

PUBLIC HEALTH and POLITICS in CHINA'S PAST TWO DECADES

DAVID M. LAMPTON, AM

Mr. Lampton is an advanced doctoral candidate in political science at Stanford University. His dissertation concerns the politics of health care in the People's Republic of China. Readers interested in David M. Lampton, Center for East Asian Studies, Bldg. 600 T, Stanford University, Stanford, Calif. 94305.

All photographs shown in this article were taken in 1972 by William Joseph, CEAS.

The concept of preventive medicine and public health has been a part of China's medical tradition since 200 B.C. About 2,000 years ago, the court physician to the Yellow Emperor is reputed to have advised the Emperor that "To administer medicines to diseases which have already devel-

oped . . . is comparable to the behavior of those persons who begin to dig a well after they have become thirsty, and of those who begin to cast weapons after they have engaged in battle. Would not these actions be too late?" This concept, in the intervening two millennia, however, was never applied to the masses of the Chinese people because of inadequate medical resources, insufficient organizational capability, and perhaps lack of will.

In the years immediately preceding the Communist rise to power in 1949, Republican Chinese leaders did make an effort to construct a rational and deeply penetrating health care delivery system by setting up provincial and county hospitals. With only 10,000 Western-trained physicians, rampant inflation, war, and poor leadership, however, there was little hope that this system could make much impact on the health of the people. The Chinese Communists, since that time, have restored order, halted inflation, provided adequate leadership, and trained vast numbers of medical personnel. In so doing, Peking has constructed a system that will meet at least the minimal needs of most of the Chinese people and avoids waiting till the drought "to dig the well."

Living as we do in what John Steinbeck called a plastic-wrapped, hygienically clean society, it is hard for us to imagine the kinds of health problems that China faced in 1949 and, although to a far lesser extent, still faces today. The statistics available to analyze the past and present health situation in China are unreliable, but the broad outline of the problem is crystal clear.

In 1949 there were an estimated 10.5 billion victims of schistosomiasis, which the peasants call "big belly" (1a). Today this number has been reduced to about 5 to 7 million (1b, 2). Cheng (1c), Ho and T'ien (3), and Russell (4) have reported that bubonic plague, cholera, and smallpox have been virtually eliminated in China. These claims have been substantiated by many observers.

Venereal disease was another scourge of China before the Communist takeover; the incidence was about 10 percent in rural areas (5, 6). While the rate of venereal disease is rising in most "modern" countries, the literature strongly indicates that venereal disease has been greatly reduced, if not almost eliminated, in China today (5-7a).

Another major health problem that has brought suffering to the Chinese people has been the high rate of infant mortality, which before 1949, in some areas, reached about 300 per 1,000 live

births, or more, and was generally 160 to 170 per 1,000 (7b). Indications are that the current rate of infant mortality is below 40 per 1,000 in some areas, compared with a U.S. infant mortality rate of between 20.7 and 19.9 per 1,000 in 1969-70 (8). Perhaps the most dramatic indication of the progress Peking has made in the health field was given by Sidel, in a speech before the Institute of Medicine of the National Academy of Sciences (9), when he stated that the leading cause of death in Shanghai is now cardiovascular disease.

This incomplete outline, then, shows some of the health problems the Communists faced in 1949 and the results of some of their efforts. The questions which remain are: What kind of health delivery system have the Chinese people constructed to achieve these results? What have been the changes in that system over time? What were the political problems that had to be overcome in order to accomplish this? What does the Chinese experience in health care delivery teach us?

The Post-Takeover Years

During the immediate period after liberation (1949-50) tremendous demands were placed on China's Ministry of Public Health, and it is not surprising that in such a period of transition the Chinese would search for a model health care system. As in many other areas, such as industry and foreign policy, Peking selected a model similar to that of the Soviet Union. Russian influence in the design of the Chinese health care system was pronounced until about 1957. The Russian system has three broad categories of health personnel: highly specialized physicians with extensive training; feldshers, who now have 3 to 4 years of medical education; and public health technicians (10). In the early years, the Chinese built a similar three-tiered system.

Structurally, the health care system that China built during her first 8 years penetrated only to the hsien (county) level, with a hospital of 30 to 50 or more beds. In 1956 Li Teh-chuan, the female Minister of Health, described the system: "The provision of public health organizations and of forces for public health work has been extended to all hsien and some chu (district) areas, while in the extensive hsiang (multi-village units) areas under the chu, there have been provided united clinics (private cooperative practices usually staffed with traditional Chinese doctors) . . . public health stations maintained by the people themselves, and private medical practitioners

both of the Western and traditional schools" (11). Below the hsien level, private practice continued for traditional doctors in rural areas and Western-style doctors in urban areas; most physicians were not placed on the public payroll until July 1957 (12a).

Within hospitals, at all levels, there were strong lines of specialization, and sharp seniority lines were enforced; senior physicians were paid up to five times the salary of health workers with lesser skills and experience (12b). In addition, traditional Chinese medicine was looked down upon, and traditional doctors were effectively excluded from the Chinese Medical Association (CMA) until 1954, even though the physician of choice for most Chinese was the traditional doctor. Furthermore, ostracizing the traditional practitioner from the CMA ran counter to official Government policy which, since the First National Health Conference in 1950, had been to encourage the fusion of the two medical traditions.

The structure of this system, then, had two important results. First, physicians were on a fee-for-service basis, especially in rural areas, so that there was less incentive for them to promote preventive medicine. Also, the continuance of fee-for-service made it more difficult for the Government to organize and control medical delivery. Second, because the profession was highly specialized and the pay differentials were relatively great, the criterion for advancement in major teaching hospitals was almost "publish or perish." Many articles were written for the Chinese Medical Journal during this period and a great number were devoted to the research of relatively rare diseases and to therapeutic programs conceivable only in the most well-equipped Peking or provincial medical center. The import of both factors, then, is that the system tended, relatively speaking, to neglect rural areas.

I have described some failings of the general structure of the Chinese medical profession and health care system during 1949–57, but two things must be realized: (a) this system was a great improvement over previous ones and (b) many significant mass health programs were initiated and carried on during this period. One of the first actions of the new Government was to inoculate 300 million persons against smallpox, plague, and cholera. As a result, the incidence of plague allegedly dropped 80 percent during the first full year of the program (13). In an attempt to control tuberculosis, about 1.29 million persons were

screened by 1952, and there was extensive use of the Bacille Calmette Guerin vaccine; during the period 1949–58, the prevalence of tuberculosis declined from 230 to 45.9 per 100,000 (4a, 14). In urban schools, health and hygiene programs became a mandatory part of the curriculum.

Supplementing these programs, which were closely related to the distribution of direct medical services, the Central Government launched a patriotic health campaign in 1952 through which it tried to implement "the five kills and the four cleans:" Kill bedbugs, rats, flies, lice, and mosquitoes; clean quarters, bedding, clothes, and streets. In addition, many major cities like Peking and Tientsin installed massive new sewage and water systems. In 1963, the Ministry of Public Health reported that whereas only 50 percent of Peking's population had access to piped water in 1949, all persons in the city now had such access (13).

In the first 7 years of the public health program in China, then, massive strides were made, but the distribution between town and country was uneven, professional elitism had not really been confronted, full use of traditional Chinese medicine had not been accomplished, and the number of physicians being produced by the educational system was too low to meet the needs of an ever-growing population.

The Great Leap Forward

Such problems were increasingly confronted as collectivization was greatly accelerated with the construction of communes on a massive scale. In 1958 the Ministry of Public Health enforced the study of Chinese medicine, and more than 2,000 Western-style physicians began full-time courses of study in traditional Chinese medicine (15). Directly relevant to the rural areas was the plan that each newly created commune would have one or two medical clinics and an appropriate number of physicians.

The significance of communes, then, as far as health care is concerned, is that they provided a way to move the health care system beyond the hsien to the areas where the peasants lived. At the height of the commune movement, there were 25,000 communes and a corresponding proliferation in the numbers of health care facilities supposedly available in rural areas. One problem, however, arose. How was the educational system going to meet the demand for trained personnel that this new system had generated? To satisfy the demand for medical personnel, the Ministry of

Public Health began to shorten the period of required medical education, and from 1959 to 1962 the number of feldshers, or 3-year physicians, allegedly increased to more than 330,000 (15a).

In addition to the stated institutional changes, in 1958 and 1959 a patriotic health campaign was carried out on an unprecedented scale. The following statistics, although unreliable, give an indication of the magnitude of this campaign: the Chinese claimed to have killed more than 1 billion sparrows, 1.5 billion rats, 100 million kg. of flies, and 11 million kg. of mosquitoes (4b). In urban areas, especially during the short-lived communal movement in cities, health care was delivered in local residential areas by local people who were trained to give inoculations and keep health records.

Another impulse during the Great Leap Forward was the desire of the Maoists to push expenses for health care away from the Central Government onto local and lower level collectivities. Li Hsien-nien, for instance, said in February 1958: "As for general education, health and medical work, . . . these are public services of which many can be run by the masses themselves, either with their own funds or with some state assistance, where the situation calls for it, but should not become the sole financial responsibility of the state" (16). This desire of the Maoists to decentralize the finances and control of the health care

system sharply contrasted with the position held by the Ministry of Public Health, which wanted to have the health apparatus run and financed by the Central Government.

The Three Hard Years

The changes associated with the Great Leap Forward were short lived; they did not survive the retrenchment of the post-"great leap" period. The great leap in the public health care system can be characterized as an attempt to bring about five changes in the health care system: (a) bring health services to at least the level of the commune, (b) merge Chinese and Western medicine, (c) shorten the medical curriculum, (d) remove some control over the system from the Central Government, and (e) send physicians to rural areas to staff communal health centers. One is struck by how much this system was dismantled between 1960 and 1965.

One of the first changes that the medical profession and the Ministry of Public Health made in the great leap system was to radically restructure the curriculum for training physicians. Medical education was extended and became more specialized.

As we learn from Russell (4c), before 1960 the Chinese concentrated on quantity rather than quality; after 1960 quality was emphasized. She said: "This new college, called the China Medical

The white-gowned "red worker doctor" on duty at the Phoenix Workers' Village in Shanghai ministers to local residents and factory workers





Commune Hospital in Tangshan Administrative District in northern China. The girl in the foreground is a "barefoot doctor."

College, will offer an eight year medical course instead of short-term training. Three years will be devoted to basic sciences, two years to basic medical knowledge, two years to clinical medicine, and one year to practical field experience. English and Russian are the two compulsory languages required in this medical college" (4c).

At the same time, the other large medical schools instituted 6-year curriculums, two premedical and four medical. Hence, we see the same trends in medical education that were apparent in the remainder of the educational system: standards were raised, admission requirements were made more rigorous, and the number of students was reduced. Soon to become important in Chinese medical politics was the trend of higher standards to become synonymous with anti-rural and pro-urban recruitment and admission policies.

Another shift in the structure of health care during this period was internal to the profession. There was a resurgence of professionalism; senior physicians began to engage in more research and writing, while the younger physicians cared for most of the patients. In addition, younger physicians were paid less and received the least desirable duty stations.

Another trend that was probably central to the cultural revolution in medicine was the increasing nonselectivity in admissions to the Communist Youth League and the Communist Party. In the

early years of the People's Republic, only 30 percent of the medical students were in the league or the party, whereas by 1964 the proportion had risen to about 60 percent (12c). Concurrent with this increase in the number of physicians in the party were widespread indications of preferential treatment for party members; they received free medical care and were sent to better facilities (12d, 17). In medicine, as in education, it appeared that some party cadres used the system for their own benefit.

A further crucial structural change that occurred in the health care delivery system was the closing of communal health centers, either because the number of communes had been scaled down or because the commune clinics had never actually been formed. From 1960 through 1963, the number of communal health clinics reportedly declined from 290,000 to 70,000, and the number of urban clinics increased from 43,000 to 84,000 (18a). The most notable achievement of the Great Leap Forward—penetration of the countryside with medical services—was largely abandoned, and once again the *hsien* became the terminus of the effective health care system. Concurrent with the deletion of this crucial level in the system was the reassertion of central control over the health care system and an easing of financial burdens on the peasants.

A phenomenon that was particularly uncon-

genial to Mao and his supporters during this period was the use of the health delivery system as a "pork barrel." Red Guards charged that the Ministry of Public Health had set up four model rural health centers in Kiangsu, Hupoh, Hunan, and the Tung County suburb of Peking and then proceeded to concentrate the state investment in these few models (18a). The charges asserted that in Kiangsu, for instance, one-third of the province's public health budget was placed at the disposal of the Vice-Minister of Public Health, who headed the model station. Whether the specific charges in this case were correct is only incidental to the fact that the Ministry of Public Health apparently was beginning to identify its interests more consistently with state and party bureaucrats than with the people, especially the peasants.

Perhaps the most severe deviation that Mao perceived during 1960 to 1965 in the medical profession and in the Ministry of Public Health was the deemphasis of preventive medicine. During this period, virtually no major health campaigns, such as those of 1952 and 1958, were started. One could search the pages of the Chinese Medical Journal for the years 1960-65 almost in vain for any mention of major health programs in the countryside. As the People's Daily stated in 1969: ". . . they paid attention only to medical treatment, but ignored prevention which brought no income" (19a). Concurrent with this downgrading of preventive medicine was the fact that traditional medicine was once again given an inferior role and was not viewed as much of a medical resource.

The Cultural Revolution

These trends in the public health field, however, were not to remain unchallenged in the period before and after the "Great Proletarian Cultural Revolution." On June 25, 1965, Mao made the following statement to a group of medical personnel in which he detailed his objections to the policies of the Ministry of Public Health:

Tell the Ministry of Public Health that it only works for 15 percent of the entire population. Furthermore, this 15 percent is made up mostly of the privileged. The broad ranks of the peasants cannot obtain medical treatment and also do not receive medicine. The Public Health Ministry is not a people's ministry. It should be called the Urban Public Health Ministry or, the Public Health Ministry of the privileged or even, the Urban Public Health Ministry of the privileged.

Medical education must be reformed. It is basically useless to study so much. How many years did Hua T'o (a third century physician) study? How many years did Li Shih-chen of the Ming dynasty study? Medical edu-

cation does not require senior middle school students, junior middle school students or graduates of senior elementary school. Three years are enough. The important thing is that they study while practicing. This way doctors sent to the countryside will not overrate their own abilities, and they will be better than those doctors who have been cheating the people and better than the witch doctors. In addition, the villages can afford to support them. The more a person studies, the more foolish he becomes. At the present time the system of examination and treatment used in the medical schools is not at all suitable for the countryside. Our method of training doctors is for the cities, even though China has more than 500 million peasants.

A vast amount of manpower and materials have been diverted from mass work and are being expended in carrying out research on the high-level, complex, and difficult diseases, the so-called pinnacles of medicine. As for the frequently occurring illnesses, the widespread sicknesses, the commonly existing diseases, we pay no heed or very slight heed to their prevention or to finding improved methods of treatment. It is not that we should ignore the pinnacles. It is only that we should devote less men and materials in that direction and devote a greater amount of men and materials to solving the urgent problems of the masses.

We should keep in the cities those doctors who have been out of school for a year or two and those who are lacking in ability. The remainder should be sent to the countryside. By the year xx, the four clearances were taken care of and basically concluded. But medical treatment and public health work in the countryside was not concluded! In medicine and health, put the stress on the rural areas!

By 1965, then, Mao noted several grave defects in the health care delivery system in China: (a) too much pure research, (b) insufficient attention to preventive care, (c) disrepair of the communal health care system, (d) slighting of traditional Chinese medicine by both the Government and the CMA, (e) professionalism in the medical community, (f) "coziness" of the party and the medical profession, and (g) urban orientation of the whole health care apparatus, with workers, students, and Government employees being covered by health insurance while the peasants had no such protection (20).

The significance of Mao's statement can be seen by analysis of the contents of the Chinese Medical Journal from January 1965 through March 1966 and of China's Medicine from October 1966 through December 1968; both were official CMA publications. Articles dealing with politics were almost totally absent from these issues of the Chinese Medical Journal except in the November 1965 issue. Almost equally scarce were articles dealing with applied or public health medicine in rural areas. Clearly, subjects dealing with pure

medical research were overwhelmingly dominant. If the implication that the Chinese medical profession was dragging its feet in applying Mao's thoughts to medicine needs to be reinforced, note that in December 1964 a Vice-Minister of Public Health told the CMA to revolutionize the content of the Chinese Medical Journal. The following year, the president of the CMA proudly proclaimed that they had accomplished that task, but as the analysis of the contents of the specified issues shows, this statement clearly was untrue (18b).

In the October 1966 issue of *China's Medicine*, however, there was a drastic reversal in this situation, and political statements constituted 85 percent of the journal from then until December 1967. Toward the end of 1967 less space was devoted to politics, and more space was given to applied medicine in rural areas. The space given to pure research was not eliminated but was reduced, and it remained rather constant at a lower level. These changes in the content of China's medical journals should be taken seriously as they indicate significant shifts in basic health policies. Journals and communications are crucial links in the research process; if the transmission of knowledge is affected, the amount, type, and quality of the research that is undertaken will be altered.

To begin correcting the defects mentioned, Mao and his supporters first attacked the Ministry of Public Health; both the Minister of Public Health and his former First Vice-Minister were removed from their positions by mid-1967. Red Guards

Analysis of the contents of the Chinese Medical Journal and *China's Medicine*, by number and type of articles

Date	Number of articles		
	Pure research	Applied research	Politics
<i>Chinese Medical Journal</i>			
January-March 1965.....	24	2	0
April-June 1965.....	27	1	0
July-September 1965.....	31	2	0
October-December 1965.....	14	0	3
January-March 1966.....	24	2	1
<i>China's Medicine</i>			
October-December 1966.....	5	3	27
January-March 1967.....	5	1	33
April-June 1967.....	4	1	35
July-September 1967.....	4	2	29
October-December 1967.....	4	2	20
January-March 1968.....	3	8	19
April-June 1968.....	2	7	9
July-September 1968.....	5	5	27
October-December 1968.....	1	13	19

accused the former First Vice-Minister of retaining 120,000 of 180,000 health personnel in the cities and the Minister of Health of subverting Mao's June 25, 1965, directive (18c). The President of the Republic, Liu Shao-ch'i, reputedly had come to the Minister of Health, Ch'ien Hsin-chung, and asked if he would send half of his personnel to the countryside. The Minister replied he would settle for one-third (18d). In the end, less than one-third of the medical personnel were sent to rural areas. In Shanghai, for instance, many health workers were merely sent to the suburbs of the city.

Early in the turmoil of the cultural revolution, a situation emerged in which there was no move to reestablish the communes; also, there were few, if any, units of viable Central Government to administer a health care system. As a result, in the early phases of the cultural revolution the People's Liberation Army became the primary model for the delivery of health care. It was no accident that the barefoot doctor looked much like an army medic.

By the end of 1968, Tachai (a famous commune in northwest China) became a model in health care by establishing a school to train barefoot doctors. Each barefoot doctor is recruited from his own commune or brigade, after 3 years of experience in manual labor, and is chosen by his peers to go to the hsien hospital to study for 3 months or to be trained by a mobile medical team (7c). The idea is that a person recruited from his own locality is more likely to return. After a year or two of practical medical experience, the barefoot doctor can return to school for another period of training, if he or she so wishes.

Simultaneously, in late 1968 and early 1969 the People's Daily ran a series of articles calling for the establishment of a rural cooperative health care system (19b). This proposed, and now implemented, system was structured not only to achieve the objectives of the Great Leap Forward but also to advance those goals one step further; not only was each commune to have a health center with several physicians, but all brigades (subdivisions of the communes) were to have approximately two barefoot doctors each, and each team (the subdivision of a brigade) was supposed to have several people in charge of sanitation. Clearly, if such an ambitious program is to succeed, a vast training program will have to be undertaken, and literally tens of thousands of barefoot doctors will have to be produced.



Barefoot doctor with a group of students in Hopeh Province in northern China, near the Great Wall

While currently there are no reliable data on how many such physicians actually have been trained, it is evident that a massive effort is being made.

Another innovation in the health care system after the cultural revolution was the introduction of new means of financing the cooperative health care plan in the rural areas. Although some ambiguity still remains as to the exact details and local variations are substantial, its broad outlines are clear. The commune or the brigade—there has been friction over which unit it should be—is to collect about 2 or 3 yuan per year per person to put into the commune or brigade health fund (subdivision: 1 yuan=100 cents). Then, the only charge that would be levied against a sick person requiring treatment at the commune clinic or the hsien hospital would be about 5 cents for registration. Each commune under this plan was supposed to have a health care center, with 4 or 5 physicians, that could handle at least minor surgery. The county hospital was supposed to be capable of handling all other major and minor surgical procedures. It is clear from refugees' reports that rarely, in fact, are such low-level units able to perform such extensive work.

In addition to the significant changes made at the commune or brigade level, changes also were made at the team level; older persons trained as "sanitary workers" were to be responsible for the proper handling of village waste and to take

action against rodents and other vectors, and for their efforts some of these people were given work points—the basic form of income in commune units—as were the barefoot doctors.

The Affected Groups

All the above changes in the health care system affected important groups, and it is not surprising that the most open kind of political bargaining occurred. Physicians, one of the most affected groups, were not without grievances, because they felt that under a system of free, or at least insured, medical care they would be overworked and underpaid. Physicians from the urban areas liked the system even less because it seemed that there would be a functional system in the countryside, and they would have to staff it. Imagine the reaction of these physicians when in 1969 they read in the *People's Daily* (19c):

Large numbers of hsien and municipal medical personnel should be sent to the countryside. To insure that minor ailments may be treated without leaving the brigade and serious cases may be attended without leaving the commune, medical personnel in the cities should be streamlined on a large scale and sent to the grass roots level. . . .

The first thing that apparently happened when private practice was again curtailed was that some physicians began to give free medical care to people and to say that if they were forced to join the cooperative health plan they would not work at all.

As People's Daily said (19c): "Some people (doctors and other medical personnel) spread rumors and slanders, and boycotted us in a thousand and one ways."

Although this system was a definite improvement for the peasants, they were not happy about awarding work points to all the medical personnel who were now being sent to live and work in the communes. Similarly, the peasants could not see why they should be assessed even 2 yuan per year for health care. Finally, the peasants resented the practice, which varied widely, of having to pay for some or all prescribed drugs and various percentages of treatment costs in excess of a certain amount.

Another area of conflict concerned the question of which commune unit should control the health fund. Wealthy brigades wanted to keep control of the fund because, they claimed, only under their leadership could . . . "the domination of such work by bourgeois be shattered" (19d); in other words, they did not trust commune authorities with their money, and they did not want to subsidize less well off brigades that could not afford to operate a program.

The types of political conflicts that existed are apparent from the foregoing; they were similar to the disputes in the United States over Medicare and in Great Britain over the National Health Service. All groups of administrators, physicians,

and patients try to structure a system in a way that serves their individual interests.

Conclusion

What are the implications for the United States of the changes in the Chinese health care delivery system? The following are five areas in which Chinese experience in health care delivery could be examined fruitfully in the light of America's problems.

1. The Chinese have had substantial experience in the training and utilization of paramedical personnel—the placing of people of various categories in factories, local residential areas, schools, and district clinics; at each of these levels prevention is a major responsibility. As we attempt to reduce the large number of industrial accidents and the staggering rate of disease among urban nonwhite populations (21), we will find it necessary to move toward a more paramedic-oriented system. Such a system would also help to bring down the cost of medical care.

2. We need a graduated health care structure, ranging from universally accessible health centers in residential and rural areas to large and sophisticated urban medical centers. In addition to examining the Chinese experience in building such a system, we should also make full use of the advanced biomedical communications networks being developed in the United States (22).

A patient at Shantung Provincial People's Hospital, Tsinan, is comforted during an operation in which acupuncture was used as an anesthetic



3. Another area in which the Chinese experience may be relevant is in discussions of medical education and of admission into medical schools. The Chinese have asked forthrightly: What does it take to train a physician? How can resource expenditures be minimized? Rarely, if at all, have we asked these questions so vigorously. Germane to the current discussion in the United States about abbreviating medical training is the Chinese use of criteria other than scholastic performance in determining who will be admitted to medical school.

4. Yet another important question in Chinese health care politics, and a problem which is being debated increasingly in this country, is the allocation of scarce research resources to meeting the most pressing health care needs of a people. Like Mao, many people in the United States are asking: What priority should we give the "pinnacles"? In a broader context, this brings us to the fundamental question: How does one make a professional organization responsive to social demands? In the United States this problem has recently taken the form of the "community control" issue (23).

5. The final problem, and one that most preoccupies U.S. analysts, is the question of health care financing and the relationships between Government and private components in this financing. As we move toward health care as a right, it is inevitable that the Government will become an increasingly important participant in health care. The Chinese system provides one model for designing this future relationship. The degree to which Peking's solution may be irrelevant to the United States because it is a product of a particular culture remains to be seen.

In sum, then, China has confronted many of the health delivery problems which are being debated currently in the United States; her answers can at least provide perspective to the continuing discussion in our country.

REFERENCES

- (1) Cheng, T.: Schistosomiasis in Mainland China. *Am J Trop Med Hyg* 20: 26-53, January 1971; (a) p. 26; (b) p. 45; (c) p.48
- (2) Wei, W.: The battle against schistosomiasis. *Chinese Med J* 80: 299-306, April 1960; (a) p. 302.
- (3) Ho, E., and T'ien, S.: The endemicity and periodicity of cholera in China. *Chinese Med J* 76: 274, March 1958.
- (4) Russell, M.: *Medicine and public health in the People's Republic of China*. Far East Reporter: 1-24 (1960); (a) pp. 10, 11; (b) p.9; (c) p.12.
- (5) Kuang Ming Jih Pao (Bright Daily): Tremendous success achieved in medical and health work over the past fifteen years. *Current Background* 683: 29, 30 (1962).
- (6) Ma, H.: With Mao Tse-Tung's thought as the compass for action in the control of venereal diseases in China. *China's Med* 1: 52-68, Oct. 1, 1966; (a) p.54.
- (7) Horn, J.: *Away with all pests*. Monthly Review Press, New York, 1969; (a) pp.81-93; (b) p.125; (c) p.135.
- (8) World Health Organization: *Natality, general mortality, infant and neonatal mortality*. World Health Stat Rep 24: 717, Geneva. 1971.
- (9) Sidel, V.: *Medicine in the People's Republic of China*. Presented before the Institute of Medicine, National Academy of Sciences, Washington, D.C., November 1971.
- (10) World Health Organization: *Training of medical assistants and similar personnel*. Techn Rep Ser No. 385. Geneva, 1968, p.18.
- (11) Li, T.: *New tasks for the protection of public health*. *Current Background* 405: 13 (1956).
- (12) Interview with Chinese medical doctor. *Current Scene* 1: 1-12, June 12, 1961; (a) p.2; (b) p.4; (c) p.8; (d) pp.6, 7.
- (13) Ministry of Public Health: *For the health of the people*. Peking Foreign Language Press, Peking, 1963.
- (14) Antituberculosis Association of China: *Prevention and treatment of tuberculosis in China*. *Chinese Med J* 80: 63, January 1960.
- (15) Croizier, R.: *Traditional medicine in modern China*. Harvard University Press, Cambridge, Mass., 1968, pp.185-195; (a) p.193.
- (16) Li, H.: *The implementation of the state budget for 1957 and the draft state budget for 1958*. *Current Background* 493: 13, February 1958.
- (17) *Mao's revolution in public health*. *Current Scene* 6: 2, May 1, 1968.
- (18) *The Mao-Liu controversy over rural public health*. *Current Scene* 7: 1-18, June 15, 1969; (a) p.6; (b) p.9; (c) p.5; (d) p.4.
- (19) Jen Min Jih Pao (People's Daily): *A cooperative medical service welcomed by the poor and lower middle peasants*. Dec. 5, 1968, to Jan. 20, 1969. *Current Background* 872: Feb. 28, 1969; (a) p. 24; (b) pp. 1-43; (c) p. 14; (d) p. 38.
- (20) Jui, L.: *China's health work in the past decade*. *Current Background* 609: 42, 43, Jan. 14, 1960.
- (21) Department of Health, Education, and Welfare: *Towards a comprehensive health policy for the 1970's*. U.S. Government Printing Office, Washington, D.C., May 1971, p.10.
- (22) Sedlacek, W.: *Bio-medical communication network requirements*. Lockheed Missile and Space Corporation, Contract No. MAS 9-12462, Sunnyvale, Calif., 1972.
- (23) Health Policy Advisory Council: *The American health empire: Power, profits and politics*. Vintage Press, New York, 1970, chs.9-13.