Chinese Migrant Workers in Kenya: Their Health Status and Access to Health Care

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A thesis
submitted in fulfillment of the
requirements for the degree of

Master of Public Health

University of Washington
2016

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Program Authorized to Offer Degree:
Global Health

Abstract:

The international movement of people is an essential part of a globalizing world.[1] The increasing migration of population creates new challenges for global health systems, which have to adapt in order to remain responsive.[2-3] China now has more people traveling or working overseas than at any other moment in its history.[4-5] With 35 million Chinese living overseas and more than 800,000 Chinese migrant workers temporarily employed abroad, Chinese migrants face challenges and possible inequalities in health care access globally.[5-6] In this study, we found that the general social and health status of Chinese migrants in Kenya is relatively good, but they still encounter barriers in accesses to health care in the country. Our study showed that most of the Chinese migrants are young adult males who are relatively wealthy but have little health insurance to cover them. They are also well-educated and are typically employed by construction companies. The health status of these migrants is relatively better than the Kenyan population as well as the population in China.[28] However, many of them are living alone and experience barriers to health care including language barrier and a poor perception of health services in Kenya.

1. Introduction

1.1 Background/Rationale

The international movement of people is an essential part of a globalizing world.[1] The increasing migration of population creates new challenges for global health systems, which have to adapt in order to remain responsive.[2-3] China now has more people traveling or working overseas than at any other moment in its history.[4-5] With 35 million Chinese living overseas and more than 800,000 Chinese migrant workers temporarily employed abroad, Chinese migrants face challenges and possible inequalities in health care access globally.[5-6]

Chinese migrant workers are involved in many aspects of development in sub-Saharan Africa, ranging from construction to retail.[7-8] A 2013 survey by China Africa Business Council of 193 member companies in Africa found that there are "34,000 local employees and 6,400 Chinese workers, or an average ratio of 2 Chinese workers to every 10 African workers."[9] According to the Chinese Embassy in Kenya, the estimated number of Chinese migrants living and working in Kenya is between 80,000 and 100,000.[10]

Little is known about the health status of Chinese migrant workers in sub-Saharan Africa, their knowledge and utilization of health services, and the barriers they may encounter to access care.[11] There are only two publications found on PubMed by searching "Africa and Chinese and migrants", yet neither were related to the issue of Chinese migrants in Africa. Such data is necessary to identify health-related problems these Chinese workers may encounter on the continent, which is a resource-limited setting whose population faces its own health care challenges.[12] It is necessary to develop effective and tailored health referral services for Chinese migrants who are working in Africa. Such data is critical to support a better understanding of potential concerns in global health security arising from increased human migration between Africa and China.

1.2 Objectives

Our objective is: to describe the health needs, demands, and resources for Chinese migrants who live or work in Kenya; understand the availability of health care services for them in the country; and explore what barriers to health access they may face.

2. Methods

2.1 Study design

This was a qualitative and quantitative mixed methods study. It included three stages: (1) in-depth interviews with stakeholders who provide health services in Kenya; (2) focus group interviews with Chinese migrants; and (3) a community-based survey of Chinese migrants. This thesis focuses on the quantitative results of the community-based survey that was performed as part of this study.

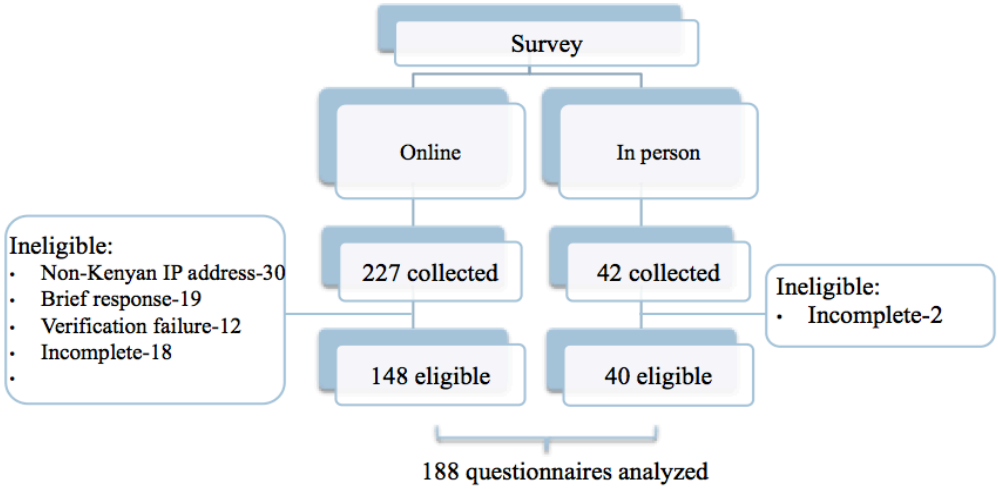
2.2 Setting

This study was conducted in Kenya by Duo Song between January 14 and March 18, 2016 with assistance from Juan Nie from Sun Yat-Sen University who was in Kenya between January 23 and February 6, 2016. Participants from Nairobi and Kisumu, the cities where most Chinese migrants live in Kenya, were targeted.

2.3 Participant recruitment method

A snow-ball sampling method was employed to recruit the participants in this study. Participants were included if they were: (1) >18 years old; (2) had citizenship in the People's Republic of China; and (3) lived and worked in Nairobi, Kenya for at least six months. The community-based survey was conducted both online and in-person (Figure 1).

Figure 1: Recruitment Procedures



For the in-person survey, Duo interviewed 42 Chinese migrant workers in Nairobi. For the online survey, Duo and Juan were introduced to Chinese migrants living in Kenya on WeChat, a social networking application that allows users to message each other, and an electronic version of the survey questionnaire was delivered to participants using this application. Through WeChat, 227 questionnaires were collected online. During online recruitment, Duo checked IP locations, designed logical traps in the questionnaires, asked verification questions, checked the time it took to complete the questionnaire, and confirmed completeness of the instrument. Through this verification process, 188 questionnaires were considered eligible and were analyzed for this thesis.

2.4 Variables

The design of the survey questionnaire was based on Roy Penchasky's health access framework.[13] The entire questionnaire had 95 questions and took 10 to 20 minutes to complete. It included 5 sections: sociodemographic, health-related behavior, health status, health-seeking behavior, and health access barriers. The sociodemographic section included questions on general profile, migration related information, and health insurance information. Questions about health-related

behavior referred to smoking, drinking alcohol, and exercise, as well as how often they occurred. We asked the disease history of participants after their arrival in Kenya to determine their health status. Questions about health-seeking behavior included the distance and time used to reach the nearest available health facilities, whether they sought health care, and what type of health facilities they went to. Finally, all participants were asked about major perceived barriers they thought they would encounter.

2.5 Statistical methods

Descriptive statistics were used to examine demographic features of the sample, the health status, health behaviors, and health access. These indices included frequency, percentage, and means and standard deviation of the scores. SPSS 21.0 (SPSS Inc., Chicago, IL, USA) was used to analyze the data.

2.6 Ethics

This study was approved by the Institutional Review Board from the University of Washington, Kenyatta National Hospital, and Sun Yat-sen University. All participants received $5 to cover travel expenses or to compensate for loss of working time.

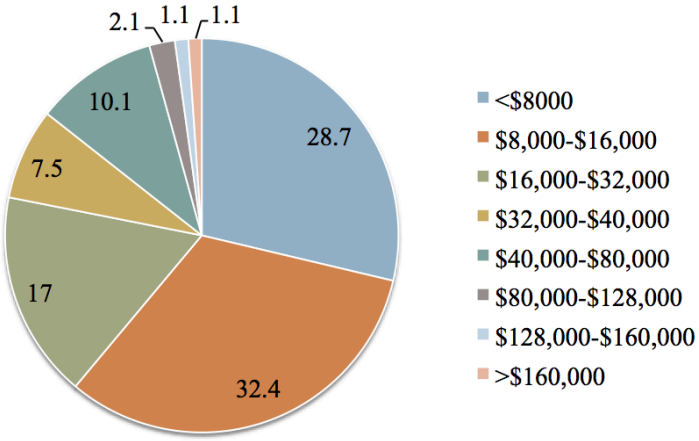
3. Results

3.1 Sociodemographic characteristics

A total of 188 questionnaires from the community-based survey were analyzed for the thesis (Table 1). The average age of the participants was 32 years old and 75% were between the ages of 20 and 35 years. There were more men (71%) than women, and they had not been in Kenya for very long: 73% of the men had been in the country for less than one year. Nearly one-third of the participants (32%) had an annual family income between $8,000 and $16,000, 29% had an incomes less than $8,000, and 17% were between $16,000 and $32,000 (Figure 2). Over 50% of the

participants had had a university or higher level of education. Most were married (64%), and 60% were living alone in Kenya. Among those men who were married, 67% were living alone, while among married women, 24% were living alone (Table 2). The most common occupation was construction and manufacturing (51%) followed by catering (19%). The main forms of employment were through a private company (34%), a Chinese state-owned company (28%), or being self-employed (21%).

Figure 2: Annual Family Income (USD)



Only 28% of participants were covered by health insurance. Among the ones who had insurance, 30% had Kenyan commercial insurance and 23% had Chinese commercial insurance. Only 13% were covered by Chinese national health insurance.

Table 1: Socio-demographical characteristics (N=188)

Demographical Variables	
Age (mean, SD)	32.4 (6.9)
Gender (n, %)	
Male	133 (70.7)
Female	55 (29.3)
Education (n, %)	
Less than middle school	15 (8.0)
High school	33 (17.6)
Post-secondary school	46 (24.5)
Bachelor	86 (45.7)
Mater or above	8 (4.3)
Marital Status (n, %)	
Married	121 (64.4)
Single	59 (31.4)
Widowed	1 (0.5)
Divorced	7 (3.7)
Family members in Kenya (n, %)	
1 person	144 (60.3)
More than 1 person	44 (39.7)
Time in Kenya (n, %)	
<1 year	139 (73.9)
1-3 years	28 (14.9)
>3 years	21 (11.2)
Occupation fields (n, %)	
Construction and manufacture	96 (51.1)
Service delivery	36 (19.1)
Transportation, logistics	13 (6.9)
Others	43(21.9)
Employer types (n, %)	
Private company	64 (34.0)
Chinese state owned company	53 (28.2)
Self-employed	39 (20.7)
Government officials	14 (7.5)
Others	16 (8.6)
Health Insurance (n, %)	
Yes	53 (28.2)
No	135 (71.8)
Insurance type *N=53 (n, %)	
Kenyan commercial insurance	16 (30.2)
China commercial insurance	12 (22.6)
China national insurance	8 (15.1)
Unclear	13 (24.5)
Others	4 (7.5)

Table 2: The distribution of marriage status and living status by gender

	Along	Stay with Family	Total	Along%
Married males	56	28	84	66.7
Married females	9	28	37	24.3
Total	65	56	121	53.7

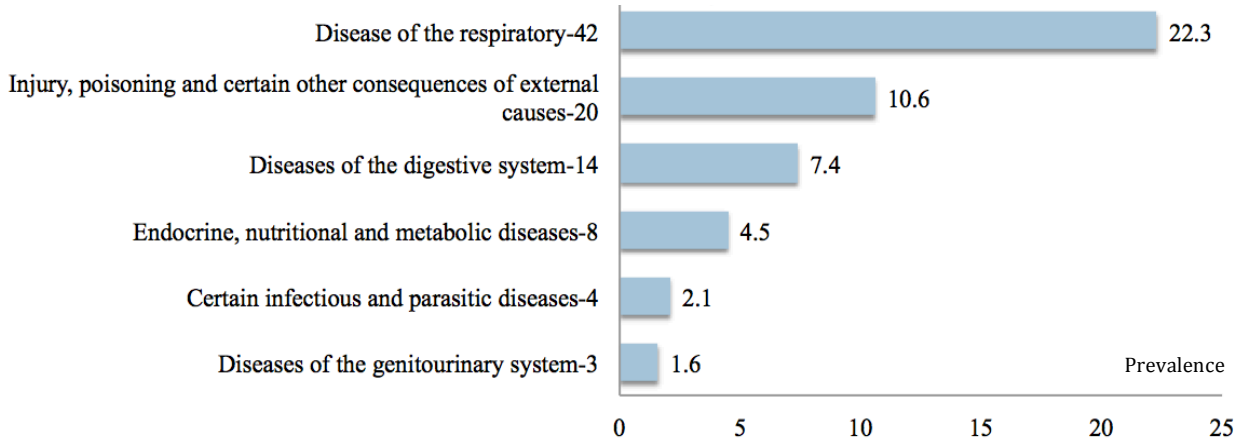
3.2 Health-related behaviors

In this study, 29% of participants reported smoking, and of these 77% said they smoked every day. The majority of participants (76%) drank alcohol, with nearly a third (32%) drinking more than once a week. A number of the Chinese migrants did not exercise in Kenya, 29% respondents exercised less than once per week or never exercised at all.

3.3 Health status

There were 74 participants (39%) who reported having had a health-related problem while in Kenya. The most common complaint was respiratory reported by 42 participants (22%), such as cold/flu/cough. The second most common complaint was injury, poisoning and other external causes, reported by 20 participants (20%), such as cut/scratch/insects bites. The third was digestive disease reported by 14 participants (7%), such as gastroenteritis. (Figure 3)

Figure 3: Health-related complaints

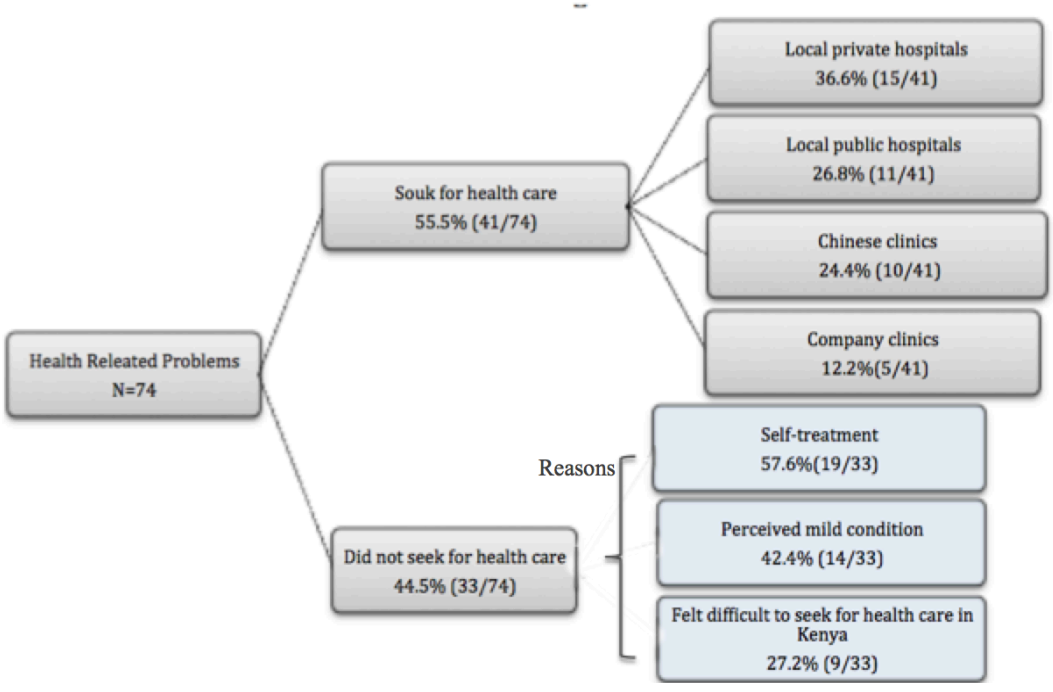


3.2 Health-seeking behavior

In terms of distance to the nearest available health facility: 37% reported that it was less than 2 miles, 36% that it was 2-4 miles, and 27% more than 4 miles. The median time for reaching the nearest health care was 15 minutes, and the interquartile range was 10 minutes. Among respondents who had health problems, only 55% sought health care from a local facility. Most (37%) preferred attending a Kenyan private hospital, 27% went to a Kenyan public health hospital, and 24% went to Chinese clinics. However, nearly half of those who had health problems (45%) did not seek any health care. The main reason for not seeking care was self-treatment (58%), perceived mild condition (42%), and feeling it was difficult to access health care in Kenya (27%) (Figure 4).

Many participants (44%) said that compared to China seeking health care was more inconvenient in Kenya, while 20% thought it was unchanged, and 37% of the participants thought it was more convenient. Referring to the cost of seeking for health care, 64% of the participants thought it was more expensive, 16% thought it was unchanged, and 20% said it was less expensive compared to China.

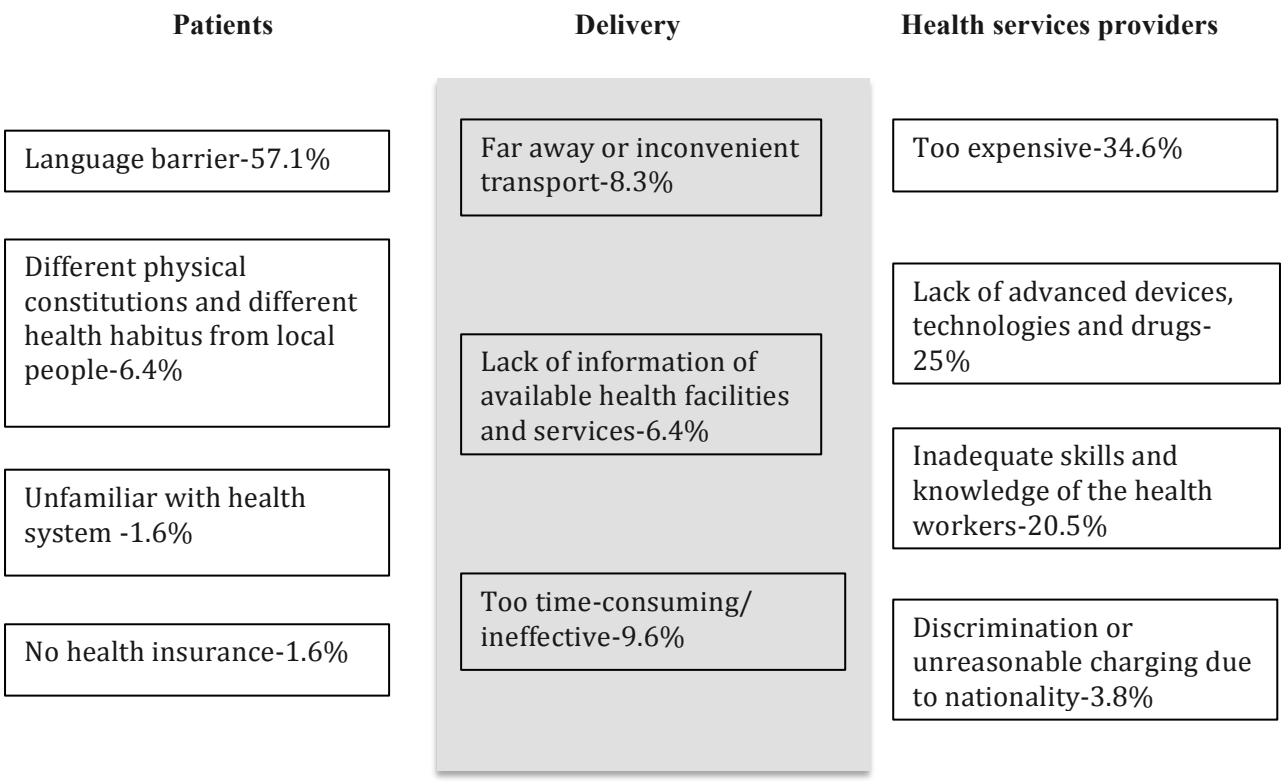
Figure 4: Health seeking behaviors



3.3 Health access barriers and satisfaction

The major barriers to health care perceived by participants included: language (57%), health expense (35%), poor medical facilities (25%), and unqualified healthcare workers (21%). About 10% of the participants thought the Kenyan health system was ineffective and that they would have to wait for a long time to be seen, while 8% thought transportation was inconvenient and 6% felt there was a lack of information available health facilities and services. Some participants (6%) believed Chinese had different physical constitutions from local people, so their health needs were different as well. (Figure 5)

Figure 5: Perceived barriers health care access



4. Discussion

In this study, we found that the general social and health status of Chinese migrants in Kenya is relatively good, but they still encounter barriers in accesses to health care in the country. Our study showed that most of the Chinese migrants are young adult males who are relatively wealthy but have little health insurance to cover them. They are also well-educated and are typically employed by construction companies. The health status of these migrants is relatively better than the Kenyan population as well as the population in China.[28] However, many of them are living alone and experience barriers to health care including language barrier and a poor perception of health services in Kenya.

We found that the majority of Chinese migrants in Kenya are young men and most of them are married. Among these married men, 67% are living alone in Kenya compared to only 24% of married women who live alone. This may due to the fact that young Chinese men tend come to the country first and women then follow them as accompanying family members. Chinese men may be more likely to choose to work at Kenya because they work in construction and manufacturing more than women. Chinese women may also perceive that living in Africa is hard and unsafe. These solitary young men may be at risk for psychological disorders or sexually transmitted diseases. A possible solution to this situation may be a policy of work-shifting as used by Shell Oil Company. In work-shifting, workers have regular time for working overseas and have an opportunity to go back home each year.[14]

In contrast to Chinese migrants to America, Chinese migrants in Kenya appear tohave a higher socoeconomic status than the local population. The income of Chinese migrants is higher than most Kenyans whose gross national income (GNI) per capita is $1,290.[28] In our study, the average income of participants was estimated between $8,000 to $16,000. In the West, Chinese migrants are less likely to be richer

than the local population, have advanced degrees, and or be in needy circumstances since most of them live in the big cities where the living cost is high.[20]

In this situation where migrants are relatively wealthy, one would think that the cost of health care would not be a major barrier; however, 35% of the participants thought Kenyan health services are too expensive. This may be due to the fact that health insurance coverage is low at 28%, and of this number, 15% reported using Chinese national health insurance, which cannot be used in Kenya. China has its own universal health insurance system that covers more than 95% of the entire population.[15] However, nationally insured migrants are not covered in Kenya, and people have to actively purchase separate health insurance individually in order to be covered. The need for expensive commercial insurance coverage as compared to China may be a main factor in the low uptake. The Chinese government should therefore consider an international health insurance regime that protects its citizens working in Kenya and other African countries. Another factor is that quality health services in Kenya are more expensive than in China, so that cost may still be a barrier for the migrants with lower income. For instance, the registration fee for outpatient care in China is less than one dollar, while the cost in Kenya at a private facility is about $30-$50.

We found the population to be relatively healthy, and the major health complaints were respiratory diseases such as cold, flu and cough. The prevalence of injury, poisoning and certain other consequences of external causes was 11%, and was second highest category in terms of health complaints. This may due to the fact that more than half of Chinese migrants in our survey worked in construction companies. Protective equipment and policy should therefore be established that involves to occupational health concerns, such as safety helmet and insect repellent.

Only half of our participants said that they would utilize local Kenyan health services when they get sick. The major barriers included language and a perception

that health services in Kenya were poor. In terms of language, migrants are blind in a foreign health system and may have difficulties at every step in approaching to health care such as: how to get the information of available health services, how to get transport to health facilities, how to express their symptoms and conditions, how to make sure the doctors can comprehend their health concerns, and how to understand the medical advice. Encountering all of these apprehensions and concerns, Chinese migrants are hesitant and less likely to seek for outside care. This is similar to the situation for Chinese migrants living in developed countries as well.[18, 19, 20]

However, this barrier should be easily surmounted. In order to overcome the language barrier, key instructions and documents in essential drugs, common diseases, common symptoms can be translated into multiple languages, not only Chinese. This one-time translation work will benefit numerous migrant patients. Since migrants have limited resources, the Chinese Embassy in Kenya should offer the necessary health care information online and establish a medical assistance team with vehicles and interpreters in case their citizens ask for help.

For many Chinese migrants, Kenyan health facilities are perceived to lack of advanced devices, technology, and drugs, and the local health workers are not perceived to be qualified and skilled. Chinese migrants trend to distrust the local health system, which may prevent them from seeking care. This perception may be true for the public primary care health system since 27% of Chinese migrants rely on this system after getting sick. But, this perception may not be true because the local private health system in Kenya offers fairly good quality of services. Chinese are not familiar with a private health system, since they typically use a public health system in China that is under the supervision and regulation of the Chinese government. Chinese migrants may therefore not understand that given their income, they may be able to access better quality, private health services.

This study is one of the first focusing on the health of migrants which is new but increasingly essential for global health in future. We have recruited a large sample of participants from all over Kenya rather than simply in Nairobi. The finding presents a good general description of Chinese migrants in Kenya, and we had Chinese researchers in our team who understood the target population and Chinese culture. They also visited Kenya and experienced the Kenyan health systems and culture in order to interpret these results.

A major limitation of the study was bias caused by snowballing sampling. Participants who were recruited may have similarities in age, education, occupation and income. In addition, an online survey on WeChat was used. Since WeChat is not only accessible to Chinese in Kenya but also those in living in China and elsewhere, there may have been a few participants who did not meet the inclusion criteria but were able to submit their results online. In addition, people of a particular age or income may have been more likely to use a mobile device and/or WeChat leading to a selection bias. Another limitation is recall bias. Because the answers of questionnaires were self-reported, the participants may not have accurately answered sensitive questions, such as personal income, occupation, health related behaviors, disease history such as STDs (HIV/AIDS) or other infectious diseases.

In conclusion, Chinese migrants in Kenya are relatively wealthy and healthy, but most of them are uncovered by health insurance and a number of young males are living along and obtained bad health behaviors. Their utilization of health service is fairly low with several barriers such as language barrier and a poor perception of health services in Kenya. As the increasing number of Chinese migrants in Kenya and new challenges brought by migrants for the health system, more attention and recognition should be drawn on this population, which is essential for the equity of global health.

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