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Financing Healthcare in the People's
Republic of China :
Implications of some Recent Developments

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Introduction

The great strides made by China in the field of health since Liberation (1949) are by now widely acknowledged. By the early eighties, the infant mortality rate (45 per 1000 live births) and crude death rate (7 per 1000) have reached probably the lowest among all developing countries; the life expectancy at birth (70 years) is fairly close to that in high income industrial market economies. These achievements should appear more impressive when viewed in juxtaposition with China's low level of economic development, with a per capita GNP of barely \$ 300. Control of infectious diseases by laying greater accent on preventive measures (War against four pests) through community participation (patriotic health campaigns), extending the medical care facilities through a multi-tiered delivery network (from production brigade health centres through commune clinics to county and provincial hospitals) and adoption of appropriate technology (barefoot doctors, integrating the Western and Chinese traditional medicine or "walking on two legs") are examples of the major innovations introduced in the health policy which yielded such impressive results.

However, some recent trends such as the emergence of chronic disease like high blood pressure, heart disease and cancer side by side with the persistence of infectious diseases, and uneven progress between provinces and rural and urban areas are causing some concern. The economic readjustment policies which are currently being implemented, like the production responsibility system, have serious implications for financing healthcare and its accessibility to different sections of the population. The purpose of the present paper is to review these recent developments and their implications for sustaining the momentum of health improvement.

How the Chinese achieved "the first health care revolution" is reviewed first. Next we proceed to give a synoptic view of the emerging health

profile. In the final section, the implications of the ideological and institutional changes currently underway are examined. In the review of the different facets the Chinese health care system has been passing through, our attention is focussed on the financial aspects.

Healthcare Strategy Under Pressure of Crushing Problems and
Inadequate Resources

1. Putting Prevention first

(i) At the time of Liberation in 1949, China used to be described as "the sickman of Asia". For the first half of this century the average crude death rate is estimated at about 20 per 1000 population, apart from periodic famines, epidemics and wars. Infant mortality rate was around 160 per 1000 live births. (de Hass and de Hass Posthuma, 1973, p.279; See also Liang, p.102) The dominant disease groups in the pre-Liberation period in China conformed to the pattern typical in a developing country. They included intestinal parasitic and infectious diarrhoeal diseases (transmitted by human faeces) poliomyelitis, typhoid and cholera (water-borne), tuberculosis, pneumonia, diphtheria, bronchitis, whooping cough, meningitis, influenza, measles and smallpox (air-borne), malaria, schistosomiasis, kalaazar, hookworms and filariasis (vector-borne). According to one source, cholera claimed 34000 lives in a typical year and tuberculosis accounted for 10% of all deaths. (Smith, 1974, p.492)

(ii) As against these crushing health problems, health resources at the command of the People's Republic of China were quite meagre and unevenly distributed. In 1949, China had one of the world's poorest healthcare delivery systems. At that time, the total number of doctors trained in Western medicine was estimated at 40,000. For an estimated population of 540 million, this would give a ratio of 1 physician for every 13000 population. Similarly, the number of beds available in Western-style hospitals in this period came to

90,000, that is one hospital-bed for every 6000 potential patients. Obviously, those were grossly inadequate given the level of mortality and morbidity. And, the problem was aggravated by the fact that the medical care facilities were concentrated in a few large cities. (Victor Sidel, 1972, p.102; See also Victor Sidel and Ruth Sidel, 1974, p.17)

(iii) Given the genesis of the core health problems and the mounting pressure on the limited healthcare resources, one feasible option before the Chinese authorities was to focus on preventive measures and resort to redistribution of the available manpower resources. "Prior to the Cultural Revolution, the most significant innovation in China's health strategy occurred in the area of preventive health. There are two elements which were central to this policy. First, the Chinese were able to mobilize additional resources for its preventive health program, in what might be termed 'surplus labour absorption' strategy. Second, the more central, these resources were able to be directly translated into effective preventive health inputs. This prevented any bottlenecks to a large scale preventive health programs arising from shortages of trained public health personnel". (Heller, 1972, p.17) Redistribution of resources involved mobilisation of urban medical personnel. Patriotic health campaigns, following the "mass line", led to community involvement in preventive work. In addition, curative care facilities were expanded by building hospitals and health centres in rural areas and training of additional manpower, especially the "barefoot doctors". By and large, the different policies pursued in keeping with the broad priorities emphasised by Chairman Mao Tse Tung from the early fifties were the more cost effective.^{1/}

In respect of preventive work, a key element was the resort to the "mass line", which is built on the premise "that the mass of ordinary people are able, given the requisite powers, knowledge and motivation, to tackle successfully highly complex problems". (Horn, 1972, p.378) The success of the patriotic health campaigns seems to exemplify the validity of the premise

underlying the "mass line". Initiated during the Korean War (1950-53) to activate the masses to take measures against germ warfare allegedly used by the Americans, it soon developed into a war against the four pests (rats, flies, mosquitoes and bed bugs), and finally emerged as a comprehensive preventive programme involving sanitation, personal hygiene and health education. The campaigns were aimed at directing mass activity against specific diseases by gaining the participation of the entire population. These led to the reduction of the incidence of vector-borne diseases and establishment of intensive health education programmes for mass inoculation. "Campaigns have not only boosted environmental sanitation and raised the consciousness of the people about the importance of good health but also aided the creation of a concept of community health Among the other benefits of mass mobilization is the multi-utilization of manpower for such economic enterprises as sanitary engineering work and irrigation projects". (Rifkin, 1973, p.252)

The campaigns against schistosomiasis is an example. "One aspect of the schistosomiasis campaign was mass action work in developing irrigation networks and expanding cultivable farm acreage. In the process of digging new irrigation canals (and filling existing snail-infested canals), the snails which serve as the schistosome hosts could be uprooted and buried To the extent that these efforts are focussed in periods when there is a slackening in the level of agricultural work, it proves a relatively costless means of taking such preventive action. To the extent it is combined with agricultural efforts, its cost is further reduced, thus effectively providing a productive outlet for surplus labour". (Heller, p.22) Moreover, the emphasis on self-reliance and social mobilization as key ethics of socialist public health policy implies an alternative resource allocational strategy different from that commonly observed in the preventive health policies of most developing countries. This emphasis implies that the primary burden of financing preventive health measures must be borne by those directly benefitting from the

measures, viz., the rural communes, production brigades and production teams. This mode of resource mobilization is a classical strategy involving the mobilization of surplus labour. Further, this strategy of resource allocation circumvents the shortage of specialised manpower constraint by rationing their use to areas where they are more productive, indispensable and non-substitutable. (Ibid, pp. 23 - 26)

2. Manpower training and deployment

(i) In narrowing the rural - urban differences in health care resources, the Chinese government adopted a two-pronged strategy, viz., redistributing the medical personnel and enlarging their supply by training additional manpower. Redistribution was achieved mainly in two ways: First, an appeal was made to Western-style doctors working in urban hospitals to leave the cities and settle permanently with their families in rural areas. Apparently, a significant number of modern-type doctors moved into the rural areas without either any material incentive or any element of coercion. "The incentive was the conviction that they were doing the right thing, that they were responding to the needs of their day and area and in doing so they were winning the approbation of, and were uniting with, their fellowmen; it was a desire to be at one with society, to be part of the inexhaustible dynamic which was moving it forward so visibly and purposefully". (Horn, 1971, p.79) The second method of redistribution involved the despatch of mobile medical teams from the urban hospitals to the rural areas on a rotation basis. It was envisaged that one-third of the staff of all major city hospitals will be working in the rural areas on a rotation basis. The mobile teams consist of doctors and nurses of all grades, different specialists, dieticians, laboratory workers, cleaners, cooks, and administrators. The work of the teams included both curative and preventive activities. Part of the team usually staffs a clinic of one of the more centrally located communes; the rest of the team splits up into groups

who go and live in selected villages where they set up dispensaries and conduct by-weekly family visits to render essential curative services. Preventive work formed an equally important part of their duties; this included immunization against ordinary infectious diseases (such as smallpox, diphtheria, typhoid, polimyelitis, etc.), health education for the peasants, protecting the water supplies, ensuring sanitary disposal of human wastes, etc. (Horn, 1972, pp. 380 - 381) The doctors in the mobile medical teams also participated in the training of a new class of rural doctors.

(ii) Faced with acute shortage of manpower, the government intensified its efforts in the training of medical personnel. The training programme initially followed was largely based on the Western models. During the same period, the authorities introduced a new category, the "secondary" or "middle level" personnel following the Soviet feldster model. Apparently the newly trained personnel, of both doctors of Western type and Assistant doctors of the Soviet type, were concentrated in the urban areas. From the late fifties, efforts were initiated to train indigenous personnel in the rural areas, the peasant doctors or the so-called barefoot doctors, engaged in agricultural production as well as involved in health work.^{2/} This new experiment suffered a set back during the first half of the sixties, but picked up momentum during the Cultural Revolution. It is estimated that by the early seventies, the number of barefoot doctors exceeded one million.

Of all the Chinese innovations in the field of health care, it is the training and deployment of peasant doctors or barefoot doctors which is perhaps the most unique and which has attracted the widest attention.^{3/} In the selection of the barefoot doctors, their training, work schedule, etc. the strategy displayed remarkable ingenuity. "The candidates selected for training as barefoot doctors are generally young peasants, chosen by their fellow

villagers. They were chosen for their intelligence, their educational level, their keenness to be trained as peasant doctors and above all for their overall attitude to the collective of which they formed a part. What counted most was that they should be unselfish and responsible". (J.S. Horn, 1971, p.82).

The training programme of the barefoot doctors generally consists of "a basic three months course usually given at either the commune or county hospital, followed by periods of further training of one to three months in succeeding years, and augmented by teaching from mobile health teams". (A.J. Smith, 1974, p.429). The barefoot doctors' first period of training was intended to provide the minimum threshold of skills required to effectively perform curative responsibilities. "The cost of this training programme was minimised by scheduling the training period during the slack season in agriculture, thereby not impinging on the size of the brigades' agricultural workforce. The cost of the teaching personnel was lowered by combining the teaching and curative responsibilities of the mobile medical teams as much as possible". (Meller, 1972, p.55). The responsibilities of the barefoot doctor comprise environmental sanitation (proper collection, treatment, storage and use of human faeces as manure), health education, immunizations; he also gave first aid and curative service to common illnesses like colds, bronchitis, gastrointestinal disorders, measles, etc. As for the barefoot doctor's income, it may be recalled that he is primarily a peasant and spends at least half the time in agricultural work. For his work in health related matters, he earned work points in the same manner as in his primary occupation. He receives the usual income of any agricultural worker though he spends about half his time doing medical work, thereby ensuring that he does not distance himself from his fellow villagers. The development of the barefoot doctor, it may be noted, did not involve much additional cost as their healthwork was dovetailed with agricultural production and did not cause any dislocation of production arising from labour shortage. "Worker doctors", a factory worker with training similar

to the barefoot doctor, provides medical services at his place of work; and the "Red Guard Doctor", usually a housewife with shorter formal training than the barefoot doctor, works as a physician's assistant in neighbourhood health centres in the cities. However, the main thrust of the new training of medical personnel was on the peasant doctor or barefoot doctor.

3. Decentralisation of Medical Care

To redress the unevenness in the distribution of scarce medical care facilities, the delivery system was reorganised with a greater degree of decentralisation. The delivery of medical care in China of late begins at the lowest possible level both in the city (urban lane) and the country side (site of rural work). In rural China, the health care system operates on three levels, viz., the brigade cooperative medical centre, the commune health centre and the county general hospital. Urban health services are also organised on a three-tier basis. Corresponding to the brigade and commune health facilities are 'street' and 'lane' health stations; referrals from these stations go to the district, provincial or specialised hospitals (Jamison, et al, 1987, pp 40-42 "The rationale of this should be apparent. By adding an additional base of medical services, a preliminary screening and treatment mechanism was created. The bulk of curative problems would for the first time be diagnosed and treated. Simultaneously, scarce medical resources were in a position to be rationed to those medical problems for which no lower cost or lower skill substitute existed". (Horn, p.53) The accent on locating the expanded medical care facilities at the grass roots level is exemplified by the trends in the growth of rural medical care units. Thus, for instance, the number of commune health centres increased from 28,656 in 1962 to 36,965 in 1965 and 55,500 in 1981; as against this, the number of county hospitals registered only a marginal increase during this period, from 2123 in 1952 to 2276 in 1965 and 2367 in 1981. (Jamison, et al, p.149) Decentralisation of health services has also meant emphasising local financial support for these programmes.

4. Health Sector Financing

As observed earlier, policies like the patriotic health campaign succeeded in the total mobilisation of the masses to support preventive health programmes. In consequence, the fiscal burden of the preventive measures was minimal. With respect to the curative programmes also resource was taken to cost-effective policies such as redistribution of scarce manpower resources, training and deployment of middle and lower level medical personnel, development of multi-tiered medical care network, etc. True, all these policies led to considerable cost saving. Still the emerging healthcare sector entailed some costs. How were they financed ?

The costs of the delivery system are shared by the State, collective enterprises, rural communes and private individuals uncovered by the existing systems. The state budget expenditure covered the government insurance scheme which provides free inpatient and outpatient health service for life to government employees, college teachers, etc; health service delivery at state owned hospitals at national and provincial capitals; and medical education in the national and provincial medical colleges. Labour insurance is another major source of finance. Workers and staff employed in state enterprises receive free healthcare for life, while their dependents are entitled to get 50% reimbursement of their medical care costs. A voluntary insurance scheme, covering the employees in the communes and brigade enterprises, has also developed; these schemes offer only partial reimbursement of the medical expenses. There is no prepayment involved on the part of the beneficiaries. In the case of these two types of labour insurance, the cost of health insurance is added to the enterprise wage bill. The total coverage of the government insurance, labour insurance, including collective enterprise (voluntary) insurance, is estimated at 225 million in 1981 of which 124 million are primary members and 101 million dependents. (Ibid., pp. 67 - 69). Another source of health care financing is the rural cooperationg medical scheme.

The scheme first appeared as part of the reorganisation plan during the Great Leap Forward period, and was adopted extensively during the Cultural Revolution. Generally the scheme takes the form of a prepaid medical insurance plan organised at the level of production brigades. "The insurance fund is typically financed jointly by annual prepayments paid by individual members of the brigade and by annual appropriations from the brigade's welfare fund..... Beneficiaries enrolled in the cooperative insurance scheme are generally entitled to substantially reimbursable services and drugs at the brigade health station and also at higher level referral units....." (Jamison, et al, p.70)

The system of sharing costs varied from region to region and from commune to commune. For example, in the early seventies, in the Chunhsing production brigade, the contribution from an individual member was about 1 Yuan, the production team contributed 1 Yuan per capita from its welfare fund, and the production brigade 2000 Yuan per annum (Susan B Rifkin, p.150); in the Four Season Green commune, each person contributed 1.5 Yuan per year, matched by an equivalent amount from the brigade welfare fund (Virginia Li Wang, p.480). By 1970, 76.6% of the brigades are reported to have adopted the cooperative insurance system; and seven years later the coverage of the system had increased to 84.6%. In 1981, 475 million rural people, 48 percent of the Chinese population, are estimated to be covered by the cooperative insurance scheme (Jamison, et al, p.71).

Private expenditure accounts for the residual share of the total health care cost. This comprises the prepayments by primary members of rural cooperative insurance schemes, and the out of pocket expenses of the population groups not covered by any of the insurance schemes. No firm data are available on private expenditure on healthcare. However, an indirect estimate places this figure at 4.60 Yuan in 1980, accounting for 32% of the total expenditure on healthcare (Ibid, p.73). The coverage of all beneficiaries under various insurance schemes was seen to be approximately 699 million, of which the majority

are in the rural cooperative insurance scheme who had to make prepayments. On the other hand, most of the urban residents benefit from inclusion in government insurance or labour insurance schemes which do not involve prepayments. And the majority of those without the benefit of health insurance are in the rural areas.

Needless to say, the health strategy adopted by the Chinese authorities has significant financial dimensions. Thus, the accent on preventive health measures and priority to rural areas, adopting the mass line for ensuring community involvement and utilising surplus labour and coordinating health work with normal productive activities in the country side proved to be a highly cost effective strategy. On the one hand, the strategy helped to keep down the costs of healthcare; on the other, the benefits of these programmes, as for example, the anti-schistosomiasis campaign (which included filling of snail-infested irrigation canals and digging of new ones) extended beyond the control of infectious and vector-borne diseases. As regards curative medicine, the strategy involved redistribution of scarce medical personnel from urban to rural areas, training of new cadres of medical and paramedical personnel, and building up of a network of medical care facilities with a certain degree of self-financing. This introduced an effective built-in referral system and an optimum utilisation of the personnel and facilities of different levels of sophistication. Thus, the curative care programme developed over time emphasised appropriate technology, rationing of scarce manpower and facilities, keeping down costs as well as sharing of costs. (as well as sharing of costs wherever possible)

II. The Emerging Health Profile

1. Changing Disease Pattern

As observed earlier, the dominant disease groups in pre-liberation period in China conformed to the pattern in a typical developing country. A significant change has taken place in the disease pattern in China in the last three decades, viz., a marked shift from acute infectious diseases to chronic degenerative ailments. Thus, while respiratory diseases, acute infectious,

pulmonary tuberculosis and G.I (Gastro Intestinal) diseases in that order ranked the highest among the ten leading causes of death (16.86%, 7.93%, 7.51% and 7.31% respectively of total deaths) in some cities in 1957, cardiovascular diseases, apoplexy and malignancy occupied lower ranks (6.61%, 5.46% and 5.17% respectively). By 1975, in the cities three top-ranking diseases were cerebro-vascular (21.61%); cardiac (19.49%) and malignancies (18.84%) (KU SU - ~~EN~~, 1985, pp. 9-10). In the subsequent period the trend is presumably reinforced, increasing the shares of these chronic diseases. It is also significant to note that by the mid-seventies and early eighties, in some of the selected counties also cardiac disease, malignancies and cerebro-vascular diseases have emerged as the leading causes of death. These three diseases together accounted for 48% and 56% in 1975 and 1982 respectively of total deaths in the counties the position is more or less similar in the cities. On the other hand, both in the cities and the counties share of infectious diseases had dropped dramatically by 1980 respectively to 1.46% and 2.76% of all deaths (Ibid., pp 10-11). Thus, with the reduction in the incidence of infectious diseases, chronic and-degenerative ailments have emerged as the major disease group. Nevertheless, infectious diseases continue to persist, though on a smaller scale. Hepatitis, tuberculosis and dysentery are still prevalent in much of the country, while leprosy, schistosomiasis and malaria linger in a few provinces. (Jamison, et al, p.21).

The case of Shanghai which is a success story in health advancement will illustrate this. In the 25 years from 1956 to 1980, there has been a significant reduction in the overall incidence of infectious (notifiable) diseases. For instance, the annual incidence rate of malaria, per 100,000 population, dropped from 2237.2 during 1956-65 to 78.4 during 1966-80, that of measles from 1486.3 to 73.2. On the other hand, the annual incidence rate of dysentery remained almost at the same level during the two periods, viz., 686.9 and 657.7, while that of hepatitis increased more than three fold from 114.4 to 377.3 (Huang De Yu, et al, p. 45). China's health status has been undergoing an epidemiological transition, and the emerging disease pattern is a combination of acute infectious diseases and ageing, degenerative ailments.



2. Uneven progress in health conditions

Another dimension of the trends in health status in China is that the progress has not been uniform. There persist significant rural-urban, inter-provincial and intra-provincial variations in health conditions. For example, life expectancy at birth is seen to range from 59 years in Guizhou province to 72 years in Shanghai; life expectancy in urban areas is on average 12 years higher than in normal rural areas, and that in low-income rural areas is 5 years, lower than in normal ones. Inter-provincial and rural-urban differences in mortality rates are evident. The crude death rate ranges from 4.95 - 5.54 in the Northern and North-eastern provinces to 7.33 - 9.92 in the Western and South Western provinces. As of 1975, the infant mortality rates in the rural areas, both for males and females, are over twice those in the urban areas. Similar differences also persist in respect of morbidity pattern. Infectious diseases, although a national problem, are more prevalent in rural areas. For instance, hepatitis and dysentery are more widespread in the rural areas, since a large fraction of the rural population does not benefit from safe water supply or facilities for sanitary disposal of human faeces. The death rates from pulmonary tuberculosis and diseases of the digestive system in rural areas are more than one and a half times those in the urban areas. Malnutrition continues to remain an important impediment to child development in many rural areas. Thus, the percentage of 7-year old boys stunted is significantly higher in rural than in urban households. (Jamison, et al, Tables 2.5, B.2 and B.4)

Needless to say, this emerging morbidity pattern has serious financial implications. While infectious diseases generally are amenable to control through comparatively less costly preventive measures, employing paramedical staff, barefoot doctors or even lay personnel (as for example, under the patriotic health campaign), degenerative ailments like stroke, heart disease, cancer, etc. require highly skilled specialists, sophisticated equipments, extended hospitalisation

and costly drugs for their diagnosis and treatment. The two major dimensions of rural - urban differences are with respect to morbidity pattern and health care facilities including safe water supply and sanitation. Given the fact that more than four-fifths of the population live in rural areas, the financial implications of raising their health status on a par with their urban counterparts can be quite formidable.

III. Implications of the Recent Reforms in Economic Structure on Financing Health Care

(i) We noted above the considerable rural-urban differences in mortality rates, morbidity pattern and health care financing. Despite a significant decline in some infectious diseases in response to the preventive measures the problem continues to persist. Together with this, chronic diseases have also begun to surface. As against a higher rate of mortality and morbidity, healthcare facilities and current expenditure in rural China are far behind the same in urban areas. According to one estimate, average healthcare expenditure in rural areas would come to 10 Yuan per capita compared to 33 Yuan in urban areas; and state subsidies for medical care work out to 3 Yuan and 26 Yuan respectively. (Ibid, p.73) Thus, there is a substantially regressive urban bias in public expenditure on healthcare.

(ii) Among the sweeping reforms introduced by the new regime in People's China since 1978, the household responsibility system and the resultant dismantling of the collective organisational structure pose serious problems for financing of healthcare in rural areas. In the first place, the introduction of the responsibility system has undermined the fiscal support to the rural cooperative health insurance schemes by way of contributions from the brigade and commune welfare funds. The erosion of this major source of finance has led to a steady and sharp decline in the coverage of rural cooperative health insurance. Thus, the proportion of brigades with rural cooperative health schemes has drastically

dropped from 84.6% in 1975 to 68.8% in 1980 and 58.2% in 1981. (Ibid, p.71)
That is to say, more and more people in rural China have to pay the full cost of their medical expenditure.

(iii) With the adoption of the household responsibility system under which peasant households contracting farm land for cultivation have considerable initiative in the choice of crops and the freedom to dispose of output in excess of the quota to the state and the production team. "In the process of the development of the responsibility system, the form of contracting land to households with the household as the accounting unit became the main form of the various output related contract systems. By the end of 1983, the number of households contracted under this form made up 94.5 percent of China's total peasant households". (Zhang Boemin & Zhang Houyi, 1984, p.4) Significant enhancement of the state purchase prices of a wide range of agricultural products, emergence of several sideline production activities like dairying, poultry, piggery, silk cocoons, etc. opened up new vistas for the peasants. Rejection of egalitarianism, and linking of remuneration with performance or output as part of the new policy further strengthened the incentives of peasants to devote their time and energy to productive activities. These developments in turn may affect the motivation and incentives of barefoot doctors in their healthcare work for which under the erstwhile system they received no remuneration. Similarly, the erosion of the political and administrative authority of the communes, brigades and production teams may also weaken the participation of the peasants in preventive health programmes. If these "side effects" of the production responsibility system were to occur, then rural China may suffer a setback to the progress achieved in the recent decades, unless the Government increased on a large scale the cadre of full-time medical and paramedical personnel. The financial implications of that option are obvious.

(iv) The resurgence of private medicine is another recent development. The Minister of Public Health announced on 26 October, 1984, the policy permitting

private medical practices. In an article published in Guangmin Daily the minister authorised collectives and individuals to run medical business and make profit from them. "We actively support collective economic bodies, townships, neighbourhoods, democratic parties as well as retired doctors to set up medical institutions". (China Daily) The minister also said in-service doctors and medical workers could provide medical services at home in their own time. Income from these services was allowed. Some doctors have opened their own small hospitals, hiring unemployed youth and retired medical workers. Individual doctors also make house visits. One major project under negotiation is a foreign-supplied and foreign-managed private hospital in the Special Economic Zone of Shenzhen. (Newsweek, 1985) The new hospitals in the private sector are apt to be located in the urban areas and comparatively prosperous communes; and they are also likely to employ highly trained specialists and sophisticated equipments. Their clientele would constitute the better off households. Thus, the private medical services would be distributed on the basis of "to each according to his ability" to pay. There is also an indication of a policy change to curtail the subsidy element to the urban residents, which might also introduce a certain degree of inequality in the accessibility of medical care facilities.

In brief, the healthcare sector reflected the effects of the new reforms of the economic structure. The impact of the structural readjustment policies has been manifested in a sharp decline in the coverage of the rural cooperative health insurance system. A probable impact, though less visible as of now, is the likely weakening of voluntary health care work on the part of barefoot doctors, and the participation of the general mass of peasants in preventive health programmes. The emergence of private medical service would reinforce the widening of disparities in the accessibility of medical care. Over all, an increasing proportion of the population, especially in the rural areas, will have to bear the full cost of medical care.

Summary and Conclusions

(i) In the choice of priorities, viz., prevention first and the stress on rural areas, and the strategies such as training and deployment of medical personnel, and recourse to the mass line, the Chinese leadership showed an astute understanding of the nature of health problems and the constraint on resources. The preventive health programmes with the focus on control of vectors, improving sanitation and protecting water sources, health education and personal hygiene, coordinated with productive activities in the rural areas and the participation of the entire community ensured the highest degree of cost effectiveness and the widest sharing of costs by the beneficiaries. The curative programme built on a multi-tiered network of medical care facilities and appropriately skilled medical personnel like the barefoot doctors, and integration of their healthcare functions with their normal productive activities contributed to minimise the costs. The rural cooperative health insurance system was designed to pooling of risks and the sharing of costs by the beneficiaries. All these measures have combined to keep the costs of health care to the minimum and an ingenious way of its financing.

(ii) What lessons do the Chinese experiments in the field of health care offer to other developing countries? Are the Chinese experiences replicable elsewhere in the third world? These questions have been raised by several authors before. Reliance upon non-pecuniary incentives to motivate the masses to get involved in preventive health programmes, a multi-tiered network of medical care facilities with a built-in referral system, the development of medical personnel of appropriate training and skill at different points, all have financial implications which are equally relevant to other developing countries. The cooperative health insurance system which ensures pooling of risks and sharing of costs by the beneficiaries would instil greater awareness of the financial implications of alternative medical technologies. India, which

apparently lags behind China in health improvement has to learn a great deal from the Chinese experience. This is implicitly acknowledged in the latest National Health Policy wherein the authorities stress the need for "involving the community in the identification of their health needs and priorities", "a well dispersed network of comprehensive primary health care services", "Health Volunteers selected by the communities and enjoying their confidence", "Mobilising the community resources, through its active participation in the implementation and management of national health and related programmes", and introduction of "Health insurance schemes, on a statewide basis for mobilising additional resources for health promotion and ensuring that the community share ~~the cost of services~~, in keeping with its paying capacity" (Ministry of Health and Family Welfare, National Health Policy, Government of India, 1983)

(iii) However, some recent developments like the epidemiological transition, ideological and institutional changes should raise some concern whether the present health care system can cope up with the new and increasing demands on the system. On the one hand, the emergence of chronic ailments like blood pressure, stroke, heart disease and cancer would make greater demands in terms of specialised medical personnel, sophisticated equipments, more expensive facilities, extended hospitalisation and costly drugs. Further, the incidence of acute infectious diseases continues to persist in many parts. On the other hand, the recent reforms in the economic structure such as the new responsibility system, weakening of fiscal support to the rural cooperative health insurance scheme, cut backs on state subsidies to health care and resumption of private medical practice will result in more and more people having to bear the full cost of their medical care expenditure. The erosion of the political and administrative authority of the collective organisations will also weaken

the community involvement and participation in preventive programmes and their impact on infectious diseases. Overall, the cost of health care is apt to rise, and the access to the facilities to become more unequal.

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Notes

- 1/ The four guidelines were: "(1) put prevention first; (2) serve the needs of workers, peasants and soldiers - wherever they happen to be; (3) combine rural and urban public health measures with medical practice; and (4) Unite Chinese traditional therapy with Western Scientific knowledge". During the Cultural Revolution another guideline was added in Mao's June 26 directive "In health and medical care, put the stress on rural areas". V.W. Sidel, "Some Observations on the Health Services in the People's Republic of China", International Journal of Health Services, Vol.2, No.3,
- 2/ "A barefoot doctor is a peasant who has had some basic medical training and gives treatment without leaving productive work. He gets the name (Chijiac Yisheng) because in the south, peasants work barefooted in rice paddies". However, generally the peasant doctors were neither barefooted nor doctors. They are primarily agricultural workers. "The Barefoot Doctors of the Republic of China", op.cit.,pp.2-3.
- 3/ During the seventies, the barefoot doctor dominated the international literature related to health care. See for example: (1) Victor W.Sidel, "The Barefoot Doctors of the People's Republic of China", New England Journal of Medicine, June 15, 1972; (2) A.J. Smith, "Barefoot Doctors and the Medical Pyramid", British Medical Journal, 25 May, 1974; (3) Victor W. Sidel and Ruth Sidel, "The Delivery of Medicalcare in China", Scientific American, Vol.230, No.4, 1974; (4) Peter S.Heller, The Strategy of Health Sector Planning in the People's Republic of China (mimeographed); (5) J.S.Horn, "Building A HealthService in the People's Republic of China", International Journal of Health Services, Vol.2, No.3, 1972, (6) J.S. Horn, "Experiments in Expanding Rural Health Service in People's China", Ciba Foundation symposium on Teamwork for World Health, 1971; (7) Susan B. Rifkin "Health care for Rural Areas", Medicine and Public Health in the People's Republic of China; (8) J.H. de Hass and H.H. de Hass Posthuma, "Socio medical Achievements in the People's Republic of China, International Journal of Health Services, Vol.3, No.2, 1973.
- 4/ Certain distinctive characteristics of this Chinese innovation have attracted wide attention. See for example: David M. Lampton, "Public Health and Politics in China's Past Two Decades", Health Service Reports, Vol.87, No.10 1972; (2) Virginia L. Wang, "Training of the Barefoot Doctor in the People's Republic of China", International Journal of Health Services, Vol.1, No.1, 1975; (3) Peter S. Heller, op.cit., (4) Susan B.Rifkin, "Healthcare for Rural Areas", op.cit., Jamison, et al., op.cit.
- 5/ "The emergence of an uneven distribution of wealth is being now permitted. One of the major changes resulting from the economic reform of the last few years is the trend to encourage some areas and some peasants to get rich first". Zhang Boemin, and Zhang Houyi, "China's Agricultural Reform and Development," op.cit.,

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