Migration and health in China

Migration and health in China *challenges and responses*

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Introduction

Labour migration has played a crucial role in the rapid economic growth and urbanization process that China, India, Brazil and other emerging countries have experienced over the last decades, contributing to poverty reduction in rural areas through remittances, and supplying labour for manufacturing and service industries. While the short-term financial benefits of migration for many individuals, families, and communities are clear, large-scale population movements present new challenges for health systems and public health in terms of disease monitoring, prevention and treatment. Focusing on China, this article provides an overview on some of the health risks migrants have to face, the evolution of research and policy responses, and the challenges that remain.

Internal migration in China

Large scale labour migration has been a crucial component of the sweeping changes that have taken place in China over the last three decades and is inextricably linked with processes of industrialisation, urbanization, and the shift from a centrally planned to a largely market-based and globally-connected economy. Currently, about 140 million people or over a tenth of China's population is mobile depending on the definition used (NBS 2010; CHAN 2008).

The most recent round of large-scale rural-urban migration in China began as a consequence of economic reforms starting in the late 1970s. The break-up of the People's Communes and the introduction of the Household Responsibility System stimulated agricultural productivity and released workers from agricultural employment. The creation of local Township and Village Enterprises (TVEs) initially provided opportunities for non-agricultural employment in rural areas, but as China opened to foreign investment and embarked on a development strategy of export-driven growth in the 1980s, manufacturing industries began to generate a demand for labour and drew workers from the interior to the coastal regions. The expansion of construction and service industries in cities also attracted migrant workers, and the development of a private rental market and the emergence of free markets for many foods made it

easier for migrants to survive in the city (LIANG 2006; BAI & SONG 2002; SOLINGER 1999).

Policy systems were slow to respond to this new demographic reality. As late as the end of 1982, the State Council called for "strict control" of rural-urban migration and although other policies provided incentives to move, official documents generally referred to migration in negative terms. Data collection and service systems continued to treat rural and urban populations separately, and mobile workers fell between the cracks. To the extent that there was concern about migrants' health at this time, it came primarily from the State Family Planning Bureau, which attempted to make sure that migrants did not violate the one-child policy. There was little discussion of how to manage, much less integrate, the growing wave of rural people who were now flowing into cities, and public services such as health care and education, remained restricted to officially registered urban residents. The ambiguous status of migrants was captured in their characterisation as a "floating population" (CHENG & SELDEN 1994; DAVIN 1999; SOLINGER 1999).

As rural-urban migration continued to grow through the 1990s, the government initiated policies to steer and manage population flows. This occurred primarily through schemes to link prospective migrants with employment opportunities in urban areas and through limited relaxation of the *hukou* (household registration) system. Living in small towns became easier for migrants, especially for those with a fixed place of residence and stable source of income. Large cities, however, still gave residence only to those who could make substantial investments or held professional qualifications (CHAN & BUCKINGHAM 2008). As rural people living in the city, migrants were a population whose health status was not effectively monitored by either the rural or urban systems – their access to professional health care services particularly remained limited. This was the result of the institutional separation between rural and urban health care systems, coupled with changes in both systems that eroded coverage of low-income groups (XIANG 2004).

Prior to reform, separate but fairly effective health care systems operated in urban and rural areas. Rural residents received quite extensive services through the Cooperative Medical System, which operated publicly-funded clinics and financed "barefoot" doctors to provide basic care. Urban residents received free health care through one of two state-run schemes (DUCKETT 2007; BLOOM & FANG 2003). This bifurcated system rested on the assumption that people did not move between rural and urban areas, and consequently left rural migrants with no access to health care in the city. At the same time, the rural health care system that they were expected to fall back on was undermined with the dismantling of the communes and the introduction of the Household Responsibility System in the 1980s. Without a system for collective financing, individual families became increasingly responsible for paying for their own care, and illness quickly became a major cause of poverty in rural areas (LIU ET AL. 2003).

The New Cooperative Medical System introduced in 2002 has improved the situation somewhat, and has now been extended to cover nearly all rural counties, although problems remain in adjusting the program to local needs and providing adequate coverage for low income populations (COOK 2007). In 1999, reform of the work-unit-based system in urban areas led to the establishment of a system in which employees hold individual accounts to which both they and their employer contribute monthly, but which can be transferred if the employee changes jobs.

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Migration and health risks

Over the last decade, it has become increasingly clear that migrants present new challenges for the health system in terms of disease monitoring, prevention, and treatment, facing a variety of health risks that stem from employment, living conditions and their mobile status (ZHENG & LIAN 2005; XIANG 2004; HANSEN 2001).

Although generally more educated than their peers who remain in the countryside, migrants are relatively low-skilled compared to urban workers. Consequently, and also because of barriers to entry into formal urban labour markets, they are concentrated in jobs that involve high risks of occupational injury and illness, including construction, mining, and certain types of manufacturing. They are also more likely to be employed in the informal sector or in Town and Village Enterprises and small private businesses where worker health and safety is inadequately regulated (LI 2008; XIANG 2004; HANSEN 2001). Like undocumented migrants in many countries, migrant workers in China are often afraid to complain for fear of losing their jobs, and many consciously or unconsciously risk their health in return for greater income in the short term (HU ET AL. 2008; WRIGHT 2004).

Data on occupational health and injury rates in China is unreliable. It is collected by many different agencies and reporting is patchy (LI 2008). This is particularly true for migrant workers, who often do not seek care in hospital. But a few statistics give some indication of the extent of the problem. A study by the Ministry of Health (MOH) and the Ministry of Agriculture (MOA) found at least one occupational hazard in 83% of the Town and Village Enterprises surveyed, and estimated that at least one third of workers were exposed to health risks. Of factories with hazardous conditions, less than half had any kind of ventilation equipment. Almost five percent of workers surveyed had identifiable occupational diseases and another 11% had health problems that appeared but were not proven to be related to their work (SU ET AL. 2000). In 2005, the State Administration of Work Safety estimated that there were 15,000 deaths from occupational injury annually, and 30,000 work-related incidents in the Pearl River Delta area alone (XINHUANET 2005; CHINA NEWS DAILY 2005). Seeking to assess the scale of the problem from another angle, research conducted in migrant-sending communities estimated that 1–2 percent of all male migrant workers had work-related injuries (XIANG 2004).

Among occupational illnesses, the lung disease pneumoconiosis, accounts for over 70% of the reported total, with over half a million cases recorded by 2001 (LIANG ET AL. 2003). Fourteen thousand new cases were reported in 2009 – more than 90% of them among coal miners and over half in small and medium-sized enterprises (MOH 2010). Benzene, toxic glues, and many other chemicals and pollutants are the cause of other illnesses to which migrant workers are disproportionately exposed. The MOH reported 272 cases of acute and 1912 cases of chronic occupational poisoning in 2009. (MOH 2010)

Migrants are vulnerable in less obvious ways as well. First, they routinely work longer hours than urban residents—up to 50% longer on average, according to one study conducted by researchers at Chinese Academy of Social Sciences (DU ET AL. 2006). Another study in Hangzhou found that 28% of migrants worked more than 12 hours a day and 81% worked six or seven days a week (HESKETH ET AL. 2008), Working long hours increases the risk of injury and repetitive-stress disorders. And, while they earn less than urban residents, migrants also save more, meaning that they often skimp on food, clothes, and other necessities. Although they are less likely to have insurance coverage, migrants also spend less than urban residents on out-of-pocket medical expenses (DU ET AL. 2006). This frugality benefits their families in the short term, but it takes a toll on their physical and mental health.

Migrants make up a large percentage of the population in China's rapidly expanding cities, accounting for up to a third of the population of Beijing and Shanghai and an even greater proportion in Shenzhen and other new cities. The pace of urban expansion has strained infrastructure, and urban peripheries where migrants are concentrated tend to be underserved in terms of water and sanitation services, as well as the sites of small scale industry (WANG & KRAFFT 2008). Studies have found that migrants on average have half (11 square meters) the living space of urban residents, and that 63% of migrants live in housing without a bathroom, compared to 16% of long term urban residents (DU ET AL. 2006). Migrants working in factories often live in dormitories, which are typically over-crowded and do not have adequate protection against fire hazards. Because of crowding and inadequate sanitation, higher rates of malaria, hepatitis, and other infectious diseases have been found among migrants (ZHENG & LIAN 2005). In recent years, tuberculosis has been an increasing concern, with migrants showing higher rates of infection, delayed diagnosis and less access to care (JIA ET AL. 2008; YANG ET AL. 2008; WANG ET AL. 2008; SHEN ET AL. 2009).

As a result of these stressful work and living environments, and also because they are separated from their families and usual social constraints, migrants may be more likely to engage in risky behaviours that may expose them to disease, including unsafe sex (YANG 2008; LI ET AL. 2007). In fact, migrants' circumstances vary

considerably in this respect. As ZHENG & LIAN (2005) point out, many migrant workers live in dormitories where the gates are locked at night and no visitors are allowed, making it hard for them to be sexually active. Other migrants live in enclaves together with others from their home village, where social constraints may be quite strong. At the same time, certain categories of migrants are clearly at high risk of HIV/AIDS and other sexually transmitted diseases, including those who work in China's growing sex industry (XIANG 2004; LI AT AL. 2009; YANG ET AL.2008; LAU AT AL 2009).

Recent policy affecting migrants' health

Since 2000, a gradual but important shift has taken place in attitudes and policy toward migrants – a number of factors have contributed to this. Firstly, a broader change has taken place in social policy toward a greater emphasis on social justice and harmony (*hexie shehui*). Within this context migrants have increasingly come to be seen as a vulnerable population with particular needs; a perception supported by a considerable volume of research documenting the problems of occupational health and safety, access to services in urban destinations, and social discrimination. Media reporting of such issues, and of egregious cases of exploitation and unsafe working conditions has also raised both public and government awareness (XIANG & TAN 2005). With some delay, the health system was galvanized into action during the SARS epidemic in 2003, in which migrants were seen as primary carriers of disease. Growing attention to HIV/AIDS, tuberculosis, and other infectious and emerging diseases has also focused attention on migrants and while it used to be difficult to find information on migrants' health status, it is now becoming routine for migrant status to be a variable in epidemiological studies.

As the government has actively promoted migration as a development strategy and recognized the contribution of migrants to the economy, steps have been taken to end discriminatory practices toward migrants and integrate them into urban social welfare schemes. From 2001, the central government began releasing a series of documents calling for attention to the working conditions and rights of migrant workers, further requiring local governments to make greater efforts to provide more services, better working conditions, and schools for children. During this period, the government repeatedly acknowledged migrants' contribution to rural poverty alleviation, and in 2004 in a key document, also indicated that "rural migrant workers have become a crucial component of the industrial work force, creating wealth for cities, and generating tax revenues" (CAI & WANG 2008).

With the change in the government's approach to migrants have come a series of policies specifically targeted at reducing migrants' exposure to health risks and improving their access to health care. The 2006 State Council document, "Several

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Opinions on Resolving the Problem of Migrant Workers," called for further efforts to improve migrants' legal status and access to public services (STATE COUNCIL 2006). In response to the State Council's initiative, the Ministry of Labour and Social Security (MOLSS) issued a document indicating its plans to expand migrant workers' participation in health insurance (MOLSS 2006).The initiative focused on provincial capitals, large cities, and occupations in which migrant workers are concentrated, including manufacturing, construction, mining, and services. The stated goal was to have 20 million migrant labourers enrolled in insurance schemes by the end of 2006, and nearly all migrant workers working for urban employers enrolled by the end of 2008, with specific quotas for individual provinces and cities. Urban governments developed a variety of approaches including: giving migrants access to existing insurance schemes; setting up a separate scheme for migrants; and relying on rural insurance programs (HE & HUA 2006). Official statistics report that by 2009, over 43 million were enrolled in insurance programs (NBS 2010), although this appears to vary widely across cities. One study in Hangzhou reported enrolment rates of 19% (HESKETH ET AL. 2008) compared with 45% in Shenzhen (MOU ET AL. 2009). Migrants who are employed primarily in TVEs, or who migrate seasonally, may choose to participate in rural insurance programs which have improved considerably in recent years (HE & HUA 2006).

There is also greater attention to the occupational health problems faced by migrant workers with the monitoring and prevention of occupational health risks included as a goal of the broader reform of the health system. The MOH conducted a survey of migrants' occupational health and in 2006 launched a program to provide Basic Occupational Health Services in pilot sites in 20 counties of 10 provinces. It was expanded to 46 counties in 19 provinces in 2010, with further measures planned for the 2009-15 period. Efforts have focused on particular industries, including coal mining and construction and appear to have had some effect. Official statistics reported an 8.8% decrease in the number of reported deaths in workplace accidents in 2009, to 83,196, or 2.4 people for every 100,000 working in mining industry, commerce, and trade respectively. The number of miners who died for every million tons of coal produced was 0.89, a drop of 24.5% over the previous year (NBS 2010). In addition to the government, a number of NGOs are now involved in providing training on occupational health and safety.

Continuing challenges for research and policy

Despite greater awareness, many difficulties remain in addressing the health needs of migrants. Although the new insurance schemes are expanding, for a variety of reasons, the majority of migrants are still not covered. Some are defined out of eligibility (e.g., the Shanghai program does not include people working in agriculture or as housekeepers – two large groups that are rarely covered by employers). In other cities, such as Shenzhen, comprehensive schemes face problems of employer compliance, especially among smaller firms (MOU ET AL. 2009). Even where it is available, co-payments, upfront payment for services and ceilings on coverage often deter migrants from buying insurance and from seeking care. Awareness of the need for treatment and trust in health providers are also an issue (BARNIGHAUSEN ET AL. 2007). Overall, insurance enrolment and use of services show demographic patterns common to other countries that lack universal coverage (MOU ET AL. 2009; HESKETH ET AL. 2008).

To date, the focus of most policy has been on improving migrants' access to healthcare in urban areas. However, many migrants who are injured or become severely ill return to the countryside, where they present a serious challenge to the rural health care system and an economic and social burden on rural communities. The serious health risks that migrants face have led one group of researchers to characterise migration as a process of "youth mining" in which the human resources of rural young people are being consciously expended in pursuit of financial gain, as China's countryside exports healthy workers and re-imports the sick and injured (HU ET AL. 2008). This remains an area in which research is still limited and explicit provisions for disabled workers have yet to be introduced, although some programs have begun to address the needs for rehabilitation among returning migrants (LOA ET AL. 2008). In fact, many migrants do not return to their villages but to small towns and cities in the same province, which lack the resources of large cities but do not receive the subsidies available to rural areas. Building health service capacity in county towns and small cities would therefore seem to be a priority (SCIENCE TIMES 2010).

In terms of prevention, there is now a strong commitment on the part of the central government to improve occupational health and safety in industries in which migrants are concentrated. But even with this political will, progress will not be easy. The monitoring and enforcement system faces serious problems of capacity. For example, according to the Provincial Administration of Worker Safety, in 2006, Jiangsu had over 230,000 industrial enterprises employing nearly twelve million people, as well as 34 coal mines and 3,000 other mines. Another 3.8 million people were working in the construction sector. But the province had only 563 professional safety in-

spectors and 256 occupational health inspectors (XIA 2006). In poor areas, it is hard to recruit and retain trained personnel, who generally leave to find work elsewhere, and enforcement is further hampered by the difficulty of regularly inspecting facilities in remote locations. As with the enforcement of environmental regulations, corruption and local protectionism are also serious problems, especially in poor areas with few alternative sources of revenue.

In most cases, migrants find themselves at risk as the result of a complex interaction between structural factors and choices made by individuals and their households. Migrants often risk their health as the result of a lack of information, a lack of alternatives, or in some cases, a deliberate decision in return for other perceived benefits. A much better understanding of how migrant households and individuals perceive and respond to various health risks, how they access and use information, and how they value and weigh considerations of health and increasing income is needed.

Given the diversity of the migrant workforce, and the range of different health risks to which they are exposed as the result of their specific occupations and place of residence, these issues need to be explored through in-depth research on particular sub-populations and employment sectors. There is also a need for longitudinal research that can capture the effects of cumulative exposure of migrants to occupational and environmental health risks and the long-term costs of lost capacity to work and in treatment and care for the sick. All these tasks are complicated by the pace of urbanization and by ongoing changes in the structure and location of industries in which migrants are concentrated, including the trend towards relocating many industries away from major cities and into the hinterland.

Nearly all work on migrant's health focuses on their physical condition, but migration also causes considerable psychological stress that can have serious consequences. The recent spate of suicides at the Apple contractor Foxconn in Shenzhen is a dramatic manifestation of stress-related health issues. More often, stress has an insidious effect, exacerbating physical health problems and making it difficult for individuals to live productive and fulfilled lives. Sources of stress include discrimination, but also isolation and separation from family: Studies indicate that migrants stay away from home on average for four to seven years (MURPHY 2002; NGAI 2005). Some researchers are beginning to explore these issues but the findings are as yet somewhat inconclusive (WONG ET AL. 2008; LI ET AL. 2007). The implications of migration for the physical and mental health of migrants' children represent another problem that is only beginning to be explored but is now beginning to receive attention in professional journals (LI ET AL. 2009; CHEN ET AL. 2009; LU ET AL. 2008; WONG ET AL. 2008; YE & PAN 2008).

Policy toward rural-urban migration in China has undergone a significant shift in the last decade, and improving the working and living conditions and access to health care of migrant workers in cities is now clearly on the agenda of national and local governments. Nonetheless, migrants' mobility and their concentration in hazardous industries continue to make it difficult to reduce their exposure to environmental and occupational health risks and to ensure their access to affordable care. As it grapples with these challenges, China is experimenting with a number of approaches to addressing migrant health issues that will be informative not only in the domestic context but also for other countries undergoing significant internal migration.

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