

From "Barefoot Doctor" to "Village Doctor" in Tiger Springs Village: A Case Study of Rural Health Care Transformations in Socialist China

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During the 1970s, a wave of publications emerged in "the West" on the dramatic Cultural Revolution developments which were taking place in rural health care in the People's Republic of China. The PRC's model became internationally renowned in public health and health development circles, and served as the inspiration for the World Health Organization's Primary Health Care initiative. In the early to mid-1980's, however, with the advent of post-Mao political and economic changes in the PRC, specifically rural decollectivization, it was feared that the fate of rural health care in China was seriously threatened. Since the early 1980s, a number of additional scholarly publications have addressed the changes in rural health care in the post-Mao PRC. This article contributes to the ongoing discussion about rural PRC health care by illuminating some of the discrepancies between the policies upon which much of the debate has been based and the actual ways in which the policies were played out "on the ground" as reflected in a case study of one rural area of the PRC. Several key points about the practice of rural health care both during and after collectivization are addressed, as are a number of other concerns, including the financing of rural health care, its relative emphasis on prevention and primary care versus curing and secondary and tertiary care, issues of villagers' access to health services, issues of training and/or professionalization of village health practitioners, and issues of relative emphasis on Chinese versus Western medicine.

Key words: barefoot doctors, cooperative medicine, rural health care, decollectivization, Peoples Republic of China

During the 1970s, a flurry of publications emerged in "the West" on the dramatic Cultural Revolution developments which were taking place in rural health care in the People's Republic of China.¹ These reports, for the most part, lauded the implementation of the new system of "cooperative medicine" in general, and the innovative approach to training "barefoot doctors" in particular. Both cooperative medicine and the

barefoot doctors, it was believed, reflected an approach to health care which was focussed on rural areas, and which was decentralized, deprofessionalized, grassroots-based, egalitarian, "low-tech," economically feasible, and culturally appropriate. The PRC model became internationally renowned in public health and health development circles, and in fact served as the inspiration for the World Health Organization's Primary Health Care initiative which was formulated at the now legendary 1978 Alma Ata conference.

In the early to mid-1980s, however, with the advent of post-Mao political and economic changes in the PRC, specifically rural decollectivization, a second flurry of publications emerged in Western countries.² Many of these articles were as cautionary as the previous spate of articles were exuberant. The fate of rural health care in China, it was feared, was seriously threatened given that the structure of cooperative medicine was premised on the structure of the rural collective. It was believed that the changes signaled a tendency towards an urban-biased, re-centralized, re-professionalized, hierarchical, "high-tech" focussed, increasingly inegalitarian and expensive health care system which was inaccessible to many rural residents, and which de-emphasized and consequently lowered the status of Chinese medicine.

Since the late 1980s, a number of additional scholarly

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publications — many of them resulting from collaborations between scholars based in “the West” with PRC scholars — have addressed the changes in rural health care in the post-Mao PRC very much in terms of issues framed by the earlier scholarly dialogue³

The nature of the data upon which the assessments of rural health care policy have been based has certainly shifted over time. The assessments of the earliest wave of publications in particular (with a few exceptions) were made on the basis of relatively brief, government-arranged visits by the authors to carefully circumscribed locations in the PRC. Consequently, from the very beginning, assessments tended to focus on the health care policies and their implications rather than on how the policies were experienced and negotiated at the local level. This was certainly understandable given the nature of the times. While the quality of the “on-the-ground” data which serve as the basis for assessments in many of the “second wave” and especially “third wave” publications has improved, and has expanded to include both interviews and large-scale surveys, there is still very limited long-term, fieldwork-based ethnographic research on rural health care in the PRC⁴

I present this article in the spirit of providing an ethnographically-based case study from a distinctive geographical and historical context of the PRC — the relatively remote reaches of Tiger Springs Village (a pseudonym) in the Lijiang basin of southwest China’s Yunnan Province in 1989-1990. One of the extremely important observations which has emerged from the “second-wave” and “third-wave” literatures, however, is the tremendous degree of regional and even village-to-village (formerly brigade-to-brigade) variation in the experience of rural health care throughout the PRC during both the collective and post-collective eras. Thus, while I am presenting a case study as a potential foil, as it were, to the representation of rural health care practices in the scholarly literature, I would like to make it very clear that Tiger Springs’ experience can in no way be taken to be singularly representative of the experiences of the vast remainder of rural China, nor even of the rural Lijiang basin.

Nonetheless, in providing a village-based case study of how Maoist and post-Mao policy changes with respect to rural health care were played out in one corner of the PRC, my intention is, in fact, to re-examine some of the assumptions made and concerns raised by scholars during all three phases of the discussion outlined above. If China’s innovative experiences with respect to rural health care are to continue to serve as a potential model for international health policy, it is critical that they are first better understood in historical and cultural context.

This article presents several key points about the practice of rural health care in Tiger Springs and the Lijiang basin both during and after collectivization. It raises issues with respect to the financing of rural health care, with respect to its relative emphasis on prevention and primary care versus curing and secondary and tertiary care, with respect to issues of villagers’ access to health services, with respect to issues of training and/or professionalization of village health practitioners, and with respect to issues of relative emphasis on Chinese versus Western medicine.

The article begins with a brief introduction to Tiger Springs Village and the nature of the data upon which my findings are based. The next section focuses primarily on the implementation of cooperative medicine in Tiger Springs during the Cultural

Revolution (officially designated as the period from 1965-1975), but first provides a brief history of the post-1949 health care infrastructure which was established in the basin prior to the beginning of cooperative medicine. The subsequent section examines the impact of decollectivization and post-Mao changes in general on health care in Tiger Springs starting in the early 1980s, in the process of outlining the actual changes, however, it also addresses some of the discrepancies between policy and actual practice both prior to and since decollectivization, and consequently some of the misconceptions often reflected in the scholarly literature. In order to illustrate even more specifically how policies were played out in practice, the backgrounds and experiences of Tiger Springs health practitioners during both periods will be addressed in the final section. The conclusion presents a summary of my central arguments and analysis, as well as some reflections on both the scholarly representations of the cooperative medicine saga in the PRC and the very real issues for PRC rural health care that are at stake.

Background

Tiger Springs “administrative village” consists of approximately 2000 residents and roughly 500 households, and is located in the northwestern part of the Lijiang basin. It is approximately five kilometers from Dayanzhen, the town (population approximately 60,000 in 1990) which serves as the government seat for both Lijiang County and Lijiang Prefecture. Tiger Springs is one of the villages which makes up White Sands Township (Bai Sha Xiang), this township directly abuts the Jade Dragon Snow Mountain, which towers more than 19,000 feet over the approximately 7400 foot basin floor.

The Lijiang basin is historically the symbolic and political/administrative heartland of the Naxi people, who have been officially designated as a “minority nationality” since the 1949 Chinese Communist Revolution (as opposed to being members of the Han Chinese majority). However, not only has basin Naxi identity been significantly influenced by Han culture for centuries, but the majority of basin Naxi participated in the Underground Communist Party prior to the Revolution, and have been zealous participants both in the Party and virtually every political movement since 1949. Thus while clearly Tiger Springs and the Lijiang basin cannot be taken to be completely representative of all China (as is the case for any one village or region, for that matter), it can be safely assumed that the villagers, village practitioners, and public health bureaus of the basin adhered to central government policies as much as (and, in many instances, more so than) other parts of the PRC.

It is also important to note that while the villages in the Lijiang basin are by no means the wealthiest in the economic continuum of the rural PRC, neither are they by any means the poorest. Most villagers in the basin enjoy a hard-working but comfortable existence unlike the much more impoverished existence of villagers in the more remote “mountainous villages” adjacent to the basin. Within the basin, of course, there is socio-economic variation between villages as well as within villages.

My analysis in this article is primarily focussed on the experiences of the villagers and village health practitioners of Tiger Springs, with whom I carried out the rural component of my Lijiang basin research. The analysis is, however, also informed by intensive interviews with and observations of a

number of health practitioners from other villages in the basin (interviews with a total of 23 village health practitioners were conducted), and interviews with the ten county and prefectural branches of the public health system which were based in Dayanzhen⁵

Cooperative Medicine and Tiger Springs Brigade

In the early 1950s, various bureaus of what is now the public health infrastructure were established in the town of Dayanzhen, and the beginnings of a corresponding public health infrastructure were established in the villages of the basin and throughout the other villages of Lijiang County. Basic health care centers were first set up at the *qu* level (an administrative level from 1949-1958 between the current township and county levels), and smaller clinics were gradually set up at what was to become the brigade level with collectivization in 1958 (and which in turn would become the "administrative village" after decollectivization in the early 1980's). These health care centers were set up both to serve as rural based liaisons with the Hygiene and Preventive Health Bureau and the Women's and Children's Health Protection Bureau, as well as to serve other basic health care needs.

In Tiger Springs, a clinic was set up in 1956 (during the period of "advanced level cooperatives") staffed by one of the Chinese medicine practitioners from the village, He Zhi-ming (a pseudonym). He was joined in 1957 by another villager, Yang Ru-jin (also a pseudonym), who had studied Western medicine in the military. Prior to the formulation of "integrated Chinese and Western medicine" during the Cultural Revolution, the general principal informing medical practice in these rural clinics from their inception was "Chinese and Western medicine united," which operated on the assumption of a division of labor between the two systems. By the time of collectivization in 1958, the whole county apparently had Health Protection Clinics at the brigade level.

Most brigades implemented cooperative medicine in 1968 or 1969; this system of brigade-sponsored health care persisted in most rural areas until it was dismantled along with the brigades in the early 1980s (this occurred in some areas of the basin as early as 1981, and in other areas as late as 1984).

One Lijiang basin brigade in what is now Gold Mountain Township, which was known for its particularly "revolutionary" spirit, actually started up their cooperative medicine station in 1965 based on an article about Mao's now-famous directive which the two founding doctors read in the *People's Daily*. They considered themselves to be following Mao's advice to "seize the revolution," and were particularly proud of the recognition banners awarded them by the Provincial Revolutionary Working Committee which still hang in their now half-abandoned health station.

Tiger Springs did not have a reputation for being as "revolutionary" as some other brigades in the basin, perhaps because most of the families in the brigade had been engaged in family-based handicrafts businesses and trade before the revolution. However, like virtually everywhere else in the basin, both villagers and practitioners quickly responded to Mao's call for cooperative medicine. In 1969 the Tiger Springs Brigade cooperative medicine clinic was set up in the village temple, which prior to 1949 had been the domain of the village gods.

According to the official vision of cooperative medicine, each member of the brigade would pay only one yuan per year and five fen (0.05 yuan) for each visit to the clinic, theoretically providing the financial basis for collective health insurance. This policy was in fact followed initially in many of the brigades throughout the basin, although most brigades ultimately ended up subsidizing up to 50% of the cooperative health care costs. The workpoint system which supported both the staff and the extensive herbal medicine collecting expeditions in essence also subsidized the cooperative medicine system. In Tiger Springs Brigade, however, true cooperative medicine lasted only three years. Villagers as well as practitioners stated that too many people took advantage of the system (an accusation often leveled at those who have state supported health care in contemporary China) and bankrupted the brigade's finances.⁶ After the first couple of years, the one yuan per year, five fen (0.05 yuan) per visit system was discontinued in Tiger Springs in favor of a higher pay-per-visit fee, though in other respects the cooperative medicine clinic persisted (i.e., in terms of the workpoint system and to a more limited degree subsidies from the brigade).

Generally speaking, the practitioners who made up the brigade cooperative medicine staffs in the basin (as seems to have been the case in other parts of the PRC) consisted of one or two older Chinese medicine doctors (or at least practitioners who had a store of family-transmitted healing knowledge), one or two younger to middle-aged practitioners trained in Western medicine (usually having acquired it while in the People's Liberation Army — PLA — medical corps), and two or more younger practitioners who inevitably had "good" (i.e., ideologically-correct) family backgrounds and were selected by their collectives to study to be bonafide "barefoot doctors," midwives, or nurses. The key operating concepts in the practice of cooperative medicine were to "serve the people," to "learn through experience,"⁷ and to continuously strive towards the practice of "integrated Chinese and Western medicine" (hereafter to be referred to as "integrated medicine"). Chinese medicine doctors were to learn from practitioners of Western medicine, and vice versa.

The first cohorts of barefoot doctor trainees (in the first few years of cooperative medicine) on average received only a month and a half to two months of training at the Number 65 army hospital in Nankou (just south of Dayanzhen), although some trainees received up to six months of training. Later cohorts (e.g., in the mid-1970's) were provided with six-month training courses, and, as the Cultural Revolution began to wane, intensive "update" training courses in Dayanzhen hospitals and at the prefectural Hygiene School were arranged. In any case, most of the (Western medicine) doctors from the hospitals were "sent down" from the towns and cities to work in brigade clinics, and so barefoot doctors were actually more likely to encounter these hospital doctors in the brigade clinics than in the town-based hospitals. While each cooperative medicine practitioner nominally specialized in either Chinese or Western medicine, as stated above, their missive was to help each other and study from each other. The *Barefoot Doctor's Manual*, which they used as their reference book, and the periodic training sessions during the Cultural Revolution reinforced the model of integrated medicine, which was the medical practice sanctioned by the cooperative medicine initiative.⁸

The public health hygiene campaigns also made their way from the central government's Ministry of Public Health through

the town-based public health bureaus to the villages. Every year, each brigade would carry out their three "patriotic health movements," and practitioners were responsible for evaluating households according to their conformity to state standards of hygiene.

Another important hallmark of cooperative medicine was the strong emphasis placed on the use of herbal medicine. This was the response of practitioners and patients alike to another of Mao's calls, and he invoked both nationalist and pragmatic criteria for pursuing the use of herbal medicine. Large bi-annual herbal medicine collecting expeditions set off to spend two weeks to a month on the slopes of the Jade Dragon Snow Mountain or other mountains in the vicinity. Practitioners estimate that 40-80% of the prescriptions made during the Cultural Revolution were based on herbal medicine, and that the brigade cooperative medicine clinics on average kept from 200-500 kinds of herbal medicine in stock.⁹ Town-based hospitals and clinics were also encouraged to practice integrated medicine, and to place a strong priority on herbal medicine treatments.

Cooperative Medicine as a Model for Primary Health Care, the Professionalization Controversy, and Post-Mao Changes in Tiger Springs

It was perhaps precisely because cooperative medicine and the barefoot doctors served as a model for rural health care in general and the World Health Organization's (WHO) 1978 formulated Primary Health Care (PHC) initiative in particular that the policy changes in rural PRC health care were regarded with such alarm by Western public health and health development scholars in the 1980's. In keeping with WHO's PHC directive, in "third world" countries throughout the world rural health care practitioners who, like the barefoot doctors, were themselves from villages, were to be selected and trained in basic biomedical health care techniques, including emergency care medicine and preventive medicine. Following China's three-tiered health care system, health stations were to be set up to offer increasingly complex levels of health care treatment at increasingly more centralized facilities (on a rural-urban continuum). In the spirit of appropriate technology (i.e., using low-cost, locally available resources), indigenous medical practices were to be incorporated (where "appropriate") along with biomedical practices by indigenous rural health care practitioners, following the model of integrated Chinese and Western medicine. It is understandable that it came as a bit of a shock that the rural health care system which served as the model for this policy was seen as being about to undergo a major transformation.

Many of the second wave of publications referred to earlier made somber predictions about the likely demise of cooperative medicine with decollectivization, and the impact of this on peasant access to and standards of rural health care. A shift was predicted from revolutionary egalitarianism towards professionalization, and all that this implies in terms of unequal access to quality health care between rural and urban sectors of the Chinese population. Also predicted was a shift of emphasis from "low-tech," grassroots-based care to "high-tech," centralized care, and a decline in the status of Chinese medicine with respect to Western medicine.

It is important to note here that the particular framing of these and other issues was reflective of the Western scholarly literature rather than the way the issues were framed among public health officials and village practitioners in the PRC. This is not to say that there were not concerned public health officials, disgruntled village practitioners, or concerned villagers, but rather that the changes were interpreted as just one consequence of a lot of other major changes which were happening simultaneously. The Lijiang basin experience of cooperative medicine can perhaps serve as one case which might clarify why the issues were framed differently by Western scholars than they were on the ground in the PRC.

First and foremost, the financing and political-economics of cooperative medicine during the Maoist period was not as seamless a solution as it might seem to have been from reading much of the Western scholarly literature. "Self-reliance" was the mantra for "peasants" (following the PRC term of reference for village residents) during the Maoist period, just as it has continued to be during the post-Mao period. Brigades (in the Lijiang basin and elsewhere) had to subsidize the cooperative medicine health care system beyond the relatively low fees which each member of the brigade initially paid. The peasants were thus also in essence subsidizing the system through their collective labor. The predominantly full-time staff of the clinic was paid in workpoints, and the extensive bi-annual herbal medicine collecting expeditions (which provided 40-80% of the treatments in the clinics) and the on-average twenty individuals which they required were also subsidized by the workpoint system. In addition, the Western medicine pharmaceuticals and equipment, as well as other costs of running the clinic, all were subsidized by the brigade's (i.e., the peasants') finances. The central government covered the costs of the (initially six-week and later six-month) training programs for barefoot doctors and midwives, as well as provided certain vaccines and treatments (such as for the prolapsed uterus and cystitis conditions which were the targets of one particular campaign) without charge. Major illnesses which required treatment at mid-level health care clinics or at the hospitals in Dayanzhen were in theory supposed to be reimbursed by the brigades as well (though Dayanzhen hospitals claimed that if the brigades did not pay there was nothing the hospitals could do).

The decision about how to absorb these costs came down to the brigade. In the case of Tiger Springs Brigade, after the first few years of cooperative medicine, it was decided that the brigade could not absorb all the costs, and the costs were passed back to the individual members of the brigade. While this meant that brigade members were individually charged fees for medicine and for clinic visits, these costs were still in essence subsidized by the brigade, since the brigade absorbed the workpoint costs of the members of the cooperative medicine team and the herbal medicine expeditions. For the most common illnesses, such as colds, stomach problems, influenza, and dysentery, the per-visit costs to the clinic in Tiger Springs were somewhat more than the 0.05 yuan paid by members of brigades who continued to fully participate in cooperative medicine. It was the major medical conditions (e.g., surgery, problem pregnancies or Caesarian sections, etc.) which would deplete the meager savings of individual peasant households in Tiger Springs Brigade. For other brigades, however, such as the more "revolutionary" East Wind Brigade mentioned above, the cooperative medicine system fully alleviated peasant concerns.

about medical costs (though of course they, not the central government, were essentially paying for it themselves)

The transition to the post-decollectivization dissolution of cooperative medicine consequently did not have as great an economic impact on Tiger Springs Brigade as it did on East Wind Brigade (both of which became "administrative villages") With decollectivization, cooperative medicine clinics were for the most part disbanded The Tiger Springs Brigade clinic was formally closed and most of the practitioners took up private practices in the contexts of their own homes The government instituted set prices for various services which the practitioners could not exceed An average visit in 1990 was 0.50 yuan, a percentage increase (approximately fivefold) in keeping with the percentage increase in Tiger Springs income since decollectivization Village residents certainly complain about the cost of health care, particularly the potential threat of catastrophic illness, but when asked whether they would like a return to cooperative medicine, they see it as integrally linked to the collectivization era and not possible now Tiger Springs village practitioners adopt much the same "that was then and this is now" sort of attitude when asked to comparatively evaluate cooperative medicine with the contemporary private practice/responsibility system way of operating medical practice In contrast, practitioners of formerly more revolutionary villages such as East Wind are much more vocal in their disapproval of the substitution of private practice and the responsibility system for cooperative medicine and collectivization

However, the state public health infrastructure by no means vanished from the villages with decollectivization With decollectivization, the public health bureau also implemented stipends for three designated practitioners in each administrative village to carry out the work of the Hygiene and Preventive Health Bureau, the Women's and Children's Health Protection Bureau, and the Birth Planning Bureau A stipend of 20 yuan was attached to the performance of the duties for each bureau

In Tiger Springs, three village practitioners (two of whom were formerly part of cooperative medicine and one who was not) shared the administering and recording responsibilities for the vaccinations as well as the stipend set aside for this up until 1989 In 1989, county public health policy dictated that just one person be placed in charge of these responsibilities, and the practitioner who was chosen was selected because he was the only practitioner among the three of them to have passed the Western medicine certification examination

A female health practitioner from Tiger Springs (who was also formerly a part of cooperative medicine) has carried out midwifery responsibilities (including the keeping of childbirth statistical records) for the village and received the 20 yuan stipend from the Women's and Children's Health Protection Bureau since decollectivization

With the implementation of the shifting policies of the Birth Planning program in the late 1970s and early 1980's, a public health stipend of 20 yuan was given to another Tiger Springs woman placed in charge of these responsibilities She also happened to be in charge of the Women's Association (for which there is a 20 yuan stipend from the state as well) Although she had no formal training as a health practitioner, she was in charge of birth control as well as of enforcing the policy

Despite the fact that these village stipends were relatively minimal stipends by town standards, they are supplemented by

other modest fees which practitioners charge their village clients (and which are also regulated by the government) Most importantly, however, they reflect that the Public Health Bureau has consistently maintained a presence in the village context in the post-Mao era

Concerns were also expressed by Western scholars that the "professionalization" of rural health care would lead to the large-scale reduction of rural health practitioners Although a number of articles cite statistics which reflect a national post-decollectivization drop in numbers of village doctors, it is not clear whether these statistics include village practitioners who have not successfully passed the exams but who may still be practicing Certainly all practitioners in Lijiang county were required to take an examination in either Western medicine or Chinese medicine in the early 1980's Professional licensing tests became available as early as 1978, and village practitioners who had not taken the tests by 1982 or 1983 were required to do so then In the basin, however, whether or not one passed the test did not dictate whether or not one could continue to practice It unquestionably added to the "face" and "fame" of a practitioner if he or she was successful in passing the test, and the particular practitioner would lose no time in posting the certificate in his or her respective home-based clinic The completion of in-person or correspondence training courses, and the accompanying certificate, could also enhance one's reputation and was encouraged by the state Passing the certification test also did make a difference in whether or not one became a designated village representative of a specific public health bureau (assuming any of the practitioners in a given village passed the examination) Tiger Springs village practitioner reputations, however, depend on much more than certificates from state examinations, and whether or not one has passed the exam does not necessarily count for a tremendous amount among the villagers in their therapeutic decisions More significant factors in the therapeutic resort include the reputation of a particular practitioner in treating a particular illness, their relative skill with either the Western medicine or Chinese medicine cure which the patient determines is appropriate to a particular illness, the convenience of their location, the history of personal or family connections with the practitioner, and their fees

An additional concern of the Western public health scholarly literature was the fear that the status of Chinese medicine might decline vis-à-vis Western medicine Tracing the relationship between Chinese medicine and Western medicine in the contemporary rural Lijiang basin is a complicated epistemological and practical undertaking¹⁰ With respect to national policy as it has been played out at the local level, integrated medicine is in theory no longer officially promoted in either training or clinical contexts With decollectivization in the early 1980's, the study of integrated medicine became redivided into its pre-Cultural Revolution/pre-cooperative medicine incarnation of "separate but equal" fields of Chinese medicine and Western medicine This division of labor has also been reinstated in the Lijiang County Hospital and the Lijiang Prefectural Hospital (both located in Dayanzhen) Most village doctors in the basin who began their study of medicine after 1949, however, continue to refer to their own practices as integrated medicine, regardless of their own particular specializations in either Chinese or Western medicine

Since decollectivization, there has unquestionably also been a shift (borne out by my clinic observations as well as the Lijiang

Prefectural Pharmaceutical Company's statistics) from a relatively strong reliance on Chinese medicine pharmaceuticals (40-80%) during cooperative medicine, to a predominant reliance (at least in the clinical context) on Western medicine pharmaceuticals (approximately 80%) in contemporary rural health clinics. An overwhelming majority of the afflictions treated by village practitioners are treated with injections of antibiotics, as well as some other Western medicine pharmaceuticals such as anti-helminthic medications for worms. If one has the money, "going to get an injection" is considered to be the thing to do for most illnesses. Starting with the implementation of cooperative medicine, getting an injection of antibiotics became as much a part of a visit to a clinic in the rural areas as it was in the urban areas prior to Mao's Cultural Revolution emphasis on rural health care.

Village practitioners all agree that a major reason why there is much less Chinese herbal medicine used now than during cooperative medicine is that it is neither economically viable nor physically possible for them as individual practitioners to organize extensive herbal medicine collecting expeditions of the same scale as those undertaken during collectivization. The purchase of many types of Chinese medicine from the Pharmaceutical Company is not cost-effective for village practitioners either, since they cannot expect to recover the costs from village clients. Most village practitioners acknowledge that Western medicine is the treatment of primary resort these days because it is convenient, quick, and not prohibitively expensive (depending on the economic status of the client). In part, it is the case that if a villager decides to treat an affliction with Chinese medicine (or at least herbal medicine), they usually do it themselves, either through gathering the herbal medicine or purchasing it at the pharmacy, rather than going to see the village practitioner. And it is critical to note that most village practitioners and patients alike continue to speak of the superiority of Chinese medicine over Western medicine.

One might be tempted to interpret this shift from heavy reliance on Chinese medicine pharmaceuticals to Western medicine pharmaceuticals as an indication of an emerging primacy of Western medical epistemology in rural China. While injections of antibiotics are clearly categorized by practitioners and patients alike as a technique of Western medicine, however, I have argued in detail elsewhere (White 1993) that the way in which they are used is closely linked to health bolstering techniques from Chinese medical epistemology. In general, I argue that it is Chinese medical epistemology which came to play the prevailing role in the Mao inspired "integrated Chinese and Western medicine," and that this continues to be the case in terms of how the legacy of this system of medicine is practiced in the post-Mao era rural context of the basin.

Tiger Springs Health Practitioners during and after Cooperative Medicine

Most of the practitioners who were incorporated into the brigade-level cooperative medicine clinic are still practicing today in Tiger Springs, albeit as private practitioners. The Tiger Springs Brigade cooperative medicine clinic itself consisted of five to six main practitioners throughout its more than ten year history (Table 1). (All of the names used for these practitioners are, of course, pseudonyms.) All of these cooperative medicine

era practitioners, with the exception of Dr. Ming (see below) were nominated by the leaders of the brigade primarily on the basis of their family backgrounds (i.e., they all came from families with "good" class backgrounds), and on the basis of how "capable" they were. Only two additional health practitioners have joined the ranks of these original practitioners in the post-Mao era.

Doctor Shi was officially designated by the brigade Party leadership to serve as a barefoot doctor, it was he who was put in charge of founding the cooperative medicine clinic in Tiger Springs in 1969, at age 22, and he served as its head in the ensuing years. Originally from one of the poorest families in the village, he had completed three years of primary school education. He had received his basic medical training through serving as a health aide for the military doctors in the PLA, and had then completed an additional six months of training at the above-mentioned Number 65 (military) hospital in the Lijiang basin. Later on, in the 1970s he underwent another six months of training in integrated medicine at the prefectural Hygiene School in the basin. Following Mao's dictum to "learn through experience," he studied Chinese medicine with his uncle, Dr. He (see below), and Western medicine while working at the clinic with Dr. Ming. Although he was primarily designated as a Western medicine practitioner in the clinic, he represents his previous and current form of medical practice as "integrated medicine." He did not pass the certification examination which he took in Western medicine in 1982, his very basic literacy no doubt presenting a significant obstacle, nonetheless, he is the second most popular practitioner in contemporary Tiger Springs.

In 1969, he was joined by Dr. Ming, then in his 40s, who was a doctor trained in Western medicine from the Lijiang County Hospital. Dr. Ming was "sent down" to Tiger Springs Brigade to "learn from the peasants" for the duration of the Cultural Revolution since he had a (family) "history problem" (i.e., his family had a bad class label), and since Tiger Springs was, in fact, his "native village." He is no longer in Tiger Springs, since he returned to the hospital as soon as the Cultural Revolution began to wind down, but he was very much respected and regarded as a valuable resource by the other members of the cooperative medicine team.

Dr. Shi was also able, in 1969, to persuade his maternal uncle, Dr. He, who was then 48, to come back to serve in Tiger Springs from a neighboring brigade's cooperative medicine clinic. Dr. He was an "old Chinese medicine doctor," who actually had been "too naughty" in his youth to complete an apprenticeship with a bonafide Chinese medicine doctor, but, after a multifaceted career, he later studied Chinese medicine on his own, and also brought a number of family-inherited (from his mother and maternal grandfather) secret herbal remedies with him to the clinic. His particular specialties were in bone setting and gynecological problems. By his account, he "only studied a little bit of Western medicine." Although he took the certification examination in Chinese medicine in 1983, he did not pass it (as in the case of his nephew, Dr. He's very basic literacy was an obstacle), nonetheless he is still popular as a practitioner and is passing on his secret remedies to his nephew, Dr. Shi. He was 69 in 1990.

Li Hong was a young man in his early 20s from Tiger Springs who became the "accountant" for the clinic in 1972, gradually studied medicine on his own, and later was officially "chosen by the people" as a barefoot doctor. He describes the medicine

Table 1. Tiger Springs Medical Practitioners prior to, during, and after Cooperative Medicine

Pre-Cooperative Medicine:

The first Tiger Springs clinic was set up in 1956 by He Zhi-ming (a Chinese medicine practitioner). He was joined by Yang Ru-jin in 1957 (who studied Western medicine in the PLA). Together they practiced "Chinese medicine and Western medicine united." In 1958, the clinic was redesignated as a "Health Protection Office."

Tiger Springs Brigade Cooperative Medicine Clinic (1969-1983):

"True" cooperative medicine (i.e., 1.5 yuan per year/0.05 yuan per visit per brigade member) lasted only for the first three years; cooperative medicine persisted through 1983, supplemented by the brigade workpoint system, but at a higher fee per visit cost.

There were six main practitioners:

Dr. Shi: Brigade-designated barefoot doctor from Tiger Springs who had previous PLA training in Western medicine, but consistently refers to himself as a practitioner of integrated Chinese and Western medicine; he was 22 in 1969, and was responsible for organizing cooperative medicine for the brigade.

Dr. Ming: Doctor trained in Western medicine from Lijiang County Hospital, "sent down" to Tiger Springs for the duration of the Cultural Revolution; Naxi, originally from Tiger Springs; he was in his early 40's in 1969.

Dr. He: Chinese medicine practitioner, with specialties in bone setting and gynecological problems; Naxi from Tiger Springs; he was 48 in 1969.

Li Hong: Trained as a barefoot doctor to practice integrated medicine; began as clinic accountant in 1972; Naxi from Tiger Springs; he was in his early 20's in 1972.

Mu Ru-yi: Original head midwife, but left Tiger Springs in the mid-1970's; Naxi from Tiger Springs; she was in her early 30's in 1969.

Lu Xiao-yan: Studied midwifery with Mu Ru-yi in the early 1970's; Han, originally from Tenchong (she married into Tiger Springs); in her early 20's when she began to study/practice.

A variety of other midwives and "hygiene workers" who also practiced in the clinic on a periodic and temporary basis.

Tiger Springs Independent Practitioners in the Post-Mao Era (since 1983):

Cooperative medicine was officially dismantled in 1983 in Tiger Springs, at the same time as decollectivization occurred. All practitioners have been designated as "village doctors," and all now practice medicine out of their own homes. Testing for professional licensing in either Western medicine or Chinese medicine began to be encouraged in 1978, and was required by 1982/83. Not passing the exam did not disallow practitioners from continuing to practice, but village level public health bureau representatives were selected from among those practitioners who have passed the certification exams.

There are currently six main practitioners:

Dr. Shi: Integrated medicine; did not pass certification exam in Western medicine in 1983; is the second most popular practitioner in Tiger Springs; he was 43 in 1990.

Dr. He: Chinese medicine; did not pass certification exam in Chinese medicine in 1983; is still popular as a practitioner and is teaching his secret remedies to his nephew, Dr. Shi; he was 69 in 1990.

Li Hong: Hygiene and Preventative Health Station representative for Tiger Springs, and responsible for all vaccines for the administrative village since 1989; receives 20 yuan per month as a stipend for this service; shared Prevention Station work and stipend with Dr. Shi and Dr. Wang from 1984-1989; passed Western medicine certification exam in 1982, but does not treat patients; in his mid-40's in 1990.

Dr. Wang: Integrated medicine; passed certification exam in Chinese medicine in 1978; began to practice openly in 1986 (formerly banned from participation in cooperative medicine due to bad family background); most popular practitioner in Tiger Springs; Naxi from Tiger Springs; he was 51 in 1990.

Lu Xiao-yan: Tiger Springs midwife and Women's and Children's Health Protection Station representative; receives a stipend of 20 yuan per month for these services; passed the certification exam in Western medicine in 1983; she was age 43 in 1990.

Mu Xiang-hua: Birth Planning representative since 1979/80 and Women's Association representative since 1970; receives 20 yuan per month from each bureau; Naxi from Tiger Springs; she was 41 in 1990.

that he practices as integrated medicine. Although he passed the Western medicine certification exam in 1983, he no longer treats patients; rather, he has become the Hygiene and Preventive Health Station representative for Tiger Springs, a service for which he receives 20 yuan per month as a stipend. While he shared the Hygiene and Preventive Health Station work and stipend with Dr. Shi and Dr. Wang (see below) from 1984-1989, he has been designated as the sole practitioner responsible for all vaccines for the village since 1989. He was in his mid-40s in 1990.

Mu Ru-yi, a woman who was in her early 30s in 1969, initially was the only woman on the team. She took on the midwifery work for several years, though she eventually left the Lijiang basin in the mid-1970s. Lu Xiao-yan, who is still practicing in the village, was in her early 20s when she began to study midwifery skills with Mu Ru-yi as a health aide in the early 1970's. She eventually took over Mu Ru-yi's duties, and is currently in charge of midwifery for Tiger Springs. She is actually Han and not Naxi, since she is from Tenchong (in southwestern Yunnan) and married into the village. She had a fifth-grade primary school education, having had to quit school because of "family difficulties." She passed the Western medicine examination in 1983, and is the designated Women's and Children's Health Protection Station representative for Tiger Springs; she receives a stipend of 20 yuan per month for these services. She was age 43 in 1990.

Additionally, during cooperative medicine, there were eighteen health aides, one nominated by each of the production teams which made up the brigade. Seventeen of these were female, and their task was to study both midwifery (with the staff midwife), and to help around the clinic with giving injections and filling medical prescriptions. Two of these health aides would serve at the clinic during any given month. Essentially all of the young women who had been trained as health aides had married out of the village (with the exception of Lu Xiao-yan, who had of course married in to the village).

During the first three years of cooperative medicine (1969-1972) in Tiger Springs, classes for all members of the clinic staff were set up on Monday and Saturday evenings. All doctors aimed to practice integrated medicine, whatever their respective specializations. There were always two doctors on staff during each of the morning and afternoon shifts. All three of the male doctors (Shi, He, and Ming — later replaced by Li) would carry out the vaccination work in the brigade school, and set up times for each production team to come in. On average, there were more than one hundred patients per day during the first three years of the clinic, while "true" cooperative medicine lasted.

While the brigade-based organizational structure of cooperative medicine essentially dissolved with post-Mao era decollectivization, as mentioned above, the practitioners for the most part remain the same, as does the epistemology of the integrated medicine which they practice. The only contemporary Tiger Springs health practitioner who did not practice as part of cooperative medicine is Dr. Wang, who is now the most popular practitioner in the village. He had completed his lower middle school education (equivalent to ninth-grade level) with high scores at the best school in the prefecture, but had been barred from continuing on to senior middle school by his "bad" family background (i.e., his father was labeled as a "rich peasant"). His bad class label had also prevented him from practicing medicine during collectivization, but he had studied

both Chinese and Western medicine on his own since he was 17 (i.e., since 1957). He began formal study of medicine in the late 1970s through correspondence courses, passed the certification examination in Chinese medicine in 1978, and began to practice medicine openly in 1986. Although he only officially began to practice after the dismantling of cooperative medicine, he very much considers the form of medicine he practices to be integrated medicine. He also includes as part of his repertoire a number of "secret herbal remedies" passed down through his family from his great-grandfather. He was 51 in 1990.

Mu Xiang-hua is not exactly a health practitioner in contemporary Tiger Springs, but she has been the Birth Planning representative since 1979-80 and the Women's Association representative since 1970. She receives 20 yuan per month from each bureau. She has garnered quite a reputation for enforcing a two-child policy in the village, and also for setting up a kindergarten for village children in her home. She was 41 in 1990.

There was clearly a gendered division of labor in the Tiger Springs cooperative medicine clinic which was reflected throughout the other clinics in the basin. With a few exceptions, women took on the tasks of midwifery, gynecological problems, and being nurses, primarily men took on the other healing tasks and inevitably became the "doctors" (as reflected in terms of address). This division of labor reflected both the pre-1949 pattern of male Chinese medicine doctors and female midwives, and is reflected in the post-Mao public health division of labor in the villages between male Hygiene and Preventative Health Station representatives and female Women's and Children's Health Protection Station representatives (see White 1993 for more details).

Regardless of how "revolutionary" the particular village, the situation since decollectivization in most of the basin villages with respect to cooperative medicine parallels that of Tiger Springs. Village practitioners may get together once or twice a year to help out with vaccinations for their village. The former brigade clinic may be maintained for these functions or in order for one or two practitioners to use the facility. Nevertheless, virtually all practitioners are practicing privately, and most of them are practicing out of their own homes. Aside from the meager stipends from the county public health bureau, and the vaccination program, there is no outside financial support.

Conclusions

This article addresses several key issues. The first is regarding the financing of rural health care, which will continue to be a critical issue for the residents of the rural PRC. Clearly, cooperative medicine, which was a solution for some peasants but not for others, is not a feasible option in the post-Mao era. Despite decollectivization, the preventive and primary care aspects of rural health care remain more or less in place, and are, to a degree, subsidized and maintained by the state, they are, however, no longer subsidized by the collectives. With respect to secondary and tertiary care interventions, villagers unquestionably bear the brunt of medical costs (unlike their usually urban compatriots who have state work unit positions), but this was also true, albeit to varying degrees and in some cases on a more indirect basis, for most brigades during

collectivization. The forte of rural health care since the Maoist period has always been preventive and primary care medicine. For access to secondary and tertiary care interventions, villagers must rely primarily on themselves, their relatives, and other friends for support.

Moves towards collective, prepaid health insurance schemes have been documented in the recent scholarly literature for some rural areas of the PRC. As has also been documented, however, these are primarily in more prosperous rather than poorer villages. It is clear that the central government needs to play a role in supporting a national health care "safety net," and that the doctrine of "self-reliance" which has always been preached to village residents in the PRC is not going to be sufficient to protect the access of poorer and even mid-level income peasants from the ever-increasing costs of secondary and tertiary care in the contemporary PRC.

With respect to the professionalization issue, despite Public Health Bureau moves towards professionalization of "village doctors," whether or not they are certified has a minimal effect on the village doctors who are still practicing in the Lijiang basin, additionally, the epistemological foundation of their therapeutic practice continues to be the Cultural Revolution formulated integrated Chinese and Western medicine. The vast majority of current practitioners in the Lijiang basin were part of cooperative medicine clinics and were trained under the legacy of integrated medicine. It is likely that most future village practitioners will be the sons and sometimes daughters of current practitioners, who will have studied with their parents and perhaps been exposed to six months or more of an outside training course (probably in Western medicine) at the prefectural Hygiene School or at a Dayanzhen hospital. It is also likely that the practices of these family inheritors will be informed by the legacy of integrated medicine.

In seeking to understand why cooperative medicine and the barefoot doctors so captured the imagination of Western scholars, it is critical to acknowledge the profound significance and relative success of rural health care in socialist China. Establishing a rural health care infrastructure in the PRC was clearly one of the great achievements of the Maoist leadership. It is also important to acknowledge the efforts of the post-Mao leadership to keep that infrastructure in place, at least with respect to preventive and primary care aspects of health care. The key issue confronting the contemporary leadership is how to resolve the dilemma of rural residents being denied access to secondary and tertiary health care in urban clinics and hospitals unless they can pay for it up front. What scholars of this issue need to realize is that cooperative medicine did not completely resolve this issue for many villagers either.

Finally, it is critical to examine the relationship between a public health approach and a health care approach to addressing the long-term issues of villager well-being in the rural PRC.¹¹ The PRC government has kept a clear priority on vaccination programs (which at least in the Lijiang basin were vigilantly maintained), but has not, to my mind, continued to sufficiently prioritize other preventive care priorities, such as sanitation and other environmental health issues, maternal and child health issues, women's health issues (e.g., Wong *et al* 1995), and health (and general) educational issues. While issues of unequal access to health care loom large as a spectre which needs to be contended with in a country which is rapidly differentiating itself into classes of haves and have-nots, so do fundamental

issues of public health and their integral relationship to other dimensions of the political-economy need to be attended to.

NOTES

¹Key contributors to this "first wave" include (though are not limited to) Horn 1969, 1972, 1976; V W Sidel 1972a, 1972b, Sidel and Sidel 1973, 1977; Pickowicz 1973; Rifkin 1973, 1978; Wegman, Lin, and Purcell, eds 1973, Lampton 1974, 1977; Hsu 1974; P K-M New 1974a, 1974b, New and New 1975, 1977, 1978; Li 1975, Wang 1975, P C Chen 1976; Chabot 1976, and Mechanic and Kleinman 1978.

²Key contributors to this "second wave" include (though, again, are not limited to) Rosenthal and Ponger 1980; Blendon 1981; Lampton 1981, P-C Chen 1981; Wegman 1982; Hinman *et al* 1982; V W Sidel 1982, Sidel and Sidel 1982, Henderson and Cohen 1982, 1984; Rosenthal and Greiner 1982, Hsiao 1984; Jamison *et al* 1984; New and Cheung 1984, Koplan *et al* 1985, and New 1986.

³Contributors to this discussion since the late 1980s include C C Chen 1989; Yang, Lin, and Lawson 1991; The World Bank 1992; Chen, Hu, and Lin 1993; Gu *et al* 1993, Henderson, Akin, *et al* 1994; Henderson, Jin *et al* 1995, Hsiao 1995; Liu *et al* 1995, Feng *et al* 1995; Wong *et al* 1995; Hsiao and Liu 1995; Bloom and Gu 1997.

⁴Notable exceptions include the fieldwork-based work of Jack and Sulamith Potter (1990), who wrote about cooperative medicine in Zengbu Village in Guangdong Province from 1979 through the early 1980's, and of Shu-min Huang (1988), who has written about Maoist and post-Mao transformations in rural health care based on his research in Lin Village on Xiamen island in Fujian Province in 1984-1985.

⁵My data for the six Tiger Springs practitioners interviewed includes intensive half-day initial interviews, and repeated clinical observations. My data for each of the remaining seventeen Lijiang basin village practitioners are based on a full day of alternate interviewing and clinical observation. My data for county and prefectural public health bureau interviews are also based on a combination of intensive informational interviews with members of the respective units and observations where possible. I also interviewed a number of town-based practitioners as part of my research.

⁶One Tiger Springs village practitioner jokingly made an analogy between the excesses of eating indulged in by villagers ("chi da guo fan," or "eating the state's rice") at the beginning of the Great Leap Forward (1959-1961), and the excesses of medicine utilization indulged in by villagers at the inception of cooperative medicine ("chi da guo yao," or "eating the state's medicine").

⁷See Farquhar (1994) for a detailed discussion of this principle.

⁸I have addressed the epistemology and practice of integrated medicine in extensive detail elsewhere (see White 1993).

⁹Yunnan is especially renowned for its herbal medicine.

¹⁰Again, please see White (1993) for much more detailed discussion of the rural practice of integrated medicine.

¹¹Thanks to one of the anonymous reviewers for pointing out the significance of this issue vis-a-vis recent developments in the PRC.

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