 229 households below the US$30.00 poverty line the mean income shortfall was US$8.90 (Rs. 577) per capita per month, or a daily shortfall of US$0.30 below the US$1.00 a day poverty line (Table 2). After health care spending among the same households the poverty gap rose to US$9.30 per month, a 5.2% rise in the depth of poverty. If the 12 additional households that fell below the poverty line are included in the calculation the depth of poverty rises by only 0.82%, from US$8.90 to US$9.00 per capita per month (Table 2).

These indicators of changes to poverty derived from a cross-sectional survey should be interpreted cautiously. A fall below the poverty line for example may be very short-term, households may have coped by mobilising other resources, and the health care spending may not have involved any damaging cuts to consumption or assets. The advantage of the longitudinal case study methodology was the ability to track the actual implications of illness costs for income-poverty, assets and livelihood change in some detail over 8 months.

The 16 households were chosen to represent four household income groups derived from the survey data, but the other selection criteria (illness and vulnerability) meant they were not equally distributed across quartiles (Table 3). Households in the lowest two quartiles earned less than US$1.00 per capita per day (less than US$30.00 per month). In the poorest quartile households struggled to meet food and fuel needs on a daily basis. Even in the...
upper quartile most households earned only US$40–50.00 per capita per month (US$1.00–2.00 per capita per day). So despite their relatively high cash income in these poor areas many families classified as ‘better-off’ were only marginally above the poverty line.

Seven of the 16 case study households were in the poorest quartile and an additional expense such as health care usually triggered coping strategies that pushed them deeper into poverty. The two households in the second quartile also had little money available for health care. Income insecurity due to lack of available work or illness was a great source of vulnerability:

> Illness is something we are all scared of here. How can we live without working? If my husband is ill we have to get money from somewhere for food and for the medicine, we have to borrow.

(Selvaraja, woman from poorest income quartile, most vulnerable).

<table>
<thead>
<tr>
<th>Table 2 Changes in the depth of household poverty (poverty gapa) due to health care payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty gap before health spending (n = 229)</td>
</tr>
<tr>
<td>Poverty gap after health spending (n = 227)c</td>
</tr>
<tr>
<td>Poverty gap including 12 new households below the poverty line after health spending (n = 239)</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

aAverage shortfall from a US$30.00 per capita per month poverty line.

bAt the time of research US$1.00 = Sri Lankan Rupees (Rs.) 65.00.

cTwo outlier households excluded: very high health expenditure had pushed the households’ income into a negative income value that prevented analysis of the poverty gap.
Households in the third and fourth quartiles could to differing degrees meet the costs of treatment for most acute and chronic illnesses in months when incomes were maximised. However, in months when workers lost earnings due to illness or the vagaries of the labour market, or when illness expenses coincided with other ‘lumpy’ expenses such as education or clothing, those in the third quartile had to adopt strategies to cope with illness costs. Those in the fourth quartile had to mobilise additional resources when more serious or prolonged illness caused income loss. In other words household ability to cope with illness costs could not be seen in isolation from other expenses and income fluctuations.

Across income groups, case study households were also selected from three vulnerability—resilience categories (Fig. 2). Over 8 months, livelihood change among the households was evaluated by analysing six livelihood outcomes using quantitative and qualitative data: the number of workers and job security; income levels; physical capital; financial capital (changes to savings or jewellery); debt levels; and consumption (focusing on number of meals per day). Households were placed into three categories of livelihood change: struggling (impoverishment); coping (stability); investing (improvement).

### Highly vulnerable households: struggled and became more impoverished

Three out of four households in this group (see Fig. 2 for pseudonyms) were located in the poorest income quartile (Table 3) and struggled to eat three meals a day. They had weak asset portfolios. Members had less formal education and relied on one or sometimes two workers with insecure jobs. Physical capital was limited to a small wooden or poorly maintained cement block house with no electricity or water connection. Financial capital had been depleted: they had pawned all or most of their jewellery, in some cases due to previous illness (Jayasinghe, Valli), and were in debt to money-lenders.

Over the 8 months these households experienced a decline in at least four of the six livelihood variables, most commonly the loss of an income earner or growing insecurity of work, pawned jewellery, increased debt and lasting cuts to food consumption. Three of the four households were on a path of decline triggered by illness before research started. For example cancer had forced Jayasinghe to give up work with damaging economic consequences for the household; and Sumithra’s husband had experienced a serious accident which, after over a month in (a public) hospital without earning income, had undermined assets and caused high levels of debt.

Three of the highly vulnerable households incurred low or moderate average cost burdens per month (Fig. 2) but these costs were a persistent attack on the household budget and assets. Valli experienced indirect cost burdens of over 20% in some months (Fig. 3) which could be judged to be ‘catastrophic’ because they forced her and her husband deeper into poverty: they had to borrow at high interest, cut food consumption and pawn last items of jewellery. The group’s low and insecure incomes meant they had to meet a high proportion (58%) of direct and indirect illness costs through these types of strategy, but their weak

### Table 3
Location of case study households in the community income profile

<table>
<thead>
<tr>
<th>Household income per capita quartile group</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household per capita income: USS/month</td>
<td>$ 0–21</td>
<td>$ 21–29</td>
<td>$ 29–40</td>
<td>$ 40+</td>
</tr>
<tr>
<td>(Rs./month)</td>
<td>(0–1352)</td>
<td>(1353–1880)</td>
<td>(1881–2699)</td>
<td>(2610+)</td>
</tr>
<tr>
<td>Households with illness</td>
<td>Nimal</td>
<td>Nishanthi</td>
<td>Raja</td>
<td>Rani</td>
</tr>
<tr>
<td></td>
<td>Jayasinghe</td>
<td>Sumithra</td>
<td>Valli</td>
<td>Valli</td>
</tr>
<tr>
<td>Households without illness</td>
<td>Kumudu</td>
<td>Pushpa</td>
<td>Rani</td>
<td>Mary</td>
</tr>
<tr>
<td></td>
<td>Selvaraja</td>
<td>Mayori</td>
<td>Rani</td>
<td>Renuka</td>
</tr>
<tr>
<td></td>
<td>Amali</td>
<td>Geetha</td>
<td>Geetha</td>
<td>Geetha</td>
</tr>
</tbody>
</table>

*Case study households have been given pseudonyms for confidentiality.*
asset portfolios meant they struggled to cope. Multiple asset weaknesses made health service protection particularly important for this group of households (see Section ‘Protecting the poor? Universal coverage and its limitations in Sri Lanka’).

**Vulnerable households: coped to different degrees**

This group spanned the full range of per capita income quartiles and to differing degrees had stronger asset portfolios than the highly vulnerable group, even among the income-poorest (Amali, Nimal, Geetha). Renuka’s household was located in the top income quartile but was vulnerable because her husband used the income to fund a heroin addiction and the rest of the family (Renuka and four children) were left with barely enough income for food and few assets. Compared to the highly vulnerable group, adults were in general better educated (Nimal, Geetha, Amali, Pushpa) or the household had more workers (Raja, Pushpa, Nishanthi). Some had more financial capital with women participating in rotating savings (see\textit{tu}) groups or credit societies (Nishanthi, Amali, Kumudu, Raja, Pushpa), although Nimal’s wife Sita, Geetha, and Renuka were not involved due to their income-poverty. Some had jewellery available to pawn (Geetha, Amali, Kumudu, Raja, Pushpa), but others had depleted these financial assets due to previous illness (Nimal, Nishanthi).

These households experienced little change to at least four dimensions of livelihood. Debt levels had not increased and if people had borrowed it was from low cost and flexible sources such as family, friends and local credit societies. Historically they were on steady livelihood paths characterised by vulnerability but fewer shocks including fewer serious illness events. Gradual improvements were sustained by Kumudu and Puspha despite high illness costs (Fig. 2) and the others were coping to differing degrees. As Nimal’s household had already suffered dramatic decline due to serious illness before the start of the study, it could have been placed in the struggling group. However, when research started he and his wife were coping (at a lower level) and not suffering further impoverishment because free health services enabled him to make regular visits to the hospital for consultations and blood tests, and strong family networks provided funds for nearly all their daily and health care expenses.

Despite the group’s higher direct cost burdens, over 100% in some months for Geetha and Nimal, this group was distinguished from the highly vulnerable households by their stronger asset portfolios and capacity to cope, particularly the strength of their social networks. Although income poverty meant the group could not cover a considerable proportion (45%) of their total illness costs through usual income sources, they mobilised low cost asset and borrowing strategies, which contributed to livelihood stability. Access to free services for more serious illness contributed to this resilience (see Section ‘Protecting the poor? Universal coverage and its limitations in Sri Lanka’).

**Resilient households: invested and improved**

These four households had higher and more secure incomes derived from a household member with a secure government job, or several workers in the family, or a successful small business. They had the strongest asset portfolios including better education, a larger house made from bricks and mortar, and a range of physical assets in the household (electrical goods, furniture).

Over 8 months the group experienced improvement in at least four livelihood variables, and nearly all borrowing was for investment purposes. Historically they were on steady trajectories of improvement even though they had originally started from socio-economic positions similar to the other households. Notably no breadwinners had been affected by serious illness.

Although household members used private providers more often than public providers for treatment of acute and chronic illnesses, the group experienced relatively low or moderate cost burdens because of their higher income (Fig. 2). However, they relied on the safety net or ‘insurance’ of the public sector for IP treatment, which protected assets, kept debts low and also allowed them to divert resources to investment strategies. As a result, they only had to cover a small proportion (9%) of total illness costs through asset strategies, usually low cost borrowing from strong social networks.

Across these three groups of household there was, not surprisingly, a strong link between vulnerability at the start of research and livelihood change category at the end. Fig. 2 also suggests there was no clear link between illness cost burden and livelihood change. Highly vulnerable households with direct cost burdens less than 5% struggled and fell further into poverty. In contrast some of the middle (vulnerable) group incurred a high or ‘catastrophic’ burden but managed to cope, although
households experiencing serious illness and a high cost burden (Geetha and the special case of Nimal) were only just coping. Given the complexity of livelihoods and the multiple factors influencing livelihood trajectories, the lack of a clear link between cost burden and impoverishment is not surprising.

**Protecting the poor? Universal coverage and its limitations in Sri Lanka**

**Inpatient treatment**

The household survey found that the vast majority of people in the two communities, from all income groups, used one of the large public hospitals in the city rather than a private hospital (98% of admissions, \( n = 177 \)). Among case study households all hospital admissions over the 8-month period were to public hospitals. This utilisation pattern was explained by the free IP care offered by public hospitals compared to the prohibitively high cost of a private hospital admission, but in addition a dominant theme from the qualitative data was people’s trust in the technical quality of care at public hospitals, based on the widely held view that they had the best staff and equipment to deal with serious conditions (Russell, 2005).

Use of public hospitals meant patients and their families incurred a relatively low direct cost burden for a hospital admission. From the household survey 82% of households experiencing one or more IP admission (\( n = 134 \)) in the previous year faced a direct cost burden of 1% or less per month (i.e. a burden of 12% or less in 1 month spread over 12 months), and 95% of households experienced a burden of 5% per month or less, the main cost items being transport, special food and complementary religious therapies or medicine bought outside the hospital. Case study household experiences also demonstrated how free IP services protected all socio-economic groups against high direct medical costs.

**Regular treatment of chronic illness**

Chronic conditions requiring regular treatment have the potential to impose high- and long-term cost burdens on poor households unless free services are available. The household survey identified 342 people (15.6%) who reported a chronic condition and 194 sought treatment on a regular basis. Across the first three income quartile groups a public hospital OP clinic was the main source of regular treatment, particularly among patients from the poorest households who used public providers far more frequently (62%) than private providers (18%). Only the ‘better-off’ income group used private providers more often than public providers for their regular treatment. Free treatment was the most common reason cited for using a public provider but confidence in the technical competence of doctors was again important (Russell, 2005). Widespread use of public providers meant that out of the 155 households with a member seeking regular treatment 50% incurred a direct cost burden of 1% of monthly income or less, 87% a burden of 5% or less and only 3% of households incurred regular monthly burdens over 10%.

The case study data confirmed that free health care offered important protection to livelihoods. For the highly vulnerable group with no surplus money to pay for health care (even to cover transport costs), free regular treatment of chronic conditions was vital protection against higher borrowing or deeper cuts to food consumption. Among the vulnerable (middle) group free treatment was also a vital entitlement that prevented borrowing for health care expenses. A comment by Geetha, diagnosed with Type 2 diabetes during the 8-month study period, exemplifies the experience of diabetics from vulnerable households:

> If I go private, I pay money, but then if things get worse they refer me to the government and they would have to do all the tests again. So if I have a big problem, or one that needs continuous treatment like diabetes, I go to the government hospital…It is free…how could I pay for the tablets everyday? (Geetha: woman from poorest income quartile, vulnerable).

Free treatment was particularly important to livelihood security at times when workers fell ill causing income levels to drop and a consequent struggle to pay for a range of essential items. Raja’s household, for example, experienced high wage losses in some months (see Fig. 3) because he and his wife (Ranji) suffered from asthma. In month 1 Raja had a sore chest and took two days off work, losing US$5.40 (Rs. 350) in wages (an indirect cost burden of 6%). Raja went to a nearby private clinic and pharmacy for treatment, which incurred a
The high direct cost burden combined with the indirect cost forced the family to borrow from Raja’s workplace. Later in the month the chest problems persisted but they had no cash available so Raja resorted to the free municipal dispensary. Without the alternative of cheap public treatment towards the end of the month the household’s borrowing would have been significantly higher.

**Acute illnesses requiring OP treatment**

The survey identified 266 out of 2197 individuals (12.1%) who reported an acute illness episode in the previous 2 weeks, the most frequent being cold, cough, fever, flu, headache, injury and diarrhoea. Self-treatment at home was the most frequently reported first response (58%), reflecting the mild nature of many of the illnesses.

In contrast to the dominant use of public providers for IP and regular chronic care, the use of health care providers outside the home was more equally split between public and private providers for moderate acute illnesses, with private GPs and pharmacies slightly more dominant. Even among the poorest quartile a considerable minority of patients (46%) used private doctors and pharmacies (Russell, 2005).

Widespread use of private providers meant higher household cost burdens for OP treatment of acute illness. Out of the 210 households experiencing one or more acute illness episode, 47% experienced a direct cost burden of 1% or less but 20% experienced a burden over 5 and 7% a burden above 10%.

All case study household respondents, whether male, female, poor or better-off, stated that they preferred to use a private doctor or pharmacy for common illnesses. Income levels and cash availability, however, influenced actual utilisation patterns. Members of the seven households in the top income quartiles (with the exception of Renuka) consistently used a private GP with whom they were familiar (their ‘family doctor’). In the seven poorest households wage-earners used private doctors and pharmacies more frequently than public providers to obtain treatment quickly and avoid wage losses, but members who did not work used a municipal dispensary as frequently as private doctors and pharmacies.

The research identified several reasons for the lower uptake of free public health services for common acute illnesses (Russell, 2005), including limited opening hours, long waiting times, short consultations and poor inter-personal quality. As a result the majority of the ‘better-off’ and even a considerable minority of the poorest were willing to pay to get quicker care, secure a longer consultation with more patient focus, and build a long-term doctor–patient relationship with a ‘family’ doctor. The poorest pawned jewellery and borrowed money to finance private treatment.

Nonetheless, free public health care of adequate quality offered important protection to the most vulnerable and income-poorest households with several small children who experienced frequent and concurrent acute illness events. Selvaraja’s family offers a typical illustration of this protection. In month 5 the three children suffered illness concurrently (high fever and vomiting) and Selvaraja took them to the National Children’s Hospital OP department, a visit which incurred a direct cost burden of only 0.5% (US$0.50/Rs. 30 for transport):

I take the kids to Lady Ridgeway…Rs. 300 or more would have gone if I had gone privately…and I would need to borrow even more money for that—maybe with interest.

(Selvaraja, woman from poorest income quartile, highly vulnerable).

The livelihood implications of having to pay for health care were starkly illustrated in the same month. The family spent an additional Rs. 320 (US$5.00) on health care due to private sector use by Selvaraja’s husband (for a recurring shoulder injury; he could not afford to miss work) and Selvaraja’s mother (for a tooth extraction; there was a long waiting list at the public hospital). These private visits imposed a direct cost burden of 5% which exceeded the household budget after food purchases and triggered coping strategies that pushed the household deeper into poverty. They had to borrow from an ex-employer (Rs. 500), delay payment of the electricity bill, delay debt repayment to the local food shop, and could not redeem a ring that Selvaraja had pawned in an earlier month to pay for health care. If Selvaraja had taken her children to a private doctor that month the overall direct cost burden for the family would have been over 12%, forcing even more risky borrowing or asset strategies.
Discussion

The household survey and case study data show that free health care services in urban Sri Lanka, financed through taxation, protected the majority of poor households against high out of pocket payments for treatment at the time of illness. This protection against even relatively low fees was an important poverty reduction measure because, as shown by the case study findings, even a small direct cost could cause impoverishment. Nine case study households in the two poorest income quartiles (Table 3), selected to be typical of 50% of total households in these settlements, relied on low paid and insecure work and struggled on less than US$1.00 per capita per day. These households had little or no ‘ability to pay’ for health care after meeting basic food, shelter and fuel needs. Other essential but ‘lumpy’ expenses, on education, rites of passage, housing or clothing for example, were already beyond the household budget. Any health care expense, even a moderate direct cost burden of 2.5–5% of monthly income, or a loss of income due to illness, inevitably triggered borrowing, pawning, or cuts to food and education. Longitudinal research showed that when a low or moderate direct cost burden affected a poor household only once or twice over 8 months then recovery was easier and illness made little difference to poverty. However, frequent moderate illness costs experienced by poor families with small children or a chronically sick member were a persistent attack on already overstretched budgets that contributed to debt accumulation, asset depletion and made the household vulnerable to other shocks. Vulnerability to income losses caused by illness, as well as transport costs, increased the importance of the protection against medical costs offered by free health care services.

The case study data also showed that the relationship between cost burden and livelihood change is complex. Highly vulnerable households that experienced low or moderate burdens declined, but less vulnerable households that experienced a high or ‘catastrophic’ burden coped and remained stable. The longitudinal case study research could explore the processes explaining the links between illness cost and livelihood change, through retrospective interviews (life histories) and the prospective 8-month study. Multiple factors affected livelihood and poverty trajectories over time, including problems arising from legal expenses, drink and other drug problems, earlier shocks, the loss of land or an illness, or broken relationships. Previous events and processes had placed households on longer-term trajectories of struggling, coping or improving, and path dependency continued to influence livelihood change over the brief research period. Given the strength of these trajectories the impact of illness on impoverishment and livelihood was heavily dependent on its severity, frequency and duration. Low and infrequent illness costs made little impact. Low or moderate but more frequent illness costs exacerbated vulnerability and livelihood decline. Serious illness that caused high or catastrophic and persistent cost burdens could have a major negative impact on livelihood paths. In Sri Lanka the availability of free public health services meant it was the indirect costs arising from serious illness, rather than direct costs, which were the most obvious cause of illness-induced poverty, as the examples of Nimal and Jayasinghe demonstrated.

Other studies have shown that the Sri Lankan public health system has a pro-poor benefit incidence and is among the most equitable in Asia (Rannan-Eliya & EQUITAP partners, 2005). From the data presented here, free health care’s contribution to protecting against illness-induced impoverishment for the three household livelihood groups can be summarised as:

- **Free treatment mitigated further impoverishment of declining households**: Already on trajectories of livelihood decline, free health services mitigated deepening poverty from illness by reducing direct cost burdens. Low and insecure incomes, asset weaknesses and burdens imposed by other expenses, however, meant that free health care services alone were not enough to prevent livelihood decline. This demonstrates the vital importance of free care for this group, and the need for other interventions to build resilience against illness costs and other shocks.
- **Free treatment prevented the decline or impoverishment of relatively stable households**: Free treatment, particularly free IP treatment and regular treatment of chronic illnesses, prevented high cost burdens and contributed greatly to lower debts and the prevention of asset depletion among this group. Free treatment was particularly important when income earners could not work or at times when the household faced combined expenses. By protecting assets free treatment also made these households more resilient to future shocks.
Free treatment enabled investment by improving households: Free hospital IP care acted as ‘insurance’ that allowed households to allocate resources to saving and investment strategies, rather than having to save to finance the costs of a future hospital admission.

Free IP hospital services meant the health system protected the full range of socio-economic groups covered by the study. It also demonstrated that effective protection requires a broad package of curative treatment that is free at the point of delivery. However, the findings also showed that free public services only protected the poor when they were of a quality acceptable enough to be used. Public health care services were less successful in protecting patients against the direct costs of acute illness requiring treatment outside the home because people across income groups, even from the poorest income quartile, preferred to use private providers (Russell, 2005).

Overall, these findings can be applied to similar urban settings in Colombo because the study sites and households were selected to be typical of such settings and populations. In rural Sri Lanka income poverty is wider and deeper, and the direct costs of illness likely to be higher due to transport costs. Protection against medical costs is therefore likely to be even more important for poverty reduction and livelihood sustainability in rural areas of the country. Although Sri Lanka’s universal provision model faces financing and quality problems, the government should not start charging the user to raise revenue. Fees would undermine livelihoods and one of the few pro-poor health systems in the world.

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References


The emergence of political priority for safe motherhood in Honduras

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Each year an estimated 500 000 to 600 000 women die due to complications from childbirth, making this one of the leading causes of death globally for women in their reproductive years. In 1987 a global initiative was launched to address the problem, but few developing countries since then have experienced a documented significant decline in maternal mortality levels.

Honduras represents an exception. Between 1990 and 1997 the country’s maternal mortality ratio – the number of deaths due to complications during pregnancy, childbirth and the postpartum period per 100 000 live births – declined 40% from 182 to 108, one of the largest reductions ever documented in such a short time span in the developing world.

This paper draws on three political science literatures – constructivist international relations theory, policy transfer and agenda-setting – to explain how political priority for safe motherhood emerged in Honduras, a factor that underpinned the decline. Central to the explanation is the unusually cooperative relationship that developed between international donors and national health officials, resulting in effective transfer of policy and institutionalization of the cause within the domestic political system. The paper draws out implications of the case for understanding the political dynamics of health priority generation in developing countries.

Key words: policy transfer, agenda setting, constructivism, safe motherhood, maternal mortality, Honduras

Introduction

Each year developing world health ministries accept financial and technical assistance from dozens of international health policy networks promoting causes such as AIDS prevention, polio eradication, reproductive health, safe motherhood and health sector reform. Despite the resources they offer, these networks must compete for the attention of ministries, since limited health systems capacities prevent governments from giving implementation priority to more than a handful of causes.

Scholars of developing world health policy have analyzed the emergence and forms of these networks (Reich 2000; Walt 2001; Ogden et al. 2003; Widdus 2003), and the structure and effectiveness of health ministries (Berman 1995; Bossert et al. 1998; Olsen 1998). With only a few exceptions (Okuonzi and Macrae 1995; Buse and Gwin 1998; Walt et al. 1999; Walt et al. 2004), they have given little systematic attention to the interactions between the two. Understanding the nature and quality of these interactions is crucial since these have bearing on why developing world governments may prioritize some health causes and neglect others.

This paper investigates network–ministry interactions and their impact on health priority setting through a study of safe motherhood in Honduras in the 1990s. The case is revealing because international officials concerned with safe motherhood interacted repeatedly with Honduran health bureaucrats throughout the decade, and because these interactions resulted in successful policy transfer, implementation and impact. In the 1990s the Honduran state made safe motherhood among its foremost priorities, and the country experienced one of the most dramatic declines in maternal mortality ever documented in such a short time span in the developing world. Between 1990 and 1997 the Honduran maternal mortality ratio declined from 182 to 108 maternal deaths per 100 000 live births (Castellanos et al. 1990; Meléndez et al. 1999). Both the 1990 and 1997 figures are highly reliable, as they are based on Reproductive Age Mortality Surveys (RAMOS), the gold standard in maternal mortality investigations that examine every maternal death in a country over the course of a year and generate statistics for the entire population, rather than sample-based estimates with wide confidence intervals. There have been other cases of documented decline in such a short period of time, but they are few and far between.1

Danel (1998) has analyzed the medical and technical interventions associated with the Honduran maternal mortality decline. In this paper, we investigate how political priority emerged for the cause. We employ concepts from three political science literatures – constructivist international relations theory, policy transfer and agenda setting – to examine why successful policy transfer and implementation occurred and to highlight the case’s significance for understanding network–ministry interactions and health priority formation in developing countries.
Background

International policy networks

Over the past decade scholars have given increasing attention to the role of policy networks as actors in the international system. These vary both in form and level of institutionalization. Two of the more widely researched forms are epistemic communities and transnational advocacy networks. Haas (1992b) and colleagues coined the term epistemic communities to refer to groups of professionals who, by virtue of their knowledge-based authority and shared beliefs about causal processes, are able to influence national policies. Among other issues, such groups have been able to influence global trade agreements (Drake and Nicolaïds 1992), nuclear arms control agreements (Adler 1992), commercial whaling practices (Peterson 1992) and ozone protection policy (Haas 1992a). Keck and Sikkink (1998) have examined transnational advocacy networks. These differ from epistemic communities in that their members consist of multiple organizational types, from labour unions to churches, and are linked not by expertise but by shared commitment to particular causes. In the 1990s they have promoted environmental preservation, human rights and many other causes, and have had significant influence at global United Nations conferences (Chen 1996).

Scholars have noted the involvement of these networks in international health promotion as well. Ogden, Walt and Lush have analyzed networks involved in shaping policy for sexually transmitted infections (Lush et al. 2003) and tuberculosis (Ogden et al. 2003). Reich, Widdus and Buse and Walt have investigated the emergence of public-private partnerships that link governments, pharmaceutical companies and international organizations in legal structures designed to find solutions to particular health problems (Buse and Walt 2000; Reich 2000; Widdus 2003). Reinicke (1999) has identified Roll Back Malaria (a WHO-headquartered organization grouping governments, multilateral agencies, non-governmental organizations (NGOs) and private sector organizations in a fight against the disease) as a ‘global public policy network’ which he defines as ‘loose alliances of government agencies, international organizations, corporations, and elements of civil society such as nongovernmental organizations, professional associations, or religious groups that join together to achieve what none can accomplish on its own’ (p.44).

Policy transfer and constructivist theory

While attention has been paid to the emergence and forms of these health networks, there has been less research on the means by which they influence national priorities. One concept of value on this subject is that of ‘policy transfer’ which concerns the use of knowledge about policies or administrative arrangements in one time or place to develop such arrangements in another time or place (Dolowitz and March 1996). Stone (1999) notes that scholars employ multiple terms to speak of the concept, including ‘lesson-drawing’, ‘emulation’, ‘external inducement’, ‘convergence’ and ‘diffusion’. She identifies three modes of transfer. Policy may be transferred voluntarily if elites in one country value ideas from elsewhere and import these of their own accord. Policies may be transferred with compulsion if powerful organizations such as the World Bank threaten to withhold lending to countries that do not embrace particular practices. Policies may be transferred via structural forces when policymaking elites play no active role, and ideas enter national systems through processes scholars often refer to as ‘convergence’.

Constructivist theory from the political science sub-field of international relations offers a useful framework for thinking about how policy transfer may occur in certain instances. Constructivism works from the premise that nation-states, like individuals, are not isolated entities. They exist within societies of other nation-states and are socialized into commonly shared norms by their encounters with international actors such as the policy networks just discussed (Wendt 1992; Finnemore 1996). Mainstream international relations scholars traditionally have downplayed this form of transnational influence, as they have sought to understand the behaviour of nation-states in the international arena by looking inside states, taking state preferences as given (Finnemore 1996). Neo-realism seeks to explain outcomes in the international system, such as alliances and warfare, in terms of the pursuit by states of power and security. Neoliberalism is another version that understands state behaviour largely in terms of the pursuit of wealth. Both assume the nature of state preferences and seek to demonstrate their utility by their capacity to predict and explain outcomes in the international system (Finnemore 1996). In these frameworks international policy networks are viewed as epiphenomenal, unable to alter existing state preferences or serving only to promote the interests that powerful states would pursue anyway.

Constructivist international relations theory challenges mainstream conceptions by raising the issue of how states come to know what they want in the first place. Proponents do not necessarily reject neo-realist or neo-liberal ideas. However, they argue that the pursuit of power, security and wealth cannot explain many critical international outcomes. Constructivist theorists argue that on any given policy issue, a state may not initially know what it wants but come to hold certain preferences as a result of interactions in international society with other state and non-state actors. For instance, a state originally may not prioritize a health cause such as polio eradication, but come to adopt the cause because domestic health officials learn at international gatherings that other countries are pursuing this goal and they are likely to be left behind. Thus, constructivists argue, state preferences cannot be taken as given (Wendt 1992; Finnemore 1996), but rather should be conceived of as created in the process of transnational interactions.

International organizations are critical global actors in frameworks influenced by constructivism. Organizations such as the World Health Organization (WHO), UNICEF, the World Bank and the United Nations Population Fund (UNFPA) are created by a global community of nation-states with a view to serving their jointly and individually held interests. However, these organizations may acquire the power to
act as independent, autonomous agents, shaping the policy preferences of the nation-states that created them (Abbott and Snidal 1998). International health policy networks, which link these actors with other kinds of organizations, may play similar roles in shaping national policy preferences.

Risse-Kappen (1995) argues that the capacity of international networks to influence national priorities depends on the interaction of domestic and international political structures through which these actors must work. He contends, for instance, that, other things being equal, transnational actors will find states with centralized structures harder to penetrate than those with fragmented structures; however, once they penetrate these systems they are more likely to have policy impact. The reason is that unlike democratic, federalist political systems (India, Brazil), power in authoritarian, unitary systems (China, Vietnam) is concentrated in the hands of a few elites. External networks have fewer points of access, but if they are able to gain access and convince state leaders of the legitimacy of their agenda, these leaders are able to mobilize much of the political system in service of the cause.

Ogden et al. (2003) point to another factor that may shape the level of network influence. Analyzing the case of global tuberculosis policy, they show that international health advocates were able to convince many developing world governments to accept a particular treatment regimen. However, the consequence of promoting a uniform solution was its insufficient tailoring to local context and a lack of ownership by domestic health officials. Policy transfer occurred, they argue, but the policy was not always implemented effectively. Their study suggests that international health networks that hand over a measure of control of resources and decisions to domestic officials, and allow for adaptation of policy solutions to local context, may be more effective in institutionalizing national priority for their causes than networks that are inflexible in these respects.

Agenda setting theory

Scholars concerned with policy transfer have focused primarily, if not exclusively, on the movement of policies across national borders. Scholars concerned with agenda setting have considered these processes predominantly inside domestic political systems. A previous study employed agenda setting concepts to explain the emergence of political priority for safe motherhood in Indonesia (Shiffman 2003). The following discussion draws from that paper.

Agenda setting is that stage in the public policy process during which certain issues rise to prominence and others are neglected. It is the first stage in the process and precedes three others: policy formulation; the enactment of authoritative decisions; and policy implementation. The most influential theory of agenda setting is Kingdon’s streams model (1984). He argues that agenda setting has a random character and is best described as resembling a garbage can in which problems, policies and politics develop and flow along in independent streams, meeting at random junctures in history and creating windows of opportunity during which particular issues rise to the fore. The problems stream refers to the flow of broad issues facing societies. It is from this stream of issues that agendas are shaped. The policy stream refers to the set of alternatives that scholars, politicians, bureaucrats and other prominent figures propose to address national problems. This stream contains proposals concerning how problems may be solved. Finally, there is a politics stream. National mood, changes in political structure, social uprisings, elections and global political events are among the constituent elements of the politics stream.

Kingdon and others have argued that there are systematic elements in agenda setting which shape the likelihood that an issue will receive national attention. In one of the earliest works on agenda setting, Jack Walker (1974), analyzing traffic safety policy in the United States, argued that among the factors that shape whether an issue rises to the attention of policy-makers is the presence of a clear, measurable indicator to mark that issue. Kingdon confirmed Walker’s insight in his study of health and transportation policy-making in the United States, from which he developed his streams model. Agenda setting scholars argue that indicators make a difference because they have a uniquely powerful effect of giving visibility to that which has remained hidden, serving not just monitoring purposes, the way they are traditionally understood, but also as catalysts for action.

A second factor that researchers have identified is political entrepreneurship (Walker 1974; Kingdon 1984; Doig and Hargrove 1987; Waddock and Post 1991; Schneider and Teske 1992). Whether an issue rises to the attention of policymakers is not simply a matter of the flow of broad structural forces that stand beyond the reach of human hands. Much depends on the presence of individuals and organizations committed to the cause. As John Kingdon (1984, pp. 190–1) puts it, “Entrepreneurs do more than push, push, and push for their proposals or for their conception of problems. They also lie in wait – for a window to open. In the process of leaping at their opportunity, they play a central role in coupling the streams at the window.”

A third factor is the occurrence of focusing events (Kingdon 1984; Birkland 1997). These are large-scale happenings such as crises, conferences, accidents, disasters and discoveries that attract notice from wide audiences. They function much like indicators, bringing visibility to hidden issues. Birkland has demonstrated that disasters, including hurricanes, earthquakes, oil spills and nuclear power plant accidents, lead to heavy media coverage, interest group mobilization, policy community interest and policy-maker attention, causing shifts in national issue agendas.

Political science theory and the formation of developing world health priorities

These political science literatures offer concepts useful for understanding network–ministry interactions and their influence on health priority formation in developing countries. Constructivist international relations theory offers a way of understanding how developing world health bureaucracies may come to embrace particular health causes: they may be
socialized into preferences through interactions with representatives of international organizations, bilateral development agencies and other actors that comprise international health policy networks. The capacity of these networks to influence national priorities will be mediated by the international and domestic structures through which they must work. Also, scholars studying policy transfer and agenda setting offer a set of propositions concerning the circumstances under which these interactions are more likely to result in adoption and institutionalization of particular health causes:

1. When networks are willing to share authority and control of resources with domestic officials;
2. When a focusing event gives a cause political visibility;
3. When a credible indicator exists to mark the severity of the problem;
4. When domestic political entrepreneurs are available who embrace the cause and are willing to push from behind the scenes to promote it.

In the sections that follow we draw on these constructivist, policy transfer and agenda setting ideas to investigate how safe motherhood became institutionalized as a priority in Honduras.

Methods

We relied on four types of sources to develop the case study: interviews with officials involved in Honduran safe motherhood policy; government reports and documents; donor agency reports; and published research on Honduran safe motherhood. We conducted in-depth semi-structured interviews with 30 individuals involved in Honduran safe motherhood, 25 of which occurred in the country. We interviewed each of the five individuals who led the maternal and child health division of the Ministry of Public Health between the years 1986 and 2002; a number of senior officials in the Ministry; NGO and private sector consultants; and members of the donor community including the Pan American Health Organization (PAHO – the Americas branch of the WHO), USAID, UNFPA, UNICEF and the World Bank.

The government reports we consulted included national health plans, national health surveys, safe motherhood strategy papers and official documents on safe motherhood norms. Of particular importance were the 1990 and 1997 RAMOS that provided evidence of a maternal mortality decline in the country and information on its possible causes (Castellanos et al. 1990; Meléndez et al. 1999). Donor documents included regional and national safe motherhood plans of action from PAHO, USAID-Government of Honduras health agreements and evaluations, and UNFPA project plans and reports for Honduras. Among the published studies on Honduras we consulted, a World Bank report (Danel 1998) was particularly valuable for historical analysis on safe motherhood policy development and for evaluation of interventions. The entire manuscript was reviewed for factual accuracy by several Honduran officials centrally involved in safe motherhood policy in the country.

We used a process-tracing methodology in constructing the case history, seeking to employ multiple sources of information in order to minimize bias and establish common patterns of causality. Our aim was to investigate how safe motherhood appeared on the Honduran health agenda, the degree to which the cause had been institutionalized in the country, and the factors behind the prioritization of the issue.

In the language of case study methodology our inquiry was holistic in nature and selected based on its revelatory and unique characteristics (Yin 1994). That is to say, we analyzed the nation-state of Honduras holistically as a unit rather than any of its sub-regions; we sought to make use of our access to policy-makers to reveal insights that may not have been available otherwise; and we justified selection of Honduras for analysis because of its uniqueness in being one of the few developing countries to have experienced a documented significant decline in maternal mortality in a short time span.

We chose a case study design because of the need to reconstruct holistically the history of the safe motherhood initiative in the country in order to examine the processes at work. The case study approach is better suited than other research methodologies, such as a structured survey and statistical analysis of health service utilization, to achieve this objective (Yin 1994). This is true because the defining feature of the case study is that it considers a phenomenon in its real-life context and is therefore a research strategy well-suited to revealing underlying processes.

The research design imposes limits on internal and external validity. In-depth exploration enables us to develop hypotheses concerning why political priority may have emerged for safe motherhood in Honduras, and to suggest general propositions concerning public health agenda setting and network-ministry interactions. On the other hand, the design creates uncertainty about the conclusions, as they are grounded in consideration of only a single case. Additional comparative research on other countries that controls for alternative explanations will be necessary in order to assess the causal power of the factors we identify. Also, any generalization to other settings must be done with caution given elements of the sociopolitical and health context that are unique to Honduras.

The case

The development of a national health infrastructure

While Honduras’ neighbours – Guatemala, Nicaragua and El Salvador – were engulfed in civil war through much of the 1980s, Honduras faced no domestic insurrection and enjoyed United States support as a Cold War ally and bulwark of anticommunist resistance in the region. These favourable domestic and geo-political circumstances in part explained a heavy USAID presence in the country, and the capacity of the Honduran state to devote a significant portion of its national budget to health infrastructure development.

In 1987 health comprised 11.7% of the national budget (USAID 1988), considerably higher than the regional average. USAID supplemented this funding with grants of...
US$54 million for health sector development and rural water and sanitation projects between 1981 and 1988 (USAID 1988). The agency cooperated closely with the Inter-American Development Bank (IDB) (USAID 1988), which in 1987 approved a US$27 million loan for the construction and equipping of hospitals across the country (USAID 1988). The Ministry of Health used domestic and donor resources to sustain a policy of extending health services throughout the country, targeting the rural poor (USAID 1988). Between 1978 and 1987 the number of health centres staffed by auxiliary nurses increased from 379 to 533; the number of health centres with doctors from 76 to 116; and the number of hospitals from 16 to 21 (USAID 1988).

Through the 1970s and 1980s, with donor assistance, the government also prioritized maternal health. In 1968 the Honduran government, supported by USAID, established a project for the health of mothers and infants (Almanza-Peek 1998a) and in 1974 started an official maternal and child health programme, the first stated objective of which was to decrease maternal mortality (HMPH et al. 1986, 1989). In the 1970s the Ministry of Health initiated a training programme for the approximately 10,000 traditional birth attendants across the country (Martinez 1994; HMPH 1998). UNFPA also supported maternal and child health, financing programmes from 1978 through 1991, with technical support from PAHO, that had explicit goals of reducing maternal mortality (Almanza-Peek 1998a). These legacies facilitated the emergence of political priority and gave health leaders the institutional capacity to address safe motherhood in the 1990s.

Safe motherhood emerges as a national priority

The emergence of safe motherhood as a global priority in the late 1980s raised political attention to maternal mortality reduction in Honduras to a new level. The watershed event was an international conference on safe motherhood in Nairobi, Kenya in 1987, sponsored by the World Bank, WHO, UNFPA and the United Nations Development Program (UNDP). At that time the global dimensions of the crisis – nearly 600,000 maternal deaths per year – were widely publicized, and delegates called for a global reduction of 50% by the year 2000. The conference officially launched a global safe motherhood movement, and solidified an international safe motherhood network that linked these organizations with government bodies, NGOs and safe motherhood advocates across the globe.

At the conference advocates promoted risk assessment during antenatal care to distinguish between women at high and low risk of suffering obstetric complications at delivery, and the training of traditional birth attendants for low risk women. Responding to this launch, PAHO prioritized the cause, in 1990 producing a plan for the reduction of maternal mortality in the Americas and securing its approval from its member states (PAHO 2002a).

The government of Honduras participated extensively in these global priority-setting initiatives. It was a member of PAHO and its minister of health participated in safe motherhood policy meetings. Also, Honduras was listed as one of the regional priority countries for maternal mortality reduction, and the government approved of the PAHO initiative. Throughout the 1990s government delegations participated in global meetings that reaffirmed international goals for maternal mortality reduction, such as the 1994 International Conference on Population and Development in Cairo. Officials also joined in follow-up regional meetings, including an official Central American launch of the global safe motherhood initiative at a conference in Guatemala in 1992 (APROFAM et al. 1992).

A 1990 maternal mortality study shocks the political system

The appearance in 1990 of a credible study revealing a high level of maternal mortality in Honduras spurred national health officials to respond to these global and regional calls for action. Prior to the study many health leaders believed Honduras did not have a serious maternal mortality problem, taking for granted a 1983 figure, derived solely from hospital-based estimates, of 50 maternal deaths per 100,000 live births (Castellanos et al. 1990). An official from the Honduran office of PAHO, who was formerly with the Ministry of Public Health, played a key role in organizing the study. He suspected the country had a maternal mortality problem, knew from his experience in the Ministry that Honduras had no reliable maternal mortality data, and had internal knowledge from his PAHO position that the organization was about to make safe motherhood a priority and allocate funds for the cause. He believed that Honduras could secure resources for a national programme, but only if it had credible data to prove a problem existed. He lobbied and successfully generated financial support for the study from several organizations, including PAHO and UNFPA.

The 1990 RAMOS study results shocked health officials. The research revealed a maternal mortality ratio of 182 maternal deaths per 100,000 live births, nearly four times the previously accepted figure (Castellanos et al. 1990). Furthermore, credible data showing haemorrhage as the leading cause of maternal death, and twice as many maternal deaths occurring at home as opposed to in hospital, suggested not only a problem of a much different scale than anticipated, but also a problem of a different nature. Honduran women were not reaching public or private obstetric services. In some regions, between 80 and 90% of deaths occurred at home. Even in the metropolitan area of Tegucigalpa, nearly one in four maternal deaths occurred at home. Armed with this information and committed to making maternal mortality reduction a political priority, the official and his colleagues actively publicized the study’s results. They produced and distributed over 1000 copies of the report, presented the study to the media, briefed international organizations on the results and lobbied health officials in the capital and regions of the country. By the end of 1990 a new health minister had commented in the national media on the study, noting that the country had a serious problem with maternal mortality and that the government was in negotiations with UNFPA to...
generate funds for a national programme (La Tribuna 1991a,b).

**Domestic health officials mobilize the political system for safe motherhood**

Public efforts by the study’s authors brought national attention to the issue. Entrepreneurship behind the scenes by mid-level health officials made the issue an ongoing priority.

The new health minister had longstanding ties with the head of one of Honduras’ seven health regions. The minister was assembling a new team in the capital and asked the regional head to serve as director of the maternal and child division. The official agreed on the condition that he would have direct access to the minister, even though several levels of bureaucracy stood between the two men. The minister assented to the request.

As he took up his new post in September 1990, the official paid careful attention to the published study, taking advantage of his access to the minister to convey to him the seriousness of the country’s maternal mortality problem and the need to make safe motherhood a policy priority. He then employed his close ties with the minister, other health officials and donors to lead an effort to mobilize the health system in service of the safe motherhood cause. He formed a working group that devised national strategies, engaged regional health bureaucracies and organized donor resources and expertise.

This working group became the unofficial centre for national safe motherhood efforts. Meeting regularly over several years and at certain points on a weekly basis, the group included members of the Ministry’s division of maternal and child health, the initiator of the maternal mortality study from PAHO, and local representatives of USAID, UNFPA, UNICEF and other donors and agencies. The group produced a national plan of action for maternal mortality reduction for the period 1991 to 1995, adopting many ideas from PAHO’s 1990 regional plan, while tailoring them to fit local circumstances (AHPF and HMPH 1991).

The group also embarked on an effort to mobilize regional health bureaucracies in service of safe motherhood. As a former regional health leader, the official was aware of the many health problems his colleagues had to face with limited resources, and of the challenge he therefore confronted in convincing them to prioritize safe motherhood. For this reason, members of the working group travelled to each of the regions, spending a week or more with leaders, hospital directors and other officials involved in safe motherhood, presenting the results of the study, persuading them of the seriousness of the problem, and facilitating the creation of local action plans. The existence of the 1990 study proved to be a powerful tool in generating regional attention as it provided credible evidence that a problem existed. The official and colleagues also organized annual, national safe motherhood evaluation meetings, bringing together officials from throughout the country to review progress and develop future plans. When some regional heads were still reluctant to make safe motherhood a priority, the official informed their superior, the minister, who spoke to them directly.

**Donors provide resources for safe motherhood**

These advocacy efforts may have had limited impact had they not been backed by financial and technical resources. In this respect existing donor commitment to safe motherhood and the participation of their local representatives in the working group proved crucial.

The only major safe motherhood intervention funded primarily from the central government health budget was the training of several thousand traditional birth attendants. Local governments provided some additional resources and donors many more. USAID supported maternal mortality reduction through a renewal of a grant to the country, providing a further US$57.3 million to the health sector between 1988 to 2000 (USAID 1988) and sponsoring a midterm evaluation of the grant that recommended safe motherhood be the country’s top health priority (Population Technical Assistance Project 1998). UNFPA approved new funding for Honduras for 1991 to 1995, including a subprogramme on reproductive health and the health of mothers (Almanza-Peek 1996a,b), providing nearly half a million dollars for reproductive health projects in two regions of the country. The Honduran office of PAHO offered technical expertise, receiving financial backing from the Netherlands and other donors (Martinez 1994). The World Bank financed a Honduran Social Investment Fund that provided financing for safe motherhood (Martinez 1994). A Swedish-assisted initiative, termed ‘Project Access’, carried out health system decentralization in order to increase access to facilities for the poor (Population Technical Assistance Project 1998). Other donors that provided financial or technical assistance for safe motherhood included the Germans, the Canadians, the Spanish, the European Union, UNICEF and the Latin American Center for Perinatology in Uruguay.

Donor efforts at the regional level in the Americas also helped to sustain political priority and the capacity of the Honduran health system to carry out safe motherhood programmes. In 1991, PAHO, UNFPA, UNICEF, USAID and the IDB formed an inter-agency committee to work to institutionalize commitment to safe motherhood and other health initiatives throughout the region (PAHO 1996). Representatives of the Honduran government participated in a Central American launch of the global safe motherhood initiative in 1992. Encouraged by PAHO, the spouses of heads of state in the Americas region, including the Honduran first lady, made safe motherhood a central topic of attention at their annual meetings from 1993 on (PAHO 2000). With U.S. first lady Hillary Clinton playing a central role, the spouses backed a USAID and PAHO regional safe motherhood initiative begun in 1995 to upgrade emergency obstetric care facilities in high maternal mortality settings (PAHO 2002a). Honduras was one of three priority countries (PAHO 2002b) and received additional funding for this purpose.
Outcomes

These Honduran government and donor efforts resulted in substantial expansion of the country’s health and safe motherhood infrastructure, with resources concentrated in those regions identified by the 1990 report as having the highest levels of maternal mortality. Between 1990 and 1997 seven new area hospitals were opened, 13 birthing centres, 36 medical health centres and 266 rural health centres (Danel 1998, p. 5). The number of doctors rose 19.5%, the number of professional nurses 66.4% and the number of auxiliary nurses 41.9% (from Ministry of Public Health statistics, cited in Danel 1998). In 1993 and 1994 half of the country’s approximately 11,000 traditional birth attendants were trained in the reproductive risk approach (Martinez 1994). Community leaders developed censuses of women of reproductive age (AHPF and HMPH 1991) and health workers lists of pregnant women (Danel 1998, p. 11). Health centres organized community groups to support educational programmes directed at pregnant women (Martinez 1994). The Ministry of Health published the Norms for the Integrated Care of Women employed at health facilities throughout the country (Danel 1998).

Access and utilization by Honduran women of safe motherhood services increased markedly over this period. Antenatal care increased and became increasingly professionalized with smaller proportions of women relying only on traditional birth attendants for care during pregnancy. Use of antenatal care with a medically trained professional increased from 72% around 1990 (AHPF and HMPH 1991) to 85% in the late 1990s (HMPH et al. 2001). Institutional delivery rose from 45% to 61% over this same time period (HMPH et al. 2001), with increases particularly evident in rural areas (HMPH et al. 1989, 1996, as reported in Danel 1998). Likewise, caesarean sections, the most common life-saving procedure among emergency obstetric care practices, increased to 8%, with rural rates reaching nearly 5% in 1998 (Figure 1).

In 1997, a second national RAMOS study was conducted on the country’s maternal mortality levels (Meléndez et al. 1999). The same official who organized the first study again secured donor funding for the second, and once more the results drew the attention of health officials. The investigation revealed a maternal mortality ratio of 108, indicating a significant decline from the 1997 ratio of 182. The report provided strong evidence that increased access to maternal health care played a role in this decline (Danel 1998). For example, whereas a third of maternal deaths occurred in hospitals in 1990, more than half occurred in hospitals in 1997. Dystocia, or prolonged labour, for which effective care can often be provided within 24 hours or more, basically disappeared as a cause of maternal death (decreasing from 4% in 1990 to less than 1% of maternal deaths in 1997). In contrast, haemorrhage, which requires immediate medical attention, remained the leading cause of maternal death in 1997, but was substantially reduced in numbers and a higher percentage of these deaths occurred in hospital. Finally, the reductions in maternal mortality and the percentages of maternal deaths shifting from home to the hospital are apparent in the

![Figure 1](https://example.com/figure1.png)

**Figure 1.** Honduran safe motherhood process indicators: percentage of births in last 5 years to women 15–44 years with at least one antenatal care visit with medically trained personnel, percentage with an institutional delivery and caesarean section rate

*Sources:* AHPF and HMPH (1991), HMPH et al. (1996), HMPH et al. (2001).
metropolitan area of Tegucigalpa, as well as in the most disadvantaged regions of the country (Meléndez et al. 1999). Although disparities in maternal mortality and access to care remained in 1997, these results suggest that Honduras made important strides in making effective maternal health care available to a broad section of the population.

As noted above, political and health infrastructural developments were taking place globally and in Honduras well before 1990, so it is unlikely the decline was solely a function of activities taken in the time period between the two studies. Also, there are no reliable data prior to 1990 on the country’s maternal mortality levels, so we cannot discern trends in periods prior to that year. This being said a change from 182 to 108 represents a decline of 40% in just seven years, a difference rarely seen in the developing world over such a short time span, strongly suggesting the impact of activities undertaken between these years.

Discussion

Political science theory and the case of safe motherhood in Honduras

Between 1990 and 1997 domestic health officials and international donors cooperated to institutionalize safe motherhood as a policy priority in Honduras, resulting in successful policy transfer, implementation and impact on maternal mortality levels. The political science literatures reviewed above – constructivism, policy transfer and agenda setting – help to identify the factors behind these successful outcomes.

Constructivist theory suggests that states may be socialized into particular policy preferences by virtue of their participation in international society. The Honduran state was socialized in this way. Beginning in the late 1980s and continuing through the 1990s international organizations prioritized maternal mortality reduction, facilitating the creation of a global norm that maternal death in childbirth is unacceptable and that states must act to address the issue. The Honduran government was influenced to embrace the norm through two concurrent processes. First, Honduran officials were members of a number of international organizations that prioritized safe motherhood. In particular the Honduran government actively participated in PAHO, which urged its member states to pay attention to the cause. Through participation in these and other forums, Honduran government officials came to learn of and pay attention to the issue. Secondly, these same organizations had local presence in the Honduran capital. Their representatives, many of whom were Honduran nationals, interacted with Ministry of Health officials, and a number jumped back and forth between positions with the donor agencies and the Ministry. These individuals served as conduits of priority, linking transnational and national forces.

Constructivist-influenced scholarship also suggests that certain kinds of international and domestic structures will facilitate the capacity of transnational actors to influence domestic policy priorities. Powerful international institutions concerned with safe motherhood were linked in a tight network, including the World Bank, WHO, USAID and UNFPA. The network provided a conduit for the influence of international safe motherhood advocacy on the Honduran state. Also, the Honduran state provided a receptive environment for such influence. It was not politically fragmented or unstable like its neighbours, it had developed a solid health infrastructure over several decades, and it had prioritized maternal health since the late 1960s. Each of these conditions facilitated transnational influence and increased the likelihood of domestic support for the cause.

Another facilitating factor was the emergence of shared decision-making authority between domestic and international officials. This was not a case of international donors wielding financial resources to push particular policy alternatives on a suppliant, uninterested state. On the contrary, a working group linking domestic health bureaucrats and representatives of international and donor organizations in a cooperative relationship emerged as the unofficial centre of national safe motherhood efforts. The group included representatives from the Ministry of Health, bilateral donors and United Nations organizations. It shared resources, coordinated strategy, worked collectively to promote priority for the cause across the country, and facilitated adaptation of global safe motherhood policies by encouraging local governments to develop contextually-relevant implementation strategies.

Three factors identified in agenda setting scholarship also were influential. International focusing events, particularly the Nairobi conference, placed safe motherhood on the global health agenda. Regional focusing events, including media conferences publicizing results of the 1990 Honduran maternal mortality study, facilitated the rise of the issue onto the Central American agenda. Domestic focusing events, including media conferences publicizing results of the 1990 Honduran maternal mortality study, facilitated the rise of the issue onto the national agenda. Also, this study produced a credible indicator – a high maternal mortality ratio – which revealed levels of maternal death far higher than expected, sparking alarm in the political system. In the absence of such evidence, advocates would have had difficulty promoting the cause. Finally, the Honduras PAHO representative and his colleagues acted as political entrepreneurs, organizing the 1990 RAMOS study, deliberately publicizing the results to convince key health officials that the country faced a serious problem, and allying themselves with donor officials to mobilize the health system in service of the safe motherhood cause. They worked as forces behind the scenes pushing to ensure priority was institutionalized in the political system.

In sum, constructivist, policy transfer and agenda setting constructs help us identify the factors that underpinned successful policy transfer and implementation:

1. The effective socialization of the Honduran state into global safe motherhood norms;
2. Favourable international and domestic mediating structures, particularly a strong international safe motherhood policy network and domestic political stability, that facilitated policy transfer;
(3) shared power by domestic and international officials that facilitated local embrace of the cause and contextually relevant policy adaptation;
(4) the organization of attention-generating focusing events that gave visibility to the cause internationally and domestically;
(5) the existence of a credible indicator to mark the severity of the problem; and
(6) political entrepreneurship by national health officials to institutionalize domestic priority for the cause.

Study limitations, further research and implications for public health strategy

Our case study design involving a single country and health policy issue enables us only to raise questions and suggest answers, not to provide definitive conclusions. The governments of many nation-states were exposed to and participated in the creation of a global norm concerning the unacceptable of maternal death in childbirth. Only a handful such as Honduras embraced the norm and acted decisively to address the problem. We have explained the divergent reaction by considering a set of transnational–national linkages and domestic political factors. In the absence of comparative inquiry we cannot be certain that the factors we point to were the primary causal forces. There is a need for further research that considers multiple states and health policy issues in order to assess the validity of these causal claims, and to discern systematic features of health agenda-setting processes. Among the issues that should be investigated are:

(1) What kinds of focusing events shape policy attention for health causes? What are the features of focusing events that give them agenda setting power?
(2) Under what conditions do indicators have agenda setting power? Under what conditions do they fail to have impact?
(3) Under what circumstances can/do domestic political entrepreneurs make a difference? What is it they do that makes a difference?
(4) What features of international health policy networks give them the capacity to influence domestic health priorities? In particular, what is the relationship between network structure and the power to influence?
(5) As donor–government relations in health are so frequently contentious, under what circumstances is productive cooperation likely to emerge?

The latter question is particularly important and little investigated. The authority of the Honduran working group highlighted the fact that the forces shaping priority for safe motherhood in Honduras were not unidirectional, flowing from international to domestic actors alone. Influence moved in both directions, merging as members acted collectively to address the country’s safe motherhood problems. Moreover, in some instances the boundaries between the international and national were indistinct. How should we characterize the official who organized the first maternal mortality study? Was he a representative of the international organization, PAHO, who employed his organizationally derived authority to shape the behaviour of the Honduran state? Or was he a Honduran citizen who utilized his position in PAHO to generate resources for an existing national policy priority? And what was the status of this working group of which he was a part? It included Honduran nationals, some of whom were employed by the government and others by international donors, as well as nationals of other countries, all working together for the objective of reducing maternal mortality in the country. As they engaged in this initiative, they formed a collectivity defined not so much by nationality or organizational affiliation but by cause.

The nature and authority of these locally situated nodes of linkage between international and national forces remain largely unexplored. These deserve considerably more attention for at least three reasons. First, they may be more common than imagined and hold considerable influence over national health priorities in many developing countries. Secondly, their very existence presents a challenge to a basic presumption in constructivist, policy transfer and agenda setting theory that there exists a neat demarcation between the ‘international’ and the ‘national’. In these working groups these two categories may be fused, and in some instances meaningless. Thirdly, their emergence may help explain why policy transfer and implementation proceed effectively.

This latter point may be the most significant lesson that emerges from the Honduran case for health agenda setting in developing countries. Many relationships between international health policy networks and developing world health bureaucracies are fraught with tension. Often donors, wielding control over resources, have sought to impose their priorities upon bureaucracies without considering local interests, the capabilities of domestic bureaucrats, the need for policy adaptation, and the considerable national political manoeuvring that must take place in order to institutionalize a health cause as a domestic priority. It is rare that overseas donor or health network officials have the legitimacy or expertise to pursue such political manoeuvring successfully; that capability, if it exists, almost always resides in the hands of domestic bureaucrats and political officials. While many factors shape the agenda-setting process, as dozens of international health policy networks compete for attention, it may be those that are willing to hand over a measure of control and forge alliances with domestic bureaucrats that stand the best chance of having their causes institutionalized.

Endnotes

1 Since a 1987 global safe motherhood initiative was launched, the only other case of a documented major decline in a poor country confirmed by two Reproductive Age Mortality Studies (RAMOS) is Egypt, which had a maternal mortality ratio of 174 in 1992 and 84 in 2000 (Ministry of Health and Population, Egypt 2001). Historically, there are relatively few developing countries that have experienced documented declines, including Sri Lanka and Malaysia (Pathmanathan et al. 2003), and China (Koblinsky 2003). More recently, a number of countries with moderate levels of maternal mortality around 1990 have documented further declines over the following decade, including Uzbekistan, Azerbaijan, Argentina, Cuba, Costa Rica and Chile (WHO et al. 2001).

2 Other publications have reported a maternal mortality ratio of 220 for 1990. The figure 220 came from the 1990 study, but was...
the pregnancy-related mortality ratio: the number of deaths per 100,000 live births occurring to women during pregnancy, childbirth or the postpartum period, but not necessarily causally related to the
pregnant state. The maternal mortality ratio based on the definition of
maternal death in the International Classification of Diseases
(Revision 10), also reported in the study, is 182.

It should be noted that a number of the factors identified here
were also influential in Indonesia (Shiffman 2003), providing
additional evidence for their causal power. These include the avail-
ability of a credible indicator showing that a problem existed,
effective political entrepreneurship and the organization of atten-
tion-generating focusing events. Also, there as in Honduras, a rela-
tively stable political system and the development of a national
health infrastructure made it possible for international and domestic
safe motherhood advocates to promote the cause.

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