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Delivery**

by

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David Kelaher and Brian Dollery**

Abstract

In its move to a socialist market economy, the Peoples Republic of China (PRC) has transformed its economy and society. Moreover, the Chinese health system has also undergone dramatic changes since 1980. These changes have had far reaching implications for the delivery of health care services in China, with marked contrasts between the developed areas in eastern and urban China and the nationally designated poverty areas in western and north western China. These poverty areas have been particularly affected by reduced state financing, decentralisation of public health services, lack of co-ordination and co-operation between 'vertical' health services, greater freedom for health facilities in managing health service delivery, and the much more emphasis on individuals meeting the costs of their own health care. At the same time, the process of reform in breaking up the agricultural communes weakened the 'social capital' in communities and the co-operative medical system (CMS) arrangements which had supported access of farmers to health care services. Since 1995, central government strategies have established the principles to improve rural health services, but have provided little in the way of tangible incentives to give effect to improving access to, and the quality of, such services. The Central Committee's Decision (19 October, 2002) on "Further Strengthening Rural Health" emphasises earlier principles and provides funding support for the development of a new type of rural co-operative medical system to assist the rural poor to access more effective and efficient health services. This paper that argues that a more systematic approach is required if the new strategic approach is to be successful.

Keywords: China, health care reform; capacity building

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Introduction

The last 25 years have seen impressive advances in Chinese economic development as a result of rapid economic growth. Despite these gains, health indicators have not improved at the same rate as economic indicators. There is evidence that the health status of the population has been adversely affected and that economic growth does not necessarily translate into better health care for all (Hsiao and Liu (1996:431). Up to 90% of health facility revenue in health facilities in China is now generated from user charges (Meng et al. 2002: 57). Gao et al (2002:20) note that some 32 million people in rural China are estimated to live below the poverty line (i.e. 625 RMB or \$US 76 pa). As a result of the Chinese policy of ‘let some people get rich first’ and the decentralisation of additional responsibilities to local governments, different regions have exhibited increasing gaps in economic and social development. This has particularly affected the poorer central and western provinces. The three tier health network linking village, township, county health facilities “... appears in recession with inflexible mechanisms, low investment, weak workforce, poor infrastructure, low morale and little income” (Li: 2002: 15). The central government’s response to higher medical costs, the absence of viable ‘health insurance’ for the poor and related issues, which have contributed significantly to poverty in China’s farming communities (Lawrence, 2002:31), can add to the experience of other countries in developing their approaches to health policy and strategies to increase access to improved quality health services by the poor.

This paper outlines the developments leading to *Decision of the Central Committee of the Chinese Communist Party (CPC) and the State Council on Further Strengthening Rural Health*. It seeks to identify a range of issues that need to be addressed in the implementation and evaluation of the pilot arrangements for the “new” CMS in 2003.

ECONOMIC REFORM AND HEALTH CARE SERVICES IN RURAL CHINA

Prior to the implementation of economic reform, the Chinese health system was based on a three-tier structure. The rural population had access to health services free or at small cost (Bogg et al.:1996) through village clinics staffed by village doctors with some basic health training, township health centres/hospitals usually up to 30 beds, staffed by doctors with three or more years training and a number of assistant doctors, and county hospitals up to 300 beds, staffed by doctors with up to 5 years training providing a range of necessary technical and diagnostic services. In addition to county hospitals, there are prefecture, provincial, and teaching hospitals providing referral and specialist services. Public health and promotion campaigns were developed and implemented by the central Ministry of Health (MOH) through the hierarchical government and health structures.

Responsibility for the financing and management of township health institutes (i.e. hospitals and health centres) was devolved to township governments in the late 1980's. Bloom and Gu (1997: 352) have summarised the health reforms designed to assist health facilities to cope with decentralisation and rapid change:

- (a) *Increased reliance on out-of pocket payments by users of health services* as government subsidies and its share of health expenditure fell and community co-operative medical schemes weakened;
- (b) *Decentralisation of public sector health services* to local government that had responsibility for salaries and development and maintenance of health facilities and services;
- (c) *Increased autonomy of health services* to generate revenue from fee for service charges and dispensing drugs to meet some salary costs, bonuses, the provision and maintenance of hospital equipment, including training for staff;
- (d) *Increased freedom of movement of health workers and flexibility in pay* has meant salaries linked to revenue earned, an outflow of superior health staff from rural to urban areas or to the growing private sector, even at the village level. Some public sector doctors work part time in private practices; and
- (e) *Decreased political mobilisation and political control* has given health workers greater freedom and reduced supervision as priority has shifted to increasing revenue flows. Farmers are also less able to participate in public health campaigns for the same reason.

The changes taking place in the health sector were complex and should be considered in the context of the overall national policy direction affecting all sectors. National health policy officials had to adapt from developing and generally over-sighting of the implementation of 'central' health plan to their new roles which included understanding the impact and outcomes of specific interventions on the delivery of health care, particularly in rural and remote areas as well as

monitoring the health reform process. Moreover, local health administrators were required to take on new roles as health planners, regulators and regulation enforcers without sufficient resources. Director/managers of health care facilities were required to become business managers responsible for the 'profitability' of their facility.

The PRC government share of national health expenditure fell from 36% to 16% between 1986 and 1993. The impact of the reforms has resulted in increased per capita personal health expenditure. Between 1993 and 1998 average income increased by 6.50%. In the same period average outpatient expenditure increased 10.24% and inpatient expenditure by 13.79% (Gao et al.:2001: 308). Gao et al. (2002: 20) have suggested that "...despite overall improvements in the population's health status, the economic and health system policy reforms are leading to increased inequities in health care. The lowest income quintiles in both urban and rural areas are receiving less health care compared with their needs in 1998 than in 1993, and the urban-rural divide, in particular with regard to receiving inpatient health care, is widening appreciably". Over the same period, health insurance coverage decreased for both the urban and rural population. The coverage was significantly higher for the urban than for the rural population. The decrease for the urban population was from 75.5% to 57.4% and the rural population 14.4% and 11.7% respectively. Overall self payment by the rural population increased to 88.3% in 1998 from 85.6% in 1993, whereas the urban population experienced an increase to 42.7% from 24.3% over the same period (Gao et al.: 2002: 25-26).

In rural China, the impact of the economic and other reforms on health services was significant. The CMS arrangements, with some exceptions (Garrin et al.: 1999), had broken down with the demise of agricultural communes, difficulty in mobilising poor communities to raise their own funds in the new environment, concern over accountability issues and reluctance of government to transfer some civil affairs relief and poverty alleviation funds at county level for 'means tested' access to basic health services for the identified very poor. Increased hospital and medical fees also put pressure on existing community based CMS arrangements and increased the difficulty of accessing essential health care. Even at village level, village clinics previously owned and operated under CMS arrangements by village authorities were sold or operated on a contract basis to private practitioners. These private village doctors usually do not charge fees for consultations and earn revenue primarily by selling drugs to patients and the provision of immunisation. Where appropriate, village leaders may provide some relief from local taxes or land to provide some support to the village doctor. Preventative and health promotion activities are given little attention by village doctors since they do not generate income.

Health Facility Revenue

While prices for health services are set at provincial, prefecture and county level under State Price Commission guidelines, they are generally reviewed every 2-3 years. The majority of Chinese hospitals charge patients for each item of service and for prescribed drugs. For both inpatients and outpatients, particularly in county

and township health facilities, drug revenue forms a major source of revenue. Services and drugs revenue account for about 85% of total health facility revenue (Liu et al. 2000: 157-158). Bogg et al. (1996: 243) note that in six counties surveyed, sales of drugs made up 53.1% of total health care revenue. PRC health policy allows hospitals to make a 15-25% mark-up on drug sales from their own pharmacies to assist budget shortfalls. There is reluctance to increase official medical fees to limit the financial burden on patients and this has affected the viability of hospitals and other health services. Their adherence to the regulated fees is limited and they have also ‘unbundled’ services to charge separately for each service; these may be over serviced through supplier-induced demand and over prescribed to increase revenue. The increasing cost burden on consumers, particularly poor patients, implies a failure of government pricing policies and regulatory systems designed to protect consumers from excessive medical charges (Liu et al. 2000: 157-158; see also Xingzhu and Hsiao: 1995). The higher health costs also increased the percentage of patients referred for inpatient treatment but not accessing such treatment: This increased by over 40% for lowest income groups between 1993 and 1998 (Gao et al. 2001: 307).

The need to earn revenue has meant that health facilities focus on the delivery of fee-for-service curative services rather than preventative services at all levels. Bloom et al. (1996: 248) observed significant reductions in real per capita expenditure on preventive health services. The vertical Maternal and Child Health and Communicable Disease Centre (Epidemic Prevention) services at prefecture and county levels are now required to earn revenue. Although they do receive some

support for the various levels of government, services have nonetheless been limited. At the same time, government largely funds the Family Planning Commission's services. The impact of the recent SARS crisis in the PRC may result in a strengthening of preventive public health services, including supporting information systems.

The health reforms have increased the responsibility of township governments in a range of financial and personnel issues. Township hospitals/health centres, in particular, have also been affected by the limited ability of local government in poor counties to continue subsidising the salaries of health staff. This has resulted in such facilities giving priorities to staff retention and increasing salaries (Bloom and Xingyaun, 1997: 355). Staff levels at health facilities are often excessive given utilisation data (Li: 2002). Without revenue from fees and drugs, staff may not receive their regulated wages for long periods and thus supplement their salary by, amongst other things, private medical work or working in the fields. The incentives for over servicing patients are pervasive. Yuanli et al. (1995:1091; see also Feng et al. 1995:1113) contend that the reforms and the dissolution of the CMS weakened the formal referral system established under the three tier system resulting in patients by-passing township health facilities more frequently to go to county hospitals or to see private doctors. Moreover, the difficult budgetary situation in poorer townships meant that hospitals attempted to keep patients as long as possible and to perform some clinical services which may have tested the limits of both treating doctor competence and the hospital facilities and equipment (Gong et al.1997: 324). In some cases, a few better organised and managed township

hospitals have marketed themselves in their own catchment areas and sought to compete for some services with county hospitals.

Xueshan et al (1995:1117) argued that in poor areas, cooperative health care schemes are unlikely to succeed because of an inability to generate a sufficient level of household contributions and the low rate of reimbursement for the medical costs incurred. They maintain there is a need for 'preferential allocations' from government to support such schemes. This did not occur; thus the poor were required to meet the increased cost of health care services received by whatever means they could. Lawrence (2002: 32) suggests that many rural residents are 'wary' of CMS type schemes resulting from past mismanagement of finances by local officials. In some provinces, attempts were made to respond to government policies requiring hospitals to offer discounts to poor people. In Shandong Province, Meng et al. (2002: 62) found that the discount system did "...not provide effective protection for the poor in terms of either coverage or benefits. Inadequate financial and political support for implementing such programmes appears to be the main reason. Accurate identification of the vulnerable poor is another major problem."

Staff and Equipment

The quality of staff, facilities and equipment in township hospitals has contributed to decisions by the poor to self-medicate or by-pass them where possible. Coincident with the reforms, experienced doctors left township hospitals for employment in higher level facilities, usually in urban areas. Township

governments became responsible for recruiting health staff without necessarily taking into account the views of the county health bureau (Tang and Bloom, 2000: 195). The result has been that some 40% of doctors and assistant doctors in township health facilities have had little or no medical training pre-employment. Limited financial resources at these facilities have meant these medical staff learn primarily on-the-job since training, and funding opportunities are limited or non-existent. Dong (2001) considers that, in general, staff of community based health services operated by government are poorly equipped and trained. As a result of cost pressures and lack of revenue, some reluctant county governments in national poverty areas are in the process of taking over responsibility for township health centres/hospitals. These county health bureaus will need to find additional funds from the already limited resources available. However, resourcing of the county hospital is likely to be these counties' first priority.

In addition, up to two-thirds of doctors working in county hospitals have not had the requisite training. Gong et al. (1997: 322-323) have noted excessive staff numbers in these facilities and that productivity is consequently low. At the same time, some county level health training institutions have closed. To date, the extensive personnel reforms introduced have had little impact on reducing excessive staff numbers, improving staff quality and productivity. This situation has been exacerbated by the lack of health facility directors with appropriate management training. The funding shortage at county and township levels has also resulted in poorly maintained buildings and equipment. Many township hospitals have little equipment and malfunctioning equipment may not be repaired.

Inequality

Despite the considerable Chinese health achievements, much still needs to be done if the impact of rapid economic growth in recent years is to flow through to the poorer western provinces and counties and improve access and equity goals in health and health care. Many health reforms and interventions have not achieved their desired goals because of system failures, lack of funding and responsiveness of relevant decision makers at respective government and facility levels, and the lack of focus on the specific health needs of vulnerable groups. The cost of health care and low incomes means the poor avoid or are less likely to use health services, seek earlier discharge from hospitals, or use self-medication or more inexpensive forms of treatment through village doctors. Other constraints in poor counties include lack of transport, attitude of health facility staff and lack of gender sensitive health services to meet the health needs of women, in addition to costs. For example, a Family Planning Bureau (2002: 14) survey of women's health found that over 85% of women in child bearing ages in the urban and rural areas of Longchuan County, Yunnan Province suffered from multiple reproductive tract infections. Most Longchuan women did not receive or often gave up treatment because treatment costs range from RMB 200 to RMB 1000 (\$US 25 to \$US 120) from an annual average per capita income in rural areas of RMB 1920 (\$US 234). In the three lowest rural income quintiles, average incomes are RMB 649, 1118 and 1539 respectively (Gao et al. 2002: 24). In poor counties, fees, quality of available care and facilities have resulted in the utilisation of health facilities, especially at township level (Li: 2002)

The Developing Basis for Reform

The Central Committee of the Chinese Communist Party and the State Council on Health Reform and Development Decision (1997) have conceded that the Chinese health system could not meet the demands of social and economic progress, there were regional inequities in health development, inadequate investment in health, the allocation and distribution of health resources was irrational, rural and preventive services were underdeveloped, rising medical expenditure and the quality and manner in which services were delivered were not appropriate. In the five years to 2002, little has changed. Li (2002: 15-16) has identified the current health problems of poor western China, such as the high prevalence of poverty caused by disease and/or causing a return to poverty, the lack of coverage and effectiveness of public health services (including health care and prevention services), the threat of certain epidemic and endemic diseases to the public, and the lack of health insurance for the rural poor, pregnant women and infants are the result of 'weakness of government.' Gao et al. (2002) contends that China's current reforms are jeopardizing the economic and social bases for equitable health care.

HEALTH POLICY RESPONSES TO DEVELOPING HEALTH ISSUES

The PRC government has recognised that there are rural health issues that must be addressed. Since the early 1990's, the government has attempted to initiate programs and provide strategic policy direction to stakeholders in the health system to lift their performance and improve access to the rural poor.

The *Three Items Construction Program* in 1991 was introduced in recognition that rural health facilities and services were run down and had to be improved if the poor in rural communities were to view them as helpful and use them on a fee-for-service. The aim was to construct or refurbish township hospitals, county epidemic prevention stations, county maternal and child health stations and match facilities, equipment, and appropriately trained staff. The Program was to be funded jointly by central, provincial, prefecture, county and townships governments. Lack of financial resources resulted in slow progress in poor areas. In 1999, a three year County Hospital Development Program in poor areas was introduced to respond to health reforms by again requiring all levels of government to support construction and/or refurbishment and equipping of county hospitals and the training of clinical and management staff.

In July 1994, the PRC government called for the development of voluntary community based schemes to fund health care for rural areas funded by government, communities and individuals and giving priority to preventive services. The interpretation of the policy was subject to wide variation and lack of clarity in priorities which meant that government support for the proposals had little impact (World Bank: 1997). Clear policies for health reform were provided in the *Decision of The Central Committee of the Chinese Communist Party (CPC) and the State Council on Health Reform and Development* (15 January, 1997) which set out 40 goals and guiding principles.

In essence, these were:

- National and local government investment in health should increase in accordance with economic development, and should not be less than the overall increase in the government budget;
- Each level of government should be responsible for public health, preventive medicine and control of major diseases and, through necessary investment, strengthen health institutions, particularly in poor areas;
- Priority should be given to ensuring access to basic health services to satisfy the growing population needs for health care;
- Enhance the development of the rural health system by improving the ‘three tier health system’ and the structure, scale, roles and functions of health institution;
- Improve health staffing at village, township and county levels through improved standards, medical education, particularly for rural health workers, and prohibit non-qualified staff filling technical positions;
- Improve the production, sale and quality of drugs to guarantee the safety of drug use and pharmaceutical management systems, particularly control drug prices;
- Develop and improve the cooperative medical schemes (CMS), financed by multi-levels, as these schemes have an important role in guaranteeing basic medical services in rural areas; and
- Improve health care in poor and minority areas.

While the wide-ranging *Decision* document broadly covered the major health issues, it did not provide specific financial incentives to lower-level governments to

proceed to implement the identified reforms, nor did it provide necessary guidance for the required regulatory frameworks and accountability for the management and use of funds, as well as appropriate improvements in the attitude, charging practices and quality of services provided by health providers.

In 1997, the State Council issued *Several Opinions Regarding the Development Improvement of Rural Co-operative Medicine* prepared by a number of ministries, including Health, which provided support for development of voluntary CMS schemes tailored to local conditions to raise farmers' health status by providing access to basic health services through community risk sharing. The government (Liu, Y., 2002: 13) would broadly manage these arrangements. Lower level governments generally provided some assistance to the identified poor, like free hospital registration, discounted hospital fees (as in Shandong), and 'seed' funding for townships to establish a CMS. These measures did not have a significant impact on improving the access of the poor to health services. Even in the 50 poor counties covered by World Bank's *Health Project VIII* between 1998 and 2000, the conclusion reached was that CMS implementation has brought only 'some' improvement in access to care by the poor (World Bank, 2002: 37).

The PRC government, to accelerate development in the poor western provinces, implemented a Western Development Strategy in 1999 with a view to increasing income in the west and to reduce the gap between the east and west by infrastructure and communication investment development including roads, railways and airports. Implementation of the strategy, with inflow of construction workers, etc., will require the improved health planning, management, health

promotion and prevention activities and additional budgetary allocation to the west. Up to two-thirds of the national government's investment funds were to be allocated to the west as well as a three-year period of preferential taxation from January 2000. It is hoped that increased incomes and improved health services will result over time.

The New Cooperative Medical Care System (CMS)

Between 1997 and 2001, the PRC government issued a number of policies covering regional planning, hospital classification, pharmaceutical prescribing and to re-affirm the importance of the main points of the 1997 Decision. However, the 2002 *Decision of the Central Committee of the Chinese Communist Party (CPC) and the State Council on Further Strengthening Rural Health* (October 19, 2002) was wide ranging and identified rural health as the priority area. It proposed establishment of a rural health service system and rural cooperative medical scheme by 2010 to meet the needs of the socialist market economic system and the level of rural economic and social development. The proposed system includes establishment of an efficient and effective rural health network complete with basic equipment, development of a highly professional rural health service team, and effective rural health management team. The new type of cooperative medical care and assistance system was to be based on fund pooling for serious diseases. These elements were to be facilitated by the breaking down of the boundaries among relevant departments and authorities.

The new policy direction aims included strengthening rural disease prevention and control; strengthening maternal and child health, particularly improving the hospital delivery rate, child nutrition and maternal and infant mortality rates; improving planning and resource allocation to optimise resource utilisation and adopt market mechanisms to attract funds from various sources; setting roles and responsibilities for each level of health care and adjusting staffing levels at each facility by taking into account utilisation, population and work load; and establishing the medical qualifications for all clinical/technical staff with non-qualified staff to be removed and development of essential medicine lists for rural doctors. Between 2003 and 2010, annual increases for health undertakings from the central government to counties should be spent on rural health development- public health, operating funds, health facility construction, maintaining specified standards of service, and strengthening the effort on poverty alleviation.

The policy also proposed that local government would be responsible for the establishment and running expenses for newly established mobile health teams to provide outreach health services to the rural poor. To facilitate and support the implementation of these policy initiatives, the Central Committee of the CPC and government authorities would develop practical principles and policies. The State Council and all levels of government will supervise the implementation of the various rural health tasks and be responsible for strengthened evaluation, management and supervision of the service quality, pricing and charging of rural health services, including the enforcement of regulations on illegal medical and pharmaceutical practices, especially those that endanger public health.

After a period of experimentation, the new CMS was to be based on fund pooling for serious diseases. The focus was on poor rural households, participation was to be voluntary, and the costs of participation should not to increase the financial burden of farmers. For the very poor, the costs of participation could be met through a medical care assistance system supported by government input and donations. By 2010, the new CMS would basically cover all rural households. Provincial governments were required to supervise the establishment of the CMS pooling methods for the arrangements. Provincial, prefecture and county governments were required to assist with financial support based on the actual number of participants. The important aspect of this proposal was that the central government would support the CMS arrangements in the central and western regions (excluding urban regions) on the basis of RMB 10 per participant on an annual basis. Lower levels of government were to collectively contribute a similar amount (provincial government RMB 4, prefecture RMB 3 and county RMB 3). Each participant would be required to contribute RMB 10 on an annual basis. Currently the average health expenditure of rural people is about 50-100 RMB p.a. (Li: 2002), so participation rates can be expected to be high, at least initially. Those rural poor unable to pay would have their contribution paid by the Civil Affairs Bureau on a means tested basis. The introduction of the government contribution to the schemes and the associated improvements, if fully implemented, provides significant incentive and direction to improving access of the rural poor to better health services.

Implementation of the New CMS Pilots

The new CMS aims to protect the rural poor in China from the increasing costs associated with the shift to a socialised market for health services and to minimise the impact of serious/catastrophic illness. The likely costs are only one factor, which is taken into account in a decision by poor households to access or not to access health services. Other factors are considered to include the ‘opportunity costs’ of having a household member unable to continue their work in the field for a short or long period, transport costs, the perceived quality of health services available, alternative sources of assistance (village doctors, self medication, traditional Chinese medicine), attitude of health staff, and issues of privacy about the nature of the illness (e.g. reproductive tract infections). For poor households, methods of financing possible costs associated with serious illness are limited and include using their own limited funds, borrowing from family or neighbours, reducing expenditure or selling some assets, seeking fee discounts or time to pay and tapping government assistance programs, if applicable.

Bloom and Xingyuan (1997: 355) argue that prepayment schemes have had limited success in poor areas where they compete with other sectors for scarce funds and administrative resources. Government funding and high level support for the CMS has changed this by recognising that rural CMS are unlikely to be self funding, and that there are few examples of sustainable rural health care access schemes without external support by government and or donors. However, while the CMS policy initiative is important and is likely to achieve high rates of participation, it nonetheless requires action in other areas to be successful over the long term (e.g.

higher quality and better equipped health services available locally, quality assurance mechanisms, etc). It also requires the CMS administrative arrangements to be simple and understood by poor households and the benefits easily accessible at the point of service.

The CMS policy is being implemented through pilot projects undertaken in selected poverty counties in the defined provinces in central and western China. The pilots are to be operational by the end of 2003. The broad principles under which the CMS pilots are to be established provide little assistance to individual county administrations as to how to develop and implement their CMS pilots. The establishment of the pilots is over-sighted at province level, which also has generally little experience with risk pooling health schemes. To some extent the possibility of different approaches in the pilot counties recognises that success and effectiveness depends partly on local circumstances and the manner in which the broad policy objectives are interpreted and implemented. Chinese government has been careful not to adopt a 'one size fits all' approach in a vast country where local circumstances can vary markedly.

The capacity to implement and manage the new CMS arrangements at county level is generally weak, although careful selection by provinces of pilot counties will ensure that the counties with higher capacity have been selected. Even at provincial level, there is a need to develop epidemiological and health systems research capacity to develop reliable evidentiary bases for assessments of available health reform or intervention initiatives. Few, if any, counties have the necessary data available to be able to make decisions about the appropriate size of the pool

required to meet likely demand for services, including pent up demand, against the likely revenue available. Few counties have current data on the incidence of serious disease in their rural communities or the extent of non-communicable diseases that may have an increasing impact of risk profiles. Where appropriate, counties have sought expert technical advice and assistance in these areas.

The wide range of policy, technical and administrative issues that require careful consideration include:

- Methods of allocating the risk pool funds between inpatient costs and those associated with, public health, catastrophic disease-including neoplasms, diabetes, strokes and cardiology services;
- Determination of the serious or catastrophic diseases to be covered and the need to take into account maternity, public health services and communicable and non communicable diseases;
- Methods to meet the additional costs if a serious or catastrophic disease exceeds predetermined hospital cost limits;
- Determination of items which are not to be covered by scheme payments e.g. prostheses, hi-tech diagnostic tests, transport, drugs not on an essential drug lists etc;
- Inclusion of referrals to higher level facilities covered and definition of the 'gatekeeper' requirements;
- Decisions on how the costs of administering the new CMS arrangements by the county health bureaus are to be met (such as deducted from the risk pool). If not,

how do county governments propose to meet costs? How are such costs to be taken into account in the overall evaluation of the pilots?

- Decisions on the methods of managing the risk pool funds (i.e. included in or separately from other county health bureau fund), and the nature of any external financial auditing and supervision;
- Methods of enforcement of determined fee schedules and related regulations at health facility and other levels;
- Given the CMS scheme relies on fee-for-service, consideration of mechanisms to control cost increases and ensure maintenance of access for the rural poor;
- Ensuring that administrative arrangements do not constitute a constraint to access by the poor;
- Development of arrangements to ensure that the poor will not be required to meet high fee costs before receiving any reimbursement;
- Ensuring that reimbursements and associated arrangements be sufficient to ensure CMS members remain in the CMS over the long run and that they will not be pushed deeper into poverty;
- Determination by county CMS administrations of methods to deal with the actual or prospective short fall in funds as a result of adverse selection or demand for services exceeding anticipated levels (e.g. increased participant contributions, benefits packages be redefined or calling on rural participants fund shortfalls by higher fees in future years);
- Assessment of the impact the CMS co-financing has on local governments' capacity to maintain expenditure levels in other sectors;

- Determination of methods to assess improvements in the quality of health services delivered and accountability of health facility managers, with increases in revenue, in efficiently and effectively managing their facilities;
- Defining the role the ‘community’ will play in decision making and monitoring concerning the CMS and health facility operations; and
- Determining the criteria and data to be used in assessing successful pilots and methods by which the frameworks of the successful pilots may be incorporated into possible models for implementation across rural China.

For the majority of pilot counties, the implementation of the CMS pilots will surely test the management capacity and resources.

CONCLUDING REMARKS

It is clear that the implementation of the CMS pilot projects is an important step towards overcoming the challenges of ensuring access of the rural poor to health services. There are a range of identified areas where action is required if overall improvement in the decentralised rural health system is to occur. For instance, clarification of the role of government in planning, approving, regulating and supervising the health system and introducing new models of delivering health care and appropriate implementation of the personnel reforms to improve efficiency and effectiveness. The success of the CMS pilots and continuing participation of the rural poor will depend partly on ‘across the board’ improvements and active government involvement in the delivery of quality, accessible, appropriate,

reasonably comprehensive, co-ordinated and efficient health and related services at reasonable cost. These services should be delivered by appropriately trained health staff, supported by efficient health facility managers, to ensure courteous and prompt care for the rural poor and other patients. In addition, there is the need for government involvement in the development and enforcement of delineated health facility roles and functions, regulatory frameworks to ensure clinical and financial accountability at all relevant levels, and the development of improved information systems, in particular, to ensure health services delivered and drugs prescribed to patients are appropriate. These steps will require considerable capacity building, in common with the development of appropriate monitoring systems. The sequencing and implementation of proposed rural health reforms should be encompassed in more definite framework and timelines if the CMS pilots are to be supported appropriately. Meng et al. (2002; 62) have concluded that further work is urgently needed if the development and testing of new models or other mechanisms are to be successful in ensuring that the poor in China have access to appropriate hospital care.

The development and assessment of the CMS pilotprojects and other reforms will provide opportunities for research and the identification of the specific lessons for China in extending the arrangements beyond the pilot areas and for other developing countries. Both the central and provincial government health authorities have an important role in determining and disseminating ‘best practice’ based on the lessons learnt.

REFERENCES

- Bloom, G. and Gu, X. (1997), 'Health Sector Reform: Lessons From China,' *Social Science and Medicine*, Vol.45, No3: 351-360.
- Bogg, L., Dong, H, Wang, K., and Diwan,V, (1996), 'The cost of coverage: rural health insurance in China,' *Health policy and Planning*, **11** (3): 238-252.
- Carrin, G., Ron, A., Yang, H., Wang H., Zhang, T., Zhang, L., Zhang, S., Ye, Y., Chen, J., Jiang, Q., Zhang, Z., Yu, J., and Li X. (1999), 'The reform of the rural cooperative medical system in the Peoples Republic of China: interim experience in 14 pilot counties,' *Social Science and Medicine*, Vol.48, 961-972.
- Dong, Y. (2001), 'Community Health Services in China: the experience of Tianjin City', *Australian Health Review*, **24** (1): 176: 182.
- Feng, X., F., Tang, S., Bloom, G., Segall, M., and Gu, X. (1995), 'Cooperative Medical Schemes in Contemporary Rural China,' *Social Science and Medicine*, Vol.41, No8: 1111-1118.
- Gao, J., Qian, J., Tang, S., Eriksson, B. and Blas, E. (2002), 'Health equity in transition from planned to market economy in China,' *Health policy and Planning*, **17** (Suppl 1): 20-29.
- Gao, J., Tang, S., Q., Tolhurst, R and Rao, K. (2001), 'Changing access to health services in urban China: implications for equity,' *Health policy and Planning*, **16** (3): 302-312.
- Gong, Y., Wilkes, A. and Bloom, G. (1997), 'Health Human Resource Development in China,' *Health Policy and Planning*, **12** (4): 320-328.

- Hsiao, W.C. and Liu, Y. (1996), 'Economic Reform and Health – Lessons from China,' *New England Journal of Medicine* **335**: 430-432
- Lawrence, S.V. (2002), 'The Sickness Trap,' *Far Eastern Economic Review*, 13 June, 2002: 30-33.
- Li, H. G., (2002), 'Strengthen the health reform by innovative spirit,' *Chinese Health Policy*, Ministry of Health and Chinese Hospital Management Association, **(12)** 15:18.
- Liu X and Hsiao, W.C.L. (1995), 'The Cost Escalation of Social Health Insurance Plans in China: Its Implication for Public Policy,' *Social Science and Medicine*, Vol.41, No8: 1095-1101.
- Liu, X, Liu, Y., and Chen, N., (2000), 'The Chinese experience of hospital price regulation,' *Health Policy and Planning*, **15** (2): 157-163.
- Liu, Y. (2002), (ed). '*Basic Health Service Project (Health V111 & Health V111 Support Project) Report of Phase One Review*,' Foreign Loan Office, Ministry of Health. Beijing, China.
- Liu, Y., Hsiao, W.C., Li, Q., Liu, X. and Ren, M. (1995), 'Transformation of China's Rural Care Financing,' *Social Science and Medicine*, Vol.41, No8: 1085-1093.
- Longchuan Family Planning Bureau, (2002), '*Background Information for the Measures for and Evaluation of the RTI Intervention Project in Longchuan County - First Draft*,' The Family Planning Bureau of Longchuan County.

- Meng, Q., Sun, Q. and Hearst, N. (2002), 'Hospital charge exemptions for the poor in Shandong, China,' *Health Policy and Planning*, **17** (Suppl 1): 56-63.
- Saadah, F., and Knowles, J. (2000), 'The World Bank Strategy for Health, Nutrition, and Population in the East Asia and the Pacific Region,' The World Bank, Washington D.C.
- Tang, S., and Bloom, G. (2000), 'Decentralising Rural Health Services: A Case Study in China,' *International Journal of Health Planning and Management*, **15**, 189-200.
- The Central Committee of the Chinese Communist Party (CPC) and the State Council on Further Strengthening Rural Health, '*Decision*,' (October 19, 2002), Beijing, China.
- The Central Committee of the Chinese Communist Party and the State Council on Health Reform and Development, '*Decision*,' (15 January,1997). Beijing, China.
- The World Bank, (1997), '*China 2020: Financing Health Care-Issues and Options for China*.' Washington D.C.