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*Between Profit and Legitimacy*  
*A Case Study of Two Successful Township Health*  
*Centers in Rural China*

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*Abstract*

The Township Health Centers (THCs), which serve China's rural residents are hospitals with Chinese characteristics. A comparative study of two THCs found that their performance is linked to their successful adaptation to the new economic and institutional context within which they operate. It found that health facility managers need to balance the need to generate revenue with the need to maintain their good reputation with government and the community. It identified three major influences on their performance: the pattern of economic incentives, formal and informal rules of behavior and the history and management arrangements of the facility. It concluded that tailoring administrative rules to embrace the market, responding actively to social expectations and proper selection of THC director are all beneficial to THC performance.

*Introduction*

Township Health Centers (THCs) are a major provider of health services for China's rural population. They have faced big challenges during the transition to a market economy associated with major changes in the institutional context within which they operate (Bloom 2005). This paper explores how two successful facilities have balanced the contradictory pressures of expectations by government and communities for certain standards of service and the need to generate revenue. It concludes that future reform initiatives will need to address influences associated with both financial incentives and those associated with the broader social responsibility of health centers.

China began to build THCs in the early 1950s to provide rural people with their first point of contact with a trained doctor. By the 1970s most

townships had a THC as part of a 3-tier rural healthcare network of village clinics, township health centers and county-level hospitals. These facilities organized preventive services, provided basic medical care and supervised all local health services. They provided inexpensive health services for rural people, making an important contribution to dramatic improvements in health status between 1949 and 1979.

During the period of the command economy the rural areas were organized on the basis of collective agriculture into “communes”. They organized production and distributed any surplus to members of the collective on the basis of the amount of work they had done. The communes established social welfare systems that included health care using a share of collective production. Some THCs were owned by the state and others belonged to the commune. The government contributed resources to the former and the communes to the latter. All were supervised by the county health bureau. These systems provided a basic level of protection even where the rural economy was underdeveloped and living standards were low (Chen 2001).

The transition to a market economy has been associated with major changes in the institutional context within which rural health facilities are embedded (Meessen and Bloom 2007). The communes were disbanded and replaced by a new tier of government, the township. Reforms to the system of taxation and public administration meant that each level of government became responsible for funding its own facilities. There is a system of fiscal transfers from higher to lower levels of government, but there are still major differences in the budgets of rich and poor counties and townships. Many rural health facilities receive as little as five percent of their total expenditure from government (Li *et al.* 2003; MoH 2007). They are expected to generate the balance from charges to patients. In addition, THCs are operating in an increasingly competitive environment. On the one hand, private clinics and village doctors offer services that are less expensive and located close to the home of patients (Han *et al.* 2005). On the other hand, the great improvements in the road network mean that many more people go directly to a county hospital when they have a serious problem. THCs are struggling to find their niche.

Despite the substantial devolution of financial management to individual health facilities, the government has maintained a number of regulations that strongly influence provider performance. These include

control of the price of medical consultations below cost and an associated right of hospitals to sell drugs at an agreed mark-up and control over the appointment of personnel. The government also sets targets for the achievement of certain public health objectives.

These changes have had a major impact on the performance of THCs. A number of studies have identified two major problems. First, many facilities show the impact of prolonged financial constraints with rundown facilities, inadequate equipment and poorly qualified staff (Qiao 2005; Song and Wang 2005). Second, they provide a costly form of medical care with high levels of drug use and they tend to neglect preventive services (Sun 2005). Both problems are associated with the system of rural health finance and the associated regulatory arrangements.

Most policy analysts agree that THCs will continue to play an important role in rural communities (Zhang 2005). There is widespread agreement on the need to improve the quality of their services, provide more outreach for a rapidly ageing population and organize effective preventive and public health services. There is a consensus that THCs require more public funding. However, there is less agreement on the best approach for ensuring that additional funding will result in improved performance. Du (2004) argues for earmarking public funding for public health services. Others recommend that the government subsidise all THC services. Still others emphasize the need to alter the ownership of these facilities and bring in private investment (Tian 2001). The aim of this paper is to increase understanding of the institutional arrangements within which rural health facilities are embedded and contribute to debates about strategies for reforming rural health institutions.

This paper is based on a European Union funded project entitled: "Rural Public Hospitals in Change in Transitional Asia". Eight rural public hospitals were selected based on a purposive sampling framework, with some facilities known to perform better than average and others less well. We studied the factors influencing the performance of these facilities, such as level of economic development, government financing, physical state and staffing of facility. The two THCs examined in this paper were amongst the best performers.

## *Influences on health centre behavior*

A 2002 policy statement by the central government defines the main functions of the THC as “the provision of public health services, disease prevention and basic health services.” Local governments are responsible for ensuring that they carry out these functions. Meanwhile, health centers face financial incentives that encourage quite different behavior. The outcome of these different influences varies considerably between health facilities. This is consistent with findings in other countries that provider performance is influenced by local factors that include the leadership of the facility and institutional arrangements associated with the construction and maintenance of the facility’s reputation (Mackintosh and Tibandebage 2002). The effective performance of the health sector requires a relatively high level of trust between providers and users of services (Gilson 2003). One way to understand the institutional arrangements in the health sector is in terms of a social contract between actors, underpinned by shared behavioral norms, and embedded in a broader political economy (Bloom *et al.* 2008). This contract is expressed through a variety of actors and institutions, not just through the formal personnel and arrangements of a health sector. One of the major challenges for Chinese policy makers is to construct institutional arrangements which foster this kind of social contract (Yang 2004).

New institutionalists in sociology argue that organizations face economic and institutional influences (Meyer and Rowan 1977). The former concerns the relations and exchanges between different organizations and the latter concerns the social legitimacy of the organization, in terms of formal and social expectations. In market-oriented systems organizations face pressures to meet their financial obligations to pay employees, maintain their buildings and equipment and invest and meet claims of investors. In this circumstance, economic incentives may be particularly important, but many legal and social pressures limit their ability to respond to them.

These two influences [tend to be] in conflict with each other... Organizations always perform under the pressure of the different kinds of environments... The conflict between the two different kinds of environments and each organization’s different reactions to environments leads to many kinds of organization performance (Chou 2005).

Table 1 applies this approach to the township health centers. They are under great pressure to generate revenue by providing medical services. This enables them to meet the income expectations of employees and invest in future development. They also operate in an institutional environment made up of laws and regulations, and ethics and social expectation. The reputation of the facility and its director can influence their access to government grants and also the public demand for their services.

Table 1. Types of influence on THCs

Type of influence	Goal statements	Mechanisms of environment influences	Performance requirements on the THC
Economic	Pay salaries and finance investment	The pressure of survival and development in the market	Generation of revenue by providing medical services
Institutional	Legitimacy and reputation	Formal institution, informal norms, social expectation	Performing functions defined by healthcare network system and meeting social expectations

### *Description of the study THCs*

This section presents the findings of a study of the influences on two THCs that were chosen on the basis of their size and also their reputation as relatively good performers. The data used include routine monitoring information at hospital and county health bureau levels, questionnaire surveys of hospital employees and a series of in-dept interviews at the two facilities and the county health bureau.

#### SOCIAL ECONOMIC CIRCUMSTANCE

The two study THCs are in townships L and Y in county R in Guangxi province in Western China. Guangxi is a poor province, with a net rural income per capital below the national average (Table 2). Average rural income in county R is below the Guangxi mean.

Table 2. Rural Per capita net income (RMB)

	China Average*	Guangxi Province*	County R
Per capita income	2,936.4	2,305.2	2,000.0

\*Data source 2004 China Statistical Almanac

There are 248,000 people in L township, organised in 7 villages and there are 540,000 people in Y township organised in 21 villages.

#### FACILITIES

Both facilities are amongst the largest ten percent of THCs in Guangxi. THC Y is one of the oldest in the province and THC L is relatively new. The different histories have influenced their present situation. THC L was built in 1989. It is a three-storey building that includes both outpatient and inpatient services with 65 beds. THC Y was built in the 1950s. It is also a three-storey building with an outpatient building, and an inpatient building with 40 beds. The inpatient building is relatively old, but the outpatient building was built in 2003. Both facilities are more like small hospitals than typical health centres. Their fixed assets and equipment have relatively similar values (Table 3). However, THC L has newer equipment, which enables it to provide a wider range of technical services.

Table 3. Assets of the two THCs (¥)

	2000	2001	2002	2003	2004
<b>Total assets</b>	1,704,694	2,134,111	2,628,306	3,098,064	4,215,652
<b>L In : Fixed assets</b>	1,206,225	1,497,891	2,221,207	2,730,657	3,670,713
<b>Equipment</b>	160,000	177,000	368,380	483,458	935,850
<b>Total assets</b>	2,553,234	3,290,251	3,522,135	3,992,924	4,311,000
<b>Y In : Fixed assets</b>	1,782,634	2,785,666	3,101,252	3,742,411	3,951,000
<b>Equipment</b>	418,000	552,000	550,000	752,000	883,000

#### HUMAN RESOURCES AND ORGANIZATION STRUCTURE

All THCs in county R are the responsibility of the county health bureau. Because the organization of THC is determined by the health bureau, both facilities are similar, with inpatient, outpatient, and disease prevention departments.

The two facilities have similar numbers of staff: 69 in THC L and 75

in THC Y. However, township L has more trained personnel: 8 graduates of a 5-year medical college, 30 graduates of a 3-year secondary medical college and 31 graduates of a 2-year health school. The comparable numbers in THC Y are 3, 14 and 58, respectively. This partly reflects the longer history of THC Y, with many people with limited qualifications in post for many years. It also reflects an aggressive effort by THC L to recruit skilled personnel.

The two THCs have adopted quite different staff training strategies. THC L regards in-service training as an important element of its institutional development. Each year it sends several people to a 6-12 month training course. It also invites experts to provide on-the-spot training. THC L spends more than 50,000RMB a year on these activities. THC Y sends fewer people for outside training.

#### PERFORMANCE OF SERVICES

Both THCs have experienced increases in utilisation, but the rate of increase was faster for THC L (table 4). THC L reported higher levels of use of available resources with a significantly higher bed occupancy rate and a greater number of outpatient visits per doctor (table 5). The bed occupancy of both facilities was much higher than the national average of 37.1 percent (National Health Statistics Yearbook 2005). The average length of stay at THC L was 3.5 and at Y 3.9. Both are lower than the national average of 4.4. There are obvious problems in comparing the services provided by different facilities. However, there are good reasons to believe that THC L was able to provide a broader range of services because of its more highly trained personnel and its possession of more up-to-date equipment.

Table 4. Annual utilisation of the two THCs

		2001	2002	2003	2004
L	Outpatient visits	50,364	61,486	68,858	76,213
	Rate of increase (%)	—	22	12	11
	Inpatient admissions	869	1,347	1,918	2,193
	Rate of increase (%)	—	58	40	14
Y	Outpatient visits	44,003	55,170	56,012	57,500
	Rate of increase (%)	-5	25	2	3
	Inpatient admissions	1,352	1,571	1,769	1,918
	Rate of increase (%)	—	16	13	12

Table 5. Measures of efficiency for the two THCs, 2004

	L	Y	National <sup>1</sup>
Visits/Doctor/Day	4.47	2.83	4.8
Bed Occupancy rate (%)	74.08	57.16	37.10

Public health is another core function of THCs. Public health is composed of preventive services and overall responsibility for health services in the township. These facilities receive less than 5 percent of their budget from government and they need to achieve targets for public health services without earmarked funding. These include providing appropriate preventive services, training village health providers, and collecting health-related data.

The prevention departments of THCs L and Y employ 3 and 5 people, respectively. Their responsibilities include training and supervision of village doctors, coordination of preventive health services, and surveillance of reportable infectious disease. Both townships have achieved at least 90% coverage with antenatal care and childhood immunisations. In R County, each village doctor has to pay the deposit of THC 100 yuan annually. In case the village doctor breaches the agreed practice, part of the deposit will be retained by the THC.

The two facilities differed in their health promotion work. L THC perceived health promotion to be an important aspect of its efforts to increase its profile in the community. It regularly organised staff to provide health education and offer consultations and physical examinations to older people, free of charge. This was seen to be an important strategy for building their reputation. Y THC, on the other hand, was much less active in health promotion.

According to officials of the county health bureau, both facilities achieved high targets in the provision of public health services, despite the absence of financial incentives. The director of the health bureau said that he had a number of ways to influence THCs, particularly through his right to select their director. Directors of THCs have an incentive to achieve targets set by the health bureau. R County Health Bureau has given high priority to the achievement of targets for coverage with immunisation and maternal health services and it has made this clear to directors of health centres.

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<sup>1</sup> The data for the national average comes from National Health Statistics Yearbook 2005.

FINANCIAL OPERATIONS

Table 6 provides a summary of the income and expenditure of the two facilities. Both THCs have experienced a rise in both their income and expenditure, but the rate of increase was much faster for THC L. THC L has incurred some debt to finance improvements in facilities and purchase of equipment.

Table 6. Annual Income and Expenditure for the Two THCs (¥)

		2000	2001	2002	2003	2004
L	Income	1,503,927	1,939,211	2,770,433	3,333,644	4,331,471
	Operating income	1,374,364	1,878,434	2,580,956	2,614,190	4,056,869
	Expenditure	1,570,188	1,944,798	2,728,283	3,542,647	4,533,809
Y	Income	2,456,347	2,890,862	3,347,167	3,664,649	4,318,028
	Operating income	1,756,544	2,273,136	2,955,317	3,357,180	4,138,028
	Expenditure	2,314,773	2,753,124	2,969,034	3,483,952	3,984,765

Table 7 indicates that both THCs generate most of their income from charges for medical services and sale of drugs. The proportion of government subsidy to overall income is very small and it is decreasing rapidly.

Table 7. Structure of Income of the Two THCs (%)

		2000	2001	2002	2003	2004
L	Government subsidy	7.74	0.15	4.06	1.71	0.29
	Medical service income	49.43	46.20	46.16	49.85	50.12
	Drug income	41.96	50.66	47.00	28.57	43.43
	Prevention service income	3.35	3.47	4.00	3.03	2.19
	Other income	0.67	2.72	1.88	1.09	3.97
Y	Government subsidy	4.28	3.11	2.96	2.57	1.91
	Medical service income	38.42	44.13	50.79	51.94	53.63
	Drug income	36.19	34.50	38.57	40.51	39.39
	Prevention service income	2.79	2.30	3.90	3.63	3.08
	Other income	18.32	15.95	3.77	1.35	1.99

## DEVELOPMENT OF RULES

The two facilities differ considerably in their management style. THC L has printed a 148 page booklet entitled "Rules and Responsibility in the THC L". It includes 48 job descriptions, with task descriptions and competency requirements. It also has rules for personnel management and welfare. These rules define procedures for promotion. A questionnaire survey of employees revealed that many rules were not always applied, in practice. However, most people said that personnel management was generally fair and that they would be promoted sooner or later if they worked well. This suggested that the production of written procedures was part of a broader effort to create an atmosphere of fairness.

The situation in THC Y is quite different. It has only simple rules instead of the specific ones in THC L. Managers in THC Y mostly follow instructions from higher levels. The atmosphere amongst employees was reminiscent of that in the command economy. People in the THC Y suggested that the views of the director were all that mattered in decision-making.

## ORGANIZATION CULTURE

THC L is remarkable for its entrepreneurial culture. It has made a major effort to attract patients by providing televisions, telephones, and hot water to inpatients. It also provides kitchen facilities, where patients can cook their own meal. THC L pays much attention to dissemination of information, for instance, health education, competitions and community development activities, to obtain trust from residents. Staff in THC L said that their charges are lower than those of the county hospital. They have better medical equipment than village providers. They believe that the THC L can have more development through their own effort.

The culture in THC Y was very different. The staff complained that their price is higher than drugstores, their services are worse than hospitals; they are less convenient than village providers. On future development of the THC Y, most of them said, "I don't know" or "It's none of my business".

## SUMMARY

The two facilities had both similarities and differences. Both actively purchased sophisticated equipment to meet demand and increase their

revenue. Both reported steady increases in revenue, despite falls in government subsidies. Both were actively developing their capacity to provide inpatient services. Both achieved their targets for provision of preventive services and community health supervision.

There were a number of differences. While both facilities purchased medical equipment as a competitive strategy, THC L complemented this with a number of measures for recruiting and retaining skilled personnel and establishing a culture aimed at attracting more business. The overall impression is that THC L is smaller and swifter, while THC Y is bigger and slower in adjusting to challenges and opportunities.

### *Possible explanation: a compromise between competing environment mechanisms*

As discussed above, THCs are influenced by the need both to generate revenue and establish a reputation with government and the community for competence and trustworthiness. The two THCs have managed these conflicting pressures differently, reflecting their history, their physical location the leadership style of their director and so forth.

#### ADAPTATION TO THE ECONOMIC ENVIRONMENT

The transition from a command to a market economy has influenced THCs in many ways. The creation of healthcare markets has increased the quantity and quality of available medical services, and it has exposed the THCs to intense competition. The relationship between government and THCs has changed. The government subsidy has decreased dramatically, particularly since the mid-1990s. In 1997 County R set a target of severing economic links between the government and its affiliated institutions within five years. This accelerated the move to reduce public subsidies of THCs, which maintain their links to government but operate in a market.

The decisions by THC L to invest surpluses in improving their building, purchasing equipment and training their staff and also to strengthen their management system are examples of active adaptation to the environment. All these actions are helpful to improve service quality.

## ADAPTATION TO THE INSTITUTIONAL ENVIRONMENT

The performance of THCs is influenced by a variety of formal and informal rules. They need to maintain a high reputation with government and the community for providing trustworthy services, even if it means putting some limits on profitability.

The county health bureau is the principal representative of government with regard to THCs. It is responsible for managerial oversight of their performance. Since the government subsidy is only a small part of the THC income, the health bureau has little financial leverage. But it retains a number of regulatory powers: it appoints THC directors and reviews their performance annually, it approves all appointments of professional staff, it provides guidelines for the distribution of staff bonuses and must approve each facility's proposal and it approves all proposals to improve buildings or purchase large pieces of equipment. It also monitors the performance of each facility regularly. According to the head of the health bureau in county R, these powers have a significant influence: "The appointment of the director of the THC is within the power of the county health bureau. If you don't work well, we can dismiss you. Staffs working in the health bureau are experienced, and it's not easy to hide facts and cheat them."

One reason why the health bureau can influence certain aspects of THC performance is that it makes relatively few demands. The disease prevention and supervisory activities take relatively few resources so that financially successful facilities can afford to perform them. The county R health bureau is cautious in exercising its power. For example, it accepted all new recruits nominated by the director of THC L. It also tends to support local decisions concerning the allocation of bonuses and investment in new equipment.

Health workers in both facilities discussed the need to build trust with the community. Their clients mostly live in nearby villages. Villagers in China are "communities of acquaintance", which means that information is very limited and spreads very fast and a THC's reputation is very important. The Director of THC L reflected this concern when he said: "We won't provide unnecessary medical services, because it will drive the patients away to other THCs." This underlines the challenge for THCs. They need to be seen to provide competent care that costs less than at the county hospital.

They also need to attract patients away from village doctors. Both facilities are clearly still seeking their most appropriate niche.

The directors of both facilities said that much of the outreach work they do in the community is aimed at winning trust (and increasing awareness of the services the facility offers). They were particularly concerned with the importance of their reputation in attracting more business.

#### INDIVIDUAL FACTORS

The two facilities are located in very different markets. Although township L is relatively small, with a population less than 25,000, the hospital is located at the intersection of several townships in neighboring counties and is 28 kilometres from the nearest county hospital. It attracts patients from nearby townships. On the other hand, THC Y is located very close to the town centre of county R and is connected by a very good road. This has a number of influences on health-seeking behaviour. Its residents are more exposed to the culture of the county town and are more aware of the potential value of health care. Also, the proximity to the county town makes it easier to recruit good staff. However, it also means that people have the option to bypass the THC and go directly to a county or higher level hospital.

The facilities have very different histories. THC L was founded relatively recently and it has developed in parallel with the development of the market economy. It has fewer employees who began work during the period of the command economy and its institutional culture does not reflect a legacy from the past. THC Y is older and has many employees who have been in post for a number of years. Attitudes inherited from the planned economy still pervade the organisational culture. It has met greater resistance in forming a competitive culture.

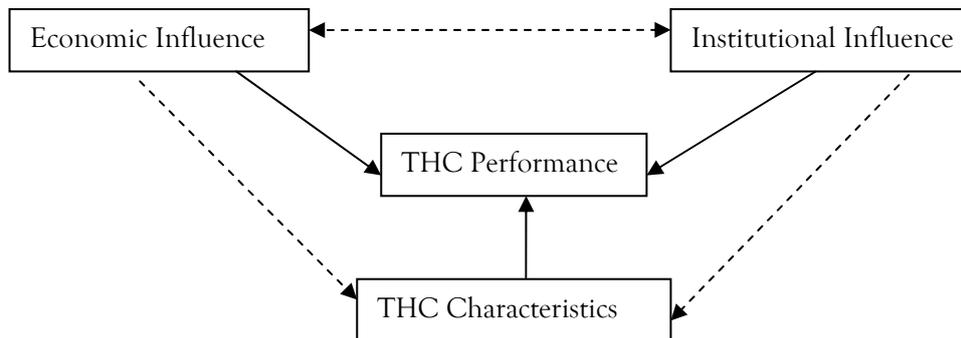
China's health system is changing rapidly and the personal attributes of the THC's director are very important to its development. This has been the case for THC L which has had only two directors since its foundation; one from 1989 to 2001, and the other still in post. According to senior health bureau officials both directors of L had a good understanding of the need to adapt to the new environment and were good managers. The majority of the staff thinks the regime of the THC is democratic and the directors listen to their suggestions. Also, the budget and the execution of the budget are transparent, and it's easy to have training opportunities. Furthermore, the first director had been on duty for 12 years and the second

director's views on management are consistent with those of his predecessor which ensured the stability of the institutional culture.

## Conclusions

The study THCs were selected because of their size and also their reputation as relatively successful. They provide useful illustrations of how facilities have been able to balance the pressures to generate revenue and build their reputation (Figure 1). We identified three classes of factors that influence their response to challenges and opportunities: economic, institutional and those specific to the organisation, itself. Most research has focused on the influence of financial incentives tending to ignore the other types of influence.

Figure 1. Influences on THC performance



The study suggests that any reforms of the pattern of economic incentives should be complemented by changes to the institutional environment and measures to build appropriate organisational cultures. The study indicates two ways that regulation by the health bureau can lead to problems: by failing to ensure that THCs take their social responsibility seriously or by creating too many regulatory barriers to effective adaptation to the changing environment. The examples from county R illustrate how an effective approach to regulation can influence the performance of THCs, while enabling them to adapt to a rapidly changing context.

We also should not ignore the effect of social expectation and ethics. The social expectation accepted both by providers and demand side can help

reshape the THC behavior to lead them to an appropriate service pattern.

The experience of THC L illustrates the importance of good leadership in helping a facility cope with a competitive and rapidly changing environment. County health bureaux need to pay more attention to the selection and training of THC directors. They should be chosen on the basis of their capacity to provide good leadership and effective management, rather than their willingness to follow directions from above. The future of China's rural health system depends to a great extent on its success in developing large numbers of strong, effective and experienced managers.

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