County hospitals are important providers of inpatient and outpatient services in poor rural areas. They have a higher proportion of well-qualified personnel than township health centres and they are better equipped. They provide specialist services for patients referred by lower level facilities and they deal with the more complex inpatient cases. In addition, those who can afford to pay use them as a first point of contact with the health care system. In 1992, 16 per cent of outpatient visits in rural areas were at the county level, and in poor rural areas the proportion was slightly higher (MoPH 1994).

This article describes how the economic and institutional reforms of the 1980s have influenced the management of county hospitals. It uses one county hospital to illustrate how this has led to unnecessary increases in the cost of services. The aim is to identify measures that can be taken to improve the performance of county hospitals in the future.

1 Changes in the Financing of County Hospitals

1.1 Increased reliance on cost recovery

Table 1 shows that during the 1980s and early 1990s, Xunyi County Hospital funded a diminishing proportion of its expenditure from government grants. By 1994 the government grant funded only 11 per cent of total expenditure. The grant was equivalent to less than a third of expenditure on salaries, bonuses, and pensions for retired staff. This put considerable pressure on the hospital manager to raise funds from other sources. The experience of Xunyi is similar to that of many other county hospitals (MoPH 1994).

1.2 Distortionary pricing policy

In the past, government fully funded salaries, and service charges did not need to cover labour costs. The government no longer funds salaries fully, but the structure of charges has not changed to take this change into account. Furthermore, the adjustment of fees for many services has not kept pace with inflation. In contrast, the charges for services that use new technologies have been set higher than cost. Also, health facilities are permitted to charge a mark-up on the wholesale price of drugs of 15 per cent for
Western drugs and 20 per cent for traditional Chinese medicines. This has enabled hospitals to earn enough revenue to finance an increasing share of salary costs. However, it has done so by encouraging them to sell more drugs and to provide more sophisticated tests.

2 Impact on Service Delivery

2.1 Rising medical care costs

Hospital managers have responded to the economic incentives by investing in new equipment and encouraging health workers to sell more drugs. Health workers have strong incentives to participate actively in this strategy because their income is directly related to the revenue their hospital generates. They have no incentive to control the cost of care. They often admit patients several days before an operation and the length of stay per admission tends to be very long in China.

Hospital expenditure has increased dramatically. The cost of an outpatient visit at Xunyi County Hospital almost doubled between 1990 and 1994 (Figure 1). The cost of an inpatient admission more than doubled over the same period (Figure 2). Much of this increase was due to a substantial rise in drug expenditure. By comparison, the rural retail price index for pharmaceuticals and medical articles increased by only 35 per cent between 1990 and 1994 (SSB 1994; 1995).

2.2 Financial barriers to access to medical care

The average cost of an outpatient visit and a hospital admission increased much faster than the average income per capita. As a result, many rural people find it difficult to use the county hospitals. A significant number of people who are referred to hospital by a doctor, refuse to be admitted because of its cost (Li et al. 1997; Yu et al. 1997). This is a particularly serious problem for the poor.

Table 4 in the paper by Yu et al. in this issue of the Bulletin demonstrates how households with different income levels are affected by the high cost of inpatient care in three counties, including Xunyi. In 1993, almost one third of referrals did not result in admission. Among the high income group, nearly one fifth were not admitted, despite referral. Among low income households, almost two-fifths of those referred were not admitted to hospital. Many people borrowed money to pay for a hospital admission. It is widely believed that the need to pay for expensive medical care is a major cause of poverty (Chen 1993). This highlights the need for measures to make treatment in county hospitals less costly.

3 Policy Suggestions

3.1 Introduce hospital insurance

There are strong arguments for the introduction of hospital insurance to protect rural residents against having to choose between borrowing heavily to pay for medical care or doing without. Many of the cooperative medical schemes described in the article by Carrin et al. in this Bulletin cover hospital care. They reimburse a portion of spending on this item by scheme members.

Table 1 Government grants to Xunyi County Hospital

<table>
<thead>
<tr>
<th>Year</th>
<th>Government grant as % of total hospital expenditure</th>
<th>Government grant as % of staff salaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>44</td>
<td>1990</td>
</tr>
<tr>
<td>1990</td>
<td>22</td>
<td>1992</td>
</tr>
<tr>
<td>1992</td>
<td>14</td>
<td>1993</td>
</tr>
<tr>
<td>1994</td>
<td>11</td>
<td>1994</td>
</tr>
</tbody>
</table>

Source: Xunyi County Hospital

1 Average net per capita incomes in rural areas of Shaanxi province increased by 50 per cent between 1990 and 1994 (SSB 1994; 1995).
The brief discussion in the previous section suggests that the introduction of hospital insurance can lead to increases in the cost of care. The most common approach used by the cooperative medical schemes to limit the amount of money that members claim in reimbursement of hospital costs is to make patients pay a substantial share of the cost by setting co-payment rates of 50 per cent or more, and by limiting total claims during a year to a fixed ceiling. This limits demand by requiring patients to bear a substantial burden of the cost themselves. In many cases, costs have continued to rise, and schemes have responded by decreasing their reimbursement rates. This makes the scheme less attractive to members. Some schemes have simply collapsed because they were unable to control hospital costs (Bloom et al. 1995). Mechanisms need to be introduced to influence hospital managers to control costs.

### 3.2 Change relative prices

The medical price system needs to be reformed to make prices reflect the full cost of services. This would decrease the incentives for hospital managers to concentrate their efforts on particularly profitable activities. Shanghai Municipality is carrying out an experiment in which it is increasing fees to cover labour costs. It has also established ceilings for total hospital budgets to force them to control drug expenditure. It is too early to judge whether this experiment will succeed in controlling cost increases.

### 3.3 Improve financial management

Hospitals in China have very simple accounting systems and they are not able to estimate the actual cost of providing a particular service. This makes it difficult to set prices that reflect true costs. Hospitals should be required to improve their accounting systems. A first step in this direction would be to introduce standard accounting sheets in county hospitals and to train personnel to use them. There is also a need for independent audit of hospital accounts. This is part of a more general need to establish a legal framework to make enterprises, including health facilities, financially accountable.

### 3.4 Control hospital costs

There are strong arguments for changing the way hospitals are funded to remove the incentive to increase costs. One option would be for government to set ceilings on total hospital budgets. Managers would be allowed to adjust expenditure on individual items within that limit. Another option would be to change the system of payment from fee-for-service to one that encourages hospitals to limit expenditure. Alternative payment mechanisms include some form of pre-payment, a fixed payment per admission, or a payment per admission that is determined by the patient's diagnosis.

Measures are needed to improve the efficiency of county hospitals. The most serious problem at present is the low productivity of staff (Gong and Wilkes 1997). It will be difficult to do much about
this problem unless the personnel management system is reformed. The size of the government grant to hospitals is presently related to the number of staff. This diminishes the pressure on hospital managers to improve staff productivity. Furthermore, the personnel management administration can require hospitals to employ additional staff, whether they need them or not. In future, government grants should be linked to services provided, not staffing levels, and managers should have the right to hire and fire staff.

A second problem is the high cost of drugs. This problem would be diminished if price reforms removed the incentive for hospitals to promote drug sales. In addition, there is a need for a programme of in-service training and management development to improve the quality of prescription practice.

A third problem is the increasing use of new and expensive technology. When government determines the role of the county hospitals in providing medical care to the rural population it needs to define what equipment they require. More generally, mechanisms are needed to ensure that decisions to buy new equipment are based on a rational analysis of the costs and benefits to the users.

The present priority is to encourage hospital managers to control costs. However, the interests of patients need to be protected. Mechanisms should be established to monitor the quality of hospital care.

3.5 Change management attitudes

The health sector reforms in China are part of a wider transition to a market-oriented economy. One obstacle to change is that many managers of health facilities do not understand concepts such as cost-effectiveness and efficiency. They need help to understand the new roles they will have to play. This problem needs to be addressed so that the directors of county hospitals can provide leadership in reforming the management of their facilities.

3.6 Strengthen government’s role

The government has an important role in ensuring that county hospitals serve the needs of rural people. It has to take the lead in changing the rules for calculating the size of government grants and in developing alternatives to fee-for-service payment mechanisms. It has an important role in training hospital managers and in developing appropriate hospital management systems. It also needs to have the capacity to monitor the performance of hospitals, in terms of the cost and quality of services. The government’s role becomes even more important when a local hospital insurance scheme is established. Finally, government needs to establish a legal framework that makes hospitals more accountable to the public.
References


State Statistical Bureau (SSB), 1994, China Statistical Yearbook 1994, Beijing: China Statistical Information and Consultancy Centre


Review Books Received

Astrid von Kotze and Ailsa Holloway, Reducing Risk: Participatory Learning Activities for Disaster Mitigation in Southern Africa, International Federation of Red Cross and Red Crescent Societies, and Department of Adult and Community Education, University of Natal, 1996


