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# Coming Home

## *The Return of Migrant Workers with Illness or Work-Related Injuries in China's Hubei and Sichuan Provinces*

*Chuanbo Chen, Shijun Ding and Myra Pong*

Migration and Health in China
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# Introduction to Working Papers on Migration and Health in China

This paper is part of a series of outputs from the research project on Migration and Health in China.

China is confronted by major challenges posed by the massive population movement over the past three decades. In 2009, approximately 230 million rural inhabitants moved temporarily or permanently to cities in search of employment and better livelihoods. Such large-scale mobility has huge implications for the pattern and transmission of diseases; for China's health care system and related policies; and for health of the Chinese population in both receiving and sending areas. The health and social issues associated with population movement on such an unprecedented scale have been inadequately addressed by public policy and largely neglected by researchers. Based on interdisciplinary research across the health, social science and policy fields, this project constitutes a major effort to fill research and policy gaps. Collectively, the papers and commentaries in this series aim to provide a comprehensive assessment of the health and public policy implications of rural to urban migration in China, to inform policy and to identify future research directions.

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## Abstract/Summary

It is widely recognized that rural-urban migration has complex health effects. Employing a dataset from a POVILL project that uses a two-stage approach (involving household surveys and in-depth interviews) in four counties of rural China, this paper focuses on return migrants with serious illness/injuries to investigate the socioeconomic impact of return migration on rural households. Using POVILL survey data, 2,600 of 12,000 households sampled had at least one member who suffered from a major illness/injury, and around 4 per cent (or 477 households) had members who had migrated to cities but returned due to serious illness/injury. Six hundred of the 2,600 households were randomly chosen for in-depth interviews, of which 110 households were identified as having return migrants with major illness/work-related injuries (ReMIs). These households form the sample for this paper. About 80 per cent of the members of these households received in-patient hospital treatment and, because assistance from formal health care schemes was extremely limited, they had to rely on savings and loans from friends and relatives to pay for medical treatment and daily living expenses. Only about 30 per cent were able return to migrant work; 23 per cent either farmed or engaged in small businesses; 15 per cent could do only light work; 24 per cent lost productivity and became dependent on other, often elderly, family members; and 8 per cent died. These findings have significant implications for understanding the present flows of migrant labour, the implications of migrant health for rural livelihoods, and the consequences of the administrative divide between rural and urban areas for health and social protection. It thus suggests important areas for policy consideration that would affect both migrant and rural populations.



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# Introduction

There is increasing recognition that rural-urban migration has complex health effects. Internationally, the migrants' state of health has been investigated intensively (Sander 2007; Zimmerman et al. 2011), and the health status of those migrants who return to their hometowns or rural villages is now receiving greater attention (Clark et al. 2007; Ullmann et al. 2011). These studies have led to debates surrounding what has become known as the "healthy migrant phenomenon" by which the countryside exports good health while importing ill health (Hu et al. 2008). In China, the number of internal migrant workers has increased rapidly, from an estimated 100 million in 2002 to 160 million in 2011 (NBS 2012), and their health status is now receiving increasing attention from both the government and scholars. In particular, more attention is being paid to issues concerning the transmission of infectious diseases, maternal health, and occupational disease and injuries.[1] The "healthy migrant phenomenon" has also been observed in the Chinese context (Hu et al. 2008; Chen 2011).

However, the health effects of migration in China (as elsewhere) are extremely complex, both in terms of the physical impact on individuals and the socioeconomic consequences for individuals, households and communities in both sending and receiving areas. There are two main ways in which rural-urban migration and its health implications can be viewed. First, younger and healthier people are more likely to migrate to cities to seek jobs, while the elderly, weak or sick are more likely to remain in their rural home villages. Second, migrants who have a major illness or injury and/or need care are likely to return to their home villages to seek support from their families or communities (Bai and He 2002).

Migrant workers who suffer from illness/injuries and subsequently choose to return to their home villages in rural areas often disappear from the public eye and receive little attention. Nonetheless, the burden of taking care of these migrants has important policy and practical implications, not only for the distribution of health care resources, but also for the economic and care burden on the families of these migrants (Clark et al. 2007; Chen et al. 2010).

The central focus of this paper is on the population of return migrants with illness/injuries in China. It starts by providing an overview of the analytical framework used, followed by a discussion of data collection and methods. The rest of the paper then investigates the changing pattern of return migration in China (that is, how the countryside is importing ill health), and the impact on rural household livelihoods of migrants returning in ill health. The final section discusses the key conclusions and implications of the study. Using a large dataset collected in four counties in 2007,[2] several key questions about return migrants are examined. Why did they return home? How did they seek or access medical services? Who was responsible for earning the household income and providing daily care? Did these migrants receive assistance from formal social security schemes? And what were the impacts on their household livelihoods?

[1] Zhan et al. 2002; Pringle and Frost 2003; Zheng and Lian 2005; Strand et al. 2007; Guo and Zhang 2008; Liu et al. 2008; Wong et al. 2008; Liu 2011.

[2] Data used are from a research project funded by the Sixth Framework Programme of the European Commission (POVILL project, grant number: INCO-CT-2005-517657, www.povill.com/en_index.aspx), in which the household survey was led by Zhongnan University of Economics and Law. The China Health Economics Institute and Huaxi Medical Center of Sichuan University were also involved in the survey.

# Understanding the Impacts of Return Migration on Ill Health in China: The Analytical Framework

Return migration is an important stage in the migration process and refers to the act of going back to a place of origin such as a home village. Internationally, return migration is complex and can happen under a range of circumstances. The process can also have important linkages to health (International Organization for Migration 2008). Indeed, different factors related to the migration process—including reasons for migrating, type of travel, length of stay and legal status—can increase health vulnerabilities and affect a migrant's health status (Davies et al. 2010).

In China, return migration is viewed as the reverse process of rural-urban migration, where migrants go to the cities in search of job opportunities to support their families in rural areas. Key reasons for return include: the need to take care of family members, marriage, childbirth and childcare, difficulties finding jobs in the cities, plans to start a business at home, and health considerations. Ill health is therefore one among a complex set of factors associated with return migration.

The experience of migrants with ill health can be seen as a continuum of distinguishable phases, in which the process can be understood in terms of symptoms, diagnosis, care seeking, provider consultation, treatment and adherence (Chrisman 1977). In each stage of the process, patients encounter certain types of problems associated with the illness/injury. To investigate this issue, patient illness narratives, which are embedded in particular social and cultural contexts, are often a useful tool to capture the experiences of patients and the multiplicity of problems associated with ill health (Farmer 1994; Hök et al. 2007; Men et al. 2012).

Given the above context, and drawing particularly on Men et al. (2012), this paper focuses on five issues in investigating the pattern of return migration for migrants in ill health and the impacts on household livelihoods: (i) getting ill/injured and returning home, (ii) getting medical treatment upon return, (iii) meeting the costs, (iv) increasing the burden on families, and (v) changing household livelihoods (see table 1). Using a content analysis approach, the rest of this paper analyses the health situation of these migrants and the impacts organized around these five issues.

**Table 1 Migrants' Ill health: A Continuum**

| Issues | | | Associated problems |
|---|---|---|---|
| 1 | Symptoms and treatment | Getting ill/injured and returning home | Deteriorating health<br>Difficulties accessing urban health care services and treatment<br>Lack of family support in cities |
| 2 | | Medical treatment upon return | Varying quality of services<br>High medical costs |
| 3 | Short-term impacts | Meeting the costs | Limited support from formal social/health services<br>Difficulties acquiring financial resources for treatment (often resulting in the need to borrow money) |
| 4 | | Increased burden on families | Lack of caregiver at home<br>High dependency on household<br>Shortage of labour in household<br>Debt accumulation |
| 5 | Medium to long-term impacts | Changes in household livelihoods | Resumption of farming activities at home<br>Reliance on others for production<br>Becoming completely dependent<br>Death of key family breadwinner |

## *Data and Methods*

The data presented in this paper come from surveys and in-depth studies of return migrants conducted in four counties in Hubei and Sichuan provinces. The data were collected during the POVILL project study (see footnote 1 and acknowledgements), which combined a questionnaire survey (conducted between February and April 2007) with in-depth, one-year retrospective studies of households affected by major illness/injury (conducted between July and October 2007). "Major illness/injury" in the study is used to refer to one of three different types of situations: (i) the household member suffered from a serious health problem and had to pay medical fees for in-patient treatment exceeding a certain amount during the previous year; (ii) the household member suffered from a serious health problem and did not have in-patient treatment (or the fees for in-patient treatment were less than a certain amount) but had to pay medical fees for out-patient treatment that exceeded a certain amount during the previous year; and (iii) the household member suffered from a serious health problem and did not have to pay much in medical fees (mostly due to economic difficulties) but was on bed rest for more than three months during the previous year.

Two counties in each of the two provinces selected—Hubei Province (in central China) and Sichuan Province (in western China)—were purposively chosen as case study counties: Hongan and Xiaochang counties in Hubei and Fushun and Langzhong counties in Sichuan. All four counties are located in remote, poor regions.

In each of the counties, households affected by major illness were identified and studied using a two-stage approach involving household surveys and in-depth interviews.

### *Household surveys*

A rapid and reasonably large-scale household questionnaire survey was conducted using a cluster sampling of households, with the primary aim of identifying households substantially affected by different categories of serious health problems for in-depth interviews. A multi-stage cluster sampling procedure was adopted to select some 30 village communities in each county, with each community consisting of about 100 households, making a total sample size in the POVILL dataset of 12,000 households.

The remarkable pace of internal migration in China has led to a situation in which the resident population in rural areas appears to differ radically from the overall population. Within the entire sample of households studied, the resident population was dominated by those under the age of 15 years (comprising 20 per cent) or those over the age of 50 years (47 per cent), with 80 per cent of men and 62 per cent of women between the ages of 20 and 39 years reported to be living away from home, mainly as migrant workers in the cities. The health status of residents in rural areas, including both return migrant workers with illness/work-related injuries and those who did not migrate, requires further examination. Based on the self-reported health status among participants in this study, there were clear differences between resident and migrant populations. For example, self-reported poor health within the resident population was 15 per cent higher than that reported for the migrant population, and this difference also increased with age (see table 1 in the appendix for further details).

### *In-depth interviews*

Based on information provided in the questionnaire survey, a total of 2,600 households had members who were suffering from a major illness/injury. In each of the four counties, 150 households from this type were randomly selected for in-depth interviews

(that is, a total of 600 households were chosen). These interviews, typically requiring one day per household, were conducted by a team of social scientists with households in purposively selected strata.

An "illness narrative" was used to provide the underlying framework for the in-depth interviews, and data were collected based on three key stages of the process: (i) illness and symptom development history, (ii) treatment and short-term financing process, and (iii) interactions between illness/injury and household livelihood changes and their long-term impacts. Particular emphasis was placed on understanding the history of relevant health problems, both from a treatment-seeking perspective and in terms of the consequences for different household members.

Within the 600 households, 2,727 individuals were studied in-depth. Of these individuals, 41.4 per cent had migrated before as migrant workers. Among the individuals between the ages of 20 and 39 years, 87 per cent had been migrant workers. Among those who had migrated, 29.3 per cent had returned home. And among those who had migrated and returned home, 64 per cent were over 40 years of age (see table 2 in the appendix for more details).

Ill health and other related factors (for example, taking care of elderly parents at home, getting older as migrant workers and pregnancy/childbirth/childcare) were among the main reasons why migrant workers returned to their homes. Among the 600 households that were interviewed in-depth, 330 had migrant workers who had returned home. Of these, 34 per cent had returned due to ill health (see the appendix for more details).

### *Sample selection and size*

The 600 households identified for in-depth interviews during the second stage served as a sample for further selection. First, households with members who had migrated to the cities for work during previous years were selected. Second, those households that had return migrant workers with illness/work-related injuries at the time of the interview were also chosen.[3] Based on these criteria, 110 of the 600 households were found to have return migrants with illness/injury and were selected as cases in this study.

## Results

Return migrants with major illness/work-related injuries (hereafter, ReMIs) make up an important part of the population living in the surveyed rural villages. As mentioned above, of the 600 households interviewed in-depth, there were a total of 110 households with ReMIs. Based on household surveys conducted during the first stage of the POVILL project study, 2,600 households—out of the 12,000 in the sample—were identified as having at least one member who suffered from a major illness/injury. Six hundred of the 2,600 households were then randomly chosen for in-depth interviews in this study, and 110 were identified as being ReMI households. Based on this ratio, it was projected that 477 of the 2,600 households had ReMIs, accounting for about 4 per cent of the 12,000 households in the POVILL project study sample. Moreover, since it was found that half of the 110 households had ReMIs who could no longer work in the labour force, it was estimated that these ReMIs inhabited around 2 per cent of the households in the study's research sites. Illness/injury often substantially increased the

[3] Simply breaking down the population in rural villages into "migrant" and "non-migrant" populations is not possible, as the internal migration process in China is highly dynamic. In this paper, individuals living in rural villages included both those who had previously migrated but were living at home at the time of the survey and those who had never migrated.

burden on rural households, to the extent that the existing labour supply was barely sufficient for basic productive tasks.

## *Coming home with illness/injury*

### *Characteristics of ReMIs*

The ReMIs are a group with unique characteristics. As can be seen in table 2, female ReMIs make up 16 per cent of the total and are all below 40 years of age, while nearly one-third of male ReMIs are aged 50 years or older. Migrant workers aged 40 and over make up only 13.6 per cent of the entire migration population studied (see table 1 in the appendix), but account for 50.9 per cent of all ReMIs. A majority of the ReMIs had worked as migrant workers for more than one year; 85 per cent had been migrant workers for two or more years; and over 50 per cent had been migrant workers for more than five years. In terms of occupation, most were employed in the construction sector, with more than half of the male ReMIs coming from this sector; in contrast, 78 per cent of female ReMIs were employed in manufacturing.

In terms of the type of illness/injury, half of the ReMIs in the sample suffered from severe diseases. More than one-third had work-related injuries. Other types of health problems included injury caused by traffic accidents and mental disorders. Male ReMIs were more likely to have work-related injuries, while female ReMIs were more likely to have severe diseases. This trend may also be related to the nature of employment (see Robinson et al. forthcoming; Gransow et al. 2014).

**Table 2 Descriptive Indicators for ReMIs in this Study**

| **Indicators** | | **Male** | **Female** | **Total** |
|---|---|---|---|---|
| Age | 15-19 | 3.3 | 5.6 | 3.6 |
| | 20-29§ | 14.1 | 38.9 | 18.2 |
| | 30-39 | 21.7 | 55.6 | 27.3 |
| | 40-49 | 28.3 | 0.0 | 23.6 |
| | 50+ | 32.6 | 0.0 | 27.3 |
| Number of years as a migrant worker | <2 years | 12.8 | 25.0 | 14.9 |
| | 2-5 years | 30.8 | 50.0 | 34.0 |
| | 6-10 years | 25.6 | 12.5 | 23.4 |
| | >10 years | 30.8 | 12.5 | 27.7 |
| Sectors of work | Construction | 52.2 | 16.7 | 46.3 |
| | Manufacturing | 31.1 | 77.8 | 38.9 |
| | Service | 16.7 | 5.6 | 14.8 |
| Types of illness/work-related injury | Work-related injury | 39.1 | 5.6 | 33.6 |
| | Traffic accident | 4.4 | 5.6 | 4.6 |
| | Mental disorder | 6.5 | 16.7 | 8.2 |
| | Severe disease | 50.0 | 72.1 | 53.6 |
| Number of Cases | | 92 | 18 | 110 |

### *Reasons for coming home: Types of illness/work-related injury*

Out of the 110 ReMI households, 47 per cent returned home because family members could take care of them more easily, 37 per cent said it was too expensive to reside and receive medical treatment in cities, 8 per cent felt it was inconvenient to receive medical treatment in cities and that the procedures were too complicated, 6 per cent thought that hospital doctors at home in rural areas were more reliable, and 2 per cent returned because NCMS only provided reimbursement for medical treatment received at

hospitals in the patient's hometown. Caregivers for ReMIs in the cities were usually their spouses, siblings and fellow migrant workers. After their return, spouses and parents were the primary caregivers.

Work-related injuries occurred relatively more frequently in the construction industry, in which nearly half of the ReMIs studied were employed. Construction work often includes the construction of factory buildings and real estate and infrastructure projects such as highways. This type of work involves heavy workloads and requires highly intensive labour inputs, and there is usually a lack of safety measures. Fractures were one of the most common work-related injuries in the construction sector, followed by damage to internal organs and fractures of the lower back. The risk of work-related injuries in the manufacturing sector is also high. In addition, traffic accidents are common in the rural-urban transition areas of cities where migrant workers typically reside. These are densely populated areas with limited public transportation. As a result, motorcycle riding is very common and is the key cause of traffic accidents, leading to injury and sometimes disability. Mental disorders among migrant workers are an additional problem, particularly in a context in which there is a general lack of awareness of mental health issues and serious stigma associated with mental problems (see Robinson et al. forthcoming).

## *Medical treatment*

### *On-site emergency treatment*

ReMIs with work-related injuries receive emergency treatment on site or in the cities, but the treatment is always minimal. Moreover, the ReMIs are sometimes discharged for various reasons before fully recovering. In nine of the cases, for example, employers have not been willing to pay for longer in-patient stays. In five cases, there was no one to take care of the patient, and, in four cases, the ReMIs could not afford the in-patient costs themselves. Three ReMIs reported that they did not receive immediate on-site treatment for their work-related injuries because their workplace was too far away from any hospitals or clinics, nobody was available to help as the injury had occurred during the middle of the night, or the boss did not send the patient to a proper hospital (or sent the patient to a less qualified health care centre) in order to save money. As one respondent said:

> I was sent to the county hospital and was asked to pay 10,000 yuan[4] in advance for in-patient treatment. The boss thought that it was too expensive and transferred me to another hospital in the city but again refused to pay the same amount in advance for the in-patient stay. We then went to a smaller township hospital, and the boss again refused to pay the same amount for in-patient treatment. We finally went to a county Chinese medicine hospital and stayed there because the hospital only asked my boss to pay 2,000 yuan in advance. By going through this process, two more hours passed, and with less qualified doctors in the Chinese medicine hospital, my leg was badly treated, and I nearly died from the treatment.

### *Searching continuously for treatment*

In many cases, the ReMIs had less choice of medical provider mainly due to their economic difficulties. It was common for ReMIs to first go to less qualified health providers (for example, unregistered clinics, often recommended by neighbours) to seek consultations and buy medicine because of the lower prices offered by these providers.

[4] $1 = 7.59719 yuan (2007)

However, quite often these ReMIs had to then transfer to higher-level health providers because of their worsening health situation. Some ReMIs were transferred to different health providers several times after following the recommendations of others (such as neighbours), leading to continuous treatment and unnecessary costs. In addition, eight ReMIs turned to superstitious methods of treatment (for example, fortune tellers), and two decided to seek help by joining a religion. The following are key examples:

> I spent some 33,000 yuan on treatment [roughly 10 times the per capita annual income in rural areas]. The first time, I received in-patient treatment at a home county hospital in February for 11 days and was taken care of by my uncle's family, and I spent 7,500 yuan. The second time, I went to another county hospital nearby for a medical consultation in May and spent 3,200 yuan. In July, when I heard from a neighbour that the Chinese medicine hospital in the neighbouring county was of good quality, I went there for an in-patient stay for 16 days and spent 5,300 yuan. After being discharged from the hospital, I then followed another neighbour's advice and took Chinese medicine from a Chinese medicine doctor in a neighbouring county, spending 5,700 yuan.
>
> For my son's health problem, I spent some 2,600 yuan on treatment based on superstition. I am actually not superstitious, but my son's health problem is very severe, so I could do nothing but believe in it. My neighbours and friends had told me that the sorceress in this place had superpowers and that the sorceress in that place was good, so I would follow their advice and go. There are fixed prices in the hospital but not for treatment based on superstition, where the more you believe, the more you pay. I usually paid about 100 yuan each time and also followed the sorceress' advice to buy things to put in our house. I prayed at many temples and saw many sorceresses in the county and even went to Henan [a neighbouring province] twice. My son has not recovered, and I am exhausted. I do not believe in it anymore now.
>
> My family believes in Catholicism. I went to a priest for advice on my health and was told that I should do more praying for the recovery of my health. I now pray every morning.
>
> My Mum was told that I got this disease because my family did not believe in Jesus. (C7)
>
> A person knowledgeable about feng shui told me that I should leave my old house and live in a new house to avoid the disease, so I borrowed 5,000 yuan to build this new house for my family to live in.
>
> I thought [my son's severe illness] happened because the decision to buy a house in the city was not right or because the house I bought is not a good one, bringing bad fortune to my family. The fortuneteller told me that there would be a disaster when I was 49 years old. I believed this but did not really pay attention to it, so my son got this problem.
>
> I do not know if my [health] problem may be due to the feng shui of my new house because I spent so much money on treatment but did not recover.
>
> There is a saying that people should not take soup medicine [Chinese herbal soup] during the first month of the Chinese calendar. Otherwise there will be no fortune. So I decided not to go to the hospital until the second month of the Chinese calendar.

### *High medical treatment costs*

Most of the ReMIs continued seeking treatment after receiving on-site emergency care. Some stayed in cities for additional treatment, while others went back home. In many cases, these extra expenses became a heavy burden for the households (see table 3). Besides medical costs, there were also costs for transportation from the ReMIs' homes to health centres, as well as living costs for the entire duration of their treatment.

**Table 3 Number of Days ReMIs Received In-patient Treatment and Amount Spent (in yuan)**

| Variables | Number of cases | Mean | Median | Min | Max |
|---|---|---|---|---|---|
| Total days of in-patient stay | 88 | 36 | 22 | 3 | 270 |
| Days of in-patient stay in the city | 44 | 29 | 20 | 1 | 120 |
| Days of in-patient stay at home | 61 | 31 | 16 | 1 | 180 |
| Total costs | 110 | 23,732 | 12,000 | 370 | 159,500 |
| Medical | 110 | 22,383 | 11,080 | 360 | 134,500 |
| Transport and living | 110 | 1,350 | 300 | 0 | 25,000 |
| Medical costs in the city | 53 | 18,639 | 8,000 | 300 | 130,000 |
| Medical costs at home | 102 | 14,673 | 7,025 | 90 | 123,000 |
| In-patient costs at home | 61 | 13,866 | 6,000 | 400 | 95,293 |
| Transport and living costs in the city | 39 | 2,711 | 1,000 | 16 | 25,000 |
| Transport and living costs at home | 41 | 1,076 | 400 | 10 | 7,400 |

The average total medical cost among the ReMIs was roughly 23,732 yuan. Compared with the national household survey data on per capita income and cash expenditure (including cash expenditure on health care—for which, see the Rural Social and Economic Investigation Division of the National Bureau of Statistics of China 2007), the medical costs among ReMI households examined were eight times the national average per capita household income, 13 times the national average cash consumption expenditures, and 148 times the national average per capita health care expenditures.[5]

In terms of total medical costs (including treatment in both cities and rural areas), 22 per cent of ReMI households spent less than 5,000 yuan, while 59 per cent spent over 10,000 yuan. Among the ReMIs who spent more than 50,000 yuan in medical costs, five suffered from work-related injuries and eight had severe illnesses (listed as cancer, uremia, leukemia, liver cirrhosis and lupus erythematosus), and the average medical cost for these ReMIs was 96,486 yuan.

Over 80 per cent of the ReMIs experienced in-patient treatment. The average number of days for in-patient stays was 36 days, and the longest stay lasted nine months. Forty per cent of the ReMIs received in-patient treatment in the cities, with the average number of days for in-patient stays being 29 days and the longest stay being four months. Fifty-five per cent received in-patient treatment after returning home, with the average number of days for in-patient stays being 31 days, and the longest stay lasting six months. Due to the financial difficulties faced by ReMI households, the patients were usually discharged before schedule. Costs for transportation from rural homes to urban hospitals and living costs in the urban workplaces were much higher than those at home.

[5] According to data in the 2007 National Bureau of Statistics yearbook, the average per capita income in 2006 of rural residents in Hubei and Sichuan was 3,419 yuan and 3,002 yuan, respectively, while the average per capita living cash expenditure was 2,100 yuan and 1,816 yuan, respectively—out of which 687 yuan and 676 yuan were spent on food and 172 yuan and 160 yuan were spent on health care.

The average transportation and living costs in workplaces in the cities was 2,711 yuan, compared to 1,076 yuan at home.

## *Meeting the costs*

Treatment costs for ReMIs were paid through various channels, including employers, personal savings, loans, and reimbursement through formal medical schemes, such as Industrial Injury Insurance, New Cooperative Medical Scheme (NCMS) and Medical Financial Assistance (MFA).[6] The different formal sources of payment are shown in table 4.

**Table 4 Formal Sources of Reimbursement Received**

| Source | Number of cases | Reimbursement rate | Mean | Median | Min | Max |
|---|---|---|---|---|---|---|
| NCMS | 27 | 32.9 | 2,474 | 800 | 10 | 15,486 |
| Industrial Injury Insurance | 3 | 2.7 | 116,666 | 100,000 | 80,000 | 170,000 |
| MFA | 4 | 3.6 | 2,500 | 2,500 | 2,000 | 3,000 |
| Minimum Living Standard Scheme (MLSS) | 11 | 10.0 | 333 | 240 | 20 | 1,200 |
| On-site treatment paid for by employers | 33 | 30.0 | 21,090 | 10,000 | 500 | 131,000 |
| Compensation by employers | 13 | 11.8 | 11,064 | 9,250 | 400 | 36,500 |

### *Meeting the costs for emergency on-site treatment*

A total of 36 ReMIs had work-related injuries. Of these, 33 had their emergency on-site treatment costs fully and directly covered by their employers. The average treatment cost was 21,090 yuan, with the highest being 131,000 yuan and the lowest being 500 yuan. Migrant workers have been entitled to participate in the Industrial Injury Insurance scheme. However, their participation rate has been low, and this is particularly the case in the construction sector.[7] Within the sample, there were only three instances in which the ReMI was covered by this scheme. In all of the different types of ReMI households, the ReMIs themselves paid for their treatment after returning home, and these costs, on average, accounted for 57 per cent of the household's total medical treatment costs. In cases of traffic incidents, those who were responsible for causing the incident paid half of the medical fees, with the other half being paid by the ReMI household. Examples can be found in the following cases:

> I was seriously injured in the middle of the night some years ago when I was working on a construction site as a migrant worker. I could not get enough money to pay the medical fees, so I sued in court, and in the end I won and received some 170,000 yuan in compensation. This included the fees charged for in-patient care, a lump sum payment for 20 years of living allowance, a lump sum subsidy for subsequent medical treatment and so on. I used some 70,000 yuan for continuous medical treatment. I can now stand and walk without using my crutch.

[6] Given that this study's focus is on return migrant workers, the situation of migrant workers in cities who receive insurance coverage from either their employers or the government's Basic Medical Insurance (BMI) scheme, has not been examined. Out of the 110 cases, none of the ReMIs mentioned insurance coverage through the BMI. This may be related to the fact that many migrant workers in the sample in this study worked in construction, which usually has lower BMI coverage.

[7] In 2010, the percentage of employers or companies providing coverage for migrant workers through industrial injury insurance, medical insurance and unemployment insurance was 24.1 per cent, 14.3 per cent and 5.3 per cent, respectively. In the construction sector, which has a high risk of work-related injuries, the numbers were only 16.6 per cent, 6.5 per cent and 1.4 per cent, respectively (NBS 2012).

> The medical doctors said that I was expected to have to stay in bed for the rest of my life, but I have now recovered to my current status. It is a miracle.
>
> My fingers were seriously injured in the workshop, and I got some 100,000 yuan in compensation. This included everything that was related to my injury. Under the compensation agreement, I cannot claim anymore at any time in the future for any reason associated with my injury.
>
> I was involved in a motorcycle transporting service in an urban area in Guangdong where many migrant workers live. My motorcycle collided with a van and was damaged, and I was seriously injured. The driver of the van paid me some 12,000 yuan, but my insurance company was very reluctant to pay me. I am still in a lawsuit with them.

Aside from work-related injuries and traffic incidents, ReMIs and their families were mainly responsible for meeting the medical treatment costs themselves. Indeed, 36.2 per cent of them received reimbursement through NCMS, but the reimbursement was only 4 per cent of the total medical fees.

After receiving on-site treatment, employers normally negotiated the reimbursement for further treatment and living costs with the ReMIs. Forty-four per cent of the ReMIs with work-related injuries received a lump sum payment, with the average payment being 11,608 yuan. Once the ReMIs agreed on the payment by signing an agreement with their employers, they could not claim anymore afterwards. In most cases, both the employers and the ReMIs were not willing to go through litigation due to the complicated litigation procedures and high costs. It was not rare for ReMIs to not receive any reimbursement from the employers after returning home because they were not aware of the right to claim reimbursements (or did not know how to claim them), because they did not sign a labour contract through an organization, or simply because the boss ran away. For example:

> [My boss and I] are relatives and had previously helped each other, so I was ashamed to ask him for a reimbursement.
>
> The police asked me to get medical authentication for my injury so that I could file a suit in court. I did not want to make him [my boss] go to jail, so I gave up.
>
> My boss told me to go back home because there was nobody to take care of me in the city, and he promised to come see me and reimburse me. I was grateful for his kindness and followed his advice. But I did not get anything from him after returning home. He then disappeared and did not even pay us the salary for our previous work.

### *Reimbursement through the New Cooperative Medical Scheme*

ReMIs received very little reimbursement through NCMS, a universal medical insurance scheme in rural China (see Wagstaff et al. 2007 and Yi et al. forthcoming). The main reason for the low reimbursement was that, at the time of this study, NCMS mainly provided reimbursements for in-patient treatment costs, but little reimbursement for medical treatment in cities where migrants work (that is, in places outside of their hometowns where they paid for the scheme). The scheme also did not reimburse treatment costs associated with work-related injuries and traffic accidents.

The average medical cost for all ReMIs was 22,383 yuan, and NCMS has provided limited reimbursement. At the time the survey was conducted, there was one county that

did not offer NCMS services. Among the other three counties, 32.9 per cent of the ReMIs received NCMS reimbursement; the average reimbursement was 2,474 yuan, accounting for 10.9 per cent of the ReMIs' total medical costs. The average reimbursement for all the ReMIs was 814 yuan, accounting for only 3.7 per cent of their total medical costs. Most ReMIs with work-related injuries received in-patient treatment in the cities, but only a few were provided with NCMS reimbursements for their in-patient stay. This can be seen in the following cases:

> Because at the time my health problem occurred, I had just got married and moved [into this village] from my hometown in other province. With my hukou [household registration] not yet registered in this village, I was not eligible for participating in NCMS and could not get the reimbursement.

> [Under the NCMS policy, without agreement from a hometown hospital for medical treatment in the cities, one cannot get a reimbursement.] The hospital in my hometown wanted people to receive medical treatment in its own facilities (mainly for financial reasons), so it did not want to provide such an agreement for my medical treatment elsewhere. So I could not get any reimbursement.

> I spent more than 10,000 yuan on medical treatment in Zhejiang Province where I work and returned home and spent some 1,500 yuan at a hometown hospital. I got less than 10 per cent of the costs reimbursed for my treatment in Zhejiang and about 40 per cent of the costs reimbursed for my treatment at the hometown hospital.

### *The Medical Financial Assistance scheme: Coverage and assistance*

The MFA scheme is managed by the Ministry of Civil Affairs, with the aim of helping extremely poor households meet the costs of treating certain types of severe illness. The scheme set a ceiling amount for assistance, which is 3,000 yuan in the two provinces studied. Based on the sample, it is difficult for ReMIs to get MFA assistance. As one interviewee stated:

> I applied for MFA a long time ago and did not hear back from them. We are living in a society with guanxi [the system of social networks and personal relationships that can facilitate the resolution of problems]. Without guanxi, things do not work. We didn't personally know anyone or any officials in the Civil Affairs Office, so no one really took my application.

Indeed, only four ReMIs in the sample received MFA assistance. The following are examples:

> I had a neighbour who worked in the Civil Affairs Office in the township government. With the neighbour's help, I received the 3,000 yuan under MFA.

> My husband got to know about MFA when he went to visit the Civil Affairs Office in town. He applied for it, but then we waited for a very long time. The 3,000 yuan of MFA money came after he passed away. It was too late.

> My daughter took a kitchen knife and a flashlight while at home, looked at me, and cut me three times on my thumb, head and abdomen…. The township government sent her to a psychiatric hospital for three months of treatment, costing over 2,000 yuan. This money was paid by the township government—the village cadre said that the money was from MFA.

### *Borrowing accounted for half of medical costs*

Borrowing can be an important means for ReMI households in meeting their medical costs. Interviewees frequently reported that they paid the debt whenever possible and borrowed again, and some households were always in a cycle of borrowing and paying back. It is quite common for siblings to borrow from each other. Some households may face difficulties borrowing again once they fail to pay the money back, particularly if they have always been in a tight financial situation. ReMI households that had accumulated debt due to injury/illness made up 56 per cent of all the ReMI households studied. The average debt was 13,868 yuan, with a mean of 6,250 yuan and the highest debt being 100,000 yuan.

In rural China, cultivated land cannot be sold or mortgaged under the current land tenure policy, and it is not common even for houses to be held as assets for sale or mortgage. Rural residents thus enjoy the security of having land to till and houses in which to live. However, the lack of a local financial credit market for asset mortgaging has restricted their ability to cope with adverse situations, including health problems. In all of the cases studied, no households mortgaged or sold land or homes for medical treatment. On the contrary, two ReMI households even used money from the Industrial Injury Insurance scheme to build houses to improve their living conditions.

### *Minimum Living Security Scheme: Very low coverage*

The government's rural relief schemes include MLSS and the Poor Household Relief programme. For ReMI households, only 10 per cent received such relief, with the average amount received being 333 yuan per year, the lowest being 20 yuan and the highest being 1,200 yuan. Some ReMIs applied for both schemes but were unsuccessful. The following are examples of these different situations:

> I received 20 yuan in assistance during the spring festival.
>
> One of my neighbours worked in the Civil Affairs Office in the township government, and he helped me get 100 yuan per month as minimum living security.
>
> I was being taken care of by my elderly mother, and I had a 13-year-old daughter still in school. I received 50 yuan per month as minimum living security.
>
> I was completely dependent on my brother and sister-in-law for daily living activities. They had tried to apply for support for me under MLS and under the Five Guarantees scheme, but they failed. I was told that I am not old enough to apply for these schemes.

## *The burden on rural families*

There were often elderly and/or young family dependants in ReMI households, and return migrants with illness/work-related injuries also became dependant. This restricted the ReMI households and made them poorer and more vulnerable. Facing the burden of taking care of ReMIs and paying for their treatment, most of these households became debt-ridden—one of their distinguishing features. ReMIs suffering from mental problems due to the high pressure of working in cities may become an even greater burden to their families at home.

### *ReMI households with other members with severe health problems*

Among the ReMI households, one in four had other members with severe illness at home. These members also required financial resources to meet their health care needs.

For these types of households, the overall income would be lower because of the shortage of wage earners in the family. In addition, financial resources would have to be distributed among members with health problems, and the resources available to ReMIs would therefore be dramatically reduced. For ReMI households with other members that had severe illnesses, the average amount spent on medical treatment for ReMIs was 14,683 yuan (the median being 11,880 yuan), whereas the average amount spent on medical treatment for ReMIs in households with no other members suffering from severe illness was 27,159 yuan (the median being 13,104 yuan). The following is an example of one such family within the sample:

> I seriously hurt my lower back when working as a migrant worker. I tried Chinese herbs and medicine and spent some 8,000 yuan on treatment over the last 10 years. My wife had stomach problems and spent 13,000 yuan, and my son and daughter spent some 20,000 yuan on treatment for their illnesses.

### *Shortage of labour and multiple dependants within the household*

It is widely recognized that labour is one of the few key sources of capital that poor households have in developing countries. As a result, a shortage of labour can greatly reduce household productivity and have catastrophic consequences for household livelihoods. Among the ReMI households studied, there were a quarter in which the ReMI was the only labourer of working age, with the elderly (65 years and older) and/or children often working as additional labourers when needed. Forty per cent of ReMI households had only one person in the labour force, with an average of three dependants (under 15 or over 65 years of age). Moreover, 95 per cent of the ReMI households had one or more dependants, and one household even had five dependants. Examples include:

> I have had hepatitis for 20 years. I had originally been living on my own, but after I got sick, there was no one to take care of me, and I started to live with my father again. My father is already 72 years old, but he still has to take care of me. Our family is poor. My two older brothers got married late, and I am still single. I became ill after they got married, so it is even more difficult for me to get married. If I hadn't gotten sick, I could do physical labour to make money, and there would be a way to pass the days.

> I was advised several times by doctors that I should receive in-patient care, but I did not follow their advice. My wife just had heart surgery, and I have three kids in school. I cannot afford the in-patient treatment costs.

> I have three young grandchildren, and my wife is 58 years old now. She has to take care of the three of them and me.

### *Average debt of 20,000 yuan*

Borrowing is one of the strategies poor households use in coping with adverse shocks in developing countries. Ill health is one of the greatest adverse shocks for rural households and often leads to large lump sum borrowing given that health insurance schemes have not been well-established in rural China. Among the ReMI households, three out of four were in debt, with the average amount of debt being 20,000 yuan. One household even accumulated 120,000 yuan of debt. Ninety per cent of the borrowing was from private sources such as families. For example:

> I borrowed 80,000 yuan for medical treatment, of which 10,000 yuan was from fellow workers, 26,000 yuan was from my wife's brother, 15,000 yuan was from

> my brother, 15,000 yuan was from my two sisters, and 10,000 yuan was from my three uncles.
>
> My father has Hepatitis B and cannot support the family. I went out to work when I was 15. After I was seriously injured in a traffic accident, I borrowed 5,000 yuan from my uncle for in-patient medical treatment.

Borrowing has therefore become a major challenge for these households:

> I feel that, since I got this problem, my family has had to borrow too many times. It is just like pulling and pushing a drawer. Sometimes you pull, sometimes you push.
>
> Our friends and relatives do not help us much, and we do not visit each other often. If your family is poor, others do not want to interact with you. I have been enduring it year after year. When your family is like this, others are not willing to lend you money. They are afraid that you won't be able to pay them back. We have never borrowed money from other families.

### *Mental disorders*

Mental disorders among migrant workers have been receiving increasing scholarly attention ().[8] Factors such as separation from family, pessimistic expectations about the future, low income and low social status are closely related to elevated levels of psychological distress. Not only can the patient not work, but he/she also requires intensive care, which becomes a heavy burden for the household. The following are two such cases in the sample:

> My son has mental problems. He was not good at communicating, so when his boss did not pay his wages for a long time when he was working elsewhere, he had a dispute with the boss but lost. He suffered greatly and became demented and felt like a screw-up. My wife is also a patient with a serious illness. Due to his mental problems, my son sometimes became aggressive. He started a fire three times at home, burning himself, the house and the village's woods. Making a living for my family and taking care of the two of them every day has made me exhausted.
>
> My daughter cannot get married. She went out to work when she was 15 and now has severe psychological problems due to the long period of time she spent working in the city and dealing with the stress of work and daily life. She is now at home and cannot work anymore. She started a fire in the house twice, almost killing herself. I had to hold her when she felt bad. She sometimes does not even recognize me.

## *Changes in household livelihoods*

All surveyed households were grouped into three categories—rich, average and poor—in terms of the household's economic conditions (based on the village cadre's criteria during data collection stage). In order to investigate the economic well-being of different types of households (in terms of whether or not the household has ReMIs and whether or not the ReMIs have major illnesses or work-related injuries), households were classified into three types: (i) RESI-MJ (households that had resident members with major illnesses); (ii) ReMI-MJ (households that had ReMIs with major illnesses); and (iii) ReMI-WI (households that had ReMIs with work-related injuries). The

[8] Liu et al. 2008; Chen 2011; Liu 2011.

distribution of households with these different health conditions is listed by economic status in table 5 below.

**Table 5 Percentage Distribution of Households with Different Health Conditions**

| | RESI-MJ | ReMI-MJ | ReMI-WI | Total sample |
|---|---|---|---|---|
| **Rich** | 11.9 | 6.5 | 5.1 | 15.4 |
| **Average** | 58.4 | 51.6 | 64.1 | 64.2 |
| **Poor** | 29.7 | 41.9 | 30.8 | 20.4 |
| **Number of cases** | 490 | 68 | 42 | 12,000 |

More than half of the households were grouped as "average" households. Healthy households were more likely to fall under the category of "rich". ReMI households were much more likely to be grouped under the category of "poor" rather than "rich". Households with ReMIs that had major illnesses were more likely to be categorized as "poor" compared to households with residents who had major illnesses.

The ability of household members to work is one of the key measures in assessing household economic well-being and livelihoods. As labour is the most important household livelihood asset, changes in labour use and input will certainly affect household livelihoods. The loss of the ability to work among the ReMIs studied can be broadly grouped into three types. The first type includes those who temporarily lose the ability to perform labour, accounting for 53 per cent of the ReMIs in the sample. More than half of these ReMIs migrated as workers again after their health situation improved, and those who did not were able to work on a farm or as local casual labourers, though their ability to work was reduced. The second type includes those who had lost their ability to work and could not recover, accounting for 39 per cent. Slightly over one-third of these ReMIs were able to take care of themselves and do light housework, but the rest were not able to do so and relied heavily on other household members for their daily living. The third type comprises ReMIs who passed away after returning home due to the severity of their health problems, accounting for 8 per cent (see table 6). These different situations had differing impacts on the households.

**Table 6 Percentage Distribution of ReMI Households by Types of Work Abilities**

| Type | | Percentage of ReMI households |
|---|---|---|
| 1 | Migrated out again as labourers | 30 |
| | Local small business and farming at home | 23 |
| 2 | Light farming at home | 15 |
| | Mostly dependent on others for production | 24 |
| 3 | Death | 8 |

### *Migrated again as labourers*

Nearly one-third of ReMIs migrated again as workers once their health conditions improved. However, their ability to work was reduced, and they therefore earned far less than before. On average, these ReMIs stayed at home to recover for eight months. The majority of them stayed for more than three months. Half stayed for more than six months. One in four stayed for more than a year. Examples of such households include:

> My work ability now is not like before. My reaction is slow, and I work slower than before. Employers don't want to hire me. Others can get 70 yuan a day, but I can only get 60 yuan or less a day.

> Ten years ago I received in-patient treatment for four months and was identified as being disabled (Level 3) when I left the hospital. Last year, my wife got injured with a lumbar spine fracture and spent 23,260 yuan on treatment. To pay the debt, I had to go to Hainan to work as a highway construction worker. Otherwise, there would have been no way to support my family.

### *Working in small local businesses and farming at home*

Those who recovered but saw a significant reduction in their ability to carry out daily work could no longer migrate again as labourers. The best option for these ReMIs was often to stay home and work on a farm or work locally as casual labour with lower pay. Twenty-three per cent of the ReMIs studied belonged to this group. Even for those who were financially able to start a small business and, for example, open a village grocery store or become local street vendors, the profit margin could be very low because of the less developed local economy. For example:

> The injury resulted in my right hand being amputated, a Level 6 disability. I got 100,000 yuan as reimbursement. I spent 70,000 yuan to build my house and 10,000 yuan to start a grocery store business in my home village, making a profit of 300 yuan per month.

> I had been a baogongtou [small boss, subcontractor from others] for some years. After I spent some 70,000 yuan on my son's medical treatment (for a work-related injury), I had no money to continue my business. I am now just doing small business locally, as I need to take care of my son.

> My wife has late stage breast cancer, my mother-in-law has dementia, and my daughter is in high school and has liver disease. My family depends on me totally. I now just engage in temporary light work since they are in the recovery stage. I had tried to do business in my hometown several times, but it was all small business and could not really support my family.

### *Light farming activities at home*

More severely affected ReMIs had fewer opportunities to earn their living. Work-related injuries normally hurt the ReMIs to such a great extent that their daily lives and activities are affected. Fifteen per cent of the ReMIs belonged to this group. These ReMIs were only able to help other household members by farming. In cases where the ReMI is the only male labourer of working age, the household may have to hire labourers to plough and harvest on the farm. The following are examples of these ReMI households:

> I have liver cancer. The grain we harvested was not enough for our food. I was working as a casual labourer helping my neighbours harvest their rice. I got some 50 yuan a day. It was not sufficient to make a living, and it was also only during harvest season. I would have no work to do during the other seasons.

> I had to pay 300 yuan for extra labour to help with my farming. In addition, I paid 200 yuan for the hired labourer's food when working on my farm. This 500 yuan was too expensive and was almost worth my family's food expenditure for the whole year.

> I couldn't fish anymore after my waist was injured as a migrant worker, and my income has declined substantially. Due to my injury, I had to rent out half of my land to others at very low rent and also pay for labour to help with farm work on the rest of the land that supports my family's food supply.

### *Primarily dependent on others for production*

Twenty-four per cent of the ReMIs belonged to this group, and they were mostly dependent on others for production and earning. In the absence of the key labourer, other members had to become the breadwinners. Very often, the spouse would migrate as a labourer to earn a living for the family, while the elderly and the children would have to farm or become migrant workers to support the family. In cases where the children had to work, their educational opportunities could be affected, and long-term household productivity could subsequently be reduced. Examples include:

> I can only do some light farm work and can't migrate out as a worker again, so my wife has migrated now.
>
> My wife has a stomach disease, and my family depends on farming 3 mu of land and raising pigs to sustain our living. My 14-year-old son dropped out of high school and became a migrant worker.
>
> My wife and I both suffered from severe illnesses and had a debt of 15,000 yuan. We have three children. Neighbours came to see me and persuaded me that my hope is my three children, and one day they may migrate out to work to support my family.

### *Disabled and completely dependent on others*

The ReMIs who are functionally disabled have to depend entirely on their parents or children for their daily lives, and this puts a great burden on the elderly and children. The elderly may delay seeking health care for themselves, and the children may have to drop out of school. The long-term livelihoods of such households can be seriously affected. Some of the ReMIs in this group (mostly male) divorced and ended up living with their young children and elderly parents. A few elderly parents who were taking care of ReMIs in this category asked the question: how could he survive if I died? The following are several examples:

> I cannot move right now and have stayed in bed since returning home. My wife has left. My mother is 64 years old and suffers from rheumatism. Her leg is always in pain. Still, not only does she have to work on the farm, but she also has to look after me and help me with bathing and eating.
>
> I suffer from paralysis and have stayed in bed for four years already and am dependent on my 82-year-old mother. My mother cannot see clearly, so she had to give up picking up garbage for a living. Few people have come to visit me since I got this work injury. I have no friends now. I cannot move and cannot take a bath by myself. I need my mother's help with eating every day.
>
> My son returned home because of mental illness. I am 63 years old now. Every day I get up at 4 o'clock, then sweep, make a fire, make breakfast for my son, and feed the pigs and grazing cattle. At around 7 o'clock, I go to work in the fields and return at 12 o'clock for lunch. I go back to work in the fields from 2 to 6 o'clock and then go home to make supper for my son and myself and feed the pigs. I feel very busy and tired every day.
>
> My son suffered from a problem when working elsewhere. Sometimes when what I cook does not satisfy his taste, he will lose his temper. His waist is always in pain, and the living conditions are not good, so he feels unsatisfied with everything and always speaks to me in an unsatisfied voice. Because of his

> illness, his father and I both have to endure his bad temper and do not mind. If one day we both die, how would he survive?
>
> I got seriously injured when something fell down on a construction site where I worked. This made my family poor. My house in the village is the poorest one, and my 27-year-old son still cannot get married. My wife suffers from depression because of my injury and has attempted to commit suicide a few times. She does not talk often now and just stays by herself in a corner. I do not have any plan for the future and just muddle along day by day. It is nonsense to think about the future, and it's better to think of nothing, or else I would suffer from depression just like my wife.

# Discussion and Conclusions

China is experiencing a period of socioeconomic transition in which there are high levels of labour migration from rural to urban areas driven by the search for a better living. This paper highlights the phenomenon in which a substantial number of migrant workers return home due to illness or work-related injury and the serious consequences for their families in the rural areas.

The main findings can be summarized as follows. First, though there do remain major gaps in knowledge (regarding, for example, whether migrants with illness or injury are more likely to return home compared to healthy migrants, and the proportion of migrants with illness or injury that do return), this study provides evidence to support the arguments made in existing research that migrants with illness or injury often return to the countryside in China (see, for example, Bai and He 2002; Hu et al. 2008). This phenomenon has been empirically found in other countries as well. For instance, a study conducted by Clark et al. (2007) in South Africa found strong evidence that increasing numbers of circular labour migrants of prime working age are becoming ill in urban areas where they work and subsequently return home to be cared for and eventually die in the rural areas where their families live. Research done by Ullmann et al. (2011) in Mexico found that return migrants have a higher prevalence of heart disease, emotional or psychiatric disorders, obesity, and tobacco use compared to non-migrants. This study's findings also provide evidence to support the "Salmon bias" hypothesis that migrants return to their place of origin when their health deteriorates (that is, migrants who return to the country of origin are negatively selected for health traits) (see, for example, Abraído-Lanza et al. 1999; Palloni and Arias 2004).

Second, the results of this study support the argument that the "left-behind" populations are shouldering an increasing burden because of the migrant workers who return to rural areas from the cities with illnesses/work-related injuries. The findings support the hypothesis that this type of return migration shifts the burden of care to families and local communities in the rural areas both financially and in terms of labour supply. As previously mentioned, within the 110 ReMI households in the sample, eight REMIs had already passed away and 24 were heavily dependent and faced potentially life-threatening health conditions. Ultimately, the existence of these types of households has significant consequences for the local distribution and allocation of rural health care resources.

Third, the study provides evidence to support the argument that ReMIs can have long-term negative impacts on their household livelihoods. This paper investigated the impact of ReMIs on household livelihoods and local communities by exploring the following three aspects: the costs of medical treatment, the burden on rural families, and

changes in household livelihoods. It was found that ReMI households faced great difficulty in acquiring the financial resources necessary for medical treatment for the ReMIs. For example, they were unable to bargain with the employers when seeking reimbursement in cases of work-related injuries. Most ReMIs had to borrow money through informal channels to pay for medical treatment. Formal schemes such as NCMS and MFA provided limited support to ReMIs. Households faced a shortage of labour required for activities at home. And ReMIs often became dependent on their family members for care. These findings are consistent with other studies that maintain that the ill health of household members is a key cause of household poverty. Clark et al. (2007), for example, argue that the phenomenon of migrants returning home with illness/injury in South Africa is associated with a loss of household income (through the cessation of remittances), increased household health expenditure (for health care and funerals), and further loss of household (and community) income given the high opportunity costs of caring for a severely ill person. Other studies provide evidence that the negative impact of illness on households can be even more severe. Kenjiro (2005), for example, compares the impacts of crop failure and illness on livelihoods in rural Cambodia and finds that illness has resulted in a large number of land sales in the surveyed villages and has actually caused more serious economic damage to rural households than crop failure.

These findings have significant implications for social services and health care provision in both urban and rural China. In terms of health services and related financial support systems, the above discussion raises a number of difficult questions that require further exploration. Should health services be equally targeted at rural and urban populations? Should social security schemes have mechanisms that encourage members to use local facilities, or should they provide full coverage to those living away from home? Should MLSS be more supportive of ReMIs? How can working conditions of ReMIs in cities be improved in order to protect the health conditions of migrant labourers and increase productivity in the different sectors? What mechanisms can be used to effectively improve the livelihoods of ReMI households in rural areas?

Currently, the improvement of relevant social welfare and protection schemes is a topic that requires particular attention. First of all, migrant workers in China continue to face poor working conditions, and this has been recognized both by policy makers and research communities. Steps should be taken to improve their working environments and prevent illness and work-related injuries from occurring in the first place. Second, access to and coverage by the various health care schemes should be improved. In terms of the Industrial Injury Insurance scheme, serious problems remain, and coverage for migrant workers is still limited. Efforts should be made to strengthen the implementation of the scheme to ensure that ReMIs are given compensation. In order to protect and improve productivity in rural areas, rural social security schemes should be integrated into the urban ones, and a universal scheme system should be established. Regarding NCMS, Yan and Chen (2010) argue that, in terms of the medical fees paid to and reimbursed by the scheme in rural areas, the middle-aged population has actually become the net beneficiary of the scheme, while the elderly have become the net contributors. But since a substantial proportion of the population that is covered by the scheme is, in reality, obtaining services elsewhere, it is difficult to assess the effectiveness and quality of the scheme. Nevertheless, the discussion in this paper makes it clear that coverage for migrant workers remains an issue, and the existence of regional disparities in coverage may also be contributing to the problem. As for MFA, it should cover and focus more on those who are ReMIs and really need assistance. And in

terms of MLSS, ReMI households in which the migrant worker is disabled should be included in the scheme. Finally, the elderly population in rural areas and sometimes also the children and youth are actually actively supporting the ReMIs both physically and financially, but this has had adverse effects on their own lives. Social welfare and protection schemes should therefore pay more attention to these segments of society.

This study enhances existing knowledge about a poorly understood aspect of the relationship between health and migration: the health situation of return migrant workers in China. However, this study only examines the situation of those migrants with illness/work-related injuries who return home to their families in four counties in two provinces. The self-reported measures used to discuss health in this study are subject to recall and selection biases, which are commonly found in interview-based health surveys (see Fabricant and Harpham 1993). Nevertheless, careful analysis and interpretation of these findings yield useful information that can then be used for further in-depth research on the socioeconomic consequences of ReMIs on household livelihoods. Areas in which future research can be done include: (i) comparing migrants who return home with illness or work-related injuries and migrants who return in good health (including the likelihood of return among migrants with different health situations and the impact on their families in rural areas); and (ii) comparing ReMIs and migrant workers who are ill or have work-related injuries but stay in the cities (including the impacts of both on their families in rural areas).

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