The Distribution of Health Insurance in China, 1997-2006

(Extended Abstract)

Hongwei Xu
Department of Sociology & Population Study and Training Center, Brown University

Introduction

In the health sector, decentralization is a process of transferring power, authority, and responsibility for health policy, health systems management, health financing, and service delivery from the central government agencies to the lower-level, autonomous governments or non-government agencies (Mills et al. 1990; Brinkerhoff and Leighton 2002). Although decentralization has been promoted as a desirable way to improve health systems for decades and a number of developing countries have initiated decentralization health reforms, the extent to which such reforms lead to positive outcomes remains controversial (see e.g., Bossert 1998; Bossert and Beauvais 2002). For instance, one controversy concerns whether decentralization raises or reduces inequality in the distribution of health insurance (e.g., Akin et al 2004; Henderson et al 1995; Laurell 2001; Sepehri et al 2006).

This paper, based on nationally representative panel data, analyzes the distribution of health insurance in China in recent years. Like other countries (e.g., Mexico, see Laurell 2001), China has implemented decentralization reforms. Yet, unlike those countries which have experienced remarkable declines in health insurance coverage and increased inequities among different social groups as a result of these reforms, China has also implemented policies in the 1990s to restore universal health insurance and equity in coverage. In China, the total health insurance coverage rate declined dramatically from over 90 percent before decentralization in the 1980s to around 20 percent by mid 1990s. However, Akin and colleagues (2004) found that for the period between 1989 and 1997, socioeconomic disparities in the distribution of health insurance have been reduced. Hence, rural residents have seen their coverage increase due to a number of reforms initiated to restore the "rural cooperative medical systems"(RCMS), while urban residents' coverage declined due to financial retrenchment at state-owned and large collective enterprises, traditionally the main providers of health insurance in urban regions.

Nevertheless, it is unclear whether the rural-urban disparities in insurance coverage continued to be reduced in the subsequent period between 1997 and 2006, and whether and how these disparities have changed. A further question is whether any rural-urban disparities exist in terms of benefits (e.g. percentages of outpatient and inpatient care costs paid by insurance) conditional on having health insurance.

Seeing the failure of the decentralization reform during the transition period, the Chinese government has initiated new efforts to reestablish the health insurance system since 1994. Nonetheless, the increased difference in health security system between rural and urban populations has become a direct threat to social stability and economic growth (Ding 2005). A critical turning point occurred when the China National Rural Health Conference was held in October 2002 in Beijing. A total

number of twenty-five policies on public health in rural areas were announced at the meeting and were required to be initiated immediately. Four of these policies were crucial to the recovery of the rural health insurance system (The Central Committee of CPC 2002). These policies on reconstructing a new RCMS have been officially implemented by the governments at different levels across the country since 2003 (Ding 2005).

While previous studies (e.g., Henderson et al. 1995; Akin et al. 2004) provide important insights in understanding the distribution of health insurance during the first two-decades of the transition (the 1980s and 1990s) in China, the new trends in the subsequent period need to be explored and thus several key questions that remain unclear are addressed in this paper. First, did the overall health insurance coverage continue to fall after 1997 as a result of the market-oriented reforms? Second, did urban residents continue to see their advantages erode in the likelihood of having insurance after the year 1997? Third, among the insured populations, what is the long-term trend of the rural-urban disparity in the outpatient and inpatient reimbursement rates after 1997?

Data Source and Sample

The data used here are from the China Health and Nutrition Survey (CHNS), an ongoing panel study conducted by the Carolina Population Center at the University of North Carolina at Chapel Hill, the National Institute of Nutrition and Food Safety, and the Chinese Center for Disease Control and Prevention, and designed to study issues in fields of health, nutrition, family planning in contemporary China. This study uses the pooled data from CHNS 1997, 2000, 2004 and 2006. The sample size is 10,866 for the year 1997, 13,033 for the year 2000, 11,414 for the year 2004, and 9912 for the year 2006.

Preliminary Results

Table 1 presents the health insurance coverage rates (percentage) by year. The overall trend in coverage follows a skewed "V" pattern over time, that is, a slight decrease from 1997 to 2000, but then a slight increase from 2000 to 2004, followed by a dramatic rise to 2006. Decentralization reform in health sector continued to deteriorate the overall insurance coverage from 1997 to 2000 as it did from 1989 to 1997 (Akin et al 2004). The total insurance coverage rate fell slightly from about 23.2 percent in 1997 to 20.2 percent in 2000. After then, however, a positive trend emerged in that the overall coverage rose up to 26.7 percent in 2004, and grew rapidly up to 49.2 percent.

Residents in rural villages experienced a considerable decrease in their coverage rates from 1997 to 2000. The coverage rates declined markedly from about 15 percent in 1997 to 10 percent in 2000 in rural villages, but remained relatively stable in cities, suburban neighborhoods and towns. Residents in rural villages, however, experienced a notable jump in their coverage rates between 2000 and 2004. Coverage over this period increased from 10 percent to 17 percent. Residents in towns also saw an increase in coverage rates from 23 percent in 2000 to 33 percent in 2004. Residents in

cities and suburban neighborhoods over the same period did not see much change in coverage rates. From 2004 to 2006, urban residents had seen their coverage rates increased notably. Whereas rural residents experienced the most outstanding growth in coverage rates, from 17 percent in 2004 to 51 percent in 2006. The contrast between the dramatic increase in coverage rates in rural regions and the relatively smaller change in urban regions from 2000 to 2006 reflects the crucial turning point in October 2002 when the Chinese government decided to take responsibility for providing health insurance for rural residents and its effective policy intervention in the succeeding years.

Respondents in every employment category have seen their coverage rates follow the same skewed "V" pattern as the 1997-2006 overall trends. Among employment groups, farmers were the biggest losers during 1997-2000, in that their coverage rates fell by 29 percent, much more than that of others. However, farmers became the biggest winners during 2000-2006, in that they saw their coverage rates increased by about seven times. Overall, this skewed "V" pattern of decline followed by increase applies to most sub-populations. Differences by education and wealth are of particular note. From 2000 to 2006, insurance coverage rates increased more sharply for the poorly educated (no more than junior middle-school education, including the children who have not reached the schooling age) than for the well educated (beyond senior middle-school education). At the same time, coverage rates also increased more for the bottom wealth quartile than for the top wealth quartile.

Figures 1 and 2 present the trends of predicted percentages of outpatient and inpatient reimbursement rates (i.e., percentage of care costs paid by health insurance) for the respondents who have insurance by residence from 1997 to 2006 from regression results. There is an overall negative trend in outpatient and inpatient reimbursement rates from 1997 to 2004, but a slight increase from 2004 to 2006. Outpatient reimbursement rates fell by around 37 percent, from about 40 percent in 1997 to 26 percent in 2004, and inpatient reimbursement rates fell by about 10 percent, from 63 percent in 1997 to 58 percent in 2004. From 2004 to 2006, outpatient reimbursement rates rose up to around 43 percent, whereas inpatient reimbursement rates continued to decline.

Nevertheless, it is noteworthy that overall, rural residents had seen their outpatient reimbursement rates increase during 1997-2006, while urban residents had experienced small reduction in their reimbursement rates, resulting in reduced rural-urban disparity. The rural-urban inequality, however, seemed to be increased in the sense that the difference in the inpatient reimbursements between city and rural village residents expanded from 2000 to 2006.

Table 1. Insurance Coverage Rates (%) by Individual Characteristics

Year	1997	2000	2004	2006
Sample size	10866	13033	11414	9912
Total	23.23	20.17	26.68	49.16
Gender				
Male	24.57	21.88	28.97	50.84
Female	21.87	18.46	24.50	47.62
Age group				
0-6	20.82	17.12	16.69	23.08
7-12	18.22	17.87	26.36	25.00
13-19	13.54	12.92	22.48	33.33
20-59	25.2	20.66	27.02	49.03
60+	27.17	25.63	30.38	51.68
Strata				
City neighborhood	54.41	50.03	52.38	62.80
Suburban village	24.91	24.40	27.48	41.88
Town neighborhood	22.46	22.63	32.74	39.78
Rural village	15.33	9.86	17.35	50.50
Type of employer				
No employer	22.74	20.62	25.09	44.90
State agency/state-owned enterprise	65.1	61.11	70.24	79.52
Collective enterprise	49.14	43.25	45.66	69.08
Private farming	9.02	5.86	13.74	46.82
Other employer	14.29	13.76	23.99	44.96
Education				
No schooling	17.16	15.21	19.13	42.04
Primary school	17.72	14.90	20.42	49.15
<=Low middle school	21.8	15.81	23.01	46.02
<=High middle school	35.48	28.46	35.81	54.83
>High middle school	64.3	62.38	62.85	75.35
HH wealth				
1st (least wealthy)	10.05	6.25	10.80	39.21
2nd	15.29	12.28	16.34	43.07
3rd	23.14	18.77	32.06	53.33
4th (most wealthy)	43.96	35.62	48.40	61.68

Figure 1. Trend of Outpatient Reimbursement Rates:1997-2006

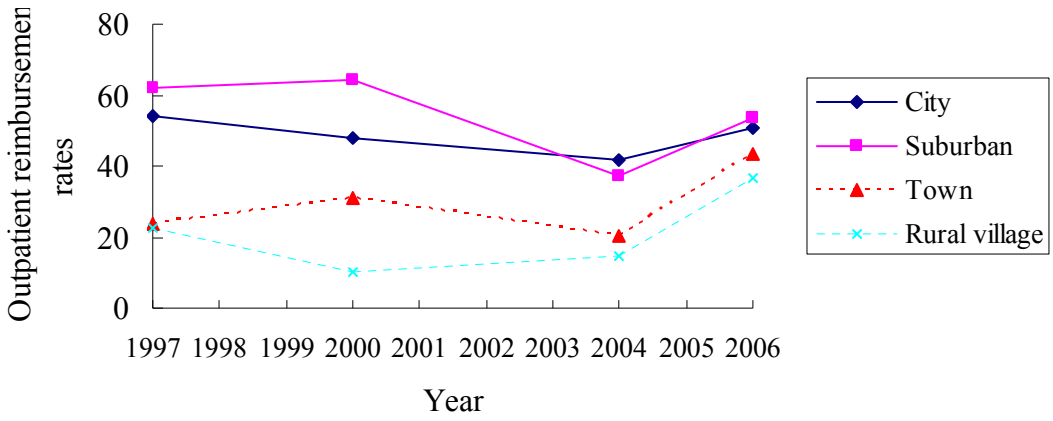
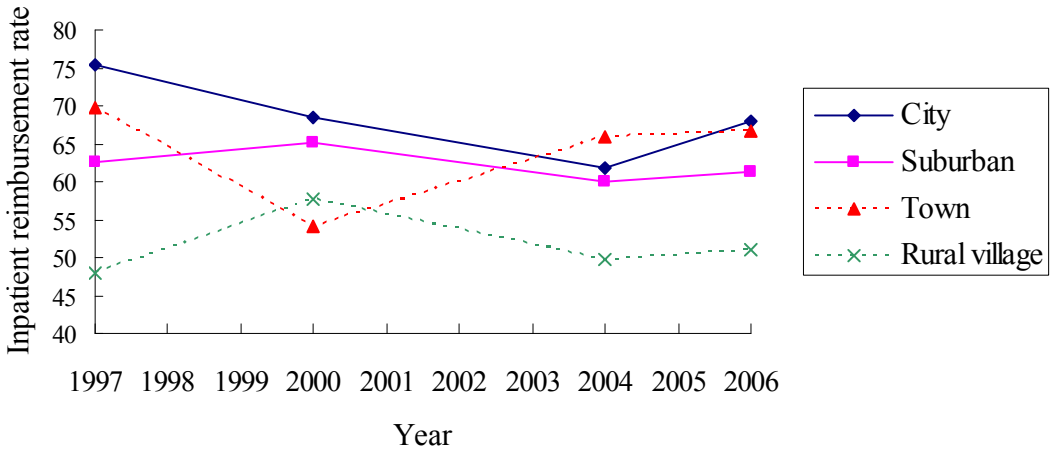


Figure 2. Trend of Inpatient Reimbursement Rates:1997-2006



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