Prevention and promotion in decentralized rural health systems: a comparative study from northeast Brazil

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Policies to reform health care provision often combine the organizational restructuring of decentralization with ideological restructuring through a new model of health care that gives greater weight to prevention and promotion. Decentralization provides a discretionary space to the local health system to define and develop its own activities. The central policy aim to shift the model of health care therefore must rely on incentives rather than directives and is likely to result in variation at local levels in the extent and mode of its implementation. The local processes affecting variation in local implementation of policies for prevention and promotion have not been studied in a developing country. This study does so by comparing two rural health systems with different levels of prevention and promotion activities in one of the poorest regions of Brazil, Ceará State in the northeast.

The health system with greater activities of prevention and promotion also has a more advanced stage of decentralization, but this is in combination with many other, interacting influences that differentiate the two health systems’ ability to adopt and implement new approaches. While beyond the scope of this paper to detail options for regional and national managers to encourage the adoption of a greater focus on prevention and promotion, it is clear that strategies needs to target not only the vision and actions of local health system staff, but critically also the expectations of the local population and the attitudes of local government.

Key words: decentralization, health promotion, prevention, rural, Brazil

Introduction

The World Health Organization (WHO) has championed the need for a shift in thinking about health care provision ever since the Alma Ata Declaration (WHO 1978) called for a greater focus on disease prevention and a broader conceptualization of health and its determinants. The more recent variant of a model for a ‘new public health’ (Ashton and Seymour 1988) emphasizes health promotion following the first major international meeting on health promotion in Ottawa in 1986 (WHO 1986).

But despite an apparent international consensus on the virtues of this approach, prevention and promotion have not become as prominent in health policy as hoped, and curative approaches based on epidemiological analyses continue to dominate health policy.

‘Most target documents have remained within the disease perspective and have targeted disease rather than actions needed to improve population health’ (Kickbusch 1996: 9).

In Latin America, health care provision has developed into systems that are highly individualized, curative and hospital oriented. At the same time, Latin America represents the textbook case of epidemiological polarization:

‘This is characterized by a prolonged co-existence of two mortality patterns, one typical of developed societies (chronic and degenerative) and the other of poor societal living conditions (infectious and parasitic) combined with high mortality from accidents and violence’ (PAHO 2000: 6).

Recognition of a need to reorient the model for public health care provision in Latin America has been an important theme of policy statements emerging from the Pan American Health Organization (PAHO) and others in the 1990s (PAHO and Ministry of Health 1992; Paim 1994; Mendes 1996; PAHO 1997, 1998, 2000, 2001). These calls for a new model in health care provision have been an integral part of the health reform movements in Latin America, together with organizational and financial restructuring (Lopez-Acuña et al. 2000). This is clearly seen in the case of Brazil, where health system reform has combined organizational restructuring in the form of decentralization with an explicit ideological restructuring of the model of health care provision that gives greater weight to prevention and promotion (Brazilian Constitution 1988; de Carvalho and Santos 1992).

Decentralization, by definition, provides a greater discretionary space to the local health system to define and develop its own activities in response to local needs (Atkinson 1995). This is particularly true in Brazil, where the decentralization model...
is one in which the centre (Federal level), the region (the State level) and the local (the Municipal or Município level) are all accorded equal status rather than having a hierarchical order. As Araújo (1997: 113) suggests, this structure is completely coherent with the federal structure of the Brazilian State and a decentralized health system of this form is thus highly appropriate. Within this kind of horizontally decentralized model, a potential tension emerges between a central policy aim of shifting the orientation or ideology of the health system and the space created for local interpretation and implementation. On the one hand, decentralization may facilitate greater local actions and intersectoral collaboration needed for health within a prevention and promotion model. On the other hand, the central, Federal level must rely on incentives rather than directives to achieve its policy aim of shifting the model or vision of health care, and there is likely to be great variation between local systems in the extent and mode of its implementation. A key question therefore is what local level factors determine whether resource incentives on offer for programmes with an emphasis on health promotion and prevention are taken up or not by decentralized local health systems.

While increasing numbers of studies have explored the rationale, cost-effectiveness and efficacy of various types of prevention and promotion programmes (for example, Bell 1996; Dookhan-Khan 1996; Hepworth 1997; Potter 1997; Nutbeam 1998; Mechanic 1999), few have explored the factors that affect local uptake and implementation of such programmes (Fosse 2000). Central and regional managers and in-service trainers need to understand the dynamics at the local level that influence the adoption of actions for prevention and promotion within this decentralized context. Indeed, given that several recent studies (Hanson 2000; Wyss and Lorenz 2000), including one from Brazil (Scatena and Tanaka 2000), have indicated that, in practice, resource allocation following directives to achieve its policy aim of shifting the model or ideology of the health system, a potential tension emerges between a central policy aim of shifting the orientation or ideology of the health system and the space created for local interpretation and implementation. On the one hand, decentralization may facilitate greater local actions and intersectoral collaboration needed for health within a prevention and promotion model. On the other hand, the central, Federal level must rely on incentives rather than directives to achieve its policy aim of shifting the model or vision of health care, and there is likely to be great variation between local systems in the extent and mode of its implementation. A key question therefore is what local level factors determine whether resource incentives on offer for programmes with an emphasis on health promotion and prevention are taken up or not by decentralized local health systems.

Indeed, Fosse (2000: 129) stresses the importance of extending mainstream policy analysis which focuses on changes within organizations, to bring in an analysis of policy actors in order to understand not only what happened and how it happened, but also to ask why something happened.

This study, therefore, aims to explore why, in a context of the discretionary space provided by health system decentralization, some local health systems do better than others in adopting and incorporating prevention and promotion activities into their health care provision. Rhetoric, guidelines and incentives put in place by the national Ministry of Health are the same for all local health systems; the focus then is on what local factors influence the local health system’s inclination and capacity to pick-up or exploit these opportunities. The research aim is addressed through the comparison of two case study sites in the state of Ceará in northeast Brazil. The choice of Ceará is important since the state government has given a strong commitment to the implementation of the health reforms (Tendler 1997), and it thus provides a good region within which to explore local variations in implementation. The sometimes hidden and informal nature of possible influences on local policy-making requires the depth of a case study approach. Thus the research design has traded off the insights to be gained from an in-depth case study approach against the generalizability of a more extensive study. The results comprise a descriptive interpretation of the factors that emerged as different between the two case studies and that can be argued to potentially influence the policy-making and implementation processes at the local scale. The paper presents these as contributions and stimuli for further research in different contexts to build up a comparative body of studies that can paint a broader picture.

**Decentralization in Brazil**

The decentralization of the Brazilian health system has been reviewed in considerable depth elsewhere and will thus only be outlined here. Decentralization was an integral element of the *Reforma Sanitária* which started in Brazil in the early 1980s, in part a result of the mobilization of a large and politically diverse Health Reform Movement (Almeida et al. 2000; Collins et al. 2000). The economic crisis of the early 1980s and the democratic transition of the mid 1980s were also important factors that promoted the reform of the system, and many of the shifts that took place in the early 1980s were ratified in the new democratic constitution of 1988, in particular the creation of the Unified Health System (Sistema
The 1996 NOB established a new format for the municipal services (Almeida et al. 2000). The process of decentralization was initiated in 1991 in order to pass responsibility for service delivery to the municipalities, although this was not put into practice until 1993. Decentralization was administered through two Basic Operational Norms (NOBs), implemented in 1993 and subsequently in 1996. These were designed to define the new model of management for the system as well as to establish information systems for planning and to set up financial transfer mechanisms for the state and municipal levels.

Prior to decentralization, the SUS had operated through a complex and centralized payment system whereby service providers, both public and private, received funding on the basis of service provision (Collins et al. 2000). The process of decentralization was initiated in 1991 in order to pass responsibility for service delivery to the municipalities, although this was not put into practice until 1993. Decentralization was administered through two Basic Operational Norms (NOBs), implemented in 1993 and subsequently in 1996. These were designed to define the new model of management for the system as well as to establish information systems for planning and to set up financial transfer mechanisms for the state and municipal levels.

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NOB/93 graded municipalities according to three different categories (initial, intermediate and advanced) to allow for the subsequent transfer of responsibilities to the municipio according to their respective category. However, NOB/96 was introduced with the central objective of promoting and consolidating the full exercise of health care managerial functions by the municipal governments. Financial incentives were introduced for municipalities to implement new programmes, including the Family Health Programmes (PSF) and Community Health Worker (CHW) Programme (Almeida et al. 2000). The management classification of municipalities was reduced to two – full management of the entire system and management of basic care. Essentially this meant that the more developed municipalities had greater autonomy, receiving periodic financial transfers from the federal level National Health Fund to the local level Municipal Health Fund, and took responsibility for health care through a network of public and private provider organizations. The Municipal Health Fund consists of the municipality’s own budget allocation to the health fund as well as federal transfers. The remaining municipalities have more restricted responsibilities. They also receive monthly transfers from the National Health Fund to the Municipal Health Fund. However, SUS provider units – be they public or private – in these municipalities receive payments directly for episodes of more specialized health care carried out through SUS. This money does not go through the Municipal Health Fund (Collins et al. 2000).

The impact of decentralization in Brazil is subject to much debate, with many critics claiming that it has increased inequalities between municipalities (Souza 2002) and increased inequities in the system (Araújo 1997; Almeida et al. 2000; Collins et al. 2000).

**Resources for health care**

The 1996 NOB established a new format for the municipal financing of health care. Three main sources of funding are available to municipalities:

- Municipal taxes – All municipalities are expected to allocate around 10% of the municipal budget to health, but since this is only a recommendation, few municipalities do this in practice.

- Federal transfers – These are made via the SUS and comprise two components: Authorization for Hospital Admissions (AHI), billed by the different providers (public and private) and subject to a financial cap based on population size and types of providers; and Primary Care Programme (PAB), made up of a fixed amount based on a per capita payment designed to cover the cost of basic care and a variable element related to five sub-programmes, each of which establishes its own area of activity and criteria for the allocation of funds. These variable funds are designed to act as an incentive for municipal action in the specific areas set out by the programmes, and include the PSF and CHW programmes as well as programmes for chronic illnesses relevant to health promotion concerns such as hypertension or diabetes (Almeida et al. 2000; Collins et al. 2000).

**The study sites and data collection**

The research uses a case study approach to produce a descriptive interpretation of the factors that can affect the implementation of health promotion programmes. In order to explore variation, the study purposively selected two rural municípios that contrast one another in terms of their prevention and promotion activities. The selection was made largely through extensive discussion with state level health managers, researchers and trainers from the state training school (Escola de Saúde Pública, Ceará), with some supporting evidence from existing demographic, social, economic and health data. Criteria for selection of case studies were that they should not be too different in terms of their socio-demographic profile, neither represent an extremely good or extremely poor example but be similar to many other municípios in the northeast of Brazil, and that one should be more active than the other in the adoption of prevention and health promotion activities. Indicators of actual performance in terms of either health system outputs or health outcomes of the activities for prevention and promotion were not available on which to base such a selection. The details of the implementation of each

**Table 1. Health system outputs and health indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Pedra Branca</th>
<th>Tauá</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenatal care coverage</td>
<td>82</td>
<td>+16</td>
</tr>
<tr>
<td>Breastfeeding &lt;4 ms</td>
<td>82</td>
<td>+37</td>
</tr>
<tr>
<td>Growth monitoring &lt;12 ms</td>
<td>91</td>
<td>-6</td>
</tr>
<tr>
<td>Vaccinated &lt;12 ms</td>
<td>86</td>
<td>+16</td>
</tr>
<tr>
<td>IMR/1000 live births</td>
<td>40</td>
<td></td>
</tr>
</tbody>
</table>

*Note: IMR state average 1998 = 31/1000; Tauá ranks 33rd district for IMR.*
Intersectorality: the formal and informal structures locally

Health system structures: formal structures regarding the

Vision: the official, given health policy goals of national

Context: setting the scene with respect to the area and

Other sectors

Intersectoral

Awareness about environmental health through the radio

Health Secretariat

Environment monitoring and site inspections

CHWs distribute chlorine tablets for water

Formal partnership of health and social work secretariats in which

social workers staff distribute sanitation kits

Pedra Branca

Table 2. The main prevention and promotion activities in each município

<table>
<thead>
<tr>
<th>Environmental issues</th>
<th>Environmental issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefecture</td>
<td>Fundação Nacional de Saúde (parastatal organization)</td>
</tr>
<tr>
<td>Sanitation and water infrastructure projects</td>
<td>Epidemiological surveillance and monitoring by the FNS with help of CHWs</td>
</tr>
<tr>
<td>Awareness about environmental health through the radio</td>
<td>Health Secretariat</td>
</tr>
<tr>
<td>Environmental monitoring and site inspections</td>
<td>Awareness through the radio and some campaigns in schools (State, Ministry, not mainly municipal)</td>
</tr>
<tr>
<td>CHWs distribute chlorine tablets for water</td>
<td></td>
</tr>
<tr>
<td>Formal partnership of health and social work secretariats in which</td>
<td></td>
</tr>
</tbody>
</table>

In order to develop comparisons between the study sites, the research data are structured around six themes to capture the influence of variation in the context of each health system, the policy vision of each health system, and in both formal and informal organizational arrangements between the local health system and other key institutions, including local government, other sectors and the population:

- Context: setting the scene with respect to the area and population, the range of health problems and an overview of prevention and promotion activities;
- Vision: the official, given health policy goals of national and local governments with respect to prevention and promotion;
- Health system structures: formal structures regarding the level of autonomy afforded by decentralization and the allocation of resources to different kinds of health care (presented in two separate sections in the results);
- Intersectorality: the formal and informal structures locally that create barriers, links and informal ways of working across sectors;
- Participation: the existence of formal channels for popular participation in defining priorities and level of participation.

Information on the two study sites was collected through a qualitative approach over 1 year. The data collection in each local health system was based on documents, interviews, conversations and observations. Open interviews were taped and transcribed with local politicians, managers, health staff and members of the population. General observations of daily life in the municípios and specific observations of health facilities and meetings were recorded through the use of research diaries. A descriptive case study for each município was first constructed, treating each in a more holistic manner, albeit structured around the main themes outlined above. The comparative analysis was built by exploring where variation lay between the operations of each local health system that can be argued reasonably to impact on the provision of prevention and health promotion activities.

Contexts

Both municípios are largely rural, with just slightly more than half the population living in the rural areas of the município rather than the urban centres. Both populations predominantly depend on subsistence agriculture and animal husbandry for income, and both are very young, with around 60% under 24 years of age. Both districts have been established as municípios since the 19th century and thus both have a long history of municipal identification. The challenges for health are similar in both districts. Environmental issues and the provision of basic sanitation services are a priority in both and both have similarly poor coverage of water supply, sewage and rubbish collection (see Table 3). This profile is characteristic of many municípios in the dry, interior serrão region of the northeast of Brazil.
The challenges to health in Ceará are similar to many low-income countries. The most common health problems were identified as diarrhoea, respiratory diseases, malnutrition, hepatitis and meningitis. Health activities building on the Alma Ata 1978 Primary Health Care approach remain an appropriate strategy. This approach emphasizes the provision and access for all to basic curative and preventive care, where good coverage of simple, low cost technologies such as vaccination and antenatal care can have a significant impact on women and child survival. Improved environmental sanitation and water supply are also priority concerns. The State of Ceará led the nation in setting up a successful state-wide network of CHWs, funded by the state but co-ordinated in each município by the municipal local health system (Tendler 1997). The state is also a supporter of the Federal initiative called the Family Health Programme (PSF), which funds a team of professionals (usually a medic, a nurse, one or two other professions such as a dentist or psychologist, and support staff such as nursing auxiliaries and community health workers) that operate from a basic health post in areas not previously covered by anything other than vaccinations and first aid. Implementation of the PSF programme at local level has emerged as one factor in multiple regression analysis of formal and informal influences on performance in northeast Brazil (Atkinson and Haran 2004). In similar regression analyses, the effective practice of CHWs appears to impact on user satisfaction (Atkinson and Haran 2005).

Of the two case study sites, Pedra Branca has the better health output and outcome indicators, as shown in Table 1. On the whole, Pedra Branca has also shown greater improvement in these indicators between 1996–98, with the exception of antenatal care coverage. Both have had a small decline in the coverage of growth monitoring. Tauá has the higher infant mortality rate (IMR), and ranks 33rd in the state of Ceará for worst IMR. The IMR of Pedra Branca is also above the state average of 31/1000 live births, but is lower than Tauá.

The main prevention and promotion activities of each município are summarized in Table 2. Prevention and promotion activities in Pedra Branca are not only more extensive and more innovative (for example, there are seven PSF teams working in Pedra Branca compared with only one in Tauá, and Pedra Branca has a touring theatre group which

### Table 3. Data on local health systems in the rural case study sites in Brazil

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Pedra Branca</th>
<th>Tauá</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population, 1996</td>
<td>37,545</td>
<td>50,258</td>
</tr>
<tr>
<td>Area (km²)</td>
<td>1,290</td>
<td>3,957</td>
</tr>
<tr>
<td>Date of establishment</td>
<td>1,871</td>
<td>1,801</td>
</tr>
<tr>
<td>Urbanization rate, 1995 (%)</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>Population growth rate, 1991–96</td>
<td>Not available</td>
<td>−1.9</td>
</tr>
<tr>
<td>Percentage &lt;24 years</td>
<td>56</td>
<td>60</td>
</tr>
<tr>
<td>Income/cap (Reais)</td>
<td>Not available</td>
<td>121</td>
</tr>
<tr>
<td>Economic base</td>
<td>Subsistence agriculture, animal husbandry</td>
<td>Subsistence agriculture, animal husbandry</td>
</tr>
<tr>
<td>Illiteracy in 11–17 year olds (%)</td>
<td>40.5</td>
<td>27</td>
</tr>
<tr>
<td>Adequate water supply (%)</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>Adequate sewage (%)</td>
<td>0.45 (1991)</td>
<td>3.8</td>
</tr>
<tr>
<td>Rubbish collected (%)</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Decentralization stage</td>
<td>Gestão Plena, 1997</td>
<td>Gestão Plena de Atenção Básica, 1997</td>
</tr>
</tbody>
</table>

### Physical Resources

| Basic health units                            | 7            | 0     |
| Health posts                                  | 3            | 20    |
| Health centre                                 | 1            | 2     |
| Ambulatory clinic                             | 1            | 2     |
| Doctor/dentist consultories                   | 2            | 3     |
| Doctor/dentist clinics                        | 2            | 1     |
| Hospital/maternity                            | 1            | 1     |
| PSF                                           | 7            | 1     |
| Health care entity of any type/1000 population | 0.009        | 0.01  |

**HR no. (1999)**

| Doctors                                       | 16           | 34    |
| Nurses                                        | 12           | 27    |
| Dentists                                      | 4            | 11    |
| CHWs                                          | 89           | 100   |
| Financial resources, 1998                     | 2,703,749    | 2,153,648 |
| % from Federal                                | 82           | Not available |
| % from Municipio                              | 18           | Not available |
| % on hospital (AIHs)                          | 16           | 32    |
| % on PSF and CHWs                             | 57           | 25    |

*Note: State average for illiteracy in 11–17 year olds = 22%.*
addresses health promotion issues, but also more institution- 
alized through formal relations and therefore more likely to be 
sustainable across different local governments. For example, 
in Pedra Branca formal partnerships exist between the health 
and social work secretariats, which has been an important 
factor in the distribution of sanitation kits by social workers. 
Thus, despite much in common in terms of the challenges to 
health, the demographic structure of the population and the 
economic base of most of the population, Pedra Branca has 
better coverage figures for basic preventative services and a 
more innovative approach to incorporating prevention and 
promotion into the health system’s activities. So what makes 
the difference?

Vision

Comparing the two annual health plans of the two districts, it 
is clear that Pedra Branca has a broader view of health than 
just the health sector; this is also reflected in the promotion 
and prevention activities presented in Table 2. Although environ-
mental work is carried out by the prefecture with no direct 
inputs from the health sector, the annual health plan includes 
these, and other similar activities in the município, as part of 
what is going on. This indicates two aspects of ‘vision’: that 
the health sector in Pedra Branca has a broad understanding of 
what is important to health and that, in order to support this 
broader vision, a local health system should have an overview 
of all activities related to health, not just those of the specific 
sector itself. By contrast, in Tauá, where the parastatal 
organization Fundação Nacional de Saúde is working on the 
control of animal-borne disease, the health sector explicitly 
sees this as a separate sphere of activity that is not their 
responsibility.

The term promotion is not widely used in either município. 
The basic primary health care activities are predominantly 
prevention, providing the traditional mother-child health 
services of vaccination, antenatal care, growth monitoring 
and so forth. Additional activities that are health promotional 
include promotion of breast-feeding and the milk programme 
for malnourished children and pregnant women. Both local 
health sectors see the importance of extending their role 
beyond the health centre and are involved in providing 
prevention information and education messages on the radio, 
particularly with respect to environmental sanitation and 
better dental health.

Decentralization

As outlined earlier, there are two possible stages of 
decentralization within the Brazilian health system. Pedra 
Branca is fully decentralized, while Tauá is only in the basic 
stage. However, being in different decentralization stages is 
more likely to reflect other determinants of differences in 
prevention and promotion activities than to explain those 
differences. The process by which each município first became 
decentralized is informative about the background or under-
currents to the politics of the present local government in each. 
Each município is governed by an elected Prefect and a series 
of Secretaries, appointed by the Prefect, with responsibility for 
different sectors, such as the Health Secretary.

In Tauá, the process of decentralization was done by formula, 
in that the município established the required formal aspects of 
organization nominally in order to achieve the contract of 
decentralized status. There seems to have been no real 
commitment to the rationale or spirit behind these formal 
aspects or to the aims of decentralization. Local informants 
describe the process as prefecturization rather than decen-
tralization, since, in practice, power has been decentralized to 
the prefect and the health professionals have no say over the 
management of resources for health. For example, the 
municipal conference for health, which is supposed to be an 
annual event to define and approve health priorities and to plan 
for the coming year, has only ever been held once. The health 
fund, supposedly a fund for the sector that is separate from 
other budgets of the município, was only activated recently.

By contrast, Pedra Branca achieved decentralization with the 
input of a team of professionals who had been active in the 
reform movement at the state level and were personally 
committed to its goals. Given that local Secretaries of Health 
are personally appointed by the local Prefect, in Pedra Branca 
the choice of a Health Secretary at the forefront of the reform 
movement in the state indicates a combination of political 
attitudes favouring decentralization in its spirit, not just its 
form, with professional attitudes and links to the new ideology 
for health care developing in the state. The group of health 
staff had personal and professional links also with the state 
Secretary of Health at that time (Dr Penaforte) and they 
themselves acknowledge that this link facilitated access to 
resources, ideas and progress in the decentralization process. 
The influence of this group is reflected in its activities. Pedra 
Branca was one of the first municípios to implement the state-
initiated CHW programme. The process of decentralization 
was not done by formula as in Tauá, but built through 
discussion with unions, churches and other community 
associations in order to involve the population. This process 
was adopted with the explicit policy intention of establishing a 
new kind of relationship between the sectors of local 
government and civil society.

The process has not been all smooth sailing; there was a 
serious hiccup in this process when Pedra Branca went 
through some years of political disturbance, but during these 
years the attitude to the health sector was one of neglect, 
failing to advance the process, rather than one of actively 
opposing and reversing the policy direction. This meant when 
a committed government returned to power, it was not difficult 
to pick up the process again, and overall, during the decade 
there has been a steady building on what was first initiated. 
During the political disturbances, the município succeeded in 
sacking the local government for corruption, in itself an 
indication of the success in building local accountability.

Tauá by contrast has had little political continuity. The 
municipio is politically divided into two factions and both 
sides agree this creates a continual conflict that has proved 
negative in its effects. In the last 8 years, covering two 
administrations’ terms of office, the município has had seven 
different Secretaries of Health, three of which were between 
October 1999 and January 2000. Obviously this rate of 
turnover in the main management position for the health
system makes any sustained development of policy and implementation impossible. There seems to be a vicious circle with respect to centralization of policy and resources, with the prefecture on the one hand and high turnover of the health secretary on the other. Since the position is a direct political appointment made by the Prefect, this turnover must reflect, at least in part, repeated breakdowns in the relationships between Prefect and Secretary of Health. One area of tension is likely to be the lack of control over health sector resources. At the same time, if the Secretary of Health keeps changing, the resources are better managed from the centre.

Health system resources, inferred priorities and autonomy

A brief description of the resource mechanisms for the health sector was outlined at the start of the paper. Pedra Branca has an absolute level, and given its smaller population also a per capita level, of financial income that is greater than Tauá. In part this reflects the stage of decentralization – Pedra Branca has full control over the resources within the municipio. In part this may reflect a larger contribution from the municipal government (18% in Pedra Branca); information was not available to the research team on this breakdown in Tauá. However, many working in the health sector in Tauá complained that resources were centralized under the management of the prefecture and that the health sector had no control over the resources destined for health. This supports the implication that the municipal resource allocation to health is not transparent and may be much lower than in Pedra Branca. This issue of who controls the resources defines the autonomy that the health sector has over resources and decision-making at the municipal level. In both municipios, most of the financial resources come from the Federal Union through the decentralization contracts. As outlined earlier (see section on Resources for Health), these resources come with largely prescribed purposes and there is little room for local discretion over their use. This is particularly so for municipios in the basic stage of decentralization; Pedra Branca will have some leeway within categories of payments over their exact allocations due to its advanced stage of decentralization.

The breakdown of financial resources for different kinds of activities is used as an indicator of the policy orientation of each municipio. The percentage of total income allocated to hospital-based care (AIHs) is a far greater proportion of the budget in Tauá than in Pedra Branca. Complementing this, the proportion of the budget going to the community-based health care operating through the CHWs and the Family Health Teams (PSF) is far greater in Pedra Branca than in Tauá. The expenditures on hospital care may not reflect a policy intention to prioritize curative care, but rather reflect the fact that Tauá has a larger hospital that operates as a regional hospital, whereas the smaller hospital in Pedra Branca only serves the municipio. However, the decision to join the PSF programme (a Federal programme) and get resources to run PSF teams is a definite policy choice. Here, similar to the story of the processes of decentralization in the two municipios, Tauá appears to have viewed the PSF programme as a potential source of extra income, but did not provide the local management support to the programme required to implement it successfully. Out of the seven teams originally set up, only one is still working.

The failure of the PSF teams in Tauá illustrates well the contrasts in the management of human resources in the two municipios. The Family Health Programme has had some success in getting physicians to work in rural areas, where previous strategies have failed, by making the post attractive through good salaries, logistical support and a certain amount of professional autonomy. The municipio has to provide some counterpart inputs to the Federal funds such as housing or transport (Medeiros 2002). Examples of the PSF teams working well and proving sustainable are found in many municipios of Ceará, but there does appear to be great variation in the success of implementing this programme. In Tauá, there seems to have been an important breakdown in relations between the municipal secretariat of health or the prefecture and the teams. In particular, salaries were not paid on time, with delays of as much as 3 months because the proper paperwork had not been completed by the municipio. Under these kinds of working conditions, obviously senior professionals would take the first opportunity to leave for a position elsewhere.

The health system in Tauá complains of a shortage of resources for running PSF teams well. It is true that Tauá has a larger population and much larger geographical area to cover than Pedra Branca, with similar financial resources for this. However, given the problems of coverage in a large, low density municipio, it is strange that Tauá has not invested more in the CHW/PSF strategy, but has, if anything, strengthened the concentration of services in the main town centre.

Centralization of services: intentional or default

Most of the health care in Tauá is in effect provided through several health facilities based in the central town. These services are always very busy because many clients come not only from Tauá but also from surrounding municipios, since two of the facilities are regional (the hospital and the health centre) and as such have a greater range of services available. Tauá does have a large number of health posts, but, in the absence of any PSF teams operating out of them, these provide only very basic services such as vaccination and first aid. This central concentration of higher-level services contrasts with Pedra Branca, where, although there is a municipal hospital and a health centre in the main town, a definite investment has been made in the PSF teams to provide a greater range of services around the rural districts of the municipio. However, without the PSF teams, health care provision in Pedra Branca would look similarly centrally concentrated.

Thus, again, the importance of managing the implementation of the PSF programme by the local health system in order to increase accessibility to basic health care is stressed. A central concentration of services is the historical model, and as such the default option, rather than an intentional policy of the current administration. Again, the lack of continuity in the management of the health system and poor management of human resources in Tauá both lead to the maintenance of...
a status quo rather than the innovation of new directions in care provision. Since the historical status quo in Brazil has been the provision of curative services, this is what has prevailed in Tauá without any active management direction.

**Intersectorality and partnerships**

The importance of intersectoral work in health promotion activities has long been acknowledged. The 1986 Ottawa Charter specifically highlights this:

> It is co-ordinated action that leads to health, income and social policies that foster greater equity. Joint action contributes to ensuring healthier goods and services, healthier public services, and cleaner, more enjoyable environments. [It] requires the identification of obstacles to the adoption of healthy public policies in non-health sectors, and ways of removing them (WHO 1986).

In addition the Charter states:

> Health services need to embrace an expanded mandate which is sensitive and respects cultural needs. This mandate should...open channels between the health sector and broader social, political, economic and physical environmental components.

Within the Brazilian experience presented here the study found that both municípios have good working relationships with the Secretariat of Education – for example, as shown in Table 2, both municípios run dental health campaigns in schools. However, this relationship is formalized through a contract of agreement in Pedra Branca and the joint activities are routine rather than ad hoc and opportunistic as seen in Tauá. A formal agreement of two institutional parties, although dependent on good personal relationships to really work well (Ring and Van de Ven 1994; Brown and Ashman 1996), nevertheless is more likely to provide sustainable prevention and promotion activities than where the work is dependent on the relationships of specific personnel, who may not remain within the organization (Puska et al. 1995).

The CMS are responsible for the planning, monitoring and controlling of health service provision. All councils, regardless of their level, have a 50% representation from government and health institutions and 50% representation from the population. Within the Reforma Sanitária the CMS were envisaged as the main decision-making body in the local level management of the health system, and a means of ensuring the system responded to local need (Medeiros 2002). It has been suggested that, at least in some municípios, the CMS have effectivly increased community participation in the health sector, and that some local communities have been able to exert some influence on the management of the system (Pessoto et al. 2001).
for each of the districts in which a PSF team is based. Interviews indicate that building a forum for popular participation was not straightforward. Inputs were necessary to help community representatives participate and express their views in a context where this had never previously been an option. Even in the current administration, it is clear that the president of the CMS, who is the Secretary of Health, still directs much of the agenda and discussion. In this respect, the creation of a genuinely participatory space is highly dependent on the vision and leadership taken by the Secretary in orienting the CMS towards a deliberative and decision-making function.

The importance of leadership is equally well highlighted in Tauá, where the CMS exists notionally as part of the function of the CMS as one of legitimating decisions about policies, expenditure and activities that have already been made elsewhere. Interestingly, Tauá does have some impressive local organizations in the districts of Marruás and Inhamuns oriented to local development and producer cooperatives. These organizations were originally set up by a Swiss non-governmental organization (NGO) working in the districts (Terras dos Homens) and have proved sustainable so far following the withdrawal of the NGO. However, the experience of these communities in participation does not seem to be transferred into the operations of the CMS. Thus, again, the critical role of the orientation of the leadership towards participation emerges; in the districts, the committed

orientation of the NGO has created sustainable participatory organizations, whereas the indifference of the Secretariat of Health has not. Moreover, the experience of some districts has not been sufficient to propel the CMS into a more participatory form through bottom-up demand.

Conclusions

The tension that exists between central directives for prevention and promotion and the local space for implementation of those directives has long been flagged up as a potential danger for generating inequitable variation in health care provision between decentralized local health systems (Collins and Green 1994; Atkinson et al. 2000). In this study, that variation is explored through the purposive selection of two differently performing rural local health systems, in order to identify important local factors and policy process points where divergence occurs.

The two rural case study municípios of Ceará, Brazil, are similar in socio-economic background, demographic profile and urbanization rate. Both municípios have low density, dispersed rural populations, although this is particularly so in Tauá, and both have similar health profiles, with particular challenges of poor environmental health, higher than the state average IMR and a continuing impact of infectious diseases (ARI, diarrhoea). In municípios such as these, a strategy of increasing ease of access to basic health care, particularly the preventative actions such as vaccination, antenatal care

Table 4. Comparative aspects of local health systems that influence the adoption and implementation of prevention and promotion activities

<table>
<thead>
<tr>
<th>Pedra Branca</th>
<th>Tauá</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vision</strong></td>
<td></td>
</tr>
<tr>
<td>- Broad view of health</td>
<td>- View of health limited to health sector</td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td></td>
</tr>
<tr>
<td>- Full stage of decentralization</td>
<td>- Basic stage of decentralization</td>
</tr>
<tr>
<td>- Political commitment to health reform agenda</td>
<td>- Formulaic implementation of decentralization process</td>
</tr>
<tr>
<td>- Health sector has autonomy locally to take own decisions</td>
<td>- Decision-making centralized under local government</td>
</tr>
<tr>
<td>- Political continuity overall</td>
<td>- Little political continuity</td>
</tr>
<tr>
<td>- Political links to state secretariat of health</td>
<td></td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td></td>
</tr>
<tr>
<td>- Higher financial input but lower per capita no. facilities and staff (of any type)</td>
<td>- Lower financial input but higher per capita no. facilities and staff (of any type)</td>
</tr>
<tr>
<td>- Município inputs committed</td>
<td>- Município inputs unknown</td>
</tr>
<tr>
<td>- Resources largely under health sector control</td>
<td>- Resources centralized under local government control</td>
</tr>
<tr>
<td>- Lower % to hospital care – local hospital only</td>
<td>- Greater % to hospital care – has regional hospital</td>
</tr>
<tr>
<td>- Higher % to CHWs and PSF</td>
<td>- Lower % to CHWs and PSF</td>
</tr>
<tr>
<td>- Good management of PSF teams</td>
<td>- Poor management of PSF teams with low staff morale</td>
</tr>
<tr>
<td><strong>Intersectoral partnerships</strong></td>
<td></td>
</tr>
<tr>
<td>- Formalized relationship with education and social work secretariats</td>
<td>- Ad hoc relationship with education and social work secretariats</td>
</tr>
<tr>
<td>- Effective working partnership with church</td>
<td>- Church activities complement but separate</td>
</tr>
<tr>
<td>- Large investment in environmental projects</td>
<td>- Limited environmental inputs; Fundação Nacional de Saúde works separately</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td></td>
</tr>
<tr>
<td>- Health council active and with decentralized sub-councils</td>
<td>- Only has legitimizing role</td>
</tr>
<tr>
<td>- Capacity building for members</td>
<td>- Strong local groups not incorporated into council</td>
</tr>
<tr>
<td>- Still dependent on leadership</td>
<td>- Limited leadership vision</td>
</tr>
</tbody>
</table>
coverage and environmental improvement projects, can have a significant impact. In this context, Pedra Branca has more activities and more innovative prevention and promotion activities established than Tauá. The study has presented a series of comparisons under six headings of formal and informal processes that are very likely to influence this observed difference. These are summarized in Table 4.

Whilst formal organizational aspects of decentralization and inputs of resources will naturally make a difference to the resources available to develop new programme directions, this is not by any means a sufficient explanation for observed differences in activity types and levels between the two local health systems. Both have potential access to the extra resources from the Federal ministry to develop the Family Health Programme and the Community Health Worker Programme. Whilst both have initiated these activities, only Pedra Branca has implemented the former successfully and sustainably. The less tangible local factors of vision and political orientation repeatedly emerge across the categories used to describe health system operations in this study as significantly affecting how the health system is run, and the extent of interest and commitment in developing and implementing innovative directions.

The existence of overlap and interaction between these factors is evident in the presentation of the case study material by categories of issues. While beyond the scope of this paper to detail options for regional and national managers to encourage the adoption of a greater focus on prevention and promotion, it is clear that strategies need to target not only the vision and actions of local health system staff, but critically also the expectations of the local population and the attitudes of local government.

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Acknowledgements

The research was funded by the European Commission, project grant IC18-CT98-0344. Many people, far too numerous to mention individually, were involved at various stages in the research process, in site selection, data collection and collation of background information, and most importantly in giving their time to be interviewed or to ferret out documents for the research teams. Our thanks go to every one of them.

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