Second Year Policy Analysis

Master of Public Administration in International Development

John F. Kennedy School of Government, Harvard University

Improving Healthcare Insurance for Migrant workers in China:

Cover the Missing 220 million Migrants: How to bridge the missing gap?

Authors:	*Advisor:*	*Section Leader:*
Kavitha Sivadasan	Prof. Matt Andrews	Prof. Ishac Diwan
Chi Zhang		

March 2014

Submitted in fulfillment of the requirement for the degree of Master of Public Administration in International Development

Acknowledgement

At the very outset, we would like to thank our SYPA advisor Matt Andrews who mentored us not only through his creative and analytical ideas, but also for being our friend, philosopher and guide throughout the project. We are grateful to Ishac Diwan for his challenging questions that helped us think outside the box.

Special thanks to Harvard professors William Hsiao, Tony Saich, Alan Trager and Jane Nelson for their advice and network. We offer our sincere gratitude to the Ash Center at Harvard for awarding us with a research travel grant, and to Harvard Staff Tim Burke and Marie Ruggie for their help towards our field interviews.

Many thanks to Prof. Gordon Liu of Peking University, Prof. Yang Lixiong of Renmin University, Mark Godfrey and Vivien Chen Yi for our field interviewees in China for their insights on the Chinese healthcare system. Heartfelt thanks to Usha Chandran for interpretation help during field interviews. We also would like to thank all our friends and contacts in China for their invaluable help in research and field interviews [1].

We owe immensely to our Harvard classmates Sarah Zhang, Andrea Lopez, Gomez Agou, Zaizhong Liang, Anna Kurzugova, Nick Bayard, Rafael Puyana, and Michael Law for their valuable suggestions and creative ideas.

Most importantly, we would like to thank Carol Finney, Director of the MPA-ID program, without whose support in the face of challenges, we would not have been able to pursue and complete this project.

[1] We also would like to thank all our friends and contacts in China for their invaluable help in research and field interviews. Rajeev Sinha , Yun Kou, Dr. Lin Yan, Chen Yun Wei, Liping Mian, Jiazhe Wu, Fanfang Chao, Song Chunxiao, Hong Ping, Yansui Yang, Qunhon Sheng, Amelie Fan, Guo Ziyang, Shawn Shieh, Song Chunxiao, Chen Kangliang, Zhao Angi, Dong Nai Yu, Yang Xujian, Xie Shuo, Guo Fang

Abstract

The last two decades have seen a dramatic increase in the standard of living for the Chinese due to a series of economic reforms set in motion since the Deng Xiaoping era. However, access to affordable healthcare has in the meantime deteriorated. As the world's most populated country, China's healthcare has been under constant criticism, particularly its healthcare insurance system. After concerted efforts in recent years, China has achieved more than 97% [20] healthcare insurance coverage for both urban and rural population. While rural to urban migration has fueled the economic success of China, migrant workers have fallen between the cracks when it comes to healthcare insurance. The migrant population has now grown to be 250 million [30] , yet healthcare insurance coverage for this population is less than 15% [7]. Migrants are expected to comprise one third of China's population (450 million) by 2020 [33], thus we believe this is an issue of utmost importance that needs to be addressed immediately. Using an analytical model and field interviews to assess the current problems plaguing China's health insurance sector, and studying positive deviances in coastal regions, we have suggested a long-term as well as short-term solution for migrant workers' insurance -

1. **Short-term** solutions tailored to address migrants' needs such as incorporating migrants into the urban insurance fund to reduce burden on the rural provinces and to create inter-provincial portability.

2. **Long-term** that looks at "unification" of the insurance schemes into one by risk pooling of rural, urban and migrant populations. This would enable the government to subsidize premiums for migrants just like rural population. Decoupling insurance from pension and housing would address the high opportunity cost of insurance that currently deters migrants from enrolling in insurance schemes.

This policy proposal provides a fresh way of looking at the issue of migrants healthcare insurance. We have suggested both short term and long term solutions that shall enhance healthcare provisioning for migrants. Implementation of these recommendations could help China achieve its goal of universal insurance coverage by 2020.

Contents

List of Figures

List of Tables

Improving Healthcare Insurance for Migrant workers in China

1 Introduction: Healthcare, Insurance and Migrants in China

1.1 Healthcare Delivery

Over the last two decades, China has transformed itself to be the world's second largest economy with a per capita income of $4000 [19]. China's healthcare evolution, however, has not been as smooth. China has a hospital-based healthcare delivery system managed by the Ministry of health and its regional local-government counterparts. China's hospitals are primarily government run with private hospitals accounting for only 6.1% of hospital discharges and 8.2% of outpatient visits as of 2010 (Eggleston, 2012) [19]. Hospitals are supplemented by traditional Chinese medicine practitioners, village or barefoot doctors. Recent reforms have developed a primary health care system of "grassroots providers" to bring "barefoot doctors" into the 21st century in terms of training and quality. However, building up a network of non-hospital based primary care clinics for better access has been slow and difficult due to the distrust ingrained in the Chinese population regarding the quality of primary care providers. This has led to the ubiquitous slogan *"kan bing nan, kan bing gui"* (getting healthcare is difficult and expensive). (Eggleston, 2012) [19].

1.2 Healthcare Financing - Insurance

China's transformation from the Mao era to a market economy in the 1980s had led to the collapse of state-run cooperative medical schemes under the purview of agricultural communes (Eggleston, 2012) [19]. China's traditional healthcare system in urban and rural areas collapsed.

State-owned-enterprises spun off their supporting facilities, such as hospitals and schools, leaving thousands of urban employees unattended with respect to healthcare. At the same time, resources in rural areas were being transferred to the cities, leaving the rural healthcare system bankrupted (Chow, 2006) [8]. Healthcare costs for citizens spiraled as majority of healthcare costs were borne privately by citizens - there was no insurance for the majority between 1980 and 2000 (Eggleston, 2012) [19]. In the late 1990s, the Chinese government launched a series of healthcare reforms to fix the situation.

1.3 Past Healthcare Insurance System Reform

In 1998, a new insurance system was introduced in addition to government contribution in urban areas. Under this system, the employer had to contribute 6% and employee 2% of the employee's wage towards the employee's insurance. A large number of non-state enterprises could also participate in this insurance system, or pay a higher salary so that their workers could afford their own insurance (Chow, 2006) [8]. Given the economic development in urban areas over the past two decades, most of the urban population is now covered by their employers, or self-sustained with contribution from the government.

However, the journey for the rural population (over 800 million) had not been as easy as their urban counterparts. Until 2002, the insurance coverage for rural population was around 10% (Yip Hsiao, 2009) [39]. This dismal low coverage situation had not changed much until 2009, when President Hu announced the long delayed healthcare reform to provide equal healthcare access for every citizen by 2012. Under the New Rural Cooperative Medical Scheme (NCMS) and Medical Financial Assistance Scheme, the coverage had expanded to 832 million rural residents by the year of 2011, covering 97.5% of the rural population (Yip, Hsiao, 2009) [39].

Thus, since 2002, with the introduction of government-subsidized healthcare insurance for rural Chinese, the private share of healthcare spending has reduced to 45.94% (as of 2010) (Eggleston, 2012) [19]. Due to the small market size for commercial insurance, private spending is mostly "out of pocket" expenditure by patients. While the Chinese government has increased funding for healthcare of its over 1.3 billion population, healthcare expenditure comprises only

5.01% of government expenditure, far less than the OECD average of 9.5% (Eggleston, 2012) [19]. Nevertheless, the transformation of Government financing from direct subsidies for hospitals -to- subsidies for health insurance for households, has resulted in the majority of Chinese having health insurance - over 98% of the Urban population (450 - 500 million) and over 97% of the rural population (800-850 million) are covered [20].

This trajectory augurs well for universal health insurance coverage in China. However, if we were to examine closely, there is another segment of the population that has been hitherto ignored - Migrant workers or floating population - who comprise over 250 million people [30] (Figure 1). Migrants are forced to rely primarily on traditional Chinese medicine, and suffer from a lack of health safety net. This is a big gap that begs to be plugged, posing a huge policy problem for the Chinese government.

1.4 Migrant workers healthcare coverage

Unlike other countries, the issue of migrant workers is unique to China, created in part due to its unique Hukou system, a system of dual citizenship - urban and rural citizens - in China. The Hukou system, since its inception in the 1950s , had bifurcated the country into rural and urban populations through prohibition of inter provincial movement (Hoath, 2013) [22]. Further, it bestowed the urban population with basic welfare advantages such as better healthcare access relegating the rural population to be second-class citizens. However, reforms in the 1980's removed restrictions on migration leading to an exodus of rural population to urban centers, which provided the much-needed labor for the burgeoning Chinese industrial cities. While rural to urban migration has fueled the economic success of China, migrant workers have fallen between the cracks when it comes to healthcare insurance (Hoath, 2013) [22].

Over the past three decades, over 250 million Chinese rural residents have left their homes to seek employment opportunities in urban areas (Lu, Wang, 2013)[26]. Due to the urban-rural binary Hukou system, migrant workers are not officially categorized in either the urban or rural population. Though in 1999, the development of employment-based social insurance programs made social welfare programs available for rural-to-urban migrant workers, recent studies have

found out that the participation or coverage ratio is very low (Xu et al., 2011)[38]. As of 2000, the coverage was only 3%, and though the launch of Urban Employee Basic Health Insurance Scheme (UEBMI) was expected to address the gap, only 30M migrants have been covered -14% of the population [7].

1.5 Second Year Policy Analysis (SYPA) overview

The objective of our SYPA is to conduct an analysis of the current situation of healthcare insurance to understand its strengths and weaknesses, and to propose reforms that could enhance healthcare insurance coverage for migrants. We conducted field interviews in China with healthcare experts, public policy experts, and migrants' representatives to get a holistic view of migrants' insurance. We have employed an analytical framework to assess the current situation and to study why reforms have failed when it comes to migrant workers.

Using our analytical framework we identified 4 major causes for the insurance gap for migrants -

1. Limited or low portability of existing insurance
2. Suppliers have limited incentives to offer insurance to migrants
3. For migrants, the opportunity cost outweigh benefits of availing insurance
4. Low benefits and low utilization of available insurance options by migrants

While the situation for migrants looks dismal overall, there seems to be hope, as the coastal regions seem to be faring better with respect to migrants' insurance. In 2007, the central government decided to pilot the healthcare insurance initiative in developed regions like Yangtze River Delta, Pearl River Delta and Pan-Bohai economic zone (Northeast of China) (Li, Yang, 2009) [28]. Thus, better results for migrants' insurance coverage were observed along the coast region, e.g. Shanghai (62.4%), Shenzhen (75.0%) and Dalian (80%) than inland cities, e.g. Beijing (15%), Chengdu (18%), and Wuhan (22%). (Li, Yang, 2009) [28] (Milcent, 2010) [6]

Though the sustainability of the coastal region's success is still in doubt, we have studied best practices in the coastal regions to understand how they have addressed the above-mentioned

4 reasons for insurance gap. These policy alternatives or positive deviances in coastal regions provided us with an opportunity to "find and fit" (Andrews, 2013) [2] solutions for inland regions to make healthcare access equitable for migrant workers in the short-term. Basis insights gleaned from field interviews, outputs from our analytical framework, and best practices from coastal regions, we have also suggested long-term recommendations to address these 4 reasons for insurance gap -

1. **Short-term** solutions tailored to address migrants' needs such as incorporating migrants into the urban insurance fund to reduce burden on the rural provinces and to create inter-provincial portability.

2. **Long-term** solution that looks at "unification" of the insurance schemes into one by risk pooling of rural, urban and migrant populations. This would enable the government to subsidize premiums for migrants just like rural population.

Decoupling insurance from pension and housing would address the high opportunity cost of insurance that currently deters migrants from enrolling in insurance schemes.

This policy proposal provides a fresh way of looking at the issue of migrants healthcare insurance. We have suggested both short term and long term solutions that shall enhance healthcare provisioning for migrants. Implementation of these recommendations could help China achieve its goal of universal health coverage by 2020.

The next section addresses the salience of migrants' insurance and Section 3 provides the literature review of insurance in China. In Section 4, we provide our analytical framework and findings from our field interviews to identify the plausible causes for this skewed insurance cover for migrant workers. In Section 5, we do the policy analysis and in section 6, we discuss our recommendations.

2 Salience of SYPA: Why focus on migrant workers? Why do it now?

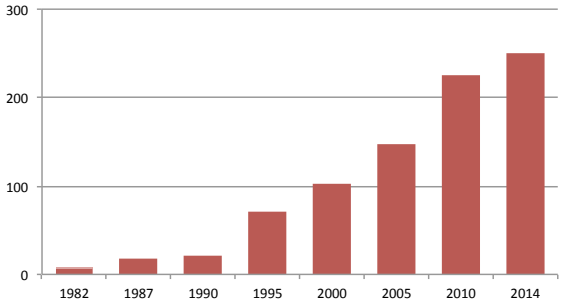
2.1 Social inequity and social unrest

China's economic strides could be attributed in large measure to the easing of restrictions of China's household registration system or the Hukou system, a mechanism used to restrict China's internal migration. The exodus of rural population to urban centers provided the much-needed labor for the burgeoning Chinese industrial cities.

Before the economic reform in 1978, there were only 2 million people who left their permanent residence to work in other places. The number grew to 30 million in 1990, passed 100 million in 2000, and has now reached 250 million. Thus migrants currently comprise close to 20% of China's population.

Despite the key role of migrants in shaping China's economic growth, they have been kept out of claiming the returns of that growth.

Figure 1: Number of Migrants in China from 1982 to 2014 (K)



Source: Report on China's Migrant Population Development[30],

Migrants have been marginalized for decades, and ignoring this issue has the potential to create social and political unrest. The issue is important not only because it relates with the accessibility of healthcare, but also the fairness of treatment in China. The latter is important given the large discrepancy between low and high income - mostly resulting from the rural and urban divide. Rural to urban migration is a pathway for people to bridge the divide. If migrants' issues are unaddressed, migrants could sow the seeds of dissatisfaction. However, if migrants feel that the government is concerned about their welfare, migrants could act as messengers who could bridge the rural-urban divide. In fact, they are fully aware that they are the outsiders in cities, and do not expect much from the locals. So the acquisition cost is low - at the same time, the revenge cost is high when migrants return home with complaints.

The Chinese administration has realized that this issue can no longer been ignored and have called out to local administrations to finds solutions for migrants. Avoiding unrest is the most important factor in an official's performance appraisal and chance of promotion [23]. Taking cognizance of this gap, in 2009, the government announced plans to provide universal access to essential healthcare to all its residents in China by 2020 [7]. However, as of 2013 the situation still seems dismal. Though central and local governments in China are looking at ways to resolve this issue, the complexity of the issue has made progress slow.

2.2 Lack of global best practices - Migrants' insurance unique to China

The issue of migrants insurance is not only unique to China but also complex as it is inextricably interwoven with the Hukou system. Hukou is a record in the system of household registration required by law in China. It requires citizens to live in the place of their birth and obtain permission to move. Ever since its establishment in 1955, the Hukou system prohibited the migration from rural to urban areas. The restriction was partially loosened at the beginning of economic reforms in 1978, in part as a result of urban-biased development policy - in China people referred to it as *"let some people and region prosper before others, and achieve common prosperity gradually"* (Lu, Wang, 2013) [26].

However, loosening restrictions did not directly translate into an open Hukou system in the urban areas. Limitations and quotas were applied year on year by the local governments on the basis of developmental needs and local infrastructure capacity. Nevertheless, the migrant movement from rural to urban areas largely out-weighed such quota. Thus, many migrants still hold rural Hukou while they are residing and working in the cities. Their rural Hukou has perhaps prevented them from enrolling in the urban healthcare insurance system, and has limited their access to healthcare in general (Milcent, 2010) [6].

In theory, as long as a migrant worker has insurance coverage in his hometown or village, he could get his medical costs incurred in another city reimbursed back in his hometown. However,

in practice, the regional government revenue model prevents such cross-regional transactions.

Post economic reforms, the Chinese government decentralized its tax collection system and authorized local governments to have their own tax collection and budget process with a fraction of the contribution trickling up to the central government (Field interviews). Such reforms motivated local governments to boost economic development, however, the relationship among local governments evolved more along the lines of a competition model than a cooperation model. Each of the regions has its own tax base and budget with accountability only to the central government. Under such an ecosystem, the migrant worker's home government is unwilling to reimburse the cost incurred in other places, and this situation has worsened particularly between developed and developing regions.

In addition to the documentation challenge brought about by the Hukou system, the frequent moving pattern of migrants exacerbates the problem. Migrant workers typically engage in informal and short-term employment. Most of them change jobs at least once a year, with some even more frequently (Hesketh et al., 2008)[21]. Such fluctuation creates an additional problem for the local government limiting its ability to forecast the healthcare service demand. Therefore, systematic planning to expand healthcare facilities and insurance coverage to accommodate the needs is almost impossible.

Despite the long hours and poor working conditions, the hourly salary for the migrants are far below the city average income (Field interviews). Migrants' low incomes make them unattractive as a demographic segment to private sector investment in essential healthcare services for them. Without adequate healthcare and education facilities provided to the migrants, these workers leave their families in their hometown and travel to the cities by themselves. They gather in urban slums, where drugs and prostitution hold sway. This vicious cycle creates additional social and health problems, which make the migrants increasingly less popular to local residents. As a result, local governments are hesitant to use tax revenues collected from local citizens to provide any service to migrants.

Thus, the uniqueness and complexity of migrants' insurance makes it almost impossible to

find best practices globally. While some literature has addressed the healthcare access issue for cross-border migrants, limited research has been conducted on healthcare accessibility of internal migrants (Hesketh et al., 2008)[21]. Thus, the chronic neglect of internal migrants' healthcare warrants immediate research and attention.

2.3 Why now? - Migrants' changing demographic nature

Despite the above-mentioned challenges, addressing the insurance gap for migrants is particularly important because migrants are the single largest "growing" demographic segment in China. Migrants are expected to comprise 1/3rd of China's population by 2020 [33]. Further, the changing patterns of migration pose a challenge hitherto unseen. Due to the global economic crisis, China's export sector has suffered greatly in the past few years. Export oriented factories along the coastal region have closed down, and migrants are moving back to inland regions where industries that service the domestic sector prevail. More and more corporations are leveraging this trend by establishing new factories in inland capitals where land is cheaper to achieve economies of scale. However, this trend creates an unforeseen pressure on inland capital cities to provide healthcare insurance coverage for backflow migrants - a phenomenon they have never experienced before.

Due to the salience of the issue, there was a meeting held in 2013 where in the Commission of Health and Family Planning apprised Senior Government officials regarding the gap in healthcare for migrants. Pursuant to this meeting, a high level meeting was organized with the Vice Premier of the People's Republic of China, Liu Yandong, to undertake reforms for migrants' healthcare (Field interviews).

Thus, the issue of migrants' healthcare has become a focal point of healthcare reforms making our research timely. This is an urgent policy issue that warrants attention from multiple stakeholders' viz. Central government and local government officials, policy think tanks, healthcare experts, insurance experts, migrants' organizations, and healthcare delivery organizations. We seek to provide an analytical framework that addresses all stakeholders to help policymakers design alternate proposals for implementation. We have researched China's healthcare insur-

ance in depth (captured in the literature review) to come up with an analytical framework. Our recommendations that emerge from this analytical framework may also provide a roadmap for policy think tanks and government officials while they implement the next wave of reforms.

3 Literature Review: Healthcare Insurance in China

The trajectory of Healthcare insurance provisioning in China has mirrored the hukou system. Insurance can be broadly categorized into two segments - Insurance for rural population and Insurance for urban population. The insurance for urban population has been sub-divided into two categories - urban employees and urban residents. Thus, our literature review addresses insurance provisioning and the hukou system.

3.1 Healthcare insurance in China

Starting in 1978, the healthcare insurance reform in China aimed to establish a three tiered insurance system to cover the entire population while taking demographic differences into consideration. The three-tiered system includes the basic healthcare insurance (for both rural and urban populations), employer-led supplementary insurance (targeted at urban employees), and commercial insurance (targeted at the elite who could afford private insurance).

Figure 2: : Three tiered insurance scheme in China

Source: Health Care Insurance Reform in China [10],

Although the government encouraged all three tiers to be developed at the same time, the focus historically has been on basic healthcare insurance. The insurance for "Urban employees" was the first to be comprehensively drafted - after several experiments by local governments, in 1988, the departments of central government, led by Ministry of Health with participation

of former National Development and Reform Council, former Ministry of Human Resources, Ministry of Finance, Ministry of Medicine Inspection, drafted the healthcare insurance plan for the urban employees. By the end of the 1999, 5 million urban employees had participated in this reform [10].

In parallel with the development of basic healthcare insurance system for the urban residents, the government slowly encouraged the second tier-employer-led supplementary insurance. This was to supplement basic insurance with employer led insurance. Initially it was targeted at government employees wherein the government was the employer, and later it expanded to state-owned enterprises, and a few private companies. By 2010, 26 million employees received employer-led insurance [34].

The third tier-Commercial insurance was even slower. By 2010, only two insurance companies had offered a few experimental products in this segment targeted at the elite class [10], which accounted for 6% premium and 5.7% reimbursement expense of the entire healthcare insurance market [20].

However, until 1988, the three-tiered schemes did not address urban residents, retirees or rural workers. In 1998, the Ministry of Social Security was formed, and the basic healthcare insurance began to be rolled out to other forms of employment other than urban employees - In 1999, retired military was covered; in 2003, informal employees were covered under the urban residents scheme; and in 2006, rural workers were mentioned in the reform guidelines issued by the Central Government. On the rural side, the basic healthcare insurance only started around 2003 [20].

So by 2012, the basic healthcare insurance had evolved to three categories [20] -

1. Urban Employee Basic Medical Insurance (UEBMI) - for Urban Employed, henceforth referred to as **Urban Employees insurance**. This covered 237 million employees by 2010, coverage at 97% for urban employees and retirees.

2. Urban Resident Basic Medical Insurance (URBMI) - for Urban Residents, henceforth

referred to as **Urban Residents insurance**. This covered 194 million residents by 2010, coverage at 97%, for urban children, students, and unemployed residents.

3. New Rural Cooperative Medical Care System (NCMS) - for rural population, henceforth referred to as **Rural Insurance** or NCMS. This covered 836 million rural residents by 2010, coverage at 95%, for rural residents.

Note: For ease of analysis, in this report the Urban employees and Urban Residents insurance have at times been clubbed together, and shall collectively be referred to as Urban Insurance.

3.2 Financing of Insurance

The financing of insurance is critical to understand the risk pooling and reimbursement of expenses. The reimbursement of healthcare expenses is classified into 3 types -

1. Outpatient expenses - where patient is not hospitalized and just has consultation or medical expenses.
2. Hospitalization expenses - when patient is hospitalized
3. Critical Illness expenses - when patient suffers a critical illness viz. cancer, heart attack, kidney disease etc.

Urban Employee Insurance is funded by non-state contributions from employee (2% of salary) and the employer (6% of salary), whereas both the Urban Residents Insurance and Rural/NCMS Insurance is subsidized by government contributions [20].

For Urban Employee Insurance, each insured employee has two accounts: individual account (4% of salary contributed as premium: 2% each by employee and employer) and collective account (4% of salary paid by employer). The individual account is used to pay for outpatient expenses, whereas collective account is used to pay for hospitalization and critical illness (viz. cancer, kidney disease etc.) expenses [20].

Urban Residents only have one collective account, with 30-100 RMB contributed by him/her and 50-120 RMB subsidized by the local government [20]. For non-hospitalization expenses, urban residents have to foot the majority of expenses themselves, as there is no individual account

dedicated to cover this expense. The Urban Resident insurance reimburses around 50% of hospitalization and critical illness expenses [20].

NCMS/ Rural participants have one collective account with 20 RMB subsidized by the central government, 20 RMB subsidized by the local government, and 10 RMB contributed by him/her. However, if there is any excessive individual contribution beyond the 10 RMB baseline requirements, it goes into a "household account". This household account pays for the outpatient expenses (a la individual account for Urban employees)[20].

Each insurance scheme has a different reimbursement arrangement. For Urban Employees, the outpatient expenses are reimbursed fully by the individual account, whereas Urban Residents and NCMS/ Rural participants have to bear 70% of the expenses themselves. For expenses related to hospitalization and critical illness, 70-80% is reimbursed by the collective account for urban employees, whereas only around 50% is reimbursed for the other two - Urban Residents and Rural/NCMS. Thus benefits for the non-state funded Urban Employees are better than the state subsidized Urban Residents and Rural/NCSMS [20].

The Urban Insurance funds (Urban Employees and Urban Residents) are managed by the social security fund management division of the Ministry of Human Resources and Social Security (along with the pension, and unemployment insurance). There are 45 individual funds in total - 31 provinces or provincial level cities, 10 deputy provincial level cities, and 5 cities with independent economic plans. The Rural/NCMS insurance fund is managed by the Ministry of Health[20].

The risk pool is separated among Urban Employees, Urban Residents and NCMS. Besides a few provinces, most funds are pooled at the city level [12]. Although overall all three funds maintained a surplus in 2010, recent reports indicate that several provinces recorded deficit in collective account for that given year[13].

Table 1: Insurance Financing and Reimbursement

Participants	Payment	Account	Reimbursement	Management
UEBMI 237 M Urban Employees	2% salary by individual + 6% by employer	Individual + collective	Outpatient 100%, 70-80% others	45 funds Ministry of HR, & Social Security
URBMI 194 M Urban Residents	150 RMB split by individual and local government	Collective	Outpatient 30%, 50% others	45 funds Ministry of HR, & Social Security
NCMS 836 M Rural Residents	50 RMB split by individual, local and central government	Household + collective	Outpatient 30%, 50% others	Ministry of Health

Health insurance in China CN.Healthcare Media Limited[20]

As can be seen the insurance policies are split by demographics - urban employees, urban residents and rural population. So, what happens when there is migration? The next section studies migrants, their composition, and how they fare with insurance.

3.3 Migrants and healthcare insurance

Given that migrants are limited by Hukou system, we studied the hukou and its relation to migrants in detail - the term "migrants" refers to the people who reside in places other than the residence location indicated in their Hukou.

Among the 250M migrants, 190M are from rural areas. The total number of migrants is estimated to reach 450 million by 2020, with 210M rural residents moving to urban areas (Migrant Population Development Report). According to a report on China's Migrant Population Development, Chinese migrants demonstrate five important characteristics [30]

1. Young and educated: by 2011, the average age of migrants is at 28. Most migrants were born after 1980, with more than 10 years of education.

2. Aim to settle: while in the past, most migrants returned to their original residence after several years of working, in 2011, 70% of migrants lived with family in the new city with

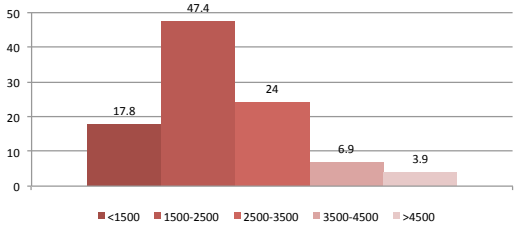
average household of 2.5 people. It is expected that they are going to settle in the new city.

3. Private sector employment concentrated in manufacture, services and construction: 70% of the migrants work in private sector or are micro to small business owner by themselves.

   80% work in manufacture, retail and distribution, hotel and restaurants, social services, and construction. They work long hours, but with limited protection on formal contract.

4. Low income: in 2011, the median wage for the migrant workers was 2000 RMB (317 USD) per month - less than half of the national average, 4134 RMB (656 USD).

Figure 3: : Monthly average income distribution of migrant workers in 2011 (RMB)



Source: Report of China's Migrant Population Development, 2013 [30]

5. Concentrated in coastal cities: in 2011, more than 70% of the migrants work in east region, with more than 80% living in large and medium size cities.

Given the limited quota that allows people moving from rural to urban, many migrants are still holding their rural Hukou while they are working in the city. Such practice, though does preventing them from being fully integrated into the city and enjoying the full benefit such as public education (Milcent, 2010)[6], does not stop them from enrolling in the healthcare insurance.

Furthermore, in the 13th Plenary Meeting held last year, Hukou system reform was approved - rural residents are welcome to transfer their Hukou to medium cities and counties with four mega-cities (Beijing, Shanghai, Guangzhou, Shenzhen) the exception [9]. This reform largely eliminates the urban-rural divide, and opens the window for the next wave of urbanization, albeit in a restricted manner in these four mega-cities. The central government has exhorted other provinces to reform and ease hukou restrictions, however the

journey ahead for reforms is still circumspect.

However, on the other hand, Hukou does matter, because basic healthcare insurance is not a standalone product. It is required alongside with pension, unemployment insurance and housing fund. To fully enjoy the benefit of such collective program, one needs to transfer his/her Hukou to that city.

Since only 20-25% of the migrants are enrolled in healthcare insurance scheme in the city where they work, most migrants need to pay out of their pocket to gain access to the healthcare infrastructure in that city. This leaves the migrants only a few options when they get sick: to pay out of their pockets, go back to their rural villages where they have the NCMS, or find low cost local clinics for quick treatment, or passively wait for the disease to go away. (Field Interview)

However, these options generate larger problem. Given the 80% reimbursement rate enjoyed by their urban counterparties, these low-income migrants need to pay five times more if they chose to pay out of the pocket. Going back is not ideal either. Their village hospitals are not equipped to treat the diseases they contracted in other places. So the migrants are advised to go to the hospitals in the county or city, which delays the proper treatment. Waiting never helps, especially in cities where the air is severally polluted.

All these consequences limited their choice to go to some private clinics where they buy low cost and low quality traditional Chinese medicine. Besides the individual consequence of worsening the situation, some diseases, e.g. HIV, are transmittable and already begin to affect the local population (Lin et al, 2005)[24]. While the picture looks grim for migrants in general, there seems to be a positive deviance in the coastal regions that is worth studying as discussed next.

3.4 Existing best practices for migrants in Coastal Regions

In 2002, the Shanghai government began to provide a comprehensive social insurance system to migrant workers, including three types of insurance: health insurance, pension and work-related injury assistance with support from commercial insurance companies. Additionally, the Shanghai government now offers a merit-based Hukou system to encourage migrant workers who have worked in the city for multiple years and intend to stay to apply for local residency. The applications are evaluated based on the migrants' income, education background, accumulated tax contribution, and local business needs. Though the qualifying requirements are high, the migrants are allowed to re-apply in the future to improve their chances of success.

The Shenzhen government launched a similar healthcare insurance system for migrant workers in 2006. The employee's individual contribution is low, and the rest is made up by the employer's contribution. The government without participation of private insurers manages this scheme. Further, it has streamlined the process for corporations to register their migrant workers.

We have tried to study these best practices within the analytical framework discussed in the next section.

4 Analytical Framework

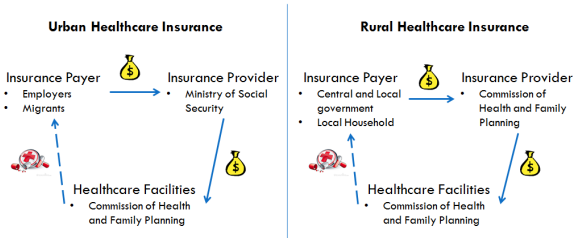
In this section, we will first explain the framework that will be used to analyze the situation, and then apply analytical framework to identify the key issues for the causes of the migrants' lower insurance coverage.

4.1 Analytical framework and healthcare system

To understand the complexity behind the healthcare insurance problem, (Matt Andrews, 2013) [2] has suggested that such analysis could be done with an Ishikawa-type Fault Tree diagram. The diagram begins with the symptom of the problem, and then splits the causes into a few major categories, where each category is contributed by a few factors.

To clarify the terminologies to be used in the analysis, we quickly recap the healthcare system in urban and rural China.

Figure 4: : Healthcare system in urban and rural China



Source: Government document and field interview

Healthcare insurance for rural and urban populations is handled by two separate government bodies, while healthcare provisioning is handled by one. In urban cities, insurance is provided by local bureaus under the Ministry of Social Security, which also provides pension, unemployment insurance and other social welfare programs (Field interviews).

Payers for the migrants' healthcare insurance are mostly their employers and migrants.

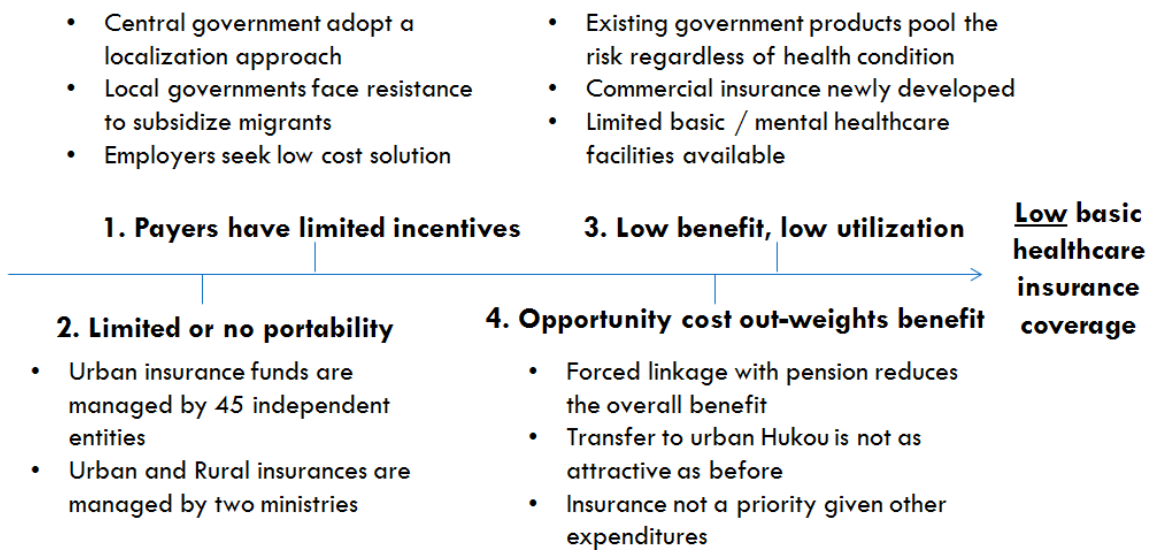
In rural areas, due to the current reform on New Rural Cooperative Medical Scheme (NCMS), insurance is provided by local branches under the Commission of Health and Family Planning. In terms of payers, the premium is subsidized by the central and local government, which in total will cover for 2/3 of the premium (SYPA authors' analysis [20]).

Healthcare provider is the same across urban and rural insurance - Commission of Health and Family Planning (Field interviews). The execution is split into different tiers. Every year, these local branches will provide financial support, obtained from the local government budget, to the local hospitals.

4.2 Cause of the dichotomy in healthcare insurance coverage

Applying the analytical framework to the ecosystem of China's healthcare system, results in a Fault Tree with four causes of lower coverage for migrants' insurance: 1) payers' incentives, 2) insurance's portability across regions, 3) benefit of existing insurance products and its utilization based on healthcare facilities, and 4) other opportunity costs associated with the basic healthcare insurance. The fault tree has been captured in the table below -

Figure 5: : Fault tree: Analytical framework to assess migrants' insurance



1. *Payers have limited incentive to subsidize or pay for basic healthcare insurance*

   Given the complexity of China, Central Government has adopted a decentralized model in governing local provinces and cities [31] (Saich, 2010). Recent government budget information reveals that 98.4% of the healthcare expenditure is funded by the local government [25]. As a result, central government has limited capacity to provide finance support for the migrants.

On the other hand, local governments face complexities in delivering healthcare insurance services to the migrants. Local community resistance is the most commonly cited problem (Field Interviews). Additionally, local governments don't have a tracking system that can accurately record the magnitude of migrants and their healthcare needs, which makes planning and budgeting extremely challenging (Field interview). Plus the deficit of local security fund, they are unlikely to provide extra subsidies to cover migrants' healthcare insurance.

Employers are reluctant to provide healthcare insurance for their employees either. Most migrants don't have a formal contract with their employers and they change jobs frequently. Given the nature of such short-term informal relationship, employers prefer to avoid the insurance expense as to lower their manufacture costs (Field Interviews). According to the basic healthcare insurance participation report, the healthcare insurance participation is very low for private company employees (32.7%) and self-business owners (10.2%), while the rate is much higher in multinational companies (93.5%) and State-owned Enterprises (68.6%) [30].

2. *Low portability of current products across regions*

Portability is particularly important for the migrants given their migration nature. They want to have a product that they can use regardless of where they are (Field Interviews). After the healthcare insurance reform in the rural areas, the low coverage problem can be solved at once if the rural-urban migrants can simply use their rural healthcare insurance in the urban cities they are working in. However, field interviews suggest that it's very challenging. There is a divide between NCMS (rural) and Urban Insurance, which is more prevalent for the migrant workers.

While it is great news that more than 95% of rural residents have been covered by the NCMS scheme, it is in fact putting them into this new dilemma of deciding whether to keep it or not when they migrate. In 2012, the government further issued a guideline for transferring their NCMS to urban insurance if they move to another city. For migrants who have a job, s/he can transfer to Urban Employee scheme; and for others, they can enroll in the Urban Residence scheme. However, because the NCMS and Urban Insurance are managed by two different government agencies with very different paying models

and reimbursement standards, the transferring can easily take up to 3 months (Field Interviews). Such a protracted transfer process reduces migrants' incentive to transfer their existing insurance. This is a huge dilemma given the fact that 75% of the migrants are coming from rural areas with NCMS [30].

In addition to the divide between urban and rural insurance, there is another divide among the urban insurances themselves. Such divide exists because there are 46 social security funds established based on the local government revenue model. These 46 social security funds represent 31 provinces or province-level prefectures, 10 vice province-level prefectures, and 5 independent planning cities [20]. Each of them has a different contribution model and reimbursement system. Since most of the fund is tightly associated with the local tax system, cross-regional transfer across these 46 funds is largely unimaginable.

3. *Products not utilized given the limited benefits*

In additional to limited portability, the existing insurance product is not utilized by the migrant population given their young age and good physical health condition.

According to a survey conducted by Renmin University, 33% of migrants claim that they are in a very good health condition, versus only 23% of urban residents claiming the same. Such a perception of better physical health condition' reduces migrants' incentives and potential benefits of participating in the basic insurance program if they are pooled among other residents in the same city.

Table 2: Health condition survey, $N = 11,702$

	Resident in the same district of their Hukou	**Resident in the same city of their Hukou**	**Migrants from other cities**
Very Bad	4%	3%	2%
Bad	16%	11%	7%
Average	23%	24%	22%
Good	33%	35%	36%
Very Good	23%	27%	33%

Source: Renmin University Household Survey 2013, SYPA Authors' analysis

At the same time, the limited supply of insurance products is also caused by a lack of mature market for commercial insurance. Though commercial insurance is regarded is

an important element in the healthcare provision ecosystem, until mid-2000, commercial insurance had not even begun to test the healthcare insurance market (Renmin University Household Survey 2013, SYPA Authors' analysis). As of 2012, among all the basic healthcare insurance, commercial insurance only accounts for 6% of the premium and 5.3% of the reimbursement amount [10].

Such a retarded development is also associated with the low profitability of the healthcare insurance market. In 2012, central government ordered the private insurance sector to provide coverage for grave/ critical diseases. However, by the end of 2013, all the private companies reported loss on their business [32]. As a result, the 6% premium is mostly targeted at high-income employees, and has left the 230 million migrants behind (Field Interview).

However, migrants do need healthcare access. So in the field interviews, we found out that when migrants get sick, given the working pressure, migrants typically go to informal clinics for quick treatment and traditional Chinese herbal medicines because small and convenient local clinics have not been developed in most cities in China (Field interviews). As these clinics are not covered by the existing healthcare insurance system, migrants could not claim their expenses. Even if they file claims, it takes months for claims to be settled. Most often they are not settled at all.

Last but not the least; though migrants have a better physical health condition, their mental health is far worse than the local residents - lower self-esteem and higher level of depression (Zhang, 2012)[27]. This is largely caused by the limited local network and expectation-reality discrepancy (Wang, 2010) [37]. But in China, the development of affordable mental clinics is far behind its demand. Most of the focus is on mental illness recovery rather than mental health.

4. *The opportunity cost associated with the current option out-weighs the benefit*

Basic healthcare insurance is not a standalone product. It is required alongside with pension, unemployment insurance and housing fund (Field interview). For example, one needs to participate in the local pension fund before s/he can enroll in the basic healthcare insurance. To enjoy the benefit of the pension, one needs to pay at least 15-20 years consecutively (Field interview). Typically, one will have a family and children during

that long period. So to fully enjoy the benefit of such a collective program, a migrant needs to move his/her family and transfer his/her Hukou to that city.

Transferring from rural areas to megacities is ideal but difficult, and transferring to small and medium size cities is not that attractive - because migrants' rural Hukou is associated with land ownership [11]. During the urbanization, the local government and real estate developers provide large compensation for land acquisition, which can easily go to several hundred thousand or even lower millions of RMB (Field interviews). It makes little sense for rural migrant workers to give up such lucrative upside only in exchange for basic healthcare insurance.

At the same time, choosing to maintain the rural Hukou, results in migrants having to pay higher fees for their children to go the public schools in the cities (schooling subsidy is tied to hukou). Therefore, given the lower wages, migrants need to prioritize the education expense over insurance. This is particularly the case when they also need to pay for housing, food, utility and maintenance and other necessities (Field Interviews).

Furthermore, according to the current insurance policy, some migrants could reimburse their medical expenses incurred in another city back in their rural village. Though actual reimbursement process could take months or years, this does give the migrants another option of not participating in the urban healthcare insurance where they work.

To sum up, giving up the benefit of healthcare insurance in the city they work in becomes a viable choice for migrants due to such high opportunity costs.

4.3 Summary of analytical insights

The analytical framework suggests several important elements that new healthcare insurance products should internalize. First, we must identify a set of key stakeholders for the migrants - whose stake is the largest if the migrants are not covered. Second, the new product must build in the feature of portability within certain geographic regions. Third, it should fit with the local healthcare infrastructure so that it would be utilized. Last, the linkage between basic healthcare insurance and other benefits in the local community must be sorted out.

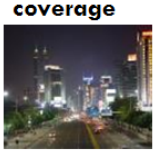
5 Policy analysis

After proposing the possible causes of low coverage derived from the analytical framework, we will verify it using the existing good practices in coastal regions, and use it to predict the possible outcome of the recent reforms. First, we will validate the analytical insight using empirical case evidence from two regions. Then, we will diagnose the current central policy regarding migrant insurance to identify its usefulness and potential shortcomings. Last, we will propose a new set of policies with the objective to bridge the shortcomings.

5.1 Validation of the analytical insights

According to the framework, the healthcare insurance scheme should take all the four factors into consideration. Among many cities in China, we have been able to identify two positive deviances - Shanghai with coverage of 68% and Shenzhen with coverage of 75% [28]. We will analyze their policies, and see how it fits the four elements from the perspectives of payers, portability, utilization and opportunity cost.

Figure 6: : Costal vs. inside cities

	Payers limited incentive	Low portability	Low benefit / utilization	High Oppo. cost
Shanghai 68% coverage 	• Incorporate migrants into the local fund to reduce deficit	• Within the same city, same social security fund	• Invited commercial insurance to participate • Backed up by well developed healthcare infrastructure	• Issued resident permit (Lanyi Hukou) with equivalent access as local Hukou • Merit-based Hukou system
Shenzhen 75% coverage 	• Local government thorough research to reduce cost by 75%	• Within the same city, same social security fund	• 3 tiered products tailored to migrant needs • Combined with local clinics to provide "fit" services	• Decoupled healthcare insurance from pension or other social benefit programs

Source: Field interviews SYPA authors' analysis

Shanghai Model - In 2002, the Shanghai government began to provide a comprehensive social insurance system to migrant workers, including three types of insurance: health insurance, pension and work-related injury assistance. To solve the issue of low utilization, Shanghai government invited commercial insurance companies to provide tailored products to the migrant workers.

Additionally, to reduce the opportunity cost, the Shanghai government offered a residential card (Lanyin Hukou) to offer highly educated skill migrants the social benefits equivalent to local Hukou owner (Field interviews). Also, Shanghai government launched a merit-based Hukou system to encourage migrant workers who have worked in the city for multiple years and intend to stay to apply for local residency (Field interviews). The applications are evaluated based on the migrants' income, education background, accumulated tax contribution, and local business needs (Field interviews). Though the qualifying requirements are high and quotas are limited, the migrants are allowed to re-apply in the future to improve their chances of success.

Recently, facing the deficit caused by local population aging, Shanghai Social Security Bureau incorporated migrants' healthcare fund into the general fund after realizing the fact that there is a significant surplus in the migrants' healthcare fund given their better physical health condition at younger age. Such a move solved the local government's incentive to integrate the migrants into the local community. (Field Interviews)

Shenzhen Model - The Shenzhen government launched a similar healthcare insurance system for migrant workers in 2006. Unlike Shanghai, Shenzhen government did not invite commercial insurance to participate in the basic care provision, as the employers' resistance was the key issue. Given the fact that most of the migrants in Shenzhen are in their golden age, to encourage employers and employees to pay for themselves, the government reduced the contribution required by both the employees and employers from 2% of their salary to only 0.5% (Field interviews).

To boost the utilization, Shenzhen government limited the benefits to outpatient care for the entry-level insurance product. Later on, with economic development and income growth,

the Social Security Bureau of Shenzhen offered additional two tiers of products for mid-level income and high-income migrants (Field interviews). At the same time, to control the government healthcare expenditure, Shenzhen leveraged its mass clinics base to provide migrants with basic care. As a result, Shenzhen not only increased the participation rate exponentially among the migrants, it also successfully maintains its position as one of the few surplus healthcare insurance accounts in China.

After analyzing the examples from Shanghai and Shenzhen, we are confident that the insights generated from analytical framework accurately identify the cause of the low migrants' insurance coverage in China. In the following segment, we will explain the current policy framework, recent reforms, and then, predict the outcome based on the insights.

5.2 Status quo: policy reforms at the central level

5.2.1 Political and Administrative framework

First, both Ministry of Human Resource and Social Security (MoHRSS) and National Health and Family Planning Commission (NHFPC) are the products of recent government reform. MoHRSS was created in 2008, combining Ministry of Personnel, Ministry of Labor, and Ministry of Social Security [17]. Its main responsibility is to manage the employment market in China with the key objective to prevent large-scale staff reduction during global financial crises. Migrant workers are their priority among laid-off workers, poor people and recent college graduates. NHFPC was created in 2013, combining Ministry of Health, and Commission of Family Planning. Public health provision and population control are its main objectives ([18].

At the province level, the key departments and bureaus mirror similar structure in the central government, with two modifications -

1. One is the double reporting line local government department face - though they should directly report to both provincial / municipal governors and the ministry one level above (e.g. director of provincial healthcare bureau needs to report to the province head and ministry of health) with equal importance; the directors usually place stronger emphasis on the relationship with local governors. Not only do local governors control the budget

allocation, they also have a direct influence on officials' career. At the city level, it is not uncommon to see people horizontally move from one bureau to another.

2. The other one is about the government reform in a decentralized model. Each time there is a reform at the central level, local governments need to make the same modifications. Such adjustment does not come without friction - local politics and human resources are the two biggest constraints during reform implementation. As a result, to adjust the entire local government structure takes much longer than the central and provincial level. After the NFHPC reform in March 2013, some tier one cities still follow the old structure, as of January 2014 (Field interviews).

Finally, there are four other organizations, which have a strong influence on the migrant's healthcare insurance: State Council, National Development and Reform Commission (NDRC), Ministry of Finance, and China Insurance Regulatory Commission (SIRC). Ministry of Finance is responsible for the payment and transfer. NDRC is responsible for deciding the policy priorities of China. SIRC is responsible for regulating the insurance market. The State Council is the parent organization of all ministries, including MoHRSS, NHFPC, NDRC and MoFin (Field interviews).

Given migrant workers' need for healthcare insurance and the nature of migration, the above ministries have issued guidelines and plans since 2006 -

- In May 2006, Ministry of Labor and Social Security (now MoHRSS) announced a plan to specifically target rural-urban migrant workers with a focus on grave diseases and transfer payment [4].
- In December 2009, three ministries, MoHRSS, Ministry of Health (now NFHPC), and Ministry of Finance issued tentative guidelines on healthcare insurance transfer for the migrant population[35].
- In June 2012, The State Council approved the 12th Five Year Plan (2011-2015) on social protection drafted by MoHRSS, NDRC, Ministry of Civil Affairs, Ministry of Health, and Social Security Fund. The plan highlighted the importance of fairness, bridging

the gap between rural and urban population, social protection service improvement, and sustainable development[1].

- In December 2013, NFHPC announced equal health and family planning service for floating population pilot in 40 cities across 27 provinces. The pilot put emphasis on medical record building, family planning, transmittable disease control, and innovative mechanisms in service provisioning[3].

Table 3: Insurance - Ministries and Policy Focus

Date	Ministries	Targeted population	Policy Focus
May 2006	Labor and Social Security	Rural-urban Migrant Workers	Grave Disease Transfer payment
Dec 2009	HRSS, Health, Finance		Health insurance transfer
Jun 2012	HRSS, NDRC, Civil Affairs, Health, Social Security Fund	Rural and Urban residents	Fairness and Gap of social service provision
Dec 2013	NFHPC	Floating Population	Family planning, transmittable diseases

Source: [4][35][1][3]

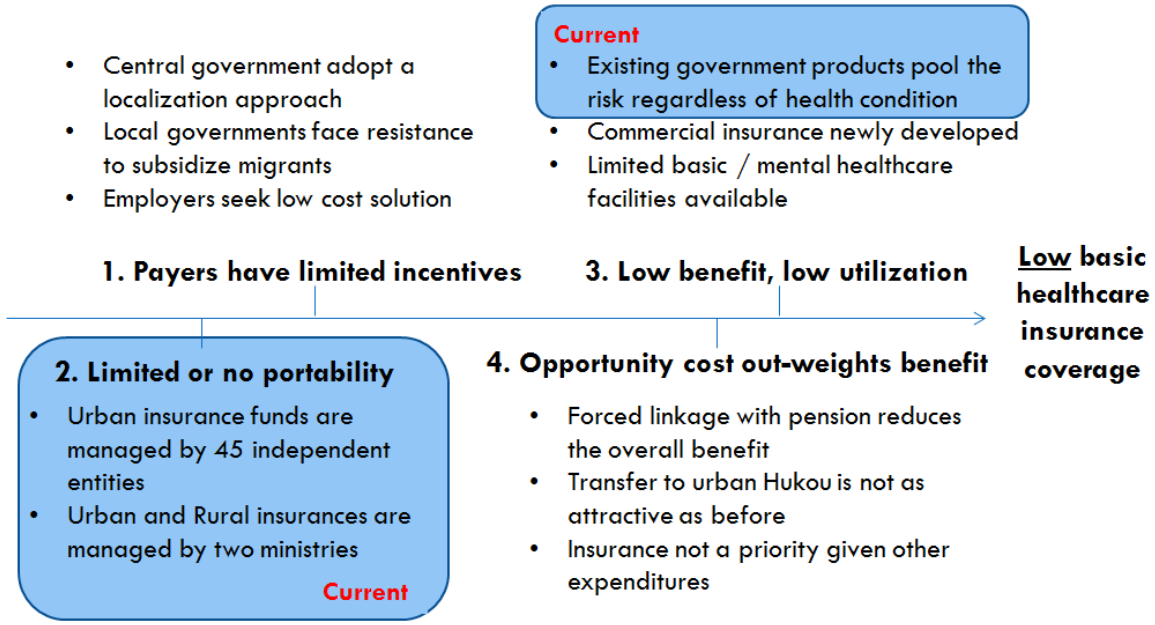
5.2.2 Analysis of status quo - reforms till now

The past reforms had been focused on the portability of the healthcare insurance, grave disease and the urban-rural divide. As mentioned in the analytical framework, portability is quite important given migrants' floating nature. Moreover, targeting to insure grave disease can reduce the possibility of poverty due to healthcare costs, as treatment of critical illness is quite costly. Urban-rural divide is considered to be a fundamental source of social instability. In recent years, rural development and bridging the urban-rural divide have been the top priorities in the Chinese government's agenda (Field interviews).

However, past reforms did not address the payers' incentive, or the opportunity cost associated with Hukou. Though it partially targeted migrant workers who are employed with dangerous or hazardous industries such as construction, manufacturing, et al, it still ignored the need for basic health or mental healthcare access.

The past reforms have been assessed through our analytical framework to see what gaps have been plugged, and to evaluate against its shortcomings.

Figure 7: : Analysis of status quo - reforms till now



Source: SYPA authors' analysis based on Andrews, 2013 [2]

5.2.3 Evaluation of the past reforms

First, past reforms are addressing one of the key constraints on low insurance coverage - portability. This is crucial given the fact that portability allows labor mobility across cities, provinces, and rural-urban migration. Additionally, given the 98+% insurance coverage rate for both rural and urban population, the low migrant healthcare insurance coverage can be solved if past reforms can be implemented successfully.

However, the reforms must be holistically assessed to see if reforms are effective. Without motivating the central or local government officials, providing healthcare insurance to the migrants will still be seen as an optional cost rather than a must to stimulate the economy or stabilize the society. Moreover, requesting employers only to pay for insurance leads to employers finding "innovative" ways to transfer the cost to the migrant employees who have few or no connections and friends in the city they migrate to. Furthermore, without reducing the opportunity cost, the policies will not be spread in the migrant community, as the relative benefit is rather limited. Finally, urban and rural transfers could hardly be achieved, as most of the cities are still busy with their health and family planning bureau unification.

The incomprehensive approach of past reforms indicates several potential shortcomings mentioned above, and suggests the following hypothesis:

Hypothesis 1: Transfer of payment for claims or insurance transfer is difficult in implementation, resulting in limited amount of actual transfer.

Hypothesis 2: Duplication of healthcare insurance enrollment emerges in the migrant group.

Hypothesis 3: Unclear role for commercial insurance in basic healthcare insurance provisioning.

To evaluate the hypothesis', we conducted a series of interviews with the government officials and leading scholars who were involved in the design and implementation of the healthcare insurance reform. The interviews were carried out in December 2013 and January 2014 to reflect the most updated thinking in the government and academia. The key findings and insights are summarized to support the hypotheses as follows.

Hypothesis 1: Limited transfer. According to MoHRSS, in 2011, 500,000 people transferred their healthcare insurance when they moved to another city. In the same year, 40 million rural-urban migrant workers enrolled in the healthcare insurance scheme. Given the average moving frequency at 4 years (Tian, 2013) [36], the need for transfer is estimated around 10 mil-

lion per year, which suggests only 5% of the migrants successfully transferred their insurance. This is caused by both supply side and demand side constraints.

The key challenge here is that urban and rural insurance provisioning is handled by two different government bodies. In urban cities, the insurance is under the Ministry of Social Security, whereas rural insurance is under the Commission of Health and Family Planning.

From the supply side, the problem comes from the capacity of local government agencies. Without much experience in handling such transfers, the front-line public servants tend not to prioritize or even discourage such applications through complex requirements and delayed response time. From the demand side, there are challenges for migrant workers to prepare the basic paper documents required to start the transfer process, as most of them do not keep a record of, or don't have their residence and employment contracts.

Hypothesis 2: Duplication of healthcare insurance. Unlike limited transfers, according to the National Audit Office, in 2011, there are 10 million duplicated enrollments between NCMS and Urban Employee or Urban Residents [14]. While the 10 million enrollments partially offset the transfer needs of migrant workers, it reflects both the high opportunity cost and low portability.

Based on the current transfer guideline, migrant workers need to drop out from the NCMS in order to enroll in the Urban Healthcare insurance. However, they are enrolled in the NCMS as a household rather than an individual. Dropping out the NCMS would lead to uncertainty regarding the benefits that his children and other family members could enjoy. Also, given the difficulties in transfer and lack of communication between the rural and urban healthcare insurance administrators, it is a sensible choice for migrants to have two insurances rather than choosing one. However, this leads to a waste of resources as central and local governments subsidize 120 RMB for each NCMS participant [20].

Hypothesis 3: Unclear role for commercial insurance. Past reforms indicate a low-key role for commercial insurance to participate in the provision of healthcare insurance.

According to the 12th Five-year plan on social security, commercial insurance has only been mentioned twice with a suggested role of "complementary" providers [1].

This is in line with the current position of China Insurance Regulatory Commission (CIRC) among the other organizations in the State Council. So far, CIRC is only an executive branch under State Council, while MoHRSS and NHFPC are the policy formulating bodies. Such an arrangement makes it difficult for commercial insurance (under the supervision of CIRC) to compete with the Social Security Funds (under MoHRSS) on product offerings or to be embraced by NHFPC in the healthcare ecosystem (Field interview). Basis our policy analysis and hypothesis, we have suggested recommendations in the next section.

6 Recommendations

After using the analytical framework to evaluate past reforms on healthcare insurance for migrants and identifying their shortcomings, we propose three alternative approaches to be considered.

6.1 Three bundles of alternative options

Since every successful reform should take all four elements into consideration, the alternative proposal should follow the insights, and cover all the areas at once. Based on this principle, we have proposed three bundles of alternatives.

Figure 8: : Recomendations based on the analytical framework

	Payer's limited incentive	Limited or Low portability	Low benefit, low utilization	High Oppo. cost
Option 1 Long term solution - Governm ent Led	• Unify the two insurances into one scheme.	• Eliminate portability issue by centralizing unified insurance under one ministry.	• Unify insurance premium for all citizens by risk pooling; subsidize premiums for migrants just like rural population.	• Disentangle healthcare ins. from other required participation – pension etc.
Option 2 Short-term solution – Government Led	• Incorporate migrants into the urban fund to reduce burden on rural provinces.	• Create cross-city portability, but within the same social security fund	• Create tailored products to satisfy migrants' need	• Subsidize migrants premium; decouple insurance from pension and housing.
Option 3 Private Sector Led	• Encourage private sector participation	• Leverage nation wide branches to ensure portability	• Price the product according to health condition	• Disentangle healthcare insurance with other required participation

Source: SYPA authors' analysis based on Andrews, 2013 [2]

Option 1 - Long term solution led by the government. This option suggests a unification of urban and rural insurance into one coherent program, and improves the portability by centralizing the insurance management under one ministry. This option further calls for disentangling the healthcare insurance from other participation and downplays the importance of Hukou. Finally, to improve the benefits and to offer a good value proposition, we recommend the government to subsidize migrants' healthcare insurance (similar to the practice done with

the rural population).

According to our discussions with academicians, policy experts and migrants' organizations, the unification of the two insurance schemes seems to be the best possible solution going forward. It addresses all the gaps thrown up by the analytical framework.

Option 2 - Short term solution led by the government. This option suggests an incorporation of migrants' insurance fund into the urban insurance so that migrants can have better access to healthcare facilities in the city where they work in. This also reduces the financial burden on the urban insurance fund where there is a potential deficit. Cross-city portability should be implemented and tailored products should be launched to satisfy migrants' need. As in the long-term solution, decoupling of the insurance from Hukou and other benefits must be undertaken.

Option 3 - Private sector led. This option encourages participation from commercial insurance. Given the national footprint of some of the big companies, it's easier to them to facilitate the labor movement, and offer insurance portability to migrants. Pricing is a key component, so basic health condition needs to be reported. Finally, similar to the other two options, healthcare insurance must be decoupled from other requirements to give migrants an incentive to enroll.

6.2 Analytics of the alternative options

In this section, we will use the assessment framework to discuss the effectiveness of three options.

Figure 9: : Recommendations - Technical, Administrative and Political Feasibility options

	Technically Correct	Administrative Feasible	Politically Supportable
Option 1 Long term solution – Govt. Led	• HIGH – Addresses all the major constraints with a simple solution.	• MID – Difficult given that 2 ministries' administration systems have to be unified.	• MID – Difficult given that two ministries are at logger heads, but decision making rests with the politburo which needs to address its political base of migrants.
Option 2 Short term – Govt. led	• HIGH – Adapt to changing situation.	• LOW – Difficult given the current information and capability	• MID – Might upset the urban local residents that migrants eat into their resources
Option 3 Private Insurance	• LOW – More supply, better products. • Migrants not a preferred demographic sector.	• LOW – Difficult given the available information and company capability	• HIGH – Align with central government's guideline on government reform

Source: SYPA authors' analysis based on Andrews, 2013 [2]

Option 1 stands out as the most technically correct one - if the urban and rural healthcare insurance could be unified, the migrants, which is a population in the middle, will be able to enjoy the same benefits as others. However, there are challenges in terms of administrative feasibility since two completely different systems need to be unified. Similar challenge applies to the political supportability, as re-organization is a difficult process. The government has also been toying with the idea; however, the political economy of wielding such a solution wherein two ministries compete to retain control of their respective insurance schemes needs to be worked out. We have proposed Ostrom's framework [29] for policymakers as a tool guide to assess the unification's political, technical and administrative feasibility by looking at the various stakeholders in the process (Appendix I).

Option 2 similarly has a high degree of technical correctness as it fits the current situation of healthcare insurance fund, and migrants' health condition. However, cross-city transfer is difficult given the IT infrastructure requirement. What makes the situation worse is lack of

information on the overall health condition of the migrant community. From a political economy perspective, incorporating migrants into the city for equal benefits is a difficult message to be communicated with local residents. Since migrants will have to share their education and healthcare resources, the local residents might get upset.

Option 3 is extremely difficult in term of technical correctness, especially due to the financial loss of current insurance companies when they offered critical illness coverage. To get them to tap into the migrant community might be too early to make a profitable business. Similar to option 2, this option also suffers from lack of information on the overall health condition of migrants. Though it has very high political supportability given that it fits the trend of government reform, the two lows make this option less feasible among the three bundles.

6.3 Summary of alternative options

Given the analysis, we believe it's too early to decide which reform to take. Rather, we would suggest a step-by-step strategy - first to build up the condition to roll out the short-term option, and then with the evolution of government reform, execute the long-term option to unify the two insurance schemes.

In the next section, we will discuss about the specific challenges during implementation, and thoughts to move forward.

7 Recommendations Implementation Strategy and Conclusion

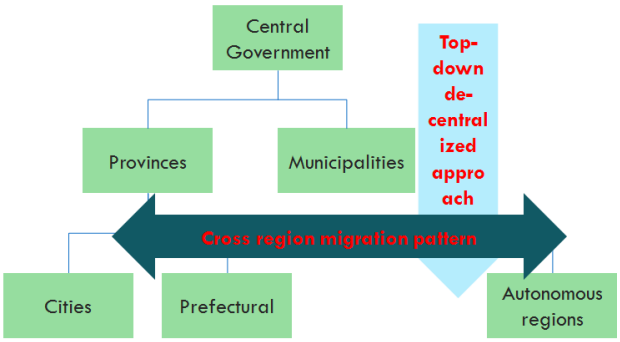
In this section, we will discuss the implementation challenges of the short-term and long-term proposals, and offer some thoughts on building the pre-requisites for the implementation.

7.1 How to build a better risk pool?

Both short term and long term solutions require a better risk pool - either at the city or regional level for the short term, or at the national level for the long term. The good news is that the financial resource for healthcare insurance is available at the aggregate level. The insurance premium collected for each fund, Urban Employee, Urban Resident, NCMS, is larger than the reimbursement expenditure every year since 2004. According to National Audit office, in 2010, the premium collection for Urban Employee was 431 Bn RMB ($70 Bn), while the reimbursement expenditure was 334 Bn RMB ($54 Bn). It was 35 Bn RMB and 27 Bn RMB for Urban Resident, and 131 Bn RMB and 119 Bn RMB for NCMS [5].

The key barrier to optimize the fund allocation is the decentralization model, under which each department and city takes care of its own issue, without much coordination (Field interviews). Such an approach not only creates the divide between two ministries and among 45 independent social insurance funds, it also contradicts with the cross-region migration pattern, which is largely driven by market forces.

Figure 10: :Governance - Decentralization Model



Source: SYPA authors' analysis

To address the issue, we need a central government-led cross regional coordination mechanism. Both MoHRSS and NHFPC need to be present, with local officials participating in the discussion and be responsible for implementation in their localities. Through this mechanism, two major issues need to be discussed: a) how much could local government contribute to cover the insurance cost of the migrants, b) how to make the payment transfer from one ministry

at one city to another. After the discussion, the plan should be executed under the central government's supervision.
In the following segment, we will discuss a few specific tactics that will facilitate the central government-led cross regional coordination effort.

7.1.1 Data collection and analytics

For risk pooling, the information of migrants' contribution is critical. In recent years, government has improved information collection especially with MoHRSS's social security card initiatives. As of 2012, 300 million social security cards have been issued, and they can be used for healthcare records across the country. The government plans to issue 1 billion cards by the end of 2017 [15]. Simultaneously, NHFPC is also collecting health information on floating population.

Building on these initiatives, the government can keep track of the migration pattern and migrants' healthcare needs. However, to build a data system that could be used to analyze the contribution made by migrants, more information, such as education, skills, salaries, need to be incorporated. This needs to be addressed while collecting information.

7.1.2 Build-in competition

Although we suggest a central government led cross-regional coordination, the detailed plan needs to be tailored to regional situations. Given the complexity of China, and the unbalanced development of healthcare facilities, central government can try to encourage regions to compete on the effective mechanism to improve the healthcare insurance coverage for the migrants.

This "building competition" mechanism aligns with the decentralization decision model, and releases the innovative power of locals. Such innovation will allow China to explore different models for cross-regional collaboration, and build experience for other policy agendas, e.g. environmental protection, which also requires such mechanism.

7.1.3 Allowing for failure and focus on learning

Finally, the central government needs to create room for capacity building and learning. Both cross-regional collaboration and migrant healthcare insurance are new topics for inland governments. There will be unforeseen challenges and obstacles during the implementation. The short-term goal should not be to improve the coverage by certain percentage, but rather to explore possible ways to provide social services that are needed for this group of people.

Moreover, through the exercise, local government will put numbers behind the contribution made by the migrants, and the social protection expense incurred. Such information is valuable for them to make sound judgments regarding future Hukou reform, and urban-rural integration - which are the two top agendas for the current leadership.

7.2 How to increase the value proposition and reduce opportunity cost?

Value creation is important to draw migrants to the insurance products, especially for the short-term solution. There are two ways - increase the value of the product, or reduce its cost. To increase the value of the product, it needs to be tailored to the migrants' need. Given their good physical health, one potential area will be offering a minimum coverage product, which requires lower premium contribution and only covers the outpatient expense. Hospitalization benefits could be offered at higher premiums for those who can afford it. In regions where mental healthcare facilities are available, the government could also consider a premium product, which covers that cost.

To broaden the product offering, the government can't act by itself. Government needs to create a room for "complementary" commercial insurances to play a larger role in the system. This requires the government to open the insurance market further, and provide more options for commercial insurance to choose and develop. Once a business model is verified, both migrants and the commercial insurances will be benefited. Car insurance in China is a good example where the private sector accounts for the entire market with 136 companies involved [16]. The market competition pushes companies to improve efficiency and introduce a variety of products

that satisfy the need of different customers while the required basic insurance is fulfilled.

However, the value creation of an insurance product also depends on the available infrastructure. Thus, NHFPC should simultaneously fulfill its commitment to accelerate the development of basic clinics in China, so that the cost of outpatient care could be reduced and migrants will not be competing for healthcare resources with the local residents at hospitals. For mental healthcare facilities, NHFPC could consider purchasing the services from social organizations jointly with Ministry of Civil Affairs.

Furthermore, in the long term, inviting commercial insurance to play a larger role could also decouple the required linkages between pension and healthcare insurance, which shall reduce the opportunity cost for enrollment.

7.3 Conclusion

As migrants are expected to comprise one third of China's population by 2020, we believe this is an issue of utmost importance that needs to be addressed immediately. Using an analytical model and field interviews to assess the current problems plaguing China's health insurance sector, and studying positive deviances in coastal regions, we have suggested a long-term as well as short-term solution for migrant workers' insurance -

1. **Short-term solutions** tailored to address migrants' needs such as incorporating migrants into the urban insurance fund to reduce burden on the rural provinces and to create inter-provincial portability.

2. **Long-term solution** that looks at "unification" of the insurance schemes into one by risk pooling of rural, urban and migrant populations. This would enable the government to subsidize premiums for migrants just like rural population. Decoupling insurance from pension and housing would address the high opportunity cost of insurance that currently deters migrants from enrolling in insurance schemes.

This policy proposal provides a fresh perspective by looking at the political, technical and administrative feasibility and suggests an implementation strategy for policymakers. Implementation of these recommendations could help China achieve its goal of universal health coverage by 2020.

8 Appendix

Appendix I. Institutional Analysis - Ostrom's framework

We have offered a preliminary assessment of the unification of insurance in China by undertaking an institiutional analysis using Ostrom's framework [29]. All information herein has been gleaned from field interviews. This framework could serve as a useful guide to policy makers in navigating the institutional and administrative complexity of unifying the insurance by understanding the various stakeholders, their incentives and costs.

Table 4: Participants at the different levels

Levels	Participants
Operational	Migrants Hospitals, clinics, doctors, other health organizations Insurance providers
Policy	Medicine providers (pharm companies) Media, Education providers Migrants workers organizations/advocacy groups Political representatives Commission of Health and Family Planning (NCMS/ Rural insurance) Ministry of Social Security (Urban residents and employees' insurance) Delegation of Experts e.g. Healthcare experts, insurance experts, Economists, Finance experts
Constitutional	**Politburo of Communist Party of China** comprising 25 members which elects the **Politburo Standing Committee** comprising of 7 leaders who have the decision making authority at a Constitutional level to make amendments to constitutional rules.

Source: Field interviews

Table 5: Key interactions at different levels that shape the outcomes

Level	Strategic Interacations	Outcomes
Operational Level	⟹ ○ Interactions at the operational level by insurance provisioning departments to enforce commitments made at ministerial level if a unification of insurance is done viz. implementation mechanisms of insurance unification, Risk pooling, administrative and technical unification of insurance. ○ Interaction between the governments, migrant workers organizations or NGOs, private companies, and healthcare providers engaged in the provisioning of healthcare to migrants depending on the decision to unify insurance or not - educating migrants, portability of insurance irrespective of migration etc, services entitlement, premiums to be paid etc. ○ Migrants get insurance and get coverage by insurance when they go to hospitals ○ The response of urban residents and employees if their insurance premiums get affected due to the insurance unification.	○ Better healthcare coverage for migrants in their area of residence (in urban areas) if the insurance schemes are unified ○ Alternative outcome - Status quo - they use the existing system, and go back to rural villages for healthcare. ○ The effect of the insurance unification on the financing of insurance - due to risk pooling, insurance premiums may become more expensive for governments or urban residents depending on how risk pooling is done, and who will bear the additional burden. ○ It might be a risk that the premium may end up being more expensive for everyone. The insurance providers rural/urban do not share/have information on the migrant worker. This increase in uncertainty might increase the price for everyone. So, the insurance for migrant after unification may become so expensive that they might opt out of the insurance.
⇑ **Policy Level**	Within the framework and general rules of ministerial functioning, delegates to the Government Leadership interact to influence the decision on unifying the ministries ⟹ ○ Submission of policy proposal, Presentations by healthcare experts/ economists/ social workers ○ Debates and negotiations between ministerial officials and government leadership. ○ Lobbying for ministries' preferred outcome through political clout, financial clout, geopolitical alliances, media messaging, business partnerships. ○ Advocacy by migrants groups, NGOs, media	○ Policy Outcomes - ○ Status quo - Do not unify insurance schemes ○ Unify both insurances schemes under Ministry of Social Security ○ Unify both insurance schemes under Commission of Health and Family Planning. ○ Unify both insurance schemes under a different ministry - ministry of finance or find a variation within government to resolve conflict ○ Find a solution outside government - bring in private insurance by opening up the markets.
⇑ **Constitutional level**	Interaction between Communist party members and leadership to decide the constitutional level rules on how to run the country and its administrative functions - ⟹ ○ Interactions at the Politburo level regarding rules akin to a constitution of a country. ○ National/ Regional level interactions within each province that leads to the political formation of power in China.	○ General rules akin to the constitution - norms that have shaped PRCs rules of government formation and policymaking. ○ The rules regarding government leadership-organization structure, voting procedures, consensus/ rules to elect politburo members, Communist party members etc.

Source: Field interviews

Table 6: strategic interaction of Insurance unification

Feature of strategic interaction	Feature of Insurance unification	What Rules/Norms Shape these Elements of the Insurance unification
Participants	◦ Migrants ◦ Hospitals, clinics, doctors, other health organizations ◦ Insurance providers ◦ Medicine providers (pharmaceutical companies) ◦ Commission of Health and Family Planning (NCMS Insurance) ◦ Ministry of Social Security (Urban residents and employees' insurance) ◦ Delegation of Experts e.g. Healthcare experts, insurance experts ◦ Economists, Finance experts ◦ Media - Journalists ◦ Politburo of Communist Party of China ◦ Politburo Standing Committee	**Boundary Rules -** Operational level for migrants-The Hukhou rules governing membership of the rural and urban insurance and who is eligible to avail healthcare services in urban areas depending on insurance - entry and exit rules for who can participate and how. Policy and Constitutional Level - Communist Party Membership rules - Only those who are members of the Communist Party of China go on to join the ministry, politburo or politburo standing committee. Healthcare experts, Migrants' organizations, media, private insurance providers, are not members with voting rights on decision making for insurance unification, however they can participate by sharing their expertise
Position	◦ Minister of Health ◦ Minister of Social Security ◦ Communist Party hierarchical structures and positions - Politburo Standing Committee Member, Politburo member, Communist Party member.	**Position Rules -** The Communist Party rules governing the hierarchy and structure of the Government that define the positions that participants can hold and their job descriptions and powers. For e.g.: Communist Party Rules and norms influence who is eligible to be in the ministry at what position, who can be a politburo member etc. depending on years of seniority and political clout of various provinces. Commission of Health and Family Planning's functions include playing a coordinating role in the working of the healthcare provisioning, arranging meetings of the government at regular intervals and providing expertise etc.

Source: Field interviews

Table 7: strategic interaction of Insurance unification

Feature of strategic interaction	Feature of Insurance unification	What Rules/Norms Shape these Elements of the Insurance unification
Actions	◦ Negotiations and debates by the two ministries ◦ Lobbying by ministries with the Politburo Standing Committee ◦ Advocacy by migrant groups ◦ Voting by Politburo standing Committee of seven top leaders ◦ Presentations by experts etc.	**Choice rules -** Operational level - Migrants may choose to give up their rural insurance and get urban insurance if the insurances are not unified. Or, Migrants may choose to continue with rural insurance while they live in cities. Policy level - Communist Party rules and norms that govern what the participants may or may not do in their positions and specific circumstances. Ministries can choose to oppose the unification or work collaboratively to unify. The Politburo Standing Committee may vote to decide on unifying the insurance or not. As per these norms, experts can give presentations to the ministries but choose to align with one ministry or the other, but cannot vote on the decision to unify insurance.
Potential Outcomes	◦ Outcome of the vote on unifying the insurance - to unify or not. ◦ In the absence of unification, what are the solutions to the issue of migrant workers' insurance.	**Scope Rules -** Guide, which outcomes must or must not be affected within a situation. i.e. healthcare protection of migrant workers should not be contradicted by a voting outcome. The hukou system would not be contradicted by this voting outcome as it is out of the scope of the insurance unification.
Actions-Outcome Linkages	Action is voting, and the outcome is whether the insurance would be unified or not. The linkage is how the actions translate into unification. So if majority of the vote are in favor of the insurance, then the actions link to the outcome of the unification.	**Aggregation Rule -** Communist Party's rules on how members' actions translate into potential outcomes, how consensus is reached. What percentages of members need to aggregate together to pass a decision to unify the insurance schemes - a unanimous decision by the 7 members Politburo Standing Committee (this needs to be vetted by further interviews with experts).

Source: Field interviews

Feature of strategic interaction	Feature of Insurance unification	What Rules/Norms Shape these Elements of the Insurance unification
Participants	◦ Migrants ◦ Hospitals, clinics, doctors, other health organizations ◦ Insurance providers ◦ Medicine providers (pharmaceutical companies) ◦ Commission of Health and Family Planning (NCMS Insurance) ◦ Ministry of Social Security (Urban residents and employees' insurance) ◦ Delegation of Experts e.g. Healthcare experts, insurance experts ◦ Economists, Finance experts ◦ Media - Journalists ◦ Politburo of Communist Party of China ◦ Politburo Standing Committee	**Boundary Rules -** Operational level for migrants - The Hukhou rules governing membership of the rural and urban insurance and who is eligible to avail healthcare services in urban areas depending on insurance-entry and exit rules for who can participate and how. Policy and Constitutional Level - Communist Party Membership rules - Only those who are members of the Communist Party of China go on to join the ministry, politburo or politburo standing committee. Healthcare experts, Migrants' organizations, media, private insurance providers, are not members with voting rights on decision making for insurance unification, however they can participate by sharing their expertise
Position	◦ Minister of Health ◦ Minister of Social Security ◦ Communist Party hierarchical structures and positions - Politburo Standing Committee Member, Politburo member, Communist Party member.	**Position Rules -** The Communist Party rules governing the hierarchy and structure of the Government that define the positions that participants can hold and their job descriptions and powers. For e.g.: Communist Party Rules and norms influence who is eligible to be in the ministry at what position, who can be a politburo member etc. depending on years of seniority and political clout of various provinces. Commission of Health and Family Planning's functions include playing a coordinating role in the working of the healthcare provisioning, arranging meetings of the government at regular intervals and providing expertise etc.

Source: Field interviews

Feature of strategic interaction	Feature of Insurance unification	What Rules/Norms Shape these Elements of the Insurance unification
Actions	○ Negotiations and debates by the two ministries ○ Lobbying by ministries with the Politburo Standing Committee ○ Advocacy by migrant groups ○ Voting by Politburo standing Committee of seven top leaders ○ Presentations by experts etc.	**Choice rules -** Operational level - Migrants may choose to give up their rural insurance and get urban insurance if the insurances are not unified. Or, Migrants may choose to continue with rural insurance while they live in cities. Policy level - Communist Party rules and norms that govern what the participants may or may not do in their positions and specific circumstances. Ministries can choose to oppose the unification or work collaboratively to unify. The Politburo Standing Committee may vote to decide on unifying the insurance or not. As per these norms, experts can give presentations to the ministries but choose to align with one ministry or the other, but cannot vote on the decision to unify insurance.
Potential Outcomes	○ Outcome of the vote on unifying the insurance - to unify or not. ○ In the absence of unification, what are the solutions to the issue of migrant workers' insurance.	**Scope Rules -** Guide, which outcomes must or must not be affected within a situation. i.e. healthcare protection of migrant workers should not be contradicted by a voting outcome. The hukou system would not be contradicted by this voting outcome as it is out of the scope of the insurance unification.
Actions-Outcome Linkages	Action is voting, and the outcome is whether the insurance would be unified or not. The linkage is how the actions translate into unification. So if majority of the vote are in favor of the insurance, then the actions link to the outcome of the unification.	**Aggregation Rule -** Communist Party's rules on how members' actions translate into potential outcomes, how consensus is reached. What percentages of members need to aggregate together to pass a decision to unify the insurance schemes - a unanimous decision by the 7 members Politburo Standing Committee (this needs to be vetted by further interviews with experts).

Source: Field interviews

Feature of strategic interaction	Feature of Insurance unification	What Rules/Norms Shape these Elements of the Insurance unification
Participants	◦ Migrants ◦ Hospitals, clinics, doctors, other health organizations ◦ Insurance providers ◦ Medicine providers (pharmaceutical companies) ◦ Commission of Health and Family Planning (NCMS Insurance) ◦ Ministry of Social Security (Urban residents and employees' insurance) ◦ Delegation of Experts e.g. Healthcare experts, insurance experts ◦ Economists, Finance experts ◦ Media - Journalists ◦ Politburo of Communist Party of China ◦ Politburo Standing Committee	**Boundary Rules -** Operational level for migrants-The Hukhou rules governing membership of the rural and urban insurance and who is eligible to avail healthcare services in urban areas depending on insurance-entry and exit rules for who can participate and how. Policy and Constitutional Level - Communist Party Membership rules-Only those who are members of the Communist Party of China go on to join the ministry, politburo or politburo standing committee. Healthcare experts, Migrants' organizations, media, private insurance providers, are not members with voting rights on decision making for insurance unification, however they can participate by sharing their expertise
Position	◦ Minister of Health ◦ Minister of Social Security ◦ Communist Party hierarchical structures and positions - Politburo Standing Committee Member, Politburo member, Communist Party member.	**Position Rules -** The Communist Party rules governing the hierarchy and structure of the Government that define the positions that participants can hold and their job descriptions and powers. For e.g.: Communist Party Rules and norms influence who is eligible to be in the ministry at what position, who can be a politburo member etc. depending on years of seniority and political clout of various provinces. Commission of Health and Family Planning's functions include playing a coordinating role in the working of the healthcare provisioning, arranging meetings of the government at regular intervals and providing expertise etc.

Source: Field interviews

Feature of strategic interaction	Feature of Insurance unification	What Rules/Norms Shape these Elements of the Insurance unification
Costs & Benefits	1. **Ministry level -** personal career aspirations and political, monetary benefits of taking a particular position vs. migrants' healthcare. 2. **Politburo level-**Tradeoff between administrative and technical costs of unifying inurance vs. benefits to migrants' healthcare. 3. **Migrant's level -** Healthcare benefits to migrants if insurance is unified vs. possibility of slightly higher premium due to unification. 4. **Political level -** political benefit to country leaders by unifying insurance vs. public outrage if migrants' healthcare continues to be ignored. 5. **Activists level -** achieve healthcare goals; experts gain recognition and credibility for future healthcare work.	**Payoff Rule -** Communist Parties' Politburo Standing Committee Rules or Norms that shape the Incentives or political censure that influence the members participating in the vote. Most often these are intangible and follow socially accepted norms-for e.g. ○ Reputation of politburo members if they align with one ministry or the other. The cost of ignoring migrants concerns which has been growing considerably. ○ Lobbying norms acceptable within acceptable ethical standards. ○ Role of media in providing checks and balances e.g. media coverage of the two competing ministries' stance and how they influence the unification decision.
Information	Information can be Complete or Incomplete, Perfect or imperfect information-For e.g. Reports by global experts, financial reports of ramification of insurance on the insurance premiums, composition of migrants benefited etc. Have both ministries shared information about their costs and benefits of unification? Whether voting is open or by secret ballot? The advantages and disadvantages for China from the unification, and whether the risk pooling would lead to higher premiums?	**Information Rules -** Communist Party or Politburo rules governing how information is disseminated and who is authorized to share, what is secret or not. Eg: At the Politburo, are votes by show of hands or by secret voting, so the information on voting position is not shared. Whether information on unifying - costs, benefits to ministries, to migrants, to China overall are public or privy to top officials deliberating on the issue.
Linkages/ Repetition	Repeated Game strategies undertaken by parties to affect the outcome of the insurance unification vote. Whether passing a vote on unifying insurance sets a precedent for future decisions that take power away from a ministry-e.g. a future vote on hukou reform or education reform. Other repetition or linkages could be-How Politburo members would vote keeping in mind future votes - If a Politburo member wields clout within the Communist Party from urban areas who may be opposed to insurance unification, then it might need these urban areas' vote later on for remaining in power.	**Linking rule -** The strategies and tactics ministry representatives, Politburo Standing Committee members and Communist Party members would adopt based on political and economical stance (pro-migrants' welfare or pro monetary considerations in the near future), historical alliances, political partnerships and pacts, as well as regional political influence. **Norm:** Whether Politburo voting in China is usually taken to defend provincial or political interests keeping in mind future dependencies and re-election, or keeping in mind long-term social goal of healthcare protection.

Source: Field interviews

Key rules as per Ostrom's framework that shape the insurance unification

From this institutional analysis, the key factors that come to light are -

1. The power to influence the unification decision is wielded by the Politburo Standing Committee. From our understanding as of now, the Politburo Standing Committee has to vote unanimously to merge the insurance schemes.
2. The ministries themselves have to lobby to influence the Politburo Standing Committee.
3. The migrants in China do not have the power to form Non Governmental organizations. So they hold limited influence in swaying the decision. They have informal migrants organization. However these organizations and the media hold little power to sway the final decision.

So, the power to make the decision rests with the Politburo Standing committee. So, if we were to look at the Politburo Standing Committee, it comprises of 7 members who are elected by the Politburo of the Communist Party, which comprises 25 members. We need to understand how the Politburo Standing Committee is influenced by the Politburo and the regional influences at play. We can study the pay off rules, and the linkages to see how the Politburo Standing Committee would decide for the various options. This could help us weigh the pros and cons of the unification, understand constraints, and how to effectively unravel the knots in the political economy issues to remove barriers and facilitate a smooth unification.

Appendix II - Acronyms

MHRSS - Ministry of Human Resources and Social Security

Was created in 2008, combining Ministry of Personnel, Ministry of Labor, and Ministry of Social Security

NHFPC - National Health and Family Planning Commission

Was created in 2013, combining Ministry of Health, and Commission of Family Planning

NDRC - National Development and Reform Commission

MoFin - Ministry of Finance

SIRC - China Insurance Regulatory Commission

UEBMI - Urban Employee Basic Medical Insurance (Urban healthcare insurance)

URBMI - Urban Residence Basic Medical Insurance (Urban healthcare insurance)

NCMS - New Rural Cooperative Medical Scheme (Rural healthcare insurance)

References

[1] *12th Five Year Plan (2011-2015) on social protection*. Tech. rep. State Council, 2012.

[2] Matt Andrews. *The Limits of Institutional Reform in Development*. Cambridge University Press, 2013.

[3] *Announcement on equal health and family planning service for migrant population pilot in 40 cities across 27 provinces*. Press Release. Commission of Health and Family Planning, 2013.

[4] *Announcement to encourage rural-urban migrant workers to participate in health-care insurance*. Press Release. Ministry of Human Resources and Social Security, 2006.

[5] *Audit Report of Social Security Fund 2011*. Tech. rep. National Audit Office, 2012.

[6] Milcent Carine. "Healthcare Access for Migrants in China: A New Frontier". Published by Sciences. 2010.

[7] *Chinas new health plan targets vulnerable*. World Health Organization. URL: http://www.who.int/bulletin/volumes/88/1/10-010110/en/.

[8] Gregory C. Chow. *An economic analysis of health care in China*. CEPS working paper. Princeton, NJ : Center for Economic Policy Studies, 2006. URL: http://www.econbiz.de/Record/an-economic-analysis-of-health-care-in-china-chow-gregory/10003833048.

[9] Business Editor. *Focus on Hukou Reform. Net ease News*. URL: http://news.163.com/special/hujigaige/.

[10] Business Editor. *Healthcare Insurance Reform in China. Baidu*. URL: http://baike.baidu.com/link?url=yuz0y-d55icJI1nPYa_gnlmaYdPEXzoWJugLIj5JxggbFMCw93BVvFj8PYd.

[11] Business Editor. *Hukou System in China. Baidu.* URL: http://baike.baidu.com/link?url=YYICu2C4ka53axAwiMyI6keuzejEHTrWxiqkQExRsDQYHHN4X2MtZqipgXHU5GRe.

[12] China Editor. *Difficult to conduct social security cross-region transfer. International Finance News.* URL: http://insurance.cnfol.com/120504/135,1518,12306387,00.shtml (visited on 02/01/2014).

[13] China Editor. *Medical insurance fund facing deficit challenge. Peoples daily*, 02 Jan 2014. URL: http://www.chinanews.com/gn/2014/02-10/5815428.shtml (visited on 03/03/2014).

[14] Economic Editor. Medical and Economic News.

[15] Economic Editor. Peoples daily.

[16] Policy Editor. *Car Insurance. Baidu.* URL: http://baike.baidu.com/link?url=vBPGb18Dc1l87MCO2AGfmqKhd2pFWAVXtMy9tsXcRL_jYsBeI8IXDoB5rYH1dLM67EXUgaCb9vYS8IjyC

[17] Policy Editor. *Government reforms in 2013. Baidu.* URL: http://baike.baidu.com/link?url=dbF_tCV_1NelHc1wk-i3Juw0q2zXBrdM2oqewbUvwGliM5_y1Gcqpf6rBVUa6UO_f5nM1WOJ7wD7bTC2b-Dhfq (visited on 07/01/2014).

[18] Policy Editor. *Ministry of Human Resources and Social Security. Baidu.* URL: http://baike.baidu.com/view/1460713.htm (visited on 07/01/2014).

[19] Karen Eggleston. *Health Care for 1.3 Billion: An Overview of Chinas Health System.* SSRN Scholarly Paper ID 2029952. Rochester, NY: Social Science Research Network, Jan. 2012. URL: http://papers.ssrn.com/abstract=2029952 (visited on 04/29/2014).

[20] *Healthcare insurance in China.* CN.Healthcare Media Limited. 2013. URL: http://www.cn-healthcare.com/news/data/2013-09-26/content_430766.html.

[21] Therese Hesketh et al. "Health Status and Access to Health Care of Migrant Workers in China". In: *Public Health Reports* 123.2 (2008). PMID: 18457071 PMCID: PMC2239328, pp. 189–197. ISSN: 0033-3549. URL: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2239328/ (visited on 04/27/2014).

[22] Bradley Hoath. *Chinas Hukou System: A Passport to Health. Health Intel Asia*, 12 May 2013. URL: http://www.healthintelasia.com/chinas-hukou-system-a-passport-to-health-part-13/ (visited on 12/12/2013).

[23] I. Johnson. *In the air*. **The New Yorker**, 89, 32-n/a. 2013. URL: http://search.proquest.com.ezp-prod1.hul.harvard.edu/docview/1465979591?accountid=11311 (visited on 12/12/2013).

[24] Danhua Lin et al. "Alcohol intoxication and sexual risk behaviors among rural-to-urban migrants in China". In: *Drug and Alcohol Dependence* 79.1 (July 2005), pp. 103–112. ISSN: 0376-8716. DOI: 10.1016/j.drugalcdep.2005.01.003. URL: http://www.sciencedirect.com/science/article/pii/S0376871605000293 (visited on 04/29/2014).

[25] *Local Government in China*. Course Material DPI 450 The Political Economy of Transition in China - Harvard Kennedy School of Government. 2014.

[26] Yao Lu and Feng Wang. "From general discrimination to segmented inequality: Migration and inequality in urban China". en. In: *Social Science Research* 42.6 (Nov. 2013), pp. 1443–1456. ISSN: 0049089X. DOI: 10.1016/j.ssresearch.2013.06.006. URL: http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.elsevier-cc4d7039-6d5c-3169-a73f-4714b87db29e (visited on 04/27/2014).

[27] Zheng-hong Mao and Xu-dong Zhao. "The effects of social connections on self-rated physical and mental health among internal migrant and local adolescents in Shanghai, China". In: *BMC Public Health* 12.1 (2012), p. 97. ISSN: 1471-2458. DOI: 10.1186/1471-2458-12-97. URL: http://www.biomedcentral.com/1471-2458/12/97.

[28] Jiemin Yang Mu Li. "Comparison of Healthcare Insurance Provision for Migrant Population in China – taking Shanghai, Chengdu, Beijing and Shenzhen as examples." In: *Population Research* 33.3 (2009), pp. 99–106.

[29] Elinor Ostrom. "Background on the Institutional Analysis and Development Framework". en. In: *Policy Studies Journal* 39.1 (Feb. 2011), pp. 7–27. ISSN: 1541-0072. DOI: 10.1111/j.1541-0072.2010.00394.x. URL: http://onlinelibrary.wiley.com/doi/10.1111/j.1541-0072.2010.00394.x/abstract (visited on 04/27/2014).

[30] *Report on Chinas Migrant Population Development*. Tech. rep. Comission of Health and Family Planning, 2013.

[31] T. Saich. *Governance and Politics of China: Third Edition*. Comparative Government and Politics. Palgrave Macmillan, 2010. ISBN: 9780230279933. URL: http://books.google.com/books?id=MucmSQAACAAJ.

[32] Zhongguo Shangbao. *Commercial Insurance suffer losses when provide grave disease insurance. China Commercial News*. URL: http://news.cnfol.com/131008/101,1280,16092299,00.shtml (visited on 12/02/2014).

[33] *Social Management Report*. Tech. rep. Beijing International Urban Development Research Institute, 2012.

[34] *Social Security Report*. Tech. rep. Ministry of Human Resources and Social Security, 2013.

[35] *Tentative guidelines on healthcare insurance transfer for the migrant population*. Press Release. Ministry of Human Resources, Social Security, Ministry of Health, and Ministry of Finance, 2009.

[36] Ming Tian. "The migration patterns of floating population across cities in eastern". In: *China Journal of Geographical Research* (2013), pp. 112–122.

[37] Bo Wang et al. "The influence of social stigma and discriminatory experience on psychological distress and quality of life among rural-to-urban migrants in China". eng. In: *Social science & medicine (1982)* 71.1 (July 2010). PMID: 20403653, pp. 84–92. ISSN: 1873-5347. DOI: 10.1016/j.socscimed.2010.03.021.

[38] Qingwen Xu, Xinping Guan, and Fangfang Yao. "Welfare program participation among rural-to-urban migrant workers in China". en. In: *International Journal of Social Welfare* 20.1 (Jan. 2011), pp. 10–21. ISSN: 1468-2397. DOI: 10.1111/j.1468-2397.2009.00713.x. URL: http://onlinelibrary.wiley.com/doi/10.1111/j.1468-2397.2009.00713.x/abstract (visited on 04/29/2014).

[39] Winnie Yip and William Hsiao. "China's health care reform: A tentative assessment". In: *China Economic Review* 20.4 (2009), pp. 613–619. URL: http://ideas.repec.org/a/eee/chieco/v20y2009i4p613-619.html (visited on 04/27/2014).