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Editorial: CHINESE HEALTH SYSTEM

The Chinese revolution has wrought some of the most profound social changes in the Twentieth Century. Its achievements in the arena of health are of special interest —for their own sake and for the light they shed on the social revolution in China.

Changes in China's health system since the 1949 revolution have been intimately connected with concurrent national political developments. Much of the theory and motive force of the revolution were developed in the early 1940's, when the revolutionaries lived in the caves of Yenan province. After 1949, the Great Leap Forward (1958-60) re-emphasized the importance of rural self-reliance, and the Great Proletarian Cultural Revolution (1966-69) extended the benefits of the revolution to the vast majority of peasants.

Between these periods, tendencies toward centralism, urban development and the entrenchment of elites prevailed. This was true in health as it was in politics and economics. For the Chinese health system is the product of a long process of historical development and has its roots in the origins of the Chinese revolution itself.

The sense of movement, of continual change in the Chinese health system is striking. There was no blueprint designed by a medical technocracy or by Chairman Mao. Instead, there were successive struggles with entrenched powers and continual progress toward goals still in the process of realization. The accompanying article by Mark Selden, who recently returned from China, captures, we think, this sense of change.

Unfortunately many articles in the popular media emphasize advances in techniques and technology rather than improvements in health care delivery, and the social and political origins of all these are virtually ignored. For example, acupuncture techniques are discussed extensively, but scant attention is paid to the fact that these advances were made possible because Chinese medicine is seeking to utilize and integrate, rather than deny, its traditional medical heritage. Similarly, Chinese achievements in eradicating syphilis and opium addiction are reported, but the very basis of their approach is neglected: that the treatment of such diseases cannot be isolated from the socio-economic context in which they arose. It is precisely because the American health system focuses on "diseases" and makes them the sole concern of medicine that it cannot cure them.

When the Chinese health care delivery system is discussed at all, its advances are often translated artificially into the present context of health care in the United States. For example, Physician's Assistants now being trained throughout the country (see November, 1972, BULLETIN), have been compared to China's barefoot doctors. But barefoot doctors are an integral part of village life, and are the extension of mass participation by ordinary peasants in the health care system, while Physician's Assistants, insofar as they represent new ways of increasing the efficiency of existing institutions, will serve primarly to maintain these institutions.

China has not yet solved all its health problems. New contradictions will arise and new struggles will take place. Those who think that in China they found a blueprint for the new utopia may be shocked when these conflicts arise. But we must keep in mind the real lessons to be learned: that fundamental changes in health care must take place in the context of broader social changes, that true reform necessitates the participation of large numbers of people, not a chosen few, and that change and struggle must be continual.

CHINA: REVOLUTION & HEALTH

Shanghai, 1937:

"The beggars. The swarms of beggars of all ages, whole and diseased. Vociferous and silent, hopeful and hopeless, blind and seeing. All having in common their poverty, their degradation. . . . The child prostitutes. The two frightened, bewildered little girls dragged along, one in each hand, by their owner who offered them singly or together for fifty cents an hour.

The poverty. The rows of matsheds where hundreds of thousands lived and died. The hunger swollen bellies. The rummaging in garbage bins for possible scraps of food." (1)

Honan Province, 1942:

"The roads to the Taihang Mountains were soon filled with corpses. In the spring of 1942, the buds of all trees were eaten. The bark was stripped from every tree so that the trunks presented a strange white appearance like people stripped of clothes. In some places, people ate the feces of silkworm; in other places, they ate a queer white earth. But such food could only stave off starvation for a few days and the victims quickly died. . . . When a man was going to die, he dug a pit and sat inside and asked neighbors to fill in the earth when he was dead. Afterward, however, no one could be found to fill in the pits for all were either dead or too weak to shovel earth. Men sold their children first, then their wives. Those who survived were getting weaker and even in those areas where there was rain, they were too weak to plant or plow. This kind of famine is known in China as successive famine." (2)

The body counts of that era were in the millions. Famine, intensified by the ravages of imperialist and warlord armies, stalked the land. In 1949, Jack Belden, an American journalist who was in China before and during the Revolution, vividly depicted the famine of 1942 in Honan, but he could as well have been describing the Great Northwest Famine of 1928-33 which took three million lives in Shensi province alone. He also observed the corruption of wealth and luxury growing fat on the misery of the Chinese people: "I was ashamed to go from one Kuomintang general to another, eating special delicacies from their well-laid tables, while peasants were scraping the fields outside the yamens (magistrate's compound) for roots and wild grass to stuff into their griping stomachs. But I was more than ashamed—I was overcome with a feeling of loathing—when I learned that these same generals and Kuomintang officials were buying up land from starving farmers for arrears in taxes and were holding it to [a]wait tenants and rainy days." (3)

But it was the children above all whose wretched condition overwhelmed the observer who had eyes to see. A Canadian hotelier returning to China in 1965 looked for, but did not find, the conditions he had seen during his twenty years in pre-liberation Shanghai:

"I searched for scurvy-headed children. Lice-ridden children. Children with inflamed red eyes. Children with bleeding gums. Children with distended stomachs and spindly arms and legs. I searched the sidewalks by day and night for children who had been purposely deformed by beggars. Beggars who would leech on to any well-dressed passer-by to blackmail sympathy and offerings, by pretending the hideous-looking child was their own.

"I looked for children covered with horrible sores upon which flies feasted. I looked for children having a bowel move-

ment, which, after much strain, would only eject tapeworms.

"I looked for child slaves in alleyway factories. Children who worked twelve hours a day, literally chained to small press punches. Children who, if they lost a finger or worse, often were cast into the streets to beg and forage in garbage bins for future subsistence." (4)

Health In Pre-Revolution China

In 1943, Szeming Sze, General Secretary of the Chinese Medical Association, provided a contemporary statistical profile of some of China's major health problems: A "high general mortality rate of 25 per 1,000 of population. . . .The maternal death-rate in China is 15 per 1,000 births, and the infant mortality rate 200 per 1,000 birth. . . . Over one-third of the whole population, namely, some 150 million persons, are estimated to have trachoma, while the number of lepers in China is conservatively given as one million. . . . Eight percent of the population are estimated to have pulmonary tuberculosis, and ten percent syphilis or gonorrhea. . . ." (5) Sze noted that China's few thousand Western-trained doctors and 370 hospitals were located overwhelmingly in the cities and concentrated particularly in the six coastal provinces, leaving the rural areas, where 84 percent of the population resided, virtually without modern medical facilities of any kind. (6)

The new government, surveying the health of the nation in 1949, found hundreds of millions weak from malnutrition and the ravages of decades of war; tens of million more were victims of malaria, schistosomiasis and veneral disease; and millions were addicted to opium. It found TB, Kala-azar, hookworm, and leprosy unchecked. Dr. Joshua Horn, an English physician who practiced in China from 1954 to 1969, wrote: "Poverty and ignorance were reflected in a complete lack of sanitation as a result of which fly and water-borne diseases such as typhoid, cholera, dysentery took a heavy toll. Worm infestation was practically universal, for untreated human and animal manure was the main and essential soil fertilizer. The people lived on the fringes

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of starvation and this so lowered their resistance to disease that epidemics carried off thousands every year. . . . The women . . . were so ill-nourished that by the time they reached middle age they were toothless and decrepit. . . . Babies were breastfed for three or four years for no other food was available. This threw a heavy strain on the mothers, and also resulted in child malnutrition and such vitamin deficiency diseases as rickets and scurvy. . . . Lice and poverty went hand in hand, and with them louse-born[e] diseases such as typhus fever".(7)

The health of a nation mirrors a nation's health. China, just a generation ago, was "the sick man of Asia." Health advances paralleled and reflected the profound chanes sweeping Chinese society. In the 1950's the destruction of the landlord order, the creation of small rural cooperatives followed by the development of a nationwide network of large collective institutions, the communes, the surge of industrialization and the rapid growth of cities set the stage for the creation of a new health system.

China's health system has developed from the inception of the People's Republic of China in 1949 through the profound changes of the Great Proletarian Cultural Revolution (Cultural Revolution: 1966-69) and its aftermath. In China, as elsewhere, health systems provide a sensitive barometer to the political and economic—above all the human—priorities of a society.

NOTICE

Effective January 1, 1973, subscriptions to the Health/PAC Bulletin will be $15 for institutions. Student rates and individual rates will continue to be $5 and $7 respectively.

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China's Health Priorities Since 1949

In the face of these overwhelming health problems, China's First National Health Congress in August 1950 established three basic guidelines and the 1952 Congress added the fourth. More than two decades later they remain the cardinal principles of Chinese health care:

- Health work should primarily serve the laboring people, the workers, peasants and soldiers.
- The main emphasis should be placed on preventive medicine.
- Close unity should be fostered between Chinese and Western doctors.
- Wherever possible, health work should be conducted by mass campaigns with active participation of medical workers.

The first principle seems obvious. Obvious, that is, until one contrasts it with medical priorities in pre-liberation China, in contemporary Third World countries, or in the United States where the concentration of health resources overwhelmingly favors prosperous and priviliged classes, particularly those in urban areas. Obvious until we realize that China's "second revolution" in health care, carried out during the Cultural Revolution, focused precisely on the failure of the health system to provide adequate care for all of the people, above all for the poorest section of the peasantry. Principles two, three and four represent distinctive and interrelated approaches to designing a system which would serve the entire people. This would be accomplished in part by building upon the strength of China's traditional medical resources and her revolutionary principles to compensate for the acute shortage of trained personnel and funds.

Prevention and the Mass Line

The emphasis on preventive medicine represented both a response to the immediate crisis posed by diseases of epidemic proportions and a long-range approach to the provision of quality health care. This principle, originally suggested by Mao Tse-tung (9), depended heavily for its implementation on mass campaigns to eradicate disease. From the outset China's health system would rest not on the exclusive efforts of a small, highly-trained medical profession, but on the involvement of an entire people. From basic education of the people in hygienic principles to purification of water and night soil (human excrement) to widespread inoculation, the emphasis on preventive medicine has made possible major health advances. In successive nationwide health campaigns, initially directed toward water purification and the elimination of the "four pests" (flies, rats, bedbugs and mosquitoes), entire communities armed with fly swatters and shovels attacked disease carriers.(8) Characteristically, these campaigns were geared simultaneously to improving health and to increasing agricultural productivity by eliminating sources of crop destruction and improving the health of the work force.

Mass line methods (see box, page 5) enabled China to become the first country in the world to conquer syphilis. The same is true of opium addiction, which was eliminated within five years. Ma Hai-teh (George Hatem), a member of the team which combatted syphilis, described the method this way: "What the mass line in medicine means is that millions of people are getting an elementary understanding of what public health work is all about and the important part every one of them plays in it." (9) The basic procedure as applied to medicine involves wide-scale education, participation, experimentation, treatment, and summing up.

The first step in eradicating syphilis lay in eliminating its economic and social roots—prostitution and the oppression of women. Throughout the country, through the process of education, the social origins of the disease were discussed at mass meetings. "Comrades, syphilis is a disease that was bequeathed to us by the rotten society we have thrown out. We're going forward to communism and we can't take this disease with us." Hundreds of thousands of prostitutes, many of them sold into slavery as children, were liberated, given free penicillin treatment, provided with elementary literacy, political education, job training and meaningful work. They were given the opportunity to "speak bitterness," to relate and analyze their former lives in the streets and brothels, and were offered the opportunity to join and share in building a new society. The goal was not to "control" syphilis by reducing the incidence and treatment (and retreatment) of individual cases, but to eliminate it once and for all.

In many regions, particularly in minority areas and the cities, the incidence of syphilis was overwhelming. Tests on 163,300 people in Inner Mongolia in 1949 revealed a 48 percent incidence of the disease. The method to eliminate it, adopted after much experimentation, involved the participation and training of millions of health workers to carry out basic level education, administer elementary questionnaires, test those whose responses indicated positive, and treat the afflicted.

Applying a ten-point questionnaire developed in Hopeh, a team of ten doctors chose Ningtu in Kiangsi Province as an experimental county in which to imple-

ment the program. Thirty thousand trainees, given a one-week course in diagnosis and treatment, led a popular campaign among the county's two million people. With people alerted to the ravages and symptoms of the disease, questionnaires were administered and diagnostic tests and injections given to suspected carriers. As word spread of successful treatment, enthusiasm rose and the project gained momentum. In two months 49,000 people had been cured of syphilis. A check-up team from Peking, which administered full examinations to 30,000 people who had received preliminary questionnaires from the original team, found that 90.2 percent of all cases had been identified and successfully treated. Further refined, the Ningtu model was shortly introduced throughout China and applied to other diseases as well.(10)

As in the case of syphilis, China swiftly eliminated the economic and social concomitants of opium addiction—prostitution, crime, and international dope traffic. Medical treatment combined with social rehabilitation provided the key to a complete, rapid and humane resolution of the world's most serious opium problem. As described by Dr. Ma Hai-teh, withdrawal treatment of addicts consisted of reduced opium dosage administered over two to three weeks. Addicts often received 25 percent magnesium sulphate injections—a muscle relaxer not a stupefiant—during the social rehabilitation period, which, as in the case of syphilis, emphasized "speaking bitterness," analyzed the causes of addiction, and provided work and rehabilitation for all addicts. In the rural areas addiction was treated as a minor subsidiary of the larger social evil, the landlord system, which was destroyed during the land revolution. In the process, large opium supplies were confiscated from landlords and supply networks disrupted. (11)

Other diseases have also been dealt with through the mass line method. Smallpox, cholera, plague, and Kala-azar have all been elminated, and malaria, which afflicted millions in South China has declined sharply. Schistosomiasis (snail fever), one of the world's great scourges affecting 250 million people in Asia, Africa and Latin America, as late as 1955 afflicted ten million Chinese, mostly in the lower Yangtze River area. The application of mass line methods to the disease in many areas meant diverting streambeds and irrigation ditches to newly-dug channels and covering with earth the old snail breeding areas.

Mao Tse-tung's personal intervention lent added impetus and urgency. His poem, "Farewell to the God of Plague," was written in 1958 after reading of the extermination of the schistosomiasis parasite in Yukiang County:

When the great ancient doctor Hua
T'o could not defeat a tiny worm,
A thousand villages collapsed, were
choked with weeds, men were lost
arrows.
Ghosts sang in the doorways of a few
desolate houses.
Yet now in a day we leap around the
earth
Or explore a thousand Milky Ways.
And if the cowherd who lives on a
star asks about the god of plague,
Tell him, happy or sad, the god is
gone, washed away in the waters.
(12)

Altogether, since the Great Leap Forward in 1958 and the Cultural Revolution in 1966-69—the two periods of maximum reliance on mass line methods—such campaigns have totally eliminated schistosomiasis in a total of 140 counties. As of Spring, 1972, approximately half the original contagious areas are continuing their

Mass Line

In the 1930's and 1940's, during the guerrilla war fought against the Japanese, the mass line emerged as the primary leadership principle of the Chinese Communist movement. The mass line meant a participatory and egalitarian political style emphasizing popular creativity and a dynamic process of interaction between leaders and led. Mass line principles have since been applied in all sectors of Chinese life, from politics to education and health care. In every instance this implied struggle between "cadres" or technical experts who represented bureaucratic and commandist tendencies, and ordinary people. In 1943, in an essay on leadership, Mao articulated the essential features of the mass line approach:

". . . take the ideas of the masses (scattered and unsystematic ideas) and concentrate them (through study turn them into concentrated and systematic ideas), then go to the masses and propagate and explain these ideas until the mases embrace them as their own, hold fast to them and translate them into action, and test the correctness of these ideas in such action. Then once again concentrate ideas from the masses so that the ideas are persevered in and carried through. And so on, over and over again. . ."

efforts to eradicate the remaining cases. (12)

Walking on Two Legs

The third national health guideline advocates unification of traditional Chinese and Western medicine. It has also been one of the most difficult guidelines to achieve. Mao's principle of "Walking on Two Legs," of selectively uniting and developing Chinese and Western approaches, has been explicitly applied to medical care since the early forties. Facing an acute wartime scarcity of Western trained doctors, in 1943 Mao called for unity between Chinese and Western medical practitioners:

"Among the 1,500,000 people of the Shensi-Kansu-Ninghsia Border Region, there are more than 1,000,000 illiterates, there are 2,000 practitioners of witchcraft, and the broad masses are still under the influence of superstitions . . . the human and animal mortality rates are both very high. . . . In such circumstances, to rely solely on modern doctors is no solution. Of course, modern doctors have advantages over doctors of the old type, but if they do not concern themselves with the sufferings of the people, do not unite with the thousands and more doctors and veterinarians of the old type in the Border Region and do not help them to make progress, then they will actually be helping the witch doctors (and showing indifference towards the high mortality rate of men and cattle). There are two principles for the united front: The first is to unite, and the second is to criticize, educate and transform. Our task is to unite with all the . . . doctors who come from the old society but are useful, and to help, educate and transform them. They will welcome our help if only we act properly." (14)

"Comrades, syphilis is a disease that was bequeathed to us by the rotten society we have thrown out. We're going forward to communism and we can't take this disease with us."

—Typical beginning at mass meeting.

In 1949 foreign troops no longer occupied China, but the imperative to forge a union of Chinese and Western style doctors remained. There were 12,000 Western-trained doctors in 500 hospitals to serve a population of 400,000,000, according to William Chen of the U.S. Public Health Service. (15) China's health needs could not be postponed until hundreds of thousands of new modern doctors could be trained. Immediate efforts had to be made to utilize and improve medical care provided by traditional practitioners and to develop, systematize, and learn from the most positive aspects of their experience.

Given the deep gulf in values and practices separating Western and Chinese schools of medicine, given above all the deep-seated contempt by Western-style doctors for Chinese medicine, a contempt ingrained during their training by Western teachers in China and abroad, these tasks were enormous.

Between 1949 and 1965 both Chinese and Western style practitioners provided medical care. However, they operated in separate orbits with little interaction or mutual learning, much as the two schools of medical practice had for thousands of years. Chinese traditional medicine was held in low esteem, particularly during the 1950's, when the prestige of Soviet science and medicine were at their peak. It was only after the Cultural Revolution that substantial progress was made in unifying Chinese and Western medical practice.

Health Priorities: The Cities First

The medical priorities in China's First Five Year Plan for 1953-57 closely reflected national development priorities which emphasized heavy industries and the cities, in spite of the fact that 80 percent of the population lived in rural areas. "In developing health and medical services, priority must be given to improving the work in industrial areas, in areas where capital construction is in progress, and in forest areas, and sanitation work in rural districts must be gradually improved." (16) Chinese society, particularly during the First Five Year Plan period, was being recast in the image of an urban, industrial model inspired in large measure by the Soviet Union.

The rapid growth of the cities and urban industry naturally posed acute health problems. Moreover, the concentration of hospitals, clinics and doctors in the cities enabled them to efficiently serve the highest population concentrations. In short, de-

velopment priorities, the inspiration of the Soviet model, China's pre-liberation modern health system and the elementary logic of providing service where efficiency would be maximized by the highest population concentrations all combined to produce a single conclusion: in health work, place the emphasis on the urban, industrializing areas. That principle, rarely enunciated, found expression in the allocation of all health resources including funds, doctors and other medical workers, hospitals and clinics, and medicines.

Gradually, a network of hospitals expanded outward from the great metropolitan cities bringing hospital care to new areas, but the expansion did not go beyond the provincial capitals and county seats. For instance, it was not until the December, 1957, National Health Conference that a rotation system was established for urban medical personnel to spend a year in the rural areas. And here again, rural work, in fact, meant work in a county seat hospital; only rarely did rotation involve extended stays in the truly rural areas. (17) The Great Leap Forward in 1958 and 1959 temporarily attempted to reverse this urban bias.

Eventually, Chinese planners reasoned, modern medical facilities would reach down to the districts, communes and villages. Meanwhile popular health campaigns and the work of traditional Chinese doctors would bring significant rural health gains. However, as late as 1965, although significant strides had been made in rural medical care, urban facilities remained vastly superior. Health resources remained concentrated overwhelmingly in the cities. Peasants could, of course, take advantage of urban health facilities—if they knew about them and could afford the time and money to travel there and pay for treatment. There existed no rural program of medical benefits comparable to the state program which provided free medical care to urban workers and paid for fifty percent of the costs of dependents' health fees.

By skewing health resources to the cities, cherished social goals for which China's peasantry had fought were as endangered in the realm of health care as they were in the economic and political arena. The pre-1965 distribution of health resources contributed to perpetuating sharp differences between city and countryside, between industrialized coastal areas and inland backwaters, between prosperous and poor, and between mental and manual laborers. The system created a trained medical elite which enjoyed economic and urban advantages while servicing the most privileged and prosperous rather than the poorest and most disadvantaged social strata. It left hundreds of millions of rural villages with rudimentary medical care and impeded the flow of medical knowledge back to the villages by concentrating trained personnel in urban areas.

TWO GIANT STEPS

The Great Leap Forward (1958-60) was a post-revolutionary resurgence of energy which emphasized rural economic development and national and local self-sufficiency. It was in 1958, at the beginning of the Great Leap Forward, that the first communes began to appear in China. During the Great Leap Forward, large numbers of students and intellectuals went to the countryside in the hsia fang movement, to participate in agricultural labor, in an attempt to lessen the dichotomy between urban and rural life.

The Great Proletarian Cultural Revolution (1966-69) went even further than the Great Leap. The Cultural Revolution was a broad social movement emphasizing the accountability of leaders to the people they were supposed to serve. It began in the universities by attacking the educational system, in which the majority of students were the children of bureaucrats, intellectuals and former bourgeoisie. Soon, bureaucrats at every level in every institution were criticized for having lent themselves to furthering status and privilege for the few. Emphasis was placed on serving the needs of workers and peasants. In health care, the Cultural Revolution meant the extension of basic services to the rural areas, in particular, to the individual production brigades.

China's Health:
The Cultural Revolution and After

Mao's June 26, 1965, "Instruction on Health Work" lent critical urgency and direction to a second revolution in health care which continues today and which is transforming, above all, the health of rural China.

"Tell the Minister of Public Health that the Ministry works only for 15 percent of the nation's population, and that of this 15 percent, mainly the lords are served. The broad masses of peasants do not get medical treatment, and they are provided neither with doctors nor with medicine. The Ministry of Public Health is not that of the people and it is better to rename it as the Ministry of Urban Health or the Lords' Health Ministry or the Health Ministry of the Urban Lords.

"Medical educaton must be reformed. Basically there is no need to read so many books. How many years were spent by Hua T'o or Li Shih-chen of the Ming Dynasty in school? There is no need for medical education to enroll senior middle school students, those graduates who have spent three years in a junior middle school are good enough. The important thing is to improve themselves through study in practice. Although such doctors sent to the countryside are not very proficient, yet they are at least better than quacks and witchdoctors. Furthermore, the countryside can afford to support them. . . .

"The present methods of examination and treatment used in hospitals are basically unsuitable for the countryside. The method of training doctors is also for the purpose of serving the cities although ther are more than 500 million peasants in China. A vast amount of manpower and material supply has been diverted from mass work for carrying out research in diseases which are not easy to understand and difficult to cure—so-called pinnacles of medicine. But no attention is paid or less manpower is devoted to the prevention and improved treatment of common diseases, recurrent diseases and diseases which are often encountered. It is not that we should ignore the pioneering problems, but less manpower and material supply should be devoted to them, while the bulk of manpower and material supply should be devoted to solving the most urgent problems of the masses.

"Only some doctors who have been out of college for one or two years and are not very proficient should be kept by hospitals in the cities. All the rest should go to the countryside. . . . In medical and health work, put the stress on the rural areas." (18)

Rural Health Care: Now the Peasants

"In medical and health work put the stress on the rural areas" became the clarion call for the second revolution in health care. China's health system, paralleling contemporary developmental and social priorities, has been reoriented from the cities to the countryside, from building on the best, most prosperous and developed, to bringing up the poorest and most backward.

In early 1965 medical teams of doctors, nurses and health personnel from major urban centers were dispatched to the countryside, that is, to villages and remote mountain areas throughout China. In that year 150,000 medical and public health workers brought medical care to the countryside for periods ranging usually from six months to one year. (19) They were soon followed by hundreds of thousands of others. These roving teams, including China's most prominent physicians, nurses and public health workers, brought quality health care to areas that had rarely seen a modern health worker. Most eventually returned to practice in the cities—with subsequent periodic returns of six months to a year in the countryside—but thousands of others settled down permanently to practice in the countryside.

Since 1966 it has become standard practice for one-third or more of the staff members of all urban hospitals to be in rural areas with mobile teams at all times. By January, 1971, more than 330,000 urban medical workers including almost all recent graduates of medical colleges reportedly had settled in the countryside and 400,000 more had participated in mobile medical teams. (20) The People's Liberation Army (PLA) has also played an active role in carrying health care to the countryside. By June, 1969, the New China News Agency reported that 4,000 PLA medical teams totalling more than 30,000 members had gone to the countryside, and, in the year ending July, 1970, an additional 6,700 teams with 80,000 members were dispatched. (21)

Medical Education and Rural Health

The major task of the mobile teams was to train a new generation of rural "barefoot doctors" who would carry on after their departure. They were in the forefront of the revolution in medical education which has swept China since the onset of the Cultural Revolution. Regular medical schools are also being transformed to provide short-term practical training for rural doctors, and now for the first time the overwhelming majority of their graduates are going to the countryside. During the Cultural Revolution the formal training

"Tell the Minister of Public Health that the Ministry works only for 15 percent of the nation's population, and that of this 15 percent, mainly the lords are served. The broad masses of peasants do not get medical treatment, and they are provided neither with doctors nor with medicine. The Ministry of Public Health is not that of the people and it is better to rename it as the Ministry of Urban Health or the Lord's Health Ministry or the Health Ministry of the Urban Lords."

—Chairman Mao

period for doctors was reduced from a normal four, six or even eight year program to three years including internship. As of the spring of 1972, 20,000 students (60 percent women) were enrolled in the 78 three-year medical colleges which now provide the highest level medical training. Although this is a decrease from the peak in 1960, many medical schools were closed during the Cultural Revolution and enrollments are only now increasing.

In addition, significant changes were made in the process of selecting medical students. Now, all students work for at least two years in factories or in the countryside after graduating from secondary schools. Those who apply to medical school have been selected by their coworkers on the basis of their aptitude, attitudes and work performance, and their politics. The medical schools still make the final selection. In the two decades prior to 1970, China graduated 490,000 middle-school level medical personnel. In the same period, a network of 8,000 hospitals at the county, provincial and national levels was constructed. (22)

Both in training medical workers and providing medical care, a pyramidal system of responsibility and support extends from the national level to the teams, the lowest level of commune organization, and to the neighborhood and factory floor in the cities. In this system, each higher level trains lower-level health personnel and provides continuing support, supervision, and upgrading training for health workers. The county hospital, for instance, trains and upgrades commune doctors, while the commune health center trains brigade medical workers who in turn train paramedical personnel in each team. Doctors at the brigade or commune level are in constant contact via telephone and through conferences and visits with county health workers. They also refer patients where necessary to county or provincial hospitals for treatment which cannot be performed locally.

Barefoot Doctors

By far the most important of China's new medical workers are the "barefoot doctors," part-time physicians, part-time agricultural workers, chosen by the members of their brigade to receive medical training and then return to serve the villagers who selected them. Like many of the innovations carried out on a national scale during the Cultural Revolution, the "barefoot doctors," the affectionate name given the new peasant doctors by villagers, originated during the Great Leap Forward in 1958. Medical workers in Shanghai trained several thousand rural medical workers to become part-time doctors while continuing to work part-time in the fields.

By June of 1960, 3,900 barefoot doctors were practicing in the 2,500 production brigades of the ten counties under the jurisdiction of Shanghai. Within a few years, this movement died a premature death. By August, 1961 the number of barefoot doctors had been cut to just 300. Mao's call of June, 26, 1965 sparked the rejuvenation of the barefoot doctor movement. In the ten counties surrounding Shanghai, 4,500 barefoot doctors were trained, an average of 1.8 per brigade. They in turn trained 29,000 medical workers in their subordinate production teams. (23) This time the concept spread throughout China. Today, according to the

Ministry of Health, there are more than one million barefoot doctors practicing in the Chinese countryside.

Barefoot doctors initially receive short introductory courses, usually two to three months for brigade doctors and five to six months for those serving at the district or county levels. For instance, Dr. Joshua Horn's mobile team trained 32 doctors from neighboring brigades in a five month winter course. The team supervised their work after the barefoot doctors returned to their villages. The 32 doctors subsequently received follow-up courses for two additional years during the slack season while continuously expanding the scope of their treatment. "The training of peasant doctors," Horn writes, "makes it possible not only to increase rapidly the available medical personnel in China's countryside, but also, in the long term, to produce a better type of doctor than orthodox methods of training can do. It is much more than a temporary expedient. Whatever gaps a peasant doctor may have in his medical knowledge can be made good as he gains experience or by joining refresher courses in city hospitals. His uniquely valuable characteristic is his closeness to his patients. They are his own folk and there is mutual trust and confidence between them. . . ."(24)

Barefoot doctors are integrated with their fellow villagers in one additional and highly significant way. They receive no special financial rewards for their medical services. Their incomes are calculated as a share of the collective income on the same scale as other villagers. Their future prospects lie not in "moving up" to urban hospitals and research institutes, but in advancing the interests of their entire brigade and commune through the provision of improved health care and a lifetime of labor in the fields.

Reorienting Medical Research

If the structure of medical education and medical care were transformed during the Cultural Revolution, so too were the priorities and practices of medical research. Mao's blast at the "Ministry of Urban Lords" in 1965 had criticized medical research practices. Since then the scope of medical research has been expanded, and China today stands at the world forefront in the treatment of severe burns, the re-attachment of severed limbs and fingers (critical problems of industrial health), the cure of some of the deaf, dumb and blind by new acupuncture techniques, and the use of electric acupuncture in place of anesthesia, permitting major operations to be conducted with the patient fully conscious.

Doctors at the large Number Two Affiliated Hospital of the Wuhan Medical College explained how research targets are set. Based on an analysis of the diseases of the 2,000 patients per day treated at the hospital (including a large number of rural patients), the provincial health ministry establishes research priorities which reflect the frequency and seriousness of local ailments. Medical research emphasizes ordinary over rare diseases and attempts to directly meet the needs of the working population. Individual research interests yield, in this process, to collective needs. Medical research, like technological innovation, is no longer the exclusive prerogative of technical specialists. It is now conducted in three-to-one combinations involving experienced doctors of both Chinese and Western medicine, researchers, and local people in areas heavily affected by the disease. (25)

This process has been persistently questioned by critics. However, traditional healers and local peasants have worked hand in hand with Western-trained researchers providing information about local remedies, gathering and cultivating local herbs and reporting on previous incidence of the disease. Moreover, some of the greatest advances have come not out of the Western medical tradition but directly out of traditional Chinese techniques such as acupuncture and herbal cures long known to Chinese practitioners.

Traditional and Western Medicine

Since 1965 China has advanced far down the road of creating a single modern medical science which incorporates and builds on the best of the two tradi-

MEDICAL PERSONNEL GRADUATES

Western-Style Doctors

1927-47	9,400
1950-66	180,000

Auxiliary Personnel

1949-58	150,000
1958-70	340,000

tions, although the problems have not been completely overcome. Technical breakthroughs have helped to unite the two traditions. The use of electric acupuncture as an improved and inexpensive anesthesia is one example; others include the use of traditional acupuncture points in the treatment of rheumatism and the integration of Chinese and Western treatments for fracture, resulting in shortened duration of traction. (26)

More important in the long run is the fact that medical education at every level increasingly integrates knowledge from both traditions, and thousands of practicing doctors trained in one tradition are now actively studying and practicing the other. China's Western-trained doctors today understand clearly the superiority of traditional Chinese treatments for numerous diseases. Appendicitis, for instance, is now being treated herbally, avoiding in many cases the necessity for an operation. Most important, traditional methods frequently reduce costs as in the case of acupuncture, which entails no medicinal outlays, and the use of Chinese herbs rather than Western medicines. However, the process of investigating the theoretical premises of traditional Chinese practices, of selectively integrating the two traditions, and of training a new medical profession deeply versed in both traditions has just begun.

The Cooperative Medical System

The training of hundreds of thousands of rural doctors, the redirection of China's health resources toward the countryside through the dispatch of mobile medical teams, and the integration of Chinese and Western medicine, paved the way for the most profound change in rural health care. Since late 1968, cooperative systems have been created at the grassroots level throughout the countryside. Cooperative medical care offers a paradigm of China's most distinctive revolutionary ideals in action. Run by and for the community (direct state involvement is minimal), predicated on principles of voluntary participation, self-reliance, thrift, local initiative, and service to the people, the cooperatives have made comprehensive medical care a basic right for hundreds of millions of Chinese peasants.

In April, 1972 the Ministry of Health estimated that cooperative medical systems were in effect in more than 70 percent of all production brigades in rural China, with figures running as high as 80 to 90 percent in several provinces. Since by and large it is only the most sparsely populated and poorest mountain and border brigades that have not yet succeeded in establishing workable cooperative systems, it seems probable that substantially higher than 70 percent of the rural population presently enjoys the benefits of cooperative health care.

Great Vegetable Garden Brigade

Medical care in the Great Vegetable Garden Brigade in Honan Province's Lin County illustrates principal features of cooperative medicine in rural China. Lin County, which I visited in March, 1972, is known throughout China for constructing the Red Flag Canal. The canal is a vast locally initiated irrigation-electrification project carrying water across the Taihang Mountains from neighboring Shansi to inject new life into a chronic drought and grain deficit area. Great Vegetable Garden Brigade, with a population of 1,600, is among the more prosperous brigades in the Ch'eng-kuan Commune and in this North China area. It is located one mile

HEALTH MANPOWER IN LATE 1950's

Western-Style Doctors	75,000
Chinese-Style Doctors	486,700
Medical Auxiliaries*	304,000
■ Assistant Doctors	131,000
■ Nurses	138,000
■ Full-Time Midwives	35,000

* In 1958

from the county seat. Prior to the Great Leap Forward, the brigade had neither a doctor nor a clinic. Patients had to go to the county hospital. Forty-year-old Dr. Yen Ch'ang-ch'i, trained in Chinese traditional medicine, established the brigade clinic in the spring of 1959. Today he continues to live in the sparingly furnished back room of his clinic office ,and, like brigade doctors throughout China, his income is comparable to that of brigade members.

From the outset, Dr. Yen emphasized prevention based on education and popular mobilization. A large portion of the population was afflicted with dysentery, malaria and digestive disorders. Dr. Yen's first task was to encourage brigade members to fill in a stale water ditch which was a breeding ground for disease-carrying mosquitoes and flies. (The area today is the site of much of the newest housing in the village. Other ditches were transformed into irrigation canals.) The brigade also weeded out grass growing along the side of roads, simultaneously providing a new fertilizer source and eliminating another mosquito breeding place. At every step medical work was attuned to the work cycle and geared to increasing productivity, as in campaigns to eliminate the four pests. Education centered around water purification. Throughout the village, wells were improved and other sanitary measures, such as the use of insecticide around privies, were implemented. Dr. Yen also introduced an extensive inoculation program. Within a few years, diseases such as dysentery and malaria were brought under control.

Despite substantial progress in the brigade serious health problems remained on the eve of the Cultural Revolution. Families who were stricken by protracted illness or who required hospitalization were hard-pressed to pay for the necessary care, and Dr. Yen's services and those of the small clinic and dispensary he established were overextended. In general, the great advances in preventive work outstripped the Brigade's ability to provide low-cost, comprehensive health treatment. A significant gap still existed between those citizens with easy access to health facilities concentrated in the county seat, and those in remote rural areas.

The Cultural Revolution totally transformed health care in the Great Vegetable Garden Brigade. Dr. Yen was joined by 27-year-old Dr. Shih, a local peasant chosen by brigade members to receive training as a barefoot doctor. Following an initial three-month training program in 1966 at the commune hospital in both Chinese and Western medical practices, Dr. Shih became the brigade's second doctor. In the winter of 1968 he received a 45-day follow-up course in the commune hospital. He still views his role as an apprentice to Dr. Yen, but fellow brigade members speak with respect of his service to the village and his growing skill as a doctor. He still joins in manual labor and carries his Red Cross bag with him to the fields. "If a case arises, I treat it on the spot. If not, I engage in labor."

The major treatment provided in the brigade clinic relies on traditional Chinese medical techniques, but these are being updated and in many cases combined with Western-style public health and treatment techniques. In addition to a wide variety of Chinese herbs on the well-

Rural Organization

95% of China's population lives in twenty-one provinces, and the remaining 5% in several "Autonomous Regions" populated mainly by China's ethnic nationalities. The provinces are divided into about 1,500 counties, each with its county seat. In 1958, during the Great Leap Forward, China's 600 million rural dwellers were further organized into about 27,000 communes of 20-30,000 people each. Communes are comprehensive, cooperative economic and political units, integrating industry, agriculture, local government and defense. People actually reside in smaller units called brigades. Brigades (approx. 1,500-3,000 people) are much the same size as traditional villages. Since the Cultural Revolution, health care has primarily been directed at the brigade level.

TEAM WORK

This month's BULLETIN represents a joint effort by Health-PAC and the Committee of Concerned Asian Scholars (CCAS). Both Mark Selden and Nancy Jervis visited China for five weeks this spring with the CCAS delegation. Mark Selden is an Associate Professor of History at Washington University in St. Louis. He is the author of *The Yenan Way in Revolutionary China*.

stocked shelves of the dispensary—many of them grown in the brigade, others gathered in mountain expeditions—are rows of bottles of prepared medicines with (to us) more familiar names: triple sulpha, penicillin, tetracycline, etc. Since the Cultural Revolution government-set prices on these medicines have been reduced substantially—an average reduction of 63 percent by 1972 according to Health Ministry spokesmen. Medicines are now widely accessible at reasonable prices in the rural areas.

The most important changes in health care in the Great Vegetable Garden Brigade were the result of the cooperative system initiated in 1969. Each partcipant (participation is voluntary) is assessed the equivalent of three labor days per year (approximately three yuan—1 yuan =40 cents) in return for comprehensive health care. This includes clinic visits, medicine, and even, if necessary, hospitalization at the commune's own hospital, or, in rare cases, at the county or provincial hospital. As Dr. Yen put it, "now if one persons is ill, 1,000 will care for him, if an entire family falls ill, there are 100 to support it." The spectre of a family being wiped out financially by a crippling illness has been eliminated, and health care can now be extended through the planned use of community resources. In the past year only five cases, including appendicitis, ovarian cyst and heart ailments were referred at no cost to the patients to the commune or county hospital for treatment. All other ailments were treated successfully within the brigade.

The Commune Hospital

The Ch'eng-kuan Commune hospital which serves the people of the Great Vegetable Garden Brigade is graced with a large and pleasant willow tree courtyard where patients gather before being treated. It has been expanded considerably from 40 beds prior to the Cultural Revolution to its present size of more than 90 beds. The commune itself is an unusually large one with 484 brigades and 90,000 people. Although expanded facilities and preventive work in the brigades had improved health, it was necessary to expand the size of the commune hospital because the cooperative system insured that everyone who required hospitalization could now afford it and was automatically referred to the commune hospital.

Because of its close proximity to the county seat this particular hospital has developed the best commune medical staff and facilities in Lin County. Its equipment (like that of most other commune hospitals in the county) includes an X-ray machine and fluoroscope, bought in 1970, and an operating room. Its 46-member staff includes 11 full-time doctors. The commune hospital uses Chinese medicine as the foundation of its practice, with operations, where necessary, following Western practices. Sample fees paid for by the cooperative funds or by individuals who choose not to join the cooperative include: an examination, five cents; one day's stay in the hospital, 50 cents; childbirth, 60 cents; a chest operation (the most expensive operation the hospital provides), ten dollars.

With the exception of a graduate of a six-year program in Shanghai and one

Cooperative Care Costs

The Loyuan commune, a national pace-setter in the medical field, is rather typical in its financial arrangements.

Each person pays an annual cooperative medical fee of one *yuan*. In addition, each production team pays ten *fen* from its collective welfare fund for each member who subscribes to the medical service. Except those suffering from chronic ailments and frequently using medicine, each commune member pays five *fen* for every treatment and is given free medicine. (See footnote 30)

Most cooperative systems—as well as the otherwise free national health service for cadres and industrial workers—charge a nominal registration fee for each clinic or hospital visit, in most cases five or ten cents. While most cooperative systems have placed certain limits on funds allocated for chronic sufferers or for those requiring expensive or extensive hospital care outside the brigade, many chronic sufferers actually do receive comprehensive free care, with the balance beyond coverage of the cooperative paid out of a brigade welfare fund. The reason is simple economics. Until the cooperatives can thoroughly prove their ability to provide basic care for all their members at a reasonable cost—or until large state subsidies become available to assist the poorer brigades—budgetary considerations require that the system insure basic care for the largest number at a modest cost.

from a five-year program at the Honan Provincial Medical College, all hospital personnel and all other health workers at the commune and lower levels are from Lin County. Last year, with the exception of fifteen cases referred to the county hospital, the commune hospital was able to treat all other cases.

At present, each brigade in the commune has a minimum of three health

Health Care

The Chinese view women's health needs in a broad social and political context. Under the "old society," oppression due to class and colonialism was endemic, but women suffered in addition from the patriarchal family system. In pre-revolutionary China, women were primarily servants, prostitutes and child-producers. Many were betrothed at birth and sent off to live and work as servants for their husband's families at the age of seven or eight. If the future husband died before marriage, the marriages often took place posthumously, and the women were forced to stay in the husband's family.

Dr. Han Su-yin, in writing about old China, tells of the death of her aunt from a ruptured uterus during the birth of her eleventh child. In another case, a warlord insisted on having intercourse with his favorite concubine two hours after she had delivered a child. The woman bled to death. Increases in suicide by women as well as in female infanticide were an understandable response to such conditions.

Changing the status and roles of women was a high priority in post-revolutionary China. Two examples of the broad social changes which were to improve the position of women were the Marriage (and Divorce) law of 1950, and the present emphasis on late marriage.

For women to attain full equality, special provisions in the law were necessary. Thus Article 16 of the Marriage Law states: 'The husband shall not apply for divorce while his wife is with child . . . in the case of a woman applying for divorce this does not apply." Late marriage grants women a certain form of independence which under the "old society" they never had. Women who start work before the age of 18 and marry in their late twenties no longer go directly from their family's household to that of their husband. Instead they have years in which to make friends, learn skills, and develop interests that might previously have been sacrificed to their role as wife and mother.

Special provisions for women factory workers were also put into effect. Today, all women workers receive at least 56 days paid maternity leave. Most factories have creches which accommodate infants and day care centers for older children. There are two 45 minute breaks allotted for women to visit and nurse their babies. In addition, women factory workers may take up to three days paid monthly menstrual leave. The number of days a particular woman takes depends on her physical condition and the degree of her political consciousness. That women will suffer differing degrees of pain is recognized, but the higher her political consciousness, the more she will want to contribute to production.

OBSTETRICAL AND GYNECOLOGICAL CARE IN CHINA

The obstetrical and gynecological needs of women in China are given priority because they are basic health needs affecting half the population and because the ability to control reproduction is necessary if women are to contribute equally to production and thereby gain full equality with men. This care is available to all women on a comprehensive, decentralized basis.

Research—Today medical research priorities in China are determined and carried out by local units, but are consonant with nationally-determined priorities. The guiding policy is to research both the most serious and the most common and widespread diseases which affect women.

In the OB-GYN department at Wuhan Hospital, research is currently being carried out by a team of both Western and traditional doctors on cervical and uterine cancer as well as on vaginal infections. Traditional herbal medicines are under investigation for the treatment of cervical erosion, cervical cancer, dysfunctional bleeding, and menstrual disorders.

Midwifery—The renewed emphasis on traditional medicine with respect to women's health has meant the expansion and upgrading of midwifery in the

workers, two doctors and a midwife or nurse. Training of brigade health workers by the commune hospital has been greatly stepped up since the Cultural Revolution. Before 1966, the commune hospital annually trained approximately forty medical workers in one and one-half month courses. It now trains more than sixty barefoot doctors each year in two to three month introductory courses and pro-

For Women

countryside. Today, midwives are women who have worked hard at agricultural labor in their brigade, have generally had some experience in assisting childbirth, and want to take on the extra responsibilities. Initial training courses run about forty days and include training in difficult deliveries, sterilization of instruments, abortion and birth control methods, insertion of IUD's, etc.

Abortion—Abortions are available on demand. They are usually done by means of a vacuum aspirator, which was developed in China and has been in use for the past ten years. Dilation and curretage abortions are also performed. For late procedures, a method involving a catheter and a balloon or the use of the chemical pitocin to bring on a miscarriage are employed. There are reports of the use of acupuncture anesthesia for some abortions.

The husband's permission is not necessary for abortion. Women receive a two-week post-abortion vacation. Tubal ligations and vasectomies are also available on demand in hospitals, though they are generally preferred only after the couple has had one or two children.

Birth Control—As part of the comprehensive care, birth control services are seen as an essential part of women's health care. The methods available include the pill, IUD's and condoms, as well as abortion and sterilization. Late marriage and the virtual lack of pre-marital sex in China function also as birth control methods.

Since its introduction in 1967, the primary method of birth control has been the pill. However, there is difficulty in keeping pace with demand. Research is now being carried out to develop a once-a-month pill, as well as to reduce the present side effects of the pill. The IUD is used primarily in women who have already delivered a child. However, there is apparently a small charge for those birth control products which involve "waste" (e.g. condoms). All other birth control products are free.

Although there has been progress, birth rates in the rural areas are still much higher than in the cities. Last year in the Great Vegetable Garden Brigade, thirty babies were born, compared to more than fifty before birth control was introduced in 1966. Chinese village women still feel the pressure to have at least one male child, and frequently have four or five children. The midwife in the Great Vegetable Garden Brigade normally visits women with advice about birth control only after the birth of her second child. Presently, out of 310 families in the Brigade, only 38 presently use the loop and 26 use the pill.

In a separate discussion with some of the more politically and productively active women in the Brigade, we asked the midwife there if she herself used birth control. "Yes," she said, "because I have to go whenever I am needed, at all times of the day or night. If I had another child, I would not be able to do my work as well, and my work is important to me and to the Brigade. So I use birth control." The other women nodded in agreement. Women's health and birth control are thus inseparable from the larger questions of women's liberation and political and economic equality.

China's birth control policies also reflect the fact that priorities should be determined by the relationship between available options and the needs deriving from specific situations. This is especially true in reference to the ethnic minority areas. These groups in China have historically suffered encroachment from expanding Chinese society. Partially in view of this, the Chinese have refrained from pushing birth control in minority areas, until such time as these populations feel secure in the society and request it. In fact at Wuhan Hosiptal we were told that fertility research was a priority in response to the needs of minority groups. All this stands in marked contrast to the family planning programs now so fervently pushed in the US and the countries of the Third World.

—Nancy Jervis

vides follow-up and clinical training for them.

Problems

In the present stage of development of China's health system two problems remain central: quantity versus quality, and the question of self-reliant development as symbolized by autonomous rural cooperative systems versus state direction and assistance to insure that the gap between inferior and superior health care is rapidly overcome. Both are questions of degree, of emphasis. Health Ministry spokesmen leave no doubt about present priorities on the first issue. For the next several years China will continue to train large numbers of new paramedical personnel, particularly barefoot doctors and midwives. At the same time, however, increasing resources are being devoted to upgrading the training of those who received short courses since the Cultural Revolution.

Answers to the second and critical question remain elusive. The decentralization and expansion of China's rural health resources since 1966 was predicated first on self-reliant efforts of brigades and second on the role of the state in planning, encouraging and providing resources to facilitate these developments. Chinese health authorities have emphasized the role of self-reliance, the efforts of communities to mobilize local resources to expand health services.

Self-Reliance and Decentralization

Most of the new resources for expanded and rural services—both funds and personnel—came from the brigades themselves, but the contributions of the state, party and army were also important. On the eve of the Cultural Revolution, 70-80 percent of government health expenditures (that is, at the county, provincial and national levels) were allocated to the cities. Today this has been reversed in a number of provinces and nationally approximately 60 percent is going to rural areas.

Health Ministry officials acknowledge that for the most part it is mountain, frontier and minority brigades—generally the poorest and most sparsely populated regions—which have not yet successfully implemented cooperative health systems. These areas are presently targeted as the highest priority for injection of state health resources, roving medical teams and the training of new doctors. Further evidence is required to discern whether these rural backwaters are not only improving health standards but actually overcoming the gap between them and more advanced rural areas, just as the countryside as a whole in recent years has succeeded in reducing the gap between urban and rural areas.

China is presently experimenting with cooperative medical care in the cities. Precisely the stumbling block which led a decade earlier to abandoning the urban communes—the fact that, unlike the rural areas, work and residential units were not unified and even within the family hus-

A Personal Account

While eating a bowl of noodles in a small restaurant in Shenyang, formerly Mukden, I struck up a conversation with a young man seated at my table. I had particular difficulty penetrating his Chinese but had discovered that he was visiting the city for the first time when he excitedly pulled a folded piece of paper from his pocket. It was an official document stamped with the seal of his commune hospital located eighty miles outside the city. Mr. Ma was directed to bring his two-year-old son to the Shenyang Number One Hospital for an operation on a blocked windpipe. He and his wife, both ordinary peasant commune members, had arrived by train the previous evening and he was having breakfast before going to the hospital to learn the results of the emergency operation. We walked together over to the large hospital —I enjoyed the unaccustomed chaos of a large, busy institution which hadn't prepared for the visit of a foreign guest. Entering the pediatric section, we were greeted by the son's loud shrieks as the mother, anxious to show the successful results of the operation to her husband and an unexpected visitor, lifted the boy from her breast where he was nursing. The operation, transportation costs and all hospital fees were paid for by the cooperative medical system. In the old society, the woman pediatrician who performed the operation remarked, the boy would probably have died. And even in post-liberation China it required fifteen years and the Cultural Revolution to insure routinely that poor peasant families would have access to the best medical facilities this society could offer.

—Mark Selden

band and wife often worked at different units—has made it difficult to implement cooperative medical care in the cities. The bedrock of the cooperative system—the unifying sense of community so powerful in the rural areas—is much less highly developed in the cities. The cooperative health system is, however, now being implemented on an experimental basis in several large cities and Health Ministry officials indicate that its development on a national scale may not be far off.

Yardstick for Health Care

The significance of China's achievements in health care are brought into clear perspective by comparison with other Third World countries. Entering China from Hong Kong, the visitor is struck by the robust vitality of men, women and children in all regions of China. Prior to Liberation, malnutrition was probably the single most important factor compounding the ravages of disease. Nowhere does one find the emaciated shadows of human life which abounded just a few short decades ago—and which continue to stalk urban streets and rural backwaters of Third World countries today.

Gunnar Myrdal's investigation of health in South and Southeast Asia in his massive *Asian Drama* (1968) provides an excellent yardstick for comparison.

"The incidence of . . . water-borne diseases, such as typhoid fever, dysentery, diarrhea, and diseases caused by intestinal parasites, is extremely high throughout South Asia. Most people in the region suffer chronically or intermittently from one or more of these diseases. The high rate of infant mortality is partly due to the prevalence of diarrhea and other water-borne diseases, but, aside from cholera, diseases in this category are rarely fatal except in early childhood. Their principal threat is that they sap the vitality of their victims and adversely affect labor input and efficiency.... Another, albeit mosquito-borne, disease that continues to thrive in urban areas because of unsanitary water conditions is filariasis; it is rarely fatal but may cause elephantiasis. . . . The only effective way to fight all of these diseases is with improvements in sanitation and hygiene". (27)

The 1961 report on ten transmissible diseases of the Indian Health Survey and Planning Committee highlights other useful comparisons with the Chinese record. Plague, it reported, had virtually disappeared, *"but there were from 10 to 40 cases of smallpox and of cholera per 100,000 population annually. Less than 10 percent of the populaiton suffered from malaria . . . 1.3 to 2.5% of the population had active, or probably active tuberculosis . . . in the northern and northwestern parts of India 35 to 70 percent of the population had trachoma, and in other sections, around 25 percent . . . the incidence of [leprosy] was estimated to be 100 per 100,000. Venereal diseases were widespread; surveys in Madras, Calcutta, and elsewhere suggest that 5-8 percent of all adults were suffering from syphilis.... Very few people in India escaped being afflicted, either chronically or intermittently, with intestinal infections like typhoid, dysentery, and diarrhea, as well as helminthic disorders. Diphtheria, whooping cough, pneumonia, and meningitis were common health risks, and rabies was endemic in some areas. Finally, nutritional disorders and deficiency diseases due to malnutrition were estimated to be very common".* . . . (28). There is little evidence to suggest that the health situation has improved in the past decade.

"Now if one person is ill, 1,000 will care for him, if an entire family falls ill, there are 100 to support it."

—Dr. Yen Ch'ang-ch'i
Great Vegetable Garden Brigade

In contrast with China's emphasis on prevention and the use of mass line methods, the countries of South and Southeast Asia continue to follow medical approaches initially inculcated by their colonial masters. Myrdal concludes that "in every South Asian country, the policy has been to raise the standards of qualification for medical practice as far as possible, even though this means there will bea severe shortage of physicians for a long time to come". (29) Such policies condemn hundreds of millions of people to disease-ridden lives and premature deaths. The preoccupation with achieving "advanced Western medical standards" insures that health resources will remain concentrated in urban areas servicing primarily the needs of the prosperous, as indeed Myrdal's data confirms.

No less than in China, health priorities in the United States and throughout the

Third World reflect national development strategies and human priorities. China's second revolution in health care has led to an emphasis on mass line medicine, prevention first, unifying Western and Chinese medical traditions, self-reliance, cooperative health systems and priority for rural areas where the health problems of the great majority of the population have been gravest. Many of these principles are extremely relevant to other nations facing massive health problems. They cannot, however, adopt them—or better, *adapt* them selectively to their own concrete needs—in the absence of fundamental shifts in national and class priorities.

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21. New China News Agency dispatches of June 25, 1969 and July 31, 1970, quoted in Rifkin and Kaplinsky, p. 14.
22. Ministry of Health, interview in Peking, April 6, 1972. References to Health Ministry statements refer to this interview.
23. "The Reorientation of the Revolution in Medical Education as Seen in the Growth of 'Barefoot Doctors,' Report of an Investigation From Shanghai," *Hung-ch'i* (*Red Flag*), March 1968, reprinted in *China's Medicine*, October, 1968, pp. 574-81.
24. Horn, p. 140.
25. Interview conducted March 17, 1972.
26. *Ibid.* Cf. Horn, 76-80; Jan Myrdal, *China: The Revolution Continued*, New York, Pantheon, 1970, p. 111.
27. Gunnar Myrdal, *Asian Drama. An Inquiry Into the Poverty of Nations*, New York, Pantheon, 1968, III, pp. 1574-75.
28. *Ibid.*, p. 1610.
29. *Ibid.*, p. 1586.
30. "A Cooperative Medical Service Welcomed by the Poor and Lower-Middle Peasants" *Jen-min Jih-pao* (*People's Daily*), December 5, 1968 translated in *Current Background* 872, January 28, 1969. Other payment scales are in effect in other brigades and communes, each of which sets its own. The most common range is one to two and a half *yuan* per person. At official rates the Chinese dollar, *yuan*, is worth 40 cents in US currency.

—Mark Selden

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