

Full Length Research Paper

China's path of rural poverty alleviation through health care financing: The case of Taijiang County-Guizhou Province

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China has made considerable progress in economic, social, cultural and political fields since reform and opening-up started in 1978. In the last forty years the country lifted over 700 million people out of poverty by implementing large-scale, long-lasting, government-led, and very effective rural poverty alleviation and development plan. In health care financing, the country also achieved universal health insurance coverage for 1.3 billion people in a short time, and that is astonishing. This study tried to draw a lesson for developing countries by analyzing China's rural poverty alleviation programs through health care financing. To this end, a study was conducted in Taijiang County in Guizhou province of the People's Republic of China, in six impoverished villages. Data were collected for this study in a three month period (December 2018 to February 2019) through a questionnaire, focus group discussions and interviews. This study seek to answer the following two questions: What lessons do the Chinese experiments of poverty alleviation through health care financing offer to other developing countries? Are the Chinese experiences replicable elsewhere in the third world? To answer these questions, a deductive approach was adopted in this study methodology. First, China's rural poverty alleviation programs was explored in general and based on this the rural development efforts in Taijiang County, in particular was examined. This study showed that clear government vision and determination, and popular participation have great contribution in China's rural poverty alleviation through health care financing. The government used very effective poverty alleviation approaches that include "comprehensive control and development area by area," "poverty alleviation village by village," "participatory poverty alleviation," and "one plan, implementation year by year". Such approaches have not only made significant contributions to China's rural poverty alleviation, but also become recognized as best practices for poverty alleviation in developing countries. It is believe that the basic strategies, models, and experiences of poverty alleviation of China are significant references for developing countries.

Key words: China, poverty, developing countries, health care financing.

INTRODUCTION

China has taken astonishing development strides in economic, social, cultural, and political fields since reform

and opening-up started in 1978. It has made remarkable progresses in health, education, science, and technology, and is quickly closing the gap on all these fronts with global leaders. It has lifted over 700 million people out of poverty within 40 years, and this is astonishing. Economists generally attribute much of China's rapid economic growth to two main factors: Large-scale capital investment (financed by large domestic savings and foreign investment) and rapid productivity growth (Morrison, 2018). These two factors appear to have gone together hand in hand.

The country has accumulated a wealth of experience and a clearer understanding of the many problems and lessons in development. Over the last 40 years, the country implemented a large-scale, long-lasting, government-led, and very effective rural poverty alleviation and development plan. It has adopted a series of policies and measures to alleviate poverty in a sustainable manner. In health care financing, the country has accomplished near universal coverage (about 96.9% of the population has health insurance) in a very short time (Yu, 2015).

It is believe that China's long practice of poverty alleviation and the experience accumulated can be a classic example for developing countries but test this claim should be tested, supported with evidences and prove through rigorous study. To determine this, a study was conducted in Guizhou province of the People's Republic of China by selecting six big villages from Taijiang County. The Chinese government designated these villages as poor areas in 2014. Guizhou, which is located in the south western part of the country and Guiyang is its capital city.

Guizhou is a relatively poor and economically undeveloped province, but rich in natural, cultural and environmental resources. Demographically it is one of China's most diverse provinces. Minority groups such as the Miao/Hmong and Yao people account for over 37% of the population. In Guizhou, landscapes are broadly divided in to four types: Plateaus, mountains, hills and basins. In addition, karsts landforms are distributed widely throughout the province, which accounts for 61.9% of the province's whole territory and forms a special Karts ecosystem.

The aim of this study is, therefore, to analyze China's rural poverty alleviation programs through health care financing and to draws lessons for developing countries. We have three main reasons for the study of poverty alleviation programs through health care financing in Guizhou province. First, the province had a weak agricultural production systems due to impoverished irrigation and drainage equipment, and shortage of

farmland; second, industrial system was so simple and it heavenly depend on small-scale; and third, there was undeveloped infrastructure system. Because of this the province had gained more attention and support from a central government that was aimed at eradicating poverty in a sustainable manner.

This study seeks to answer the following two questions: What lessons do the Chinese experiments in poverty alleviation through health care financing offer to other developing countries? Are the Chinese experiences replicable elsewhere in the third world? To answer these questions a deductive approach was adopted in the study methodology. First, China's rural poverty alleviation programs was explored in general and based on this the rural development efforts in Taijiang County, in particular was examined. It is believed that the basic strategies, models, and experiences of poverty alleviation of China are significant references for developing countries. Many developing countries are trying to achieve universal health insurance coverage, and reduce the reliance on out-of-pocket payment and provide financial protection against high medical expenses. Despite huge financial aid from the West, especially Sub-Saharan African countries, they have not yet achieved universal health insurance coverage; majority of the poor people rely on out-of-pocket payments, and because of this healthcare services are accessible only to those people who have ability to pay. Few countries in Sub-Sahara Africa (SSA) have a viable health insurance system; existing social insurance schemes, in most SSA countries, cover a negligible portion of the population. Griffin and Shaw (1995) noted that the total population insured in SSA countries ranged from .01% in Ethiopia to a high 11.4% in Kenya. Vogel (1990) characterized the prevailing government health insurance arrangements in Sub-Saharan Africa in such a way: Health care is financed, for all citizens, out of national revenue and provided for free at point of use, as in Tanzania; health care is financed both by general tax fund and through cost recovery mechanisms and provided by government, as in Ghana; health care is financed through the enforcement of compulsory Social Security system for the entire formal labour market, as in Senegal; a special health insurance fund for government employees, as in Sudan; a discount at health care facilities for government employees, as in Ethiopia; government employees are entitled to private medical care as fringe benefits, as in Kenya; and employers are mandated to cover the health care costs of their employees, as in Democratic Republic of Congo. Developing countries can gain a good lesson from the Chines experience, which is entirely based on tax-based health care financing and social health insurance, to

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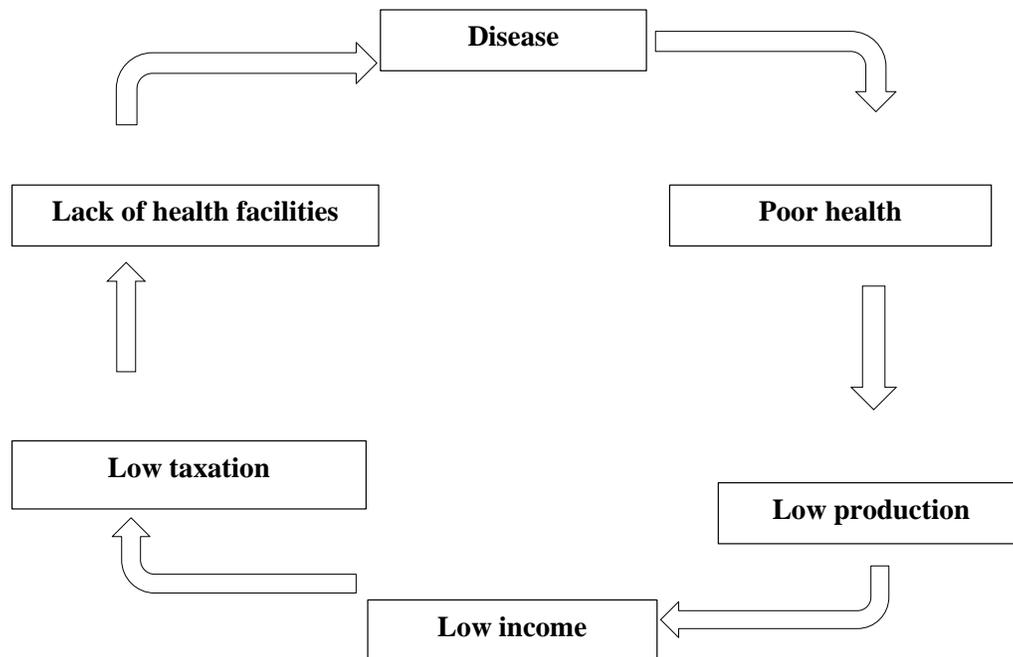


Figure 1. Vicious circle of poverty.
Source: Authors' construct.

achieve the goal of universal health care coverage. Hence, this study will help to share China's successful rural poverty alleviation experience with countries around the world, especially developing countries; the basic strategies, models, and experiences of poverty alleviation of China can also be significant references for developing countries.

RELATIONSHIP BETWEEN HEALTH AND POVERTY: THEORETICAL FRAMEWORK

Poverty is multidimensional; it is strongly linked to lack of income, productive resources and human capabilities as well as lack of participation in decision making of individuals or households in their social, economic and political life (UN, 1995). It reflects the deprivation of human capabilities: economic (income, livelihoods, decent work), human (health, education), political (empowerment, rights, voice), socio-cultural (status, dignity) and protective (insecurity, risk, vulnerability) (OECD, WHO, 2003). In this study, however, we focused more on the relationship between health and poverty because we believe that health is central to overall human development and poverty reduction. For poor people especially, health is a crucially important economic asset. Their livelihoods depend on it. When poor people become ill or injured, the entire household can become trapped in a downward spiral of lost income and high healthcare costs. Investment in health is increasingly recognised as an important means of economic

development and a prerequisite for developing countries – and particularly for poor people within them – to break out of the cycle of poverty (OECD, WHO, 2003). Good health contributes to development in a number of ways: it increases labour productivity, educational attainment and investment, and it facilitates the demographic transition. Health has a direct impact on poverty reduction and economic development. To this end, in Figure 1 we are trying to show the conceptual relationship between health and poverty.

As is clearly shown in Figure 1, disease cause poor health; and if we are sick, we can't work as well in our fields; and if we don't work well our production is going to be lower than it would have been and our income will also be lower. On the other hand, what are the roots causes of debilitating disease? We all get sick at one time or another, but poor people seem to get sick more often and recover more slowly or not at all. Why is that? Part of the answer is that they don't get proper treatment. Why not? If there is a hospital or a doctor around, poor people may not be able to pay for treatment because they have low incomes. Why doesn't the government provide a free medical service or build more clinics and hospitals? The government doesn't have enough money to pay for all of these things. Where does the government get its money from? By taxing the surplus of production. But production is low because people are sick. That is why we are going around in circles; and that is what it meant by a vicious circle of poverty. One problem causes another which in turn causes a third, and we keep finding new linkages until we are right back where we started

from and the vicious cycle starts all over again.

This is a simple drawing of vicious circle of poverty. The real world, unfortunately, is even more complicated. There are factors other than the lack (or unaffordability) of health facilities causing illness in poor families and communities. Three of these are poor sanitation (the lack of toilets or sewage facilities), lack of clean drinking water and poor housing. Why are these lacking? Once again, low taxation and/or low income. It is obvious that without higher incomes, poor people will not be able to afford food or health services and without growth in revenues, governments will not increase their financing of health services.

In developing countries, breaking the vicious circle of poverty and ill health is an essential condition for economic development. Developing countries should focus on disease prevention and control, the development of equitable health systems based on primary health care, health promotion for individuals and communities, reducing exposure to the risk of addiction to tobacco or alcohol, of road traffic or other injuries, and of the devastating impacts of conflict and natural disasters; and within the health sector itself, a pro-poor approach is required which includes improving governance, strengthening the delivery and quality of health services, reaching highly vulnerable groups, developing more effective partnerships with the private sector, and designing equitable health financing mechanisms (OECD, WHO, 2003). Achieving better health for poor people requires also taking action in related areas such as education, water, sanitation, energy, and food security. Improving the health of the poor is, therefore, an investment in economic growth and development and should be a priority for reducing poverty.

MATERIALS AND METHODS

Research design

We conducted this study in January 2019 in six impoverished Villages of Taijiang county; namely, Jiaomi, Datiangjiao, Zhanqui, Wuxi, Jiaoxia and Yong Dang. These impoverished rural villages are all found in Guizhou province, east of the capital city of Guiyang in a range of three to four hours' drive. We randomly selected six villages out of the eleven large impoverished villages in the county, and most of the inhabitants of the villages are Miao people. Miao people are one of the 56 nationalities in China. We conducted data collection in the first weeks of January 2019 and it took us about two week. The Guizhou University of Finance and Economic under the supervision of College of Public Administration financed the study. It is a joint research program between Guizhou University of Finance and Economics, in China, and Adi-Keih College of Business and Social Sciences, in Eritrea.

In this study we used both survey and case study methodologies. The case study and survey methods are not mutually exclusive; hence, one could have a case study within a survey or a survey complementing a case study (Hakim, 1987; Dancey and Reidy, 2007). A key strength of the case study method is that the use of multiple sources and techniques in the data gathering process, e.g. documents, interviews and observations. We used survey to

examine people's knowledge, attitudes, beliefs, expectations, behaviors, etc., about Chinese health care system. We interpreted standard structured questionnaires from Chinese into English to ensure the suitability of the respondent. Questions related to this paper included: Demographic information on individuals and households, rural health insurance membership, reported health service utilization, education attainment, factors affecting health seeking behavior, perceptions and experiences of health insurance, and the reasons for choosing their health insurance membership. In our study, the survey is used as a complementary to the data collected through interview, document review and observation.

Source of data

In this study we used both primary and secondary data sources. We collected primary data through interviews, focus discussions, questionnaire and personal observation. We conducted an interview with 20 key informants such as village administrators, school directors and medical doctors. We carried out the interview to explore rural health insurance policies, design and implementation processes. We have observed also the dwellings of the rural households, the spring water sources, the primary schools and clinics, and transportation and electricity facilities. Furthermore, we distributed a questionnaires to 110 selected respondents of which 7 questionnaires were missing and 3 were incomplete. The respondents completely filled and returned 100 questionnaires. We collected also secondary data from the documents, publications, and annual reports of the government offices; reports of the World Bank, WHO, UNDP; OECD and reports of China's Demographic and Health Surveys of 2018. The secondary data was collected from various sources inter alias relevant books and journals, international and national health reports, published and unpublished documents. The rationale for using multiple sources of data is the triangulation of evidence. Triangulation is a combination of research methodologies in the study of the same phenomena (Habtom, 2014). It increases the reliability of the data and the process of gathering information. Triangulation helped us to analyse and compare data collected through interviews, questionnaires, observations and secondary sources.

Sample size

For the household survey the samples were taken from the inpatient and outpatient records of county and township hospitals. For this study we considered those patients who visited the aforementioned health care facilities two months prior to the study, these were 205 households. We adopt Guilford and Fruchter (1973) formula to determine the sample size, which is:

$$\frac{N}{1 + \mu^2 N}$$

Where: N is the size of the population, μ is alpha = 0.05. Therefore,

$$\text{Sample} = \frac{205}{1 + 0.05^2 \times 205} = \frac{205}{1 + 0.0025 \times 205}$$

$$\text{Sample} = \frac{205}{1.5125} = 135.5 \quad \text{which is equivalent to } 136.$$

Based on the formula the sample size is 136. But in our study 110 respondents were eligible for the study; 26 respondents were

excluded from the study because 15 were children and the remaining 11 were very old persons.

Data analysis

We used descriptive and explanatory case study methods in the analysis of primary and secondary data sources. In this study, we adopted a deductive approach in our data analysis, that is, from general to particular. First, we reviewed China's rural poverty alleviation programs in general and based on this we examined the rural development efforts in Taijiang County, in particular. The data collected through interviews, focus group discussions, document reviews, personal observations and household surveys are presented in absolute figures and percentages, and explained in detail through deductive reasoning and descriptive analysis.

Limitation of the study

Due to time and resource constraints we limit ourselves to small sample size. As a result, we are not able to make any inferences and hypothesis testing. The household survey was taken to substantiate the data collected through interviews, focus group discussions, personal observations, and extensive document and literature reviews. The household survey is supplementary to the qualitative data collected and it does not represent Guizhou province. As a result we cannot make any generalization about the whole province. The results of this study are, therefore, applied only to Taijiang County.

THE PATH OF RURAL POVERTY ALLEVIATION IN CHINA

During the four decades since the reform and opening (1978-2018), the government has adopted a series of policies and measures to improve the lives of the poor and fight poverty in rural China. Those policies and measures have included: Building infrastructure and promoting economic development in impoverished areas; increasing investment in education and promoting the accumulation of human capital in impoverished areas; increasing investment in sciences and technology and increasing agricultural productivity; alleviating poverty by industrialization and raising the income of poor rural households; promoting labor mobility and increasing skills and opportunities for off-farm employment; and implementing anti-poverty policies village by village. Hence the government employed a mix of fiscal, administrative, and employment policies to maintain social stability during a period of rapid economic and structural change (World Bank, 2013).

Yan (2016) divided China's poverty alleviation work into four stages: Stage one-system transition (1978-1985); stage two-establishment of institutions, strengthening of organization, and development of poverty alleviation (1986-1993); stage three-formulation of plans, resolving food and clothing issues, and vigorous poverty alleviation (1994-2000); and stage four-promulgation of outlines, consolidating achievements, and poverty alleviation in the new era (2001-2010).

During first stage, China introduced major institutional changes in three areas: [1] reform to the land system, replacing commune-style collective farming with the household contract responsibility system; [2] the gradual liberalization of prices of agricultural products; and [3] the gradual liberalization of business investment and development. These reforms brought a major intrinsic motivation on farmers as the prices of agricultural products increased substantially and township and village enterprises rise concurrently. The vast majority of rural areas had clear development advantages and rapid economic growth under the new rural production organizational system. This period contributed to agricultural production

development, between the start of the economic system in 1978 to 1985, rural per capita food production increased 14%, cotton production grew by 73.9%, oilseed production increased by 176.4%, and meat production increased by 87.8% (Yan, 2016). In terms of the effects on farmer incomes and poverty reduction, rural per capita net income grew from 160.7 Yuan¹ in 1978 to 397.6 Yuan in 1985, an increase of 2.5 times (Yan, 2016). But with China's vast territory and regional differences, some areas developed more slowly because of a variety of reasons, including backward ideological concepts, slow development of the market economy consciousness, poor infrastructure, poor natural environments, and disadvantageous geographic positions (Manuel, 2010; Yan, 2016). The government quickly learned that relying solely on institutional change and overall economic development cannot resolve all remaining poverty issues. Instead, further response measures are required, in the form of organization and policy arrangements. The prevailed circumstances pushed for the emergence of second stage poverty alleviation program.

The second stage poverty alleviation programs focused on the establishment of institutions, strengthening of organization, and development of poverty alleviation programs. During this time the Chinese government established the State Council Leading Group on Economic Development in Poor Areas. The relevant provincial, autonomous regional, municipal, prefectural, and county governments also established corresponding organizations and institutions responsible for local poverty alleviation and development work (Yan, 2016). The basic responsibilities of the leading group included organizational research, drafting guidelines, policies, and plans for economic development in poor areas, coordinating solutions to major issues in development and construction, supervision, inspection, and summarization of exchanges and experiences. This period contributed to the economic development of poor regions and the reduction of the poor population. From a national perspective, by the end of 1993, the rural population unable to feed and clothe itself had fallen from 125 million in 1985 to 80 million, a reduction of 6.4 million people per year, and a reduction in the poverty rate from 14.8 to 8.7% (Yan, 2016). The rural absolute poor population progressively decreased by an average of 6.2% per year, slower than the 9.4% rate that occurred between 1979 and 1985 (Ibid).

The third stage poverty alleviation program emphasized on formulation of plans, resolving food and clothing issues, and vigorous poverty alleviation. In this stage, China's socialist market economy developed further, but the economic situation experienced large fluctuations. These fluctuations, however, managed through active fiscal and monetary stimulus policies. The growth of the national economy and increasing financial resources played a positive role in promoting poverty alleviation. During this period China's poverty alleviation entered a crucial stage characterized by the "National 'Eight-Seven' Poverty Alleviation Plan." The "Eight-Seven" Plan proposed mobilizing and concentrating manpower, materials, financial resources, and social forces to resolve the basic food and clothing needs of 80,000 rural poor in around 7 years (Yan, 2016). Because of the great importance attached to poverty alleviation by all levels of government, the establishment of clear poverty alleviation and development goals, and the active participation of society under the leadership of government, plus appropriate accompanying measures, by the end of 2000, all the poverty alleviation targets outlined in the national "Eight-Seven" poverty alleviation were realized and production and living conditions in poor areas improved significantly.

The fourth stage of poverty alleviation program focused on Promulgation of Outlines, Consolidating Achievements, and Poverty Alleviation in the New Era (2001-2010). During this stage China entered a new development era of building a moderately.

¹Yuan is Chines Currency.

prosperous society and accelerating the modernization of socialism. In this stage, the Chinese government made great achievements in the national economy and social development. The efficiency and quality of economic operations improved, and overall national strength increased. China's production volume of industrial and agricultural products was the highest in the world. The service sector grew, jobs increased and significant achievements made in infrastructure. The Chinese economy formed a basic pattern of opening and the open economy developed rapidly.

China has been applying ten poverty models to alleviate rural poverty since reform and opening-up started in 1978 (Yan, 2016, p.51-63):

1. Poverty alleviation through financial aid. The financial administration plays the fundamental role in the government's poverty reduction function and its means of carrying out a poverty reduction strategy. The main tasks of financial aid are to concentrate funds and increase investment, ensure that funds are in place in a timely manner, adjust the structure and uses of funding, standardize the management of funds, and enhance the efficiency of the use of funds. China's poverty alleviation funds have come mainly from the central financial administration. In addition to special poverty alleviation funds, in recent years transfers from the central financial administration for rural poor areas and ethnic minority areas have gradually increased. Compared with other approaches, poverty reduction through public finances is the most direct and most capable and has the most immediate effect.

2. Poverty alleviation through micro-finance. Microfinance is an innovative financial approach developed separately from the traditional formal financial system. Its purpose is the alleviation of poverty, and it involves providing loans, savings, and other financial products and services specifically to middle- and low-income groups and microenterprises to help them carry out productive activities. Microfinance serves people who are generally economically vulnerable but have income and level of ability to repay loans. Micro-loans are a very effective poverty alleviation model, and the concept has developed significantly since its beginnings in the late 1960s. Bangladesh's Grameen Bank is the most successful case. In 1994, a poverty alleviation microfinance pilot was launched in Hebei Province's Yi County as proposed by the "Poverty Alleviation Economic Cooperative" Task Force under the Rural Development Institute of the Chinese Academy of Social Sciences.

3. Poverty alleviation through industrial development. The model of poverty alleviation through industry involves developing leading industries in poor areas and driving economic growth in the region through the growth and development of industry. The model results in employment, thereby increasing the income level of the poor directly, achieving an effective integration of manpower, financial strength, and resources. This model requires government land, project approval, loans, tax, and other preferential policies to promote the growth of key enterprises and form a production base that can serve as a model.

4. Poverty alleviation through education. This model mainly consists of practical labor and agricultural skills training for the laborers of poor households in order to improve their earning capacities. China realizes that raising the educational level of the poor and increasing training can enhance poor people's ability to extricate themselves from poverty. In the 1990s, the main methods of poverty alleviation through education were "Project Hope" and the "Spring Bud Program," both of which focused on basic education for children. "Project Hope" was mainly a combination of subsidies to educationally deprived children to allow them to continue their elementary school studies and funding contributions to build "Hope Schools." The "Spring Bud Program" gave financial aid to children to allow them to return to school. The country has extended basic education for minors and has launched adult education for existing rural laborers. The country implemented "two frees, one subsidy"

for basic education, that is, free textbooks and miscellaneous expenses, and subsidized boarding expenses for poor children.

5. Poverty alleviation through science and technology. The core of the poverty alleviation through science and technology model is increasing the popularization of high agricultural technologies and new strains to poor areas and target groups. It is an important part of national poverty alleviation and development. This model effectively improves the scientific and cultural quality of the population in poor areas, effectively promoting the development of the rural economy and social undertakings. Poverty alleviation through science and technology includes two primary aspects. First is promoting the use of advanced technology in poor areas and introducing technological factors into production, thereby effectively integrating the production factors of labour, land, information, capital, and management to improve production methods and production efficiency. Second is promoting and popularizing scientific and technological knowledge to improve the scientific and technological proficiency of the poor.

6. Poverty alleviation through systematization. This refers to enabling dispersed individuals to form relatively standardized organizational forms such as cooperatives and farmers' associations through government guidance and the provision of facilitative services and related policies. The goal is to harness the roles of economies of scale and pooled efforts to cope jointly with uncertainties, seize market opportunities, and achieve the goal of poverty alleviation. It is a poverty alleviation channel that fully mobilizes the positive factors of individuals and attaches great importance to internal causes. It is conducive to helping the poor to improve their capacity to fight poverty over the long term.

7. Poverty alleviation through migration. The model of poverty alleviation through migration, also known as the "relocation" model, refers to relocating poor farming households from areas with extremely harsh living conditions to a new area that they can develop. Relocation of the poor from poverty stricken regions to more developed urban areas is being implemented as part of the holistic plan to tackle rural poverty. In extremely impoverished areas where the basic conditions for production and life are lacking and there are no means for improvement, poverty alleviation and development were carried out in rural China through relocation to another area. China's poverty alleviation through relocation is based on four principles: "voluntarism, nearby, according to ability, and appropriately subsidized" (Yan, 2016). There are several basic approaches, in the first, a poor family moves and joins another household, usually relatives or friends, for which the government gives subsidies. In the second, the government builds a resettlement base and arranges for relocation. In the third, the migrant maintains two homes and relocates completely after achieving relatively stable living and production in the resettlement area.

8. Poverty alleviation through relief for work. This refers to the government providing funds or materials for infrastructure construction in poor areas, giving unskilled labourers short-term employment opportunities and increasing incomes while also providing convenient infrastructure for economic development in poor areas. This model of poverty alleviation has a number of advantages. First, it achieves the dual goals of poverty alleviation through employment and economic growth. The central government provides also relief for work in the form of grain, bedding, clothing, cooking oil, and other low-level items, it not only provides a channel for the sale of overstocked products, but poor workers involved in the project also obtain life necessities.

9. Poverty alleviation through village wise advancement. The "village-wise" poverty alleviation and development strategy treats poor villages as the basic units and beneficiaries of poverty assistance. This model takes advantage of large-scale capital and other resources to quickly improve infrastructure and develop social public services, improve people's production and living conditions, and advance the development of leading industries. In so doing,

Table 1. China projected growth pattern assuming steady reforms and no major shocks.

Indicator	1995-2010	2011-15	2016-20	2021-25	2026-30
GDP growth (Percent per year)	9.9	8.6	7.0	5.9	5.0
Labor growth	0.9	0.3	-0.2	-0.2	-0.4
Labor productivity growth	8.9	8.3	7.1	6.2	5.5
Structure of Economy (end of period, %)					
Investment/GDP ratio	49	42	38	36	34
Consumption/GDP ratio	47	56	60	63	66
Industry/GDP ratio	46.7	43.8	41.0	38.0	34.6
Service /GDP ratio	43.1	46.7	51.6	56.1	61.1
Share of employment in agriculture	36.7	30.0	23.7	18.2	12.5
Share of employment in services	34.6	42.0	47.6	52.9	59.0

Source: (World Bank, 2013, p. 9).

this model enables the poor population to cast off poverty as a whole while also improving the overall production capacity of poor communities and poor populations and their ability to withstand risks. China has identified 150,000 impoverished villages nationwide and has formulated poverty support plans one by one.

10. Poverty alleviation through fitting work specialties, fixed point and connections. This model is used to mobilize the participation of social forces in poverty alleviation. It is a relatively flexible specific form of poverty alleviation in terms of responsibility for implementation. It is a model that suits China's political, economic, and social particularities and reflects a high degree of socialist collective concept and cooperative strength.

China adopted the above models with the introduction of a new order of landholding system, and institutional and organizational changes of the 1980s, which have brought a positive effect on the livelihood of the rural poor people in China. Some of the models were experimented in other countries (e.g. micro-finance, financial aid, education and training), and adopted to China's social, historical and political situations. China's uniqueness among developing countries is not what it did to achieve success, but how it did it. China adapted a strategy known as "crossing the river by feeling stones," which encouraged local governments to undertake bold pilot experiments within the broader context of reform priorities (World Bank, 2013).

China's successful development strategy over the past three decades has made it an upper-middle-income economy today. But the opportunities and challenges in the next two decades will be unlike those it encountered in the past. China's GDP growth is expected to decline gradually from an average near 8.5% in 2011-15 to around 5% in 2026-30 (Table 1). One reason for the slowdown is that much of the growth contribution from shifting resources from agriculture to industry has already occurred (World Bank, 2013). As shown in Table 1, consequently share of employment in agriculture is expected to decline from 36.7% in 1995-2010 to around 12.5% in 2026-30 while share of employment in service is expected to increase from 34.6% in 1995-2010 to around 59% in 2026-2030. Labor productivity and labor growth are also expected to decline distinctly.

After more than 30 years of rapid growth, China has reached another turning point in its development path, one that calls for a second strategic, and no less fundamental, shift. To this end China is designing a new development strategy for 2030 to meet its challenges and opportunities, manage its risks, and realize the country's long-term objectives. The development strategy is intended to create a modern, harmonious, creative, and high-income society by 2030 (World Bank, 2013). China envisages a modern society that has modern values, a modern economic and

social structure, with access to contemporary, state-of-the-art product and process technologies, and would engage and contribute as an equal with other nations in the discourse of the modern world on all subjects. In the creation of harmonious society, China sees three interrelated goals (World Bank, 2013, p.15):

First, its own policies need to be inclusive and just, aimed at eliminating most social and economic boundaries and at building a society in which everyone has a common stake in the country's economic, social, legal, and political institutions. China would like to see a society where people show mutual respect, disputes are resolved justly and peacefully through accepted norms, laws, regulations, and practices and the institutional structure is quick to adapt to society's changing needs and aspirations. Second, China sees itself living in balance with nature, in which its ecological footprint that is, the use of resources and creation of waste are consistent with the biological capacity of its (and the world's) land, water, and air resources given existing technology. And third, China would like to see itself as an equal, constructive, and accepted partner in the community of nations, working peacefully and cooperatively toward common goals, and engaging constructively on global issues and in global institutions.

As a creative society, China sees itself building its future prosperity on innovation in which everyone's creative potential is tapped. Its success will depend upon its ability to produce more value, not more products, enabling it to move up the value chain and compete globally in the same product space as advanced countries. As a high-income society, China's aspiration is to enjoy a per capita income on par with advanced economies; have a large middle class that acts as a force for stability, good governance, and economic progress; eliminate poverty as it is known today; and promote social harmony by increasing equality of opportunity and lowering inequality in all its economic and social dimensions (ibid, p.16). If managed well, China can become a modern, harmonious, creative, and high-income society by 2030.

China has rich experience in the design of poverty alleviation programs and in the planning of far sighted development strategies. Developing countries can learn important lessons from the basic strategies, models, and experiences of China's poverty alleviation programs. They can practice some of these models in their poverty alleviation programs by adapting to their historical, political, economic and cultural systems.

Poverty alleviation through health care financing and provision in China

China's health care system development encompasses three

successive historical periods: The first period was from 1949 to 1978, before the market-based economic reform of China. The second period was from 1978 to 1996, where the Chinese government gradually retreated from its role as a universal health care provider by allowing the market economy to share the burden of health provision and financing (Wang et al., 2007, p. 8). The third period was from 1996 up to now, where advanced medical technologies and public health insurance schemes were introduced into the national health system.

Beginning with the founding of the People's Republic in 1949, China had complemented the development of local health services with a series of strong national programs for high priority public health activities, including disease surveillance, environmental monitoring and improvement, mass immunization, infectious disease control and health education. Health care was free to everyone. The communist state operated all clinics and hospitals, and it employed all doctors, nurses and health workers. One success was using community care workers. China pioneered what it called "barefoot doctors." These people were not highly trained technically, but they received training in primary and preventive care and maternal and child health. They provided health services in rural areas at the village level and in underserved areas. They had made dramatic improvements in the health of China. For instance, they helped drop the infant mortality rate in the country from 200 per 1,000 births to 34 deaths per 1,000 births, and life expectancy increased from 35 to 68 years between 1952 and 1982 (Blumenthal and Hsiao, 2005; Wang et al., 2007).

The major policy directive for establishing China's public health for all was issued by Chairman Mao on 26 June 1965, in which he mandated the importance of building up rural public health infrastructure by deploying public health professionals in the villages (Wang et al., 2007). During this period, China's health care system was characterized by four major principles (Ibid): [1] Medicine was at the service of the people; [2] Prevention played a key role in public health; [3] It carried out health education through mass campaigns; and [4] There was close integration of both biomedicine and Chinese medicine.

In 1978 China introduced a reform in the health sector in line with the economic reform; as a result the Chinese government reduced its role as a universal health care provider and let the private sector shoulder some of the burden of health provision and financing. A major reform by the Chinese State Council in 1985 included aiming to decentralize health provision and management, improve productivity and efficiency, and encourage privatization (Wang et al., 2007). For China this was a period of transition from free health care provision and financing into a mix of public-private provision and financing. China imposed user fees in government health facilities, especially at hospitals, before jumping into self-financing health insurance schemes. The reason is that when public health services are provided for free or at low cost, people are less likely to pay for insurance premiums to cover unexpected health hazards (Shaw and Martha, 1995).

The market reform in health care, however, came up with three interrelated problems that limit the effectiveness, scope, and population coverage of China's national public health programs (World Bank, 1997). The first is that budgetary pressures constrain the operation and efficiency of existing programs, even though resource requirements are modest in the context of overall health expenditures. Part of this is because almost all spending on public health is from provincial and local governments, and the poorest areas-which experience the most severe public health problems - have the least capacity to finance these programs. The second problem, related to the first, is those cost recovery policies constrain the demand for certain public health services (e.g. immunization), particularly among the poor. Third, the general movement toward fee-for-service payment has diverted the energies of public health providers to those activities for which fees can most easily be charged, instead of the highest priority activities for public health

(ibid). Health sector reform has led the country to rely on health facilities increasingly on user charges. This has resulted in great financial difficulties in accessing health care, especially for the rural poor. To address these problems the central government has promoted the development of social health insurance schemes throughout the country. Nowadays in China health insurance is offered through three public insurance programs: Urban Employee Basic Medical Insurance (UEBMI); New Rural Cooperative Medical Scheme (NRCMS); and Urban Resident Basic Medical Insurance (URBMI). In 1998, the Chinese government introduced Urban Employee Basic Medical Insurance (UEBMI) to provide healthcare access to urban working and retired employees in public and private sectors. The UEBMI is administrated at a municipal level, higher than NRCMS. Funds of UEBMI came from 8% of the employee's wage: employers pay 6 and 2% by an employee contribution (Barber and Yao, 2010) yet now these rates vary by time and municipalities. Users have two accounts: The individual account pays for outpatient expenses, emergency services and drug costs, while the social pooling account (70% of the employer's contribution) pays for some inpatient costs within a predefined band. The patients pay upfront and they are reimbursed by the fund. Beneficiaries are responsible for about 1/3 of total inpatient costs. Different from other types of an insurance scheme, UEBMI is mandatory. Its coverage reached 92% in 2010 (Yip et al., 2012). In 2014, roughly 283 million people were enrolled in UEBMI, contributing 80.3 billion Yuan, 283.74 Yuan per capita (12.97 billion USD, 45.83 USD per capita), with expenditure at 66.9 billion Yuan, 236.4 Yuan per capita (10.8 billion USD, 38.19 USD per capita (Wang and Zakus, 2016).

NRCMS was launched in 2003 to provide medical insurance for the rural population of China. It is a voluntary insurance scheme subsidized by the local and central government. Funding was divided between the individual, a mandatory local government contribution and a matching central government contribution. Beneficiaries are responsible for over 1/2 of total inpatient expenditures and about 2/3 of total outpatient expenditures. Its enrollment rose to 97% of the rural population in 2011 (Qingyue and Shenglan, 2013). NRCMS is also an appropriate and convenient for China's an enormous number of migrant workers who used to have limited access to healthcare. In 2015, NRCMS spent 293.34 billion Yuan (45 billion USD) on 670 million participants and 1.653 billion instances of medical service, with the average of 437.8 Yuan (67.25 USD) per capita (Wang and Zakus, 2016).

In 2007, Urban Residents Basic Medical Insurance (URBMI) provided healthcare access to urban residents that are not covered by UEBMI: This includes children, students in schools, colleges and universities and other non-working urban residents such as the disable and the elderly. They piloted URBMI was piloted for the first time in 2007, and implemented became nationwide in 2010. In 2015, 376 million urban residents (over 95%) took part in URBMI. Funding is both from central and local government's contribution. Beneficiaries are responsible for over 1/2 of total inpatient expenditures and about 2/3 of total outpatient expenditures (Mattke et al., 2014). The progressive implementation of the three schemes has ensured that the proportion of the population covered by basic insurance has increased sharply to around 95% by 2011 (OECD, 2012).

While insurance is nearly universal, cost-sharing remains high, limiting citizens' access to care (Yip et al., 2012). Increased insurance coverage has not yet been effective in reducing patients' financial risks, as both health expenditure and out-of-pocket payments continue to rise rapidly. Government subsidies comprise only about 10% of hospitals' total operating revenue. Payments for patient care make up the rest of the revenue. In public hospitals, physicians are employees, but they can receive bonuses for bringing in high levels of revenue for the hospitals. To make health care affordable while ensuring sufficient revenue for providers, the government set prices for basic health care below cost, while

setting high-tech diagnostic services above cost and permitting a 15% profit margin on medicines (Yip and Hsiao, 2008). This creates an incentive for the provision of high-tech care over preventive and disease management services.

With delivery, public-sector providers account for about 94% of all hospital admissions and about 81% of outpatient visits. In urban areas, care is delivered in community health centers (about 20 beds), secondary hospitals (100 to 499 beds), and tertiary hospitals (500+ beds). In rural areas, care is delivered in village clinics (a handful of beds), township health centers (about 20 beds), and county hospitals (100 to 499 beds).

China's health care system, however, was not without challenges; there are persistent significant rural-urban, inter-provincial and intra-provincial variations in health conditions. For example, it was witnessed that life expectancy at birth ranging from 59 years' in Guizhou province to 72 years in Shanghai; life expectancy in urban areas is on average 12 years higher than in normal rural areas, and that in low-income rural areas is five years lower than in normal ones. Inter-provincial and rural-urban differences in mortality rates are clear. A disproportionate amount of China's healthcare resources have also traditionally been concentrated on larger hospitals, particularly those in urban areas. Over 80% of health expenditures are allocated to urban areas even though 70% of the total population lives in rural areas (Bogg et al., 2010). The inefficiency in resource utilization is exacerbated by patients who are more likely to use larger hospitals in urban areas. For example, the average number of outpatients per doctor in the Ministry of Health (MOH)-owned hospitals is 7.3; in the next largest, province-owned hospitals the average is 6.2; and it is 4.4 in the smallest, city-owned hospitals (Manuel, 2010). This is problematic because larger hospitals are more expensive: average cost per outpatient in MOH hospitals is 234.8 RMB²(US\$28.36), as compared to 174.5 RMB (US\$21.08) at province hospitals and 77.2RMB (US\$9.32) at city hospitals at the county level (Hew, 2006). One particular efficiency problem is with township health centres, which are predominantly located in rural areas. These have very low occupancy rates, as most patients (except those too poor for any alternative) choose to bypass them and go to county or urban hospitals (OECD, 2012).

Many minority groups are still facing challenges in gaining equality in healthcare access. Because of the 1980s health reform, there has been a general increase in government health subsidies, but even still, individual spending on health has also increased. A disparity in inequality between urban and rural areas persists, since much of recent government reform is focused on urban areas (Chen and Standing, 2007). Despite efforts by the NCRMS to combat this inequality, it is still difficult to provide universal healthcare to rural areas. To add to this rural inequality, much of the elderly population lives in rural areas and face even more difficulties in accessing healthcare, and remains uninsured (Ibid).

The emerging epidemic of NCDs combined with the rapid aging of the population imposes a significant burden not only on the health of the Chinese people (especially for low-income populations within China) but also on its health care system. Because of this the focus of care has shifted from preventive to curative care, many public health services (such as immunization and other services to prevent contagious diseases) are no longer available for free.

About 39% of the Chinese population smokes tobacco, almost twice the OECD average. The prevalence of smoking among Chinese men ages 15 to 69 is among the highest in the world (OECD, 2012). About one-third of the population over 15 years of age smokes, and the rate for men in 2008 was 57% (70% for those aged 30 to 60) (Ibid). Smoking related illnesses killed 1.2 million in the People's Republic of China; however, the state tobacco monopoly, the China National Tobacco Corporation, supplies 7 to 10% of government revenues, as of 2011, 600 billion Yuan, about

100 billion US dollars (Cheng, 2012). There is a conflict of interest between tobacco-related health problems and the huge revenues generated from the manufacture of tobacco related products.

However, we believe that the Chinese government astute management and leadership will handle the above challenges. The Chinese government has a clear vision on health care policy and management. In October 2009, Chen Zhu, head of the Ministry of Health, declared the pursuit of Healthy China 2020, a program to provide universal healthcare access and treatment for all of China by 2020, mostly by revised policies in nutrition, agriculture, food, and social marketing (Hu et al., 2011). Much of the program centers on chronic disease prevention and promoting better lifestyle choices and eating habits. It especially targets public awareness of obesity, physical inactivity, and poor dietary choices. Healthy China 2020 focuses the most on urban, populous areas that are heavily influenced by globalization and modernity (Hu et al., 2011). Much of the program is media-run and localized and concentrates on change through the community rather than local laws. Many of the aims of Healthy China 2020 are concentrated to more-urban areas under Western influences. Diet is causing obesity issues, and an influx of modern transportation is negatively affecting urban environments and thus health. China National Health and Family Planning Commission issued the Healthy China 2030 Planning Outline the most recent comprehensive framework on the goals and plans of its healthcare reform (Wang and Zakus, 2016). The strategic theme of Healthy China 2030 is "co-building, sharing and health for all". The project aims to achieve these key goals by 2030: continuous improve in people's health conditions, raise life expectancy to 79, effective control on main health-endangering factors, substantial improve in health service, a notable expansion in the health industry, establishment of inclusive health-improving regulatory systems. Specific actions include: Enhancing health education in schools, promoting a healthy lifestyle, encouraging exercise, enhancing universal healthcare access, improve service quality of healthcare providers, special attention to the elderly, women, children and disabled, reforms in health insurance, pharmaceutical and medical instruments systems, etc. (Ibid).

RESULTS

Here, we analyzed the results of the study through qualitative and quantitative research methodologies. Data are presented in percentages and absolute figures (Table 1). We used questioner, interview, observation and secondary data sources to investigate the key study variables, which include access to health care services (distance, travel time, user fees, transportation cost, and waiting time), availability of health insurance schemes, informal community support system, illness recognition, availability of health related information and education, and the availability of mother and child health services. We used descriptive and deductive data analysis techniques to interpret the results of the study variables. In this section we are trying to analyze the relationship between health and poverty.

Demographic characteristics of respondents

The demographic characteristics of respondents include age, sex, education, marital and economic status, and occupation. In this study, about 40% of the respondents have primary level education; 21% middle school; 17%

²RMB is a denomination used for Chinese Currency.

Table 2. Demographic characteristics of respondents.

Age	Frequency	%	Education	Frequency	%	Occupation	Frequency	%
18-25	4	4.3	Primary school	38	40.4	Farmer	78	80.9
26-40	12	12.8	Middle school	20	21.3	Private business	2	2.1
41-65	60	63.8	High school and above	16	17.0	Government employee	2	2.1
65-highest	18	19.1	No education	20	21.3	Unemployed	12	15
Total	94	100.0	Total	94	100.0	Total	94	100.0
Gender			Marital Status			Economic status		
Male	62	66.0	Married	82	89.4	Not very poor	46	48.9
Female	32	34.0	Not married	4	2.1	Poor	48	51.1
Total	94	100.0	Widow	8	8.5	Total	94	100
			Total	94	100.0			

Sources: Field data, January 2019.

high school and above, and 21% no education. As shown in Table 2, most of the uneducated respondents were women, which represent about 34% of the respondents. In terms of occupation about 81% of the respondents are farmers and 15% are unemployed. Regarding age, about 64% of the respondents were between 41 to 65 years, 19% above 65 years old, and 13% were between the ages of 26 to 40 years old. The age group (26-40 years) made a small percentage in our study. This is because most of the youngsters went to the cities to look for a job, and some houses were also closed as the families temporarily moved to the cities.

The rural communities in China have a strong family relationship and married couples get respect from their families and communities. In our study we found that about 89% of the respondents were married; only 2% were unmarried. In terms of economic status most of the villages under study has been designated as poor villages by the Chinese government. In our study about 51% of the respondents are poor and the remaining 49% are not very poor. We distinguish the poor and not very poor based on the insurance premium contribution by the villagers. The very poor pays 120 Yuan insurance premium per year (51% of the respondents) and the poor pays 220 Yuan per year (49% of the respondents). According to Taijiang County government reports of 2014, the Jiaomi village has 137 very poor families out of 287 families in the village; Datiangiao has 74 very poor families out of 209 families, Zhanqui has 71 very poor families out of 171 families, Wuxi has 29 very poor families out of 71 families, Jiaoxia has 83 very poor families out of 221 families and Yong Dang has 132 very poor families out of 237 families. In some villages very poor families represent about 50% of the rural communities. The current figure may be changed for several improvements in the villages, in the last four years.

Descriptive data analysis

After thoroughly examining the demographic

characteristics of the respondents, we have tried to investigate the economic burden of the rural communities by asking the following question to the respondents, "Do you have dependents' to support?" About 45% of the respondents replied that they have dependent children between the ages of 0-14 years old to support; 25% they have older parents above 65 years old; 21% they have both parents and children below the age of 14 years; and about 11% they support other family members. In China the elderly population is highly reliant on the working aged people for support and the number of dependents (children 0-14, adults 65+) is increased compared to the number of working aged people and this made China's dependency ratio unfavorable to aged working people. The rural Chinese communities, however, have strong social capital that helps them to mitigate poverty. For this study, we define social capital as features of social organization, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated actions (Putnam et al., 1994).

In rural China, the extended family members have a moral and social obligation to look after the elderly and the little children. As the aged is not getting social security, it is expected that the younger members of the family to support and care for the respected elders. Family solidarity is much more traditionally organized, as families stay together, the elderly remaining part of the same household with their children in an extended family arrangement. Child fostering is also a common practice in rural communities. It can be born out of necessity (e.g. when the parents have died) or out of choice. Mutual help within extended families is thus one form of insurance, albeit one not limited to health care alone. The villagers noted that matured male in the family is expected to be generous in helping others with school fees, doctor's bill, weddings, funerals and hospitals. For example, in Miao nationality most urban and educated elite, and kinship in the Diasporas support the less fortunate families and relatives. The elderly and orphans are more dependent upon the mercy of their immediate family members. In an

interview, the villagers noted that at the times of death; they look after the children of the deceased by extended family. The children brought into the household of relative were treated equally with those of that household. Various members of the extended family also work together and often help each other, whether in money, time, or effort. The social capital that exists in the rural areas has a set of resources that are inherent in family relations and in community social organization and that are useful for the cognitive or social development of a child or young person. Social capital plays a significant role in the health of individuals and their communities. It has been shown that those who are better connected to the resources provided by the individuals and communities around them (those with more social capital) live longer lives (Habtom and Ruys, 2007b).

To access the financial burden of health care costs on the livelihood of rural communities, respondents were asked *if they were ill in the last 12 months and seek medical treatment for care; and do they have a health insurance? We have found that about 66% of the respondents were ill and visited a health facility for care and almost all are covered by New Rural Cooperative Medical Scheme (NRCMS). They got partial reimbursement from NRCMS for their inpatient and outpatient medical treatments. However, we have noted that, there are difficulties that undermine the scheme's effectiveness in reducing out-of-pocket medical costs. To begin with, the benefit package of NRCMS is mostly limited to catastrophic and inpatient care. While it covers these costs, most outpatient visits require substantial individual payment (Barber and Yao, 2011). Secondly, the reimbursement rate varies across level of healthcare facilities, increasing the cost of high-level hospital visit. The details of the NRCMS show that patients benefit most from the NRCMS at a local level. If patients go to a small hospital or clinic in their local town, the scheme will cover from 70 to 80% of their bill, but if they go to a county one, the percentage of the cost being covered falls to about 60%, and if they need specialist help in a large modern city hospital, they have to bear most of the cost themselves, as the scheme would cover only about 30% of the bill (Liu et al., 1996). Fee-for service in healthcare system provides incentives for healthcare providers to prescribe medicine or perform treatment more than necessary (Sun et al., 2009; Bogg et al., 2010). In addition, despite NRCMS reduced the actual cost of medical service, patients prefer to purchase more medical service in response to NRCMS, offsetting its effects (Cheng, 2012).*

To access the patient's choice of a health care provider and the availability of health care facilities in rural areas, we have asked the respondents the following question *"Where do you go for medical treatment if you are ill?"* About 53% of the respondents replied that they go directly to the county hospital, 26% to the city hospital, 7% to the town hospital, 12% to the village clinic, and 2%

to a private clinic. We have noted that most patients go directly to city and county hospitals without referral by the lower level health care facilities and this creates poor link between hospitals and primary health care providers, including structured referral systems. Patients' have low trust in clinics and health centers because of this about 90% of health care services are delivered in hospitals (Mattke et al., 2014). Little care taking place in community health centers and village clinics that may be better equipped to provide preventive care and NCD management, as well as being less costly. There are some structural problems in the demand and supply side of the Chinese health system. On the supply side, the Chinese government created a flawed incentive system for medical providers by allowing them to overcharge more on complex services. The study reveals that they forced physicians to choose between treating low or high-cost patients. On the demand side, patient responses to this system show that instead of having an efficient 'step-up, step down' system, the Chinese system is more of a 'doughnut' system in which demand is squeezed to the lowest and highest rungs within the system.

Despite wide health insurance coverage and the availability of health care services most villagers are fearful about their future health. In our study we found that about 32% of the respondents are fearful about their future health most of the time, 24% fearful sometimes; 17% fearful a good bit of the time, 13% fearful all the time; 6% fearful a little of the time, and 8% fearful not at all. About 84% of the respondents have some concerns about their future health. We have noted that the change in diet and environmental damage makes rural communities more fearful about their future health. The changes in dietary patterns, exercise behaviors, tobacco use, and other health-related behaviors have altered the prevalence of risk factors for non-communicable or chronic diseases (NCDs). The decline in infectious diseases has given way to non-communicable diseases as the major health challenge. Like OECD countries, with older populations and longer life expectancy, China now faces a growing burden of non-communicable diseases; over the past 20 years, rates of hypertension, elevated cholesterol, hyperglycemia, overweight, obesity, cancer, heart attacks, strokes, asthma, chronic obstructive pulmonary disease, and mental health have been increasing significantly. Death rates from cancer and cardiovascular disease (strokes, heart attacks, diabetes) have soared since 1990. Non-communicable diseases now account for over 80% of China's 10.3 million annual deaths (OECD, 2012). Although the change in the disease pattern is partially due to the success of China in reducing infectious diseases, it also reflects the high rate of risk factors for non-communicable diseases. The World Health Organization projects that between 2010 and 2030 over 100 million Chinese will die of the chronic disease (Mattke et al., 2014).

In health care information, education and

communication (IEC) have a positive impact on the health of rural communities, particularly in developing countries. To access the availability of IEC services in rural areas we have asked the respondents if they get information about major public health issues, the prevalence of disease in their areas, their prevention and early detection mechanisms. About 98% of the respondents said yes; only 2% said no. The village clinic doctors and county hospital doctors, in an interview also stated that mobile medical teams are dispatched from the urban hospitals to the rural areas on a rotation basis. It was envisaged that one-third of the staff of all major city hospitals are working in rural areas on a rotation basis. The mobile teams consist of doctors and nurses of all grades, different specialists, dieticians, laboratory workers, cleaners, cooks, and administrators. The work of the teams included both curative and preventive activities. The health services provided include health examination, eye examination, well-child examination, a blood test, blood pressure screening, tumor screening, immunization against ordinary infectious diseases (such as smallpox, diphtheria, typhoid, poliomyelitis, etc.), health education for the peasants, protecting the water supplies, ensuring sanitary disposal of human wastes, etc.

The availability of mother and child health services in rural areas was also a concern for our research. These services are essential for the reduction of maternal and infant mortality rates in developing countries. To access the availability of these services in rural areas we asked the following question to women respondents "During pregnancy do you get antenatal care; and after delivery do you get postnatal care?" About 60% of the respondents replied that they had received both antenatal and postnatal services. The village clinic doctors and village administrators, in an interview noted that delivery and immunization services are provided at town and county hospitals and newborn babies receive nutritional supplements for free from government agencies for six years and up to 80% of maternal and child health services expenses are covered by NRCMS.

The interesting thing we observe in the Chinese health care system was that the Chinese government integrated traditional and modern health care systems and work together at public hospitals. In our study we found that about 75% of the respondents used traditional medicine to treat mild and severe illnesses. Traditional Chinese medicine has its origin in China and includes many treatments like acupuncture, herbal **medicine** and diet therapy. The whole health care system is based on the philosophy that good health requires balanced flow of chi or energy of life. In China modern and traditional medicine not only co-exist, but co-operate to serve the Chinese people. In China three types of medical science are available: Traditional Chinese Medicine, Western medicine, and 'integrated medicine', offering flexibility in health care. The Chinese government developed

Western medicine and Traditional Chinese Medicine on an equal footing.

A common error in a good deal of health care policies in many developing countries is that the implicit assumption that use of health care services can be achieved by providing medical care through the construction of clinics, the training of nurses, the provision of drugs, etc. So, one stresses only the supply side of the problem (Habtom and Ruys, 2007). However, a high quality health care provision system is only translated into a better health of the population if individuals and households make use of the health care system (Ibid). Illness recognition and hence considering health care, is still an important problem in many developing countries. Health care facilities are not used by all who need it. A typical problem in many developing countries is that even in the absence of user fees, access to health services are not equal for non-monetary factors such as travel time, transportation cost, waiting time at health care facilities, etc., (Acton, 1975; Gertler and Gaag. 1990; Bolduc et al., 1996). In our survey we have asked the respondents questions related to access to health care services that include means of transportation to the nearest health facility, cost of transportation, waiting time to see a doctor or a nurse, and availability of prescribed drugs. We have found that transportation is not a major problem in accessing health care services in rural China as about 75% of the respondents stated that they use public transport (buses) to go to health care facilities, 15% private cars; 6% motorbike, and 4% travel on foot. This shows that most of the respondents use buses and private cars to go to town, county and city hospitals bypassing nearest village clinics. Only 10% of the patients go to village clinics and nearby health care facilities by motorbike and on foot. The cost of transportation back and forth is 20 to 30 Yuan. About 95% of the respondents further stated that prescribed drugs are available at health care facilities. However, about 78% of the respondents complained that the waiting time at health care facilities are too long, they have to wait from 30 to 45 min to be seen by a doctor or a nurse at lower level health care facilities and from 2 to 3 h at higher level health care facilities. Access to comprehensive, quality health care services is important for promoting and maintaining health, preventing and managing disease, reducing unnecessary disability and premature death. We have noted that cultural and educational factors may obscure the recognition of illness and the potential benefits from health care, while economic constraints may suppress utilization, even if benefits are recognized. Rural people look for modern healthcare services only as a last recourse, by then, illness is severe, and treatment costs are high. The poor often delay seeking care until the disease becomes severe, eventually it may lead to higher costs of treatment (Habtom, 2017). In this study about 78% of the respondents stated that they went to health care facilities

for treatment because their illness was severe. In most developing countries the rural poor cope with the rising costs of healthcare services by modifying illness perception or ignoring disease (ibid).

Finally, we have observed that all the villages under investigation have access to, clean water, electricity, roads, clinics, and primary level educational services. What is more interesting is the fact that the government of China is serious about poverty alleviation. The government has adopted multiple approaches to alleviate poverty that include developing model villages and relocating poor families, providing skill training to the poor for income generation besides health insurance and educational cum social allowances, mobilizing party organizations from the top to the grassroots level to see off poverty from China.

DISCUSSION

In China today, poverty refers mainly to the rural poor, as decades of economic growth have largely eradicated urban poverty (Stuart, 2015). In the last 40 years China had been launching a number of pilot programs to alleviate rural poverty, which includes resource consolidation, village-wise advancement, county as the work unit, and contiguous development (Yan, 2016). During our recent (November, 2018) visit to Liupanshi city of Guizhou province, we have witness how a poverty stricken Niujiao village was transformed into a tourist spot through government investment and how every member village committee of the party has to assist one or two poor people to get rid of poverty. In the same province we also saw similar rural poverty alleviation projects in our visit to Longhai village, Pingba district. This village also transformed into a tourist spot through government investment in micro-business and agricultural production system which includes the cultivation of potato, orchard, grasslands husbandry, Chinese herbal medicine, cotton, and other dominant agro-industries.

China's successful rural poverty alleviation programs are partly attributed to the social capital that exists in the rural areas, which has a positive impact on peoples' participation in rural poverty alleviation programs. In our field trip to the rural areas we have observed that the rural communities, in China, have strong family and community attachment in their rural livelihoods. They have trust and cooperation, and rich tradition in the mobilization of resources for common purposes, such as festivals, weddings and child birth celebrations, and participation in government development programs. The Chinese have a common Confucian cultural heritage that values, among other things, thrift, discipline, harmony, a respect for authority and high regard for education and the acquisition of knowledge and skill (UNDP, 1995, p.20). China would like to see a society where people show mutual respect, disputes are resolved justly and

peacefully through accepted norms, laws, regulations, and practices-and the institutional structure is quick to adapt to society's changing needs and aspirations (World Bank, 2013).

In the health sector China has shown significant progress. The country has achieved nearly universal health insurance coverage by expanding the three public health insurance schemes, that is, Urban Employee Basic Medical Insurance Scheme (UEBMIS), which is mandatory for all employees and retirees in urban areas; Basic Medical Insurance (BMIS), which targets non-working urban residents, such as children, students, elderly and the disabled; and New Rural Cooperative Medical Scheme (NRCMS), which targets rural populations. The progressive implementation of these schemes has ensured that the proportion of the population covered by basic insurance has increased sharply, to around 95% by 2011 (OECD, 2012). The government is pursuing efforts to expand coverage and limit out-of-pocket payments. It intends to provide safe, affordable and effective health care to all citizens by 2020 by further raising health insurance coverage, reestablishing a national essential drug program, introducing gate-keeping to reduce the hospital burden, improving basic medical services for screening and prevention, and experimenting with reforms of public hospitals to improve their management (Herd et al., 2010). These measures have significantly improved the accessibility of health services, greatly reduced child and maternal mortality, incidence of infectious disease, and considerably improved health outcomes and life expectancy of the Chinese rural population.

In our study we have observed that China's decentralized health care delivery systems have resolved most of the hygiene problems of the rural communities. The government emphasis on prevention first and stress on rural areas, and the training and deployment of medical personnel, and recourse to the mass line, showed an astute understanding of health problems and the constraint on resources by the Chinese leadership. The preventive health programs with the focus on control of vectors, improving sanitation and protecting water sources, health education and personal hygiene, coordinated with productive activities in rural areas and the participation of the entire community ensured the highest cost effectiveness and the widest sharing of costs by the beneficiaries.

In our study, however, we noted that the linkages between hospitals and primary health care providers, including structured referral systems, patient discharge and handover mechanisms, and patient outreach are generally not in place. Providers at different levels have strong incentives to compete with each other and maximize their profits, rather than managing population health in a coordinated way (McConnell et al., 2013; Xu et al., 2010). China requires fundamental shifts in incentives, capabilities, and accountabilities, especially in

ways that services are purchased, providers are paid, people are reimbursed, and providers report on performance and are held accountable for better care and alignment with public priorities (China Joint Study Partnership, 2016).

Our study further reveals that the multi-tiered curative health care system is not well integrated with the lower level health care facilities; because of this lower level health care facilities are not fully utilized. Patients' bypass lower level health care facilities (clinics, health centers and community hospitals) as a result about 90% of health care services are delivered in upper echelon hospitals. Inefficiencies from both demand and supply perspectives have encouraged rapid expansion of larger hospitals, while not fully utilizing beds and healthcare personnel in smaller community hospitals and health centers. The Chinese Joint Study Partnership (2016) noted that there is also shortage of qualified medical and health workers at the primary care level, which further compromises the system's ability to carry out the core functions of prevention, case detection, early treatment and care integration. Quality of care and population's trust needs to improve, especially at the lower levels, waiting times are long especially at the higher levels, and people's satisfaction with their interaction with providers often does not meet rising expectations. Patients should be empowered with knowledge and understanding of the health system and be actively engaged in the process of seeking care. To this end China should transform its health care delivery system toward people-centered, high quality, integrated care built on the foundation of a strong primary health care system.

CONCLUSION AND POLICY IMPLICATIONS

The speed and scale of rural poverty reduction in China are unprecedented in human history, and the Chinese experience can offer important lessons to other developing countries in their efforts to eradicate poverty. While the economic growth brought by reform programs and sound macroeconomic policies helps to lift many people out of poverty, the proactive role of government in both supporting rural development and financing investment and implementing targeted development-oriented poverty reduction programs is equally critical in poverty reduction. Rural communities, now have social security that provides a minimum guarantee for people unable to work, health insurance through the New Rural Cooperative Medical Scheme (NRCMS) and social relief for poverty caused by natural disasters. The Chinese government launched the NRCMS in 2003 to prevent households from falling into poverty due to high medical expenditures. Under this voluntary system, the farmer needs to pay 10 Yuan (about 1.40 US\$) for medical insurance, while the government contributes a similar amount (Brant et al., 2006). Although the rural insurance

scheme is commendable, there are still three challenges with the system: Less rich regions have limited capability of paying for the premium for coverage (Dib et al., 2008); the scheme over-emphasized protecting farmers from poverty caused by catastrophic disease, while it neither addresses preventive health care such as immunization, nor the floating population of migrant workers (WHO, 2004); and the voluntary nature of the insurance scheme encourages an adverse selection (that is, only the sick will seek insurance, while the healthy people would avoid paying for insurance). It would limit the role in reducing the vulnerability for a large section of the rural population. It would, therefore, be recommendable to make participation in the medical insurance mandatory, as in urban areas.

Main lessons learned

1. By introducing market-oriented reforms in a gradual, experimental way and by providing incentives for local governments, China was able to discover workable transitional institutions at each stage of development. One key feature of these reforms was their "dual-track" nature-supporting state-owned firms in priority sectors while liberalizing and encouraging the development of private enterprises. China's uniqueness among developing countries is not what it did to achieve success, but how it did it. China adapted a strategy known as "crossing the river by feeling stones," which encouraged local governments to undertake bold pilot experiments within the broader context of reform priorities. Indeed, different localities often adopted their own unique institutions tailored to their specific situations.
2. China used different approaches in its poverty alleviation programs implementation that includes "comprehensive control and development area by area," "poverty alleviation village by village," "participatory poverty alleviation," and "one plan, implementation year by year". Such approaches have not only made significant contributions to China's poverty alleviation in the rural West, but also become recognized as best practices for poverty alleviation in the developing countries.
3. China realized that rural people can break away from poverty only by improving their own capacity to produce not by merely the distribution of cash or goods as handouts. China discovered that the approach of "giving a man a fish" was not effective; instead, achieving poverty reduction objectives required "teaching a man how to fish". To this end, the main policies for alleviating poverty in China include optimizing the industrial structure, speeding up economic development, increasing investment in education, improving the social security system, and guiding for-profit organizations to become involved in the anti-poverty cause.
4. Relying on non-pecuniary incentives China motivates

the masses to get involved in preventive health programs through a multi-tiered network of medical care facilities with built-in referral system by training appropriate medical personnel of various skills at different levels. Popular participation, local control of health services administration and central strategic planning have contributed to China's health system improvement. China was a pioneer in introducing barefoot doctors; community- or work-place health insurance, and ambitious public health campaigns drove improvements combined with higher incomes, lower poverty and better living standards all have financial implications which are equally relevant to other developing countries.

5. The Chinese government has a clear vision on health care policy and management. Political will and government commitment are necessary to expand health protection. In particular, increasing government expenditures is indispensable for providing rural and other vulnerable groups of the population with meaningful health protection. The government provided universal health insurance coverage for 1.3 billion people. China's experience shows that universal health protection can be achieved in less than ten years. Between 2003 and 2013, the number of people covered by the health insurance system in China increased by ten times and has now achieved universal coverage (96.9% of the population) (Yu, 2015). Universal coverage contributes to social and economic development by enhancing the purchasing power of households, improving the health status of people and productivity of workers, and creating employment in the health sector and beyond.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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