

Too Costly To Be Ill: Healthcare Access and Health-Seeking Behaviours among Rural-to-Urban Migrants in China

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ABSTRACT

Of the 114 million rural-to-urban migrants in China, most have only temporary employment in the cities. Because of their non-urban residence, they are not entitled to many benefits and services accorded to most urban dwellers. Only limited research has been conducted on the healthcare access and health-seeking behaviours of this population. This study, based on qualitative data from in-depth interviews with 90 rural-to-urban migrants, found that migrants had limited access to regular medical services. Lack of insurance coverage, high cost of healthcare and exacting work schedules have resulted in use of unsupervised self-treatment or substandard care. The health-seeking behaviours of migrants have led to suboptimal health consequences, including delayed treatment of illnesses. Findings from this study underscore the importance of reducing institutional barriers to health services and providing affordable healthcare to this population.

Introduction

Global literature suggests that migration is associated with increased health risks (Brussaard et al. 2001; Darmon and Khalt 2001; McKay et al. 2003). Furthermore, migrants often have less access to community services, especially healthcare services, compared to local residents. Migrants' poor access to healthcare has been documented to lead to unsatisfactory health outcomes (Diaz et al. 2001; Pernice and Brook 1996; Pudaric et al. 2000; Steyn et al. 1997; Tie 1999). However, the existing literature on migrants' access to healthcare, as well as their health-seeking behaviours, has largely been limited to migrants in Western countries (such as the United States and Europe) and those seeking permanent resettlements such as international immigrants and war refugees (Darmon and Khalt 2001; Diaz et al. 2001; Pernice and Brook 1996; Pudaric et al. 2000). In contrast, there is a paucity of research in this field among the growing population of temporary, rural-to-urban migrants in developing countries, including China.

According to recent statistics from the Chinese government, there are approximately 114 million rural-to-urban migrants in China, accounting for 23.2% of total rural labour and 9% of the total

population in China (China National Bureau of Statistics [CNBS] 2003). This large-scale migration has been generated by a surplus of agricultural labour in rural areas and the increasing income gap between rural and urban dwellers (Ma and Xiang 1998). The majority of migrants come from poor rural areas in the interior provinces to search for better employment opportunities in the cities; thus, forming a general geographic pattern of migration from the middle and western parts of China to the eastern and coastal regions. This large-scale migration is one of the biggest internal migrations in China's history, and the momentum is expected to continue in the coming years (Shaokang et al. 2002; Li et al. 2006).

The rural-to-urban migrants in China are young (47.3% are younger than 25 years old). About 10% of adult migrants (15 years of age and older) are illiterate, 24% completed elementary school, 52% completed middle school and 13% graduated from high school (CNBS 2001). As most migrants have not received work skills training, they frequently undertake manual labour and personal services related to manufacturing, goods transportation, construction, entertainment, domestic service and restaurant services (Jia et al. 2001; Zhang, L. 2001). Because of existing legal restrictions on employment and housing in urban areas, approximately 80% of the migrants neither maintain permanent relocation nor obtain urban household registration, known as "hukou" in China (Zhang, L. 2001), and, therefore, are often denied access to the rights and privileges traditionally granted to city dwellers.

China's rural-to-urban migrants have attracted attention domestically and internationally (Liang 2001; Ma and Xiang 1998; Solinger 1999; Zhang, L. 2001). Earlier studies on China's migrant population have reported its "negative" impact on the urban society, such as increasing criminal rates, increasing burdens on urban hygiene and social stability (Wong 1994), and this population's threat to China's family planning policies (Beijing Bureau of Statistics 1996; Tian 1991; Zheng et al. 2001). Recent studies have focused on these migrants' limited resources, such as poor housing and living conditions (Shen 2002; Wu 2002), and their vulnerability to infectious diseases, including HIV and STDs (Anderson et al. 2003; Li et al. 2004). However, studies on this population's healthcare access and health-seeking behaviours have been limited; available studies have primarily focused on the reproductive health of female migrants (Shaokang et al. 2002; Feng et al. 2005).

China's healthcare system has undergone substantial reconstruction since 1978, when the country began moving from a planned economy to a market economy. The healthcare reform featuring "decentralization" and "marketization" has resulted in substantial, and frequently unaffordable, increases in the direct cost to patients, and reduction in health insurance coverage (Liu 2004; Liu and Wang 2001); therefore, this reform has been criticized for causing growing disparity in access to health services, especially for the low income population in both urban and rural China (Akin et al. 2005; Bloom and Xingyuan 1997).

The healthcare reform in China has affected both the rural and urban healthcare systems (Shi 1993). Approximately 80% of the country's total health budget is allocated to funding hospital-based medical facilities in urban areas, although urban residents account for just 30% of the country's population (Zhang, W. 2001). The urban population, which was formerly protected by a government insurance scheme and labour insurance scheme in the 1980s, has been covered primarily by employment-based health financing or social insurance scheme since the 1990s, with more co-payment and less coverage. The urban residents were almost fully covered in the 1980s, but the coverage fell to 52% in 1993 and 39% in 1998 (Gao et al. 2002). There is evidence that the urban residents covered with any insurance are those with regular employment or relatively high income (Gao et al. 2002).

For the rural population, the affordable and generally effective cooperative health insurance reached a peak in the mid-1970s when nearly 90% of the rural population was covered. In the 1980s, rural cooperative health insurance collapsed; the coverage fell to only 5% in 1989 (Bogg et al. 1996; Grogan 1995). Virtually all rural residents must now pay for their healthcare at the point of service. A recent study found that 94.2% of the rural residents had to pay all healthcare expenditures out of their own pockets; a survey in 1998 indicated that 36% of rural residents did

not receive any health services because they could not afford to pay (Mao 2000). Another study in a rural area suggests that financial burden has been a primary reason for not seeking necessary care (Xu et al. 2004).

The rural-to-urban migrants were not covered by any insurance before migration. Because of their “rural residence” (i.e., not having urban household registration, or “hukou”), and the nature of the work available to most of the migrants, they often are not entitled to employment-based health insurance or preventive service available to urban residents, even though they are working in the cities. For example, only 22.5% of female migrants received any maternal health or family planning education, compared to almost 100% of urban residents (Zheng et al. 2001).

Several survey studies have suggested reduced access to healthcare among the Chinese rural-to-urban migrants (Feng et al. 2005; Guan and Jiang 2004; Shaokang et al. 2002). Our quantitative investigation among rural-to-urban migrants in China has also suggested that increase in geographic mobility was associated with inferior health-seeking behaviours (Li et al. 2006). However, qualitative studies on this issue from the perspective of rural-to-urban migrants have been very limited. Our present study, based on 90 in-depth interviews among rural-to-urban migrants in Beijing and Nanjing, will explore their perceptions related to healthcare access in the cities, perceived barriers to formalized medical care, health-seeking behaviours, and the health consequences.

Methods

Research Sites

The data collection procedure of this study has been described elsewhere (Hong et al. in press). Briefly, this study included 90 semi-structured and open-ended individual interviews conducted in two major Chinese cities, Beijing and Nanjing. These interviews were designed to collect qualitative data regarding the cultural and social context of rural-to-urban migrants' lives in the cities. The interviews also served as the formative phase of an HIV/STD intervention feasibility study among young migrants. Beijing, the capital city of the China, has a population of 13.82 million, including three million rural-to-urban migrants, and is located in Northern China (Beijing Bureau of Statistics 2002). Nanjing, with a population of 5.6 million, including 800,000 migrants, is the capital city of Jiangsu Province in East China (Nanjing Bureau of Statistics 2003).

Interview Guide

Open-ended interview guides with suggested probes were constructed based on several informal group discussions among young migrants, local community leaders (both formal and informal), healthcare providers, government officials and project staff. The group discussions were conducted to elucidate topics to be probed in the individual interviews among the migrants. The themes identified from the group discussions served as the foundation for individual interview guides. The resultant interview guides included open-ended questions covering demographic information, migration experiences and living and working in the cities. Questions regarding migrants' access to healthcare services included their perceptions and experiences of seeking healthcare in the cities, their coping strategies and possible consequences. The interview guide used open-ended questions to encourage extended responses.

Procedure

A purposeful sample of 90 participants was recruited at the migrants' work places, labour markets and homes through network sampling. Local community leaders (both formal and informal) in the migrant settlements served as facilitators for the recruitment process. Individual interviews were conducted in places established as convenient for the interviewees. All interviewers were trained faculty members and graduate students from Beijing Normal University and Nanjing University. Each participant was assured of his/her confidentiality in the study, and an informed consent form was signed before the interview started. Each interview took about 60 to 90 minutes; all interviews were audio-taped and

transcribed. The Institutional Review Boards at West Virginia University in the United States, Beijing Normal University and Nanjing University in China approved the study protocol.

Participants

The 90 participants (50 in Beijing and 40 in Nanjing) ranged in age from 16 to 37 years and included approximately equal proportions of males and females. Nineteen of the participants were married; two were divorced, and 69 were single. Thirty-six had completed middle school (compulsory in China – although 14 of the migrants had no more than primary school education), nine had graduated from high school and 30 had graduated from post-secondary schools (including vocational school, three-year colleges, etc.). Forty-six had first migrated to cities between the ages of 16 and 19. The duration of their stay in Beijing or Nanjing varied from one to more than 11 years.

Data Analysis

Data analysis began with multiple readings of the transcripts and field notes, which were in Chinese. Coding themes were developed drawing upon the constructs from the interview guide and new themes emerging during the interview and coding process (Silverman 1993; LeCompte and Schensul 1999). Text coding and analysis were then conducted in Chinese by members of the research team who are Chinese-English bilingual, following the procedures outlined in the recent qualitative literature (La Pelle 2004; Ryan 2004). For each coded transcript, detailed summaries were prepared in English. To minimize the translation bias, a substantial amount of original quotes were retained in the summaries. The summaries reflect the range of responses, with some indication of consistent responses. Because this study is focused on aspects of migrant's healthcare in urban areas, we have confined this analysis to these domains: access to healthcare services in the cities, perceived barriers to formalized medical care facilities, health-seeking behaviours and possible health consequences.

RESULTS

No Healthcare Coverage

None of the participants was covered by any health insurance or was provided with healthcare benefits by their employers. They spent little on healthcare, with most reporting no expenditures or only several yuan a year (approximately eight Chinese yuan = 1 US dollar) and a few reporting expenditures of 50 to 100 yuan. The exceptions to this were the individuals who were involved in trauma or required surgery.

“Last time my wife came to Nanjing to visit me, she was hit by a car, and had to be hospitalized, we had to pay all the fees, and we spent about 3000 yuan.” [Male, aged 27.]

“I rarely spend any money on medicines. But last year, because I had stones in my urine and had to go to hospital. And my girlfriend was pregnant and had to do an abortion in the hospital. So I spent a lot of money [for healthcare] last year.” [Male, aged 25.]

Only two participants reported having received physical examinations, and both were required to do so to obtain health certificates for their work.

Low Utilization of Medical Facilities

Medical services in urban China are delivered primarily through hospital-based facilities, which offer both in-patient and out-patient care (Cohen and Henderson 1983). Chinese people usually refer to “medical facilities” as hospitals. When we asked the participants if there were any medical facilities in their neighbourhood, some stated that they did not know or that hospitals were too far away. Some migrants were able to identify the hospitals close by, but few had visited those hospitals.

“I don't know, I am not sure. I usually do not go to hospitals.” [Male, aged 23.]

“I know there are many hospitals nearby, I know them. But I have never been to any of them.” [Female, aged 27.]

“Medical facilities? Hmm, no, there might be some in XXX. But they are too far away.” [Male, aged 21.]

Many migrants pointed to pharmacies or small private clinics (usually unlicensed) and referred to them as “medical facilities.”

“Yes, there is one, a pharmacy store.” [Male, aged 20.]

“There are many pharmacy stores close by, and there is a small clinic.” [Female, aged 19.]

“I know some pharmacy stores, but not hospitals. I usually do not go to hospitals.” [Female, aged 23.]

“I don’t know about hospital, but I know there is a pharmacy store.” [Female, aged 27.]

Reasons for not Seeking Formalized Medical Care

“Too Expensive”

The majority of the participants reported that they never or rarely used hospital-based healthcare. Expenses were the most commonly cited explanation for their non-utilization.

“Honestly, people like us came to work in Beijing; we dare not go to the hospital; it is just too expensive....” [Female, aged 27.]

“Unless I am really sick, I definitely will not go to the hospital. It is quite expensive.” [Male, aged 24.]

“Hospitals? There is nothing good about them! They only know how to charge you money!” [Male, aged 30.]

Some migrants who had experiences with hospital-based care often felt that the services were not worth the charges.

“Once I went to a hospital, I found it was very expensive, and the doctors in the hospitals had very bad attitudes!” [Female, aged 23.]

“I spent 100 yuan in the hospital just for drops — I felt really bad about spending that money.” [Male, aged 24.]

One participant became quite agitated when talking about the costly services offered in the hospital. He shared his own experiences of seeking care for his son in a hospital:

“Hospitals in XX [name of the city]...to be honest with you, I can’t afford it. In my hometown, if you spend 1000 yuan, it must be a very serious illness; but in XX, 1000 yuan cost is very common. I just had an experience. My son’s hand was cut when he was playing, so I took him to a hospital. They wanted to charge 240 yuan for several stitches. They even wanted to charge 50 yuan for just cleaning the wound. I was really angry, so I left the hospital and went to a small clinic nearby; they only charged 100 yuan for the same operation. I could say the hospitals in XX are darkest in the world!” [Male, aged 30.]

“I Have No Time.”

Some migrants reported that they had neither the time to become familiar with hospitals in their neighbourhoods nor the time to visit any hospital for healthcare.

“I don’t know any hospital. Because I work from morning ‘til night; and we can’t go out during

work. In lunch time, they have the lunch boxes delivered to our work site.” [Female, aged 27.]
“We don’t go to hospitals usually. No time. Once I was really sick, but the work schedule was very tight. I was very sick and almost in coma, but I only stayed in the hospital for half a day and got one shot, and I had to return to work after that.” [Male, aged 26.]

“We Should Not Be Spoiled.”

For these migrants working hard every day, going to hospital seems a luxury for privileged individuals. As one remarked,

“Migrant workers like us, should not be spoiled.” [Male, aged 22.]

Some migrants believed that they themselves were the ones to count on, coupled with a sense of relying on luck.

“People like us working outside [the village] have to learn how to take care of ourselves. If you don’t take care of yourself, nobody will.” [Female, aged 27.]

“We Can’t Get Sick or the Boss Will Get Rid of Us.”

Taking a day off and visiting a doctor may be equally “unaffordable.” A 20-year-old man used to work in an express-delivery company. One time he was seriously ill, but his employer refused to allow him to leave:

“My stomach and back were causing great pain; but my boss was very busy at that moment. I asked for a sick leave. He said, ‘you can’t. There are so many things for you to do.’ I had no choice but had to hold on. When I really could not hold on, my boss said, ‘tell you the truth, you really should not stop, you should hold on by biting your lips.’” [Male, aged 20.]

Another migrant reported that he and his co-worker could not openly discuss their illnesses because of the fear of losing jobs.

“Some of my co-workers have arthritis or something. But even if we are sick we don’t say it. If we say it, the boss will get rid of us.” [Male, aged 34.]

Coping Strategies

Since many of the migrants do not seek healthcare in regular medical facilities, such as hospitals, how do they take care of themselves when they became ill in the cities? They appeared to employ a wide variety of coping strategies including “just hold on”, self-treatment with over the counter (OTC) medicines from pharmacies, having home remedies, obtaining medicines from urban residents and receiving care in private, small (usually unlicensed) clinics. Their very last resort was the hospital, but usually only after they tried many other efforts and considered themselves to be seriously ill.

“Just Hold On”

Many migrants neither took any medicines nor sought any medical care when they were sick:

“I usually just hold on. Usually after seven days, I will be fine again.” [Female, aged 19.]

“Unless I am having a fever and cannot move myself out of the bed, I will still go to work. If I am so sick [that I can not get off bed], I will go to a clinic to get a shot and then go back to work. For us, we are already used to that.” [Female, aged 30.]

“I don’t take medicines, I just hold on. Because if you take medicines, you will feel very weak the next day and can’t work.” [Male, aged 22.]

“Go to Buy Some Medicines in the Pharmacies”

The most frequently reported coping measure for illness was unsupervised self-treatment with OTC medicines from pharmacies. Buying medicines is considered an efficient alternative to seeking care from a physician, as it saves time as well as money.

“Because of our work, we often work long hours, so we don’t have much choice about what we eat and where we live, and we cannot care much about personal hygiene....we usually prepare some medicines at home, if we get sick like a cold or something, we can be prepared for it.” [Male, aged 21.]

“I rarely get sick. If I do, I always have some medicines at home, no need to go to hospitals.” [Male, aged 23.]

“There are many drug commercials on TV. [If I get sick] I just go to buy some medicines. It takes two or three days, no more than one week and then I will be fine; no need to go to hospital.” [Female, aged 30.]

“If I get sick, I just go to buy some medicines in the pharmacy. My mom told me what to buy before I came here.” [Female, aged 22.]

“If I get sick, just a cold or fever, I just buy some medicines. Ten yuan of medicines will take care of that.” [Male, aged 24.]

Home Remedies

Many migrants reported that they used traditional Chinese remedies for self-treatment.

“If I get sick, like a cold or running a fever, I never go to see a doctor. I usually boil some ginger tea, and it works well. I rarely even have medicines. Ginger tea is very effective.” [Male, aged 21.]

“In Spring, when it is really windy, I often have a headache because of the wind, and I drink some alcohol to take care of that. When I have a cold and cough, I will buy some pears and cook them with rock sugar. After I eat that, I will be fine. I usually don’t take medicines.” [Male, aged 29.]

Some even performed surgical procedures for themselves.

“I never go to the hospital. Even one time when I was really in bad luck, and had a dozen corns on my foot, I didn’t go to the hospital. I bought a corn gel and had an operation for myself. I bought a knife and cleaned it with alcohol, and then I cut the corns out with the knife.” [Male, aged 20.]

“Luckily My [Urban] Friends Have Insurance Cards.”

Urban residents who are employed are usually insured through their employer-sponsored healthcare and therefore are entitled to many subsidized medical services, including discounted prescription drugs. Because migrants are not eligible for these services, some migrant workers reported they asked urban residents with insurance for help. Some migrants reported receiving prescription drugs from their urban neighbours or employers, who can easily get discounted medicines with their insurance.

“We can’t get any discount if we go to the hospitals, so we don’t go there. We just ask the regular employees [those with urban residence and health insurance, as opposed to the temporary workers] to buy some medicines for us. It is easy for them to get medicines.” [Female, aged 26.]

“I used to have very serious neurasthenia. I often woke up at midnight with nausea, and I almost lost my vision. So I had to go to hospital to get some painkillers. It is very expensive in the hospital, and luckily some of my friends have insurance cards. So I asked them to get the medicines for me.” [Male, aged 22.]

“I usually don’t care if I have a cold or have a fever, unless I really cannot hold on. Then I will ask for some medicines from my co-workers [those with insurance]. [Male, aged 25.]

Sometimes, the urban residents voluntarily offer assistance. A woman working as a domestic servant remarked:

“Sometimes I go to buy some medicines, but most of the time, the ‘young aunts’ [the urban residents in her neighbourhood] give me the medicines. They said it is easy for them to get medicines. So I didn’t reject them and just took them.” [Female, aged 35.]

Sought Substandard Care

The high cost and inconvenience of the hospitals had led many migrants to turn to private and usually unlicensed clinics for diagnosis and treatment.

“If I get sick, like running a fever or something, I just go to the small clinics. The clinics are opened for us non-locals. They are run by migrants too, but it is only a single big room.” [Male, aged 28.]

The largely unmet medical needs and lack of access to professional healthcare among this large growing migrant population have encouraged the emergence of many private unlicensed clinics. These clinics were welcomed by the migrant workers because of their convenient locations, flexible payment schedules and low cost.

“There are many small clinics in this area, run by my fellow villagers. In our hometown, people are very poor. You get treatment but [if you] have no money, it is OK; you can pay it after the fall harvest. After you sell the crops and collect the money, then you pay the bill. They do the same here; you can get treatment without immediate payment. In my hometown you pay only 20 yuan for drops; here [in the small clinic], you only pay 30 yuan. But in hospitals, they will charge you at least 50 or 60 yuan. It is nonsense.” [Male, aged 19].

“The small clinics are convenient and much cheaper. They are close to where I live. And they are for us – migrant workers. They can treat the common illnesses such as cold, fever, and headache. It is good for us as long as they can tell us what kind of medicines to take.” [Male, aged 28.]

However, many of these clinics were run by unlicensed or underqualified staff.

“They [the small clinics] don’t have the licenses; they just came and opened the clinics. And people in this area like to go to these clinics because we can’t afford the big hospitals.” [Male aged 19.]

Delayed Treatment

Some migrants did seek medical care in hospitals but usually only after trying many other efforts and perceiving themselves to be seriously ill. For migrants, hospitals are generally the last resort for care when they were left with no other choice.

“Illnesses are big or small. For small illnesses, you can just hold on by yourself; even some big

illnesses, you can buy some medicines by yourself, plus there are many folk medicines. Unless you are really really sick, you don't need to go to hospitals." [Male, aged 20.]

Similar to other populations without health insurance, migrant workers often delayed necessary treatment.

"Many times when I am asleep, I often have cramps in my legs. I wake up and take a deep breath; it really hurts. After a while, it is gone, then I go back to sleep. And the next day it is the same. I know it might be due to lack of calcium. I haven't seen a doctor for this. I am afraid it would be too expensive. I can't afford the expenses." [Male, aged 21.]

When they did receive healthcare in hospitals, the migrants were usually severely ill.

"Last year, I had no place to live, and stayed in the bar [where he works]. It was really cold in winter, really really freezing. I finally caught a cold, and it turned out to be very bad. I was running a fever, more than 39 degrees. I held on for three days and had to go to a hospital, and had three bottles of drops. After a whole night [of staying in hospital], I got much better." [Male, aged 21.]

"I went to a hospital once. I was working continuously for 48 hours. We stayed up a whole night, and then another night. Sometimes we ate a little bit at night; sometimes we even skipped lunch or just had some instant noodles and didn't even have time to drink water. I finally got sick. All the medicines I took didn't work and had to go to a hospital." [Male, aged 24.]

Another migrant relayed how they used hospitals for "big illnesses":

"I only went to the hospital once. It was last year, I slept on a brick floor, and the next day I began to run a fever. I was really sick and homesick and really wanted to go home. I had the fever for three or four days, and later on had to go to a hospital." [Female aged 29.]

Some even delayed treatment for infectious or severe diseases. For example, a young man described his own experience:

"Last time I wanted to donate my blood, but they said my blood had some problem and asked me to have a test. I went to a hospital and the lab showed it was positive for hepatitis B. But they said it is pretty expensive to treat it and it takes time. So I just let it be." [Male, aged 20.]

Discussion

In this study, we found that the high cost of health services and the lack of any health insurance resulted in under-utilization of healthcare services among migrants, which led to a series of ineffective health-seeking behaviours such as unsupervised self-treatment, going to unregulated clinics or "just holding on" without seeking any medical care. By the time they did receive formalized or professional care, they were often seriously ill. These findings were similar to those studies regarding migrant populations in other countries (Bollini and Siem 1995; Hansen and Donohoe 2003). It is worth noting that the most frequently cited reason for their non-utilization and under-utilization of health services was affordability rather than availability. Our findings also suggest that long working hours, lack of sick leave, fear of losing jobs and attitudes of urban healthcare providers are other reasons for their under-utilization of urban medical care facilities and their current suboptimal healthcare-seeking behaviours.

We should note that such problems related to healthcare may not be limited to only the rural-to-urban migrants. In both the rural and urban areas of China, healthcare is becoming a fee-for-service commodity that is more available to the rich than to the poor. As a result, access to healthcare is declining in many sectors of the Chinese population (Smith 1998; Lampton 2003; Liu 2004).

Inadequate access to health services and under-utilization of healthcare among the rural population and urban poor (e.g., unemployed) have been reported (Gao et al. 2002). Therefore, we need to interpret the migrants' healthcare behaviours within the social context of inequality in access to healthcare, one of the negative results of China's healthcare reform (Akin et al. 2005). The "high cost" of seeking professional care as indicated in this study goes beyond the monetary expenses or "out-of-pocket" payment, but reflects a range of institutional barriers including lack of legal urban residence (i.e., "hukou"), low social status, lower income and denied entitlement to employer-sponsored healthcare benefits (Shaokang et al. 2002).

The millions of rural-to-urban migrants account for 9% of the total Chinese population. They provide massive and cheap labour, which is instrumental to China's economic development. In fact some observers suggest that China's economic miracle is resting squarely on the shoulders of these migrant workers. Although they are helping to create the new affluence, only rarely are they reaping their fair share of the benefits (Smith and Fan 1995).

Previous studies conducted among the migrant population suggest that their living and sanitary conditions are often below minimum standards (Li et al. 2006). Migrants in this study also reported that they worked to tight schedules and high pressure, and had poor working and living environments, which may further heighten the risk of introducing new diseases or increasing the prevalence of infectious diseases (such as malaria and TB) (Smith and Fan 1995). Previous studies among Chinese rural-to-urban migrants found that many migrants were at high risk of HIV or STD; some of them also engaged in other risk behaviours such as smoking, drinking and substance abuse (Chen et al. 2004; Li et al. 2004; Lin et al. 2005; Yang et al. 2005). It is also believed that a fundamental challenge to China's ability to deal effectively with the HIV epidemic lies in its poorly developed public health system and in major disparities in healthcare between the rich and poor, between rural and urban populations and across different regions (Grusky et al. 2002). The rural-to-urban migrant population, because of its migratory status and relatively low socioeconomic status, is especially vulnerable to the negative consequences of such disparities in healthcare.

The Chinese government and Chinese society in general are beginning to recognize the need for healthcare among the rural-to-urban migrants (Liu et al. 2002). The first health promotion activity targeting the migrant population took place in Beijing on April 2004 (China Population Network 2004). However, greater efforts are needed to translate the concern into actual policies and implementation. As noted in the introduction, most of the urban residents who are employed receive healthcare benefits from their employers, but these benefits are not extended to rural-to-urban migrants, even though they work in the cities as well. Recently, there has been a growing appeal to reestablish the Corporate Medical Services in rural China, and some pilot programs are already underway (Wang et al. 2005). However, rural-to-urban migrants, because of the separation of their current residence (urban) and their permanent household registration (rural), would most likely be excluded from this proposed healthcare system reform.

The major limitation to this study is the lack of a comparison group for these migrants, either the rural residents or their urban counterparts. The lack of comparison group precludes any conclusion about the relative standing of migrants' healthcare accessibility in comparison with other socio-economically disadvantaged groups in China (e.g., rural population, urban poor). For example, one may argue that these migrants, because of the increase of their disposable income and wider availability of medical facilities in cities, may actually have better access to healthcare, in comparison with those still living in rural areas. Future study is needed to compare the healthcare access among different populations in China. Nonetheless, the findings of this qualitative study, with a focus on rural-to-urban migrants, a rapidly growing and highly vulnerable population, have significant public health implications. Another limitation to this study is that the participants were recruited from two big metropolitan areas (Beijing and Nanjing) and might not be representative of migrant populations in small cities or other regions in China.

This study underscores the importance of providing affordable and effective healthcare services to this population. Given the large number of migrants and the expected continuous growth of rural-to-urban migration in the coming years, prompt and effective actions are needed. We suggest

the following actions to improve migrants' access to healthcare and promote their health.

First, the government should implement policies that require employers to provide equally affordable insurance coverage to both urban employees and migrant employees. Migrants should not be deprived of entitlement to health benefits and community services because of their household registration status.

Second, the government should subsidize healthcare costs for low-income migrants or those who are self-employed. Subsidization should also be extended to those clinics that provide low-cost services to the low-income population (including migrants).

Third, an immediate progressive solution to improve healthcare services among this population may include appropriate regulation and utilization of the private clinics, which are already popular within the migrant communities because they are accessible and affordable to the migrant population. The government should provide resources as well as oversight to ensure the quality of their services. Appropriate referral systems between private clinics and hospitals should be established so that patients who need complex evaluations or treatment could receive timely and quality services.

Fourth, the rural-to-urban migrants' health can be further promoted by improving their working and living conditions. Finally, community-based health promotion programs should be designed and implemented in the migrant communities to improve their awareness of available resources of healthcare and preventive measures of health maintenance.

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