

Medical Expenses Analysis of Urban Employees in Kunming of China for the years 2001-2004

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Byron Bay

Linping Xiong
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National Centre for Social and Economic Modelling
(NATSEM), University of Canberra

Medical Insurance Reform in China

- China's health insurance was first set up in the urban sector in the early 1950s.
- As the population increased, more and more medical services were needed and the system could no longer bear the soaring costs of care.
- In the 1980s, China began to reform the free medical care system, piloting the reform in Zhenjiang and Jiujiang in the early 1995.

The Basic Medical Insurance Scheme

- Covers all employers and employees in urban areas.
- Two accounts – Personal Savings Accounts for ordinary illness and Social Pool Fund for serious illness.
- The funds for basic medical insurance come mainly from premiums paid by both employers and employees.
- The premium paid by the employer is about 8% of the total wage bill, the premium paid by the employee is 2% of his or her wage.

Payment for Medical Expenditure

- Medical expenses are shared by the medical insurance fund and the individuals.
- Outpatient treatment fees are mainly paid from a personal account, while hospitalisation expenses are paid mainly from social pool funds.
- The minimum payment is, in principle, about 10% of the average annual wage of local employees, and the maximum payment is about four times the average annual wage of local employees.

Medical Insurance System in Kunming

- Kunming, provincial capital, locates in South-west China with total population of 4.95 million
- Commenced the basic medical insurance system of urban employees in April 2001. About 0.77 million urban employees were covered by the scheme at the end of 2004.
- The premium paid by the employers is 10% of the employees' total wage bill, while that paid by the employees is 2% of their wages. Retirees are exempted from paying the premiums.

Premium contribution for Medical Insurance System

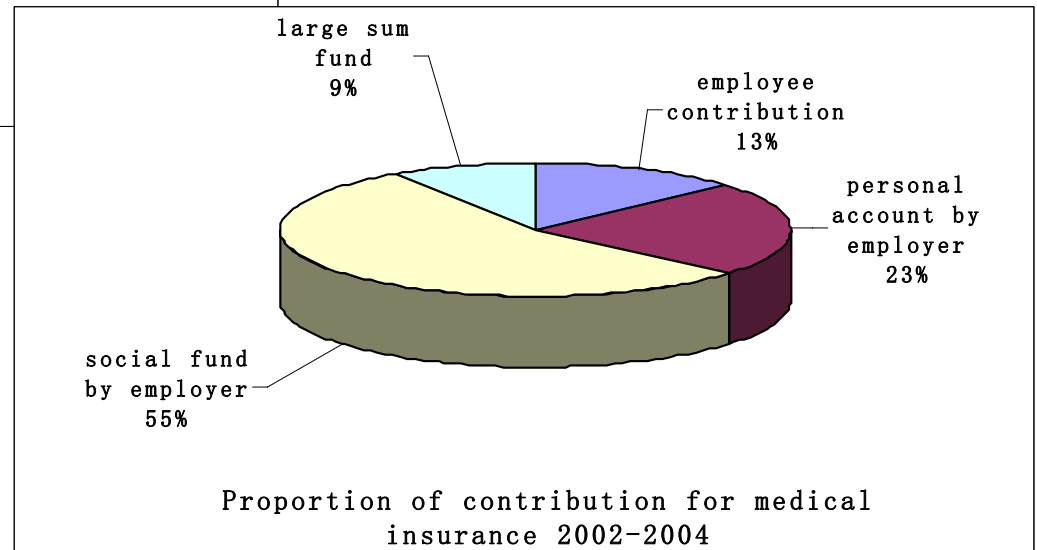
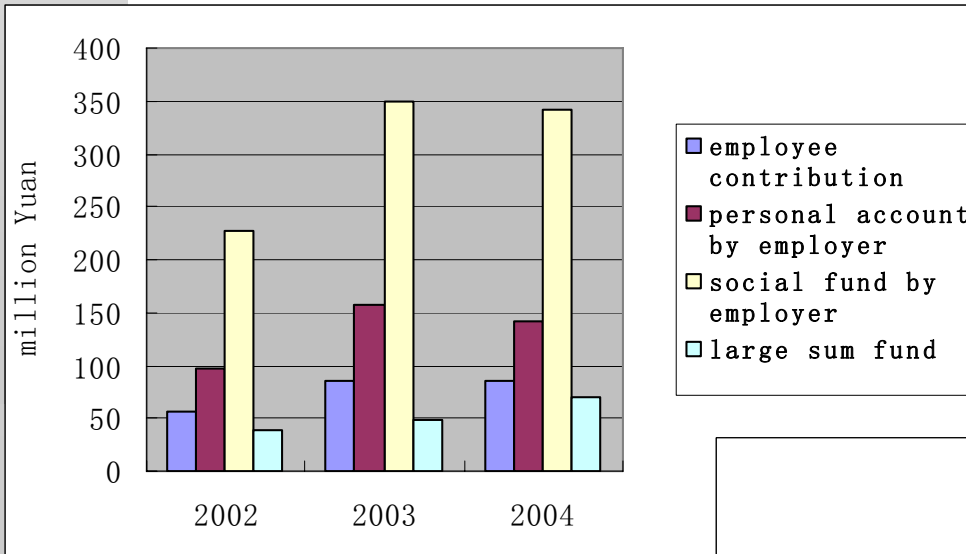
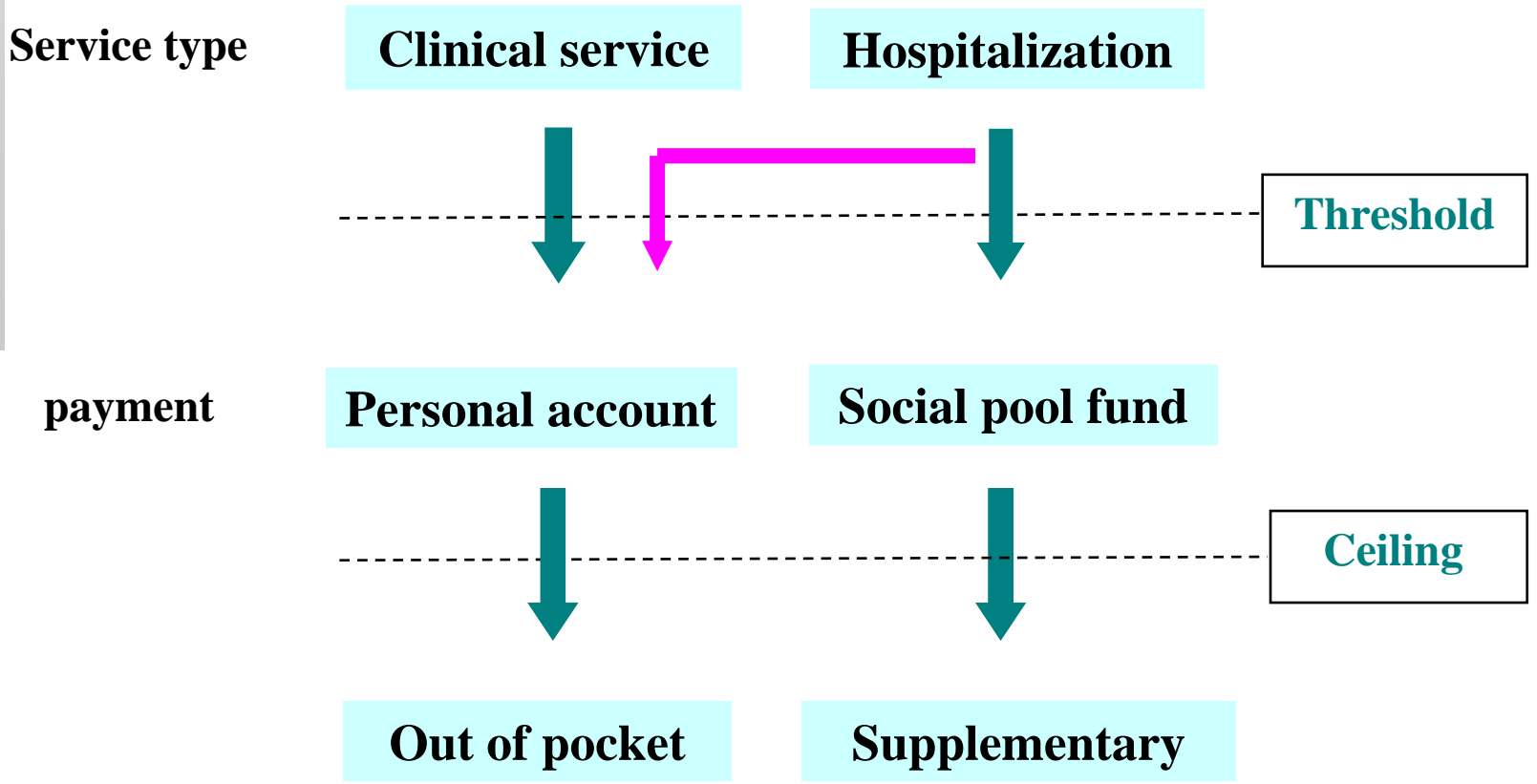


Figure 1 Payment mode of medical insurance



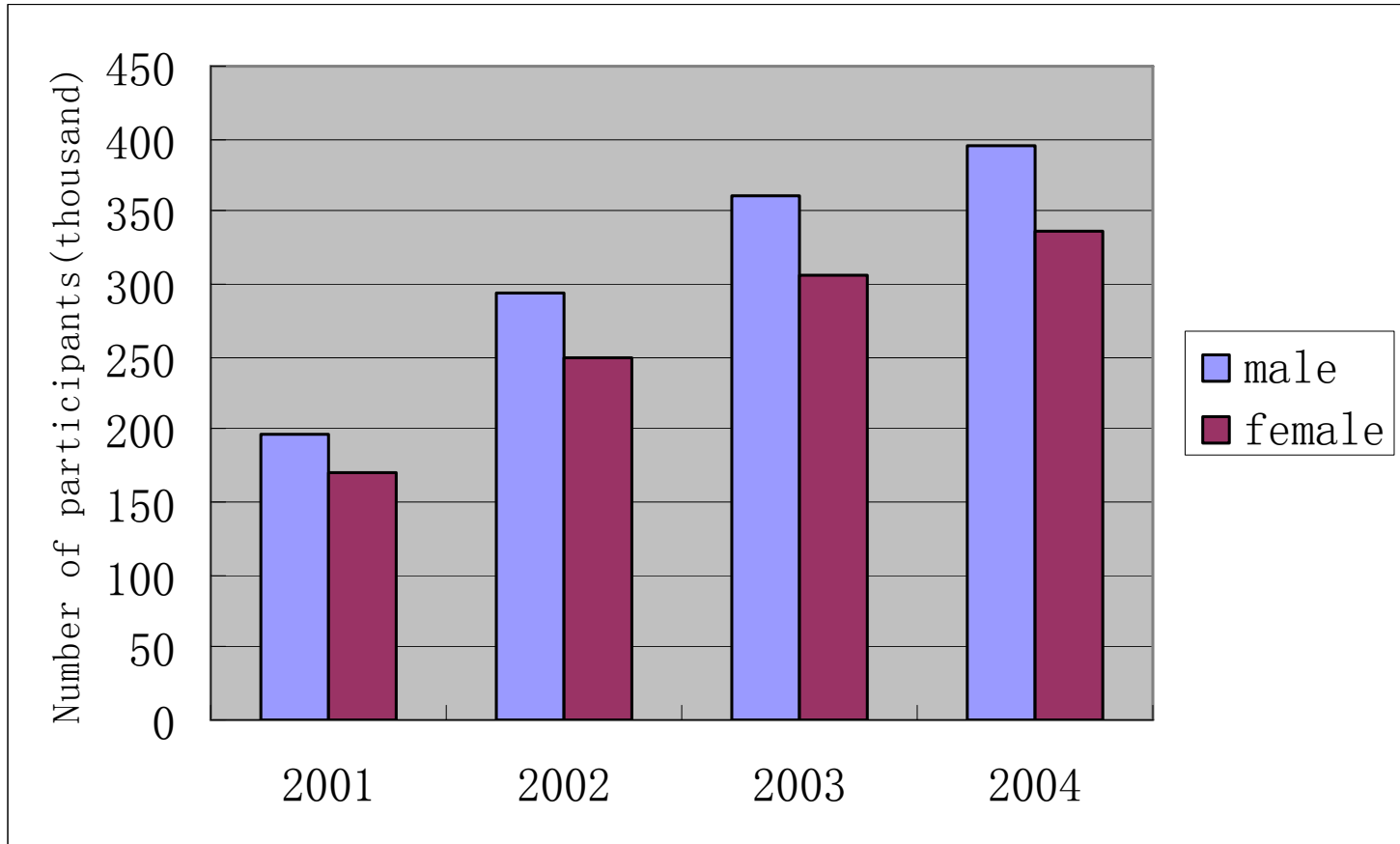
Analysis of medical expenditure, 2001-2004

- The basic information of participants, their age and gender distributions.
- Expenses shared by personal accounts, social pool fund and large sum fund.
- Expenditure for both hospitalization and clinical services.
- Analysis of payment by medical insurance fund.
- Payment abilities of different groups of participants.

Data Sources

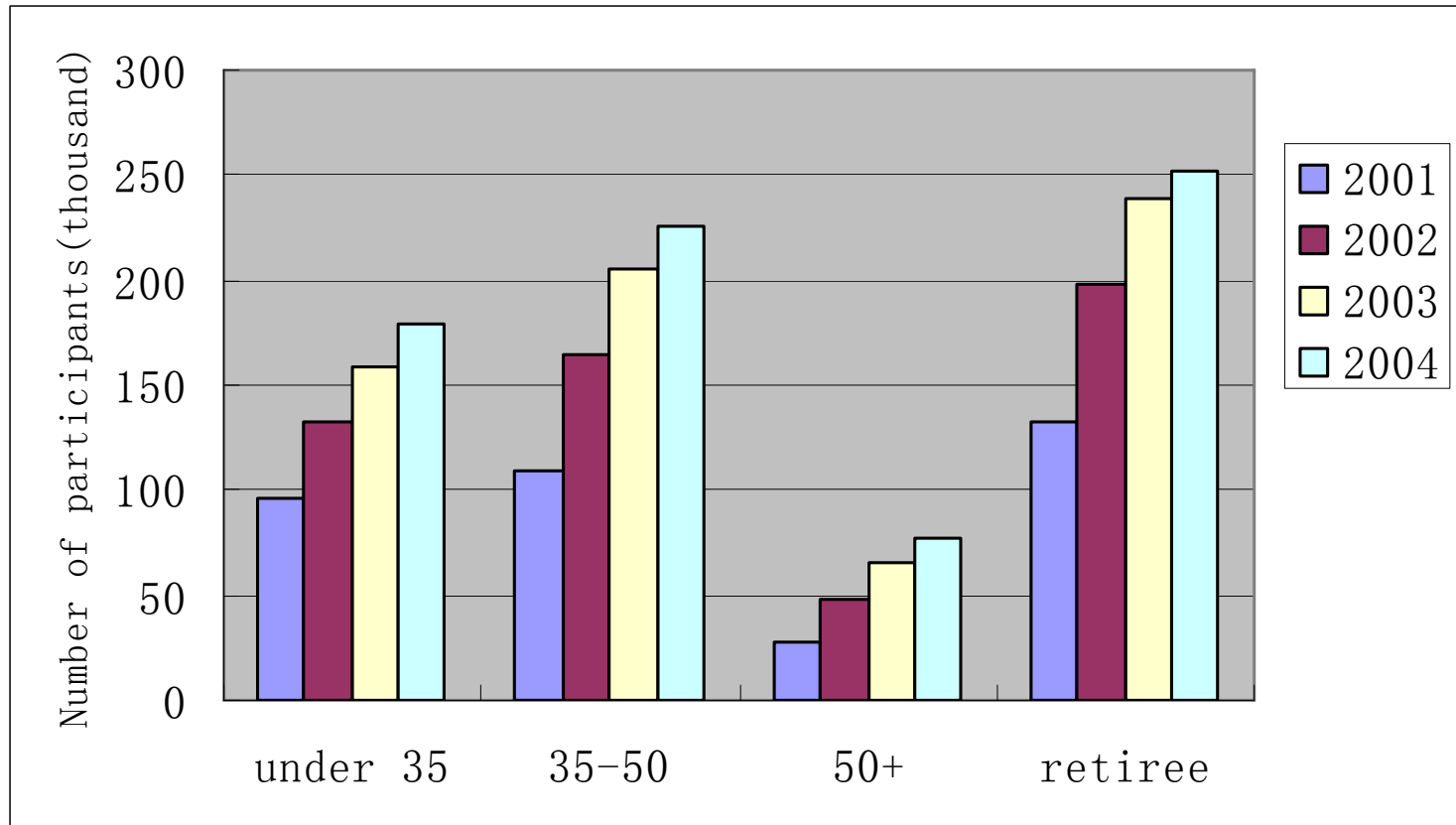
- Employees' personal information
- Age group alteration of individuals
- Contribution to Medical insurance scheme
- Medical expenditure of participants' clinical services
- Cost of participants' hospitalization

Distribution of medical insurants



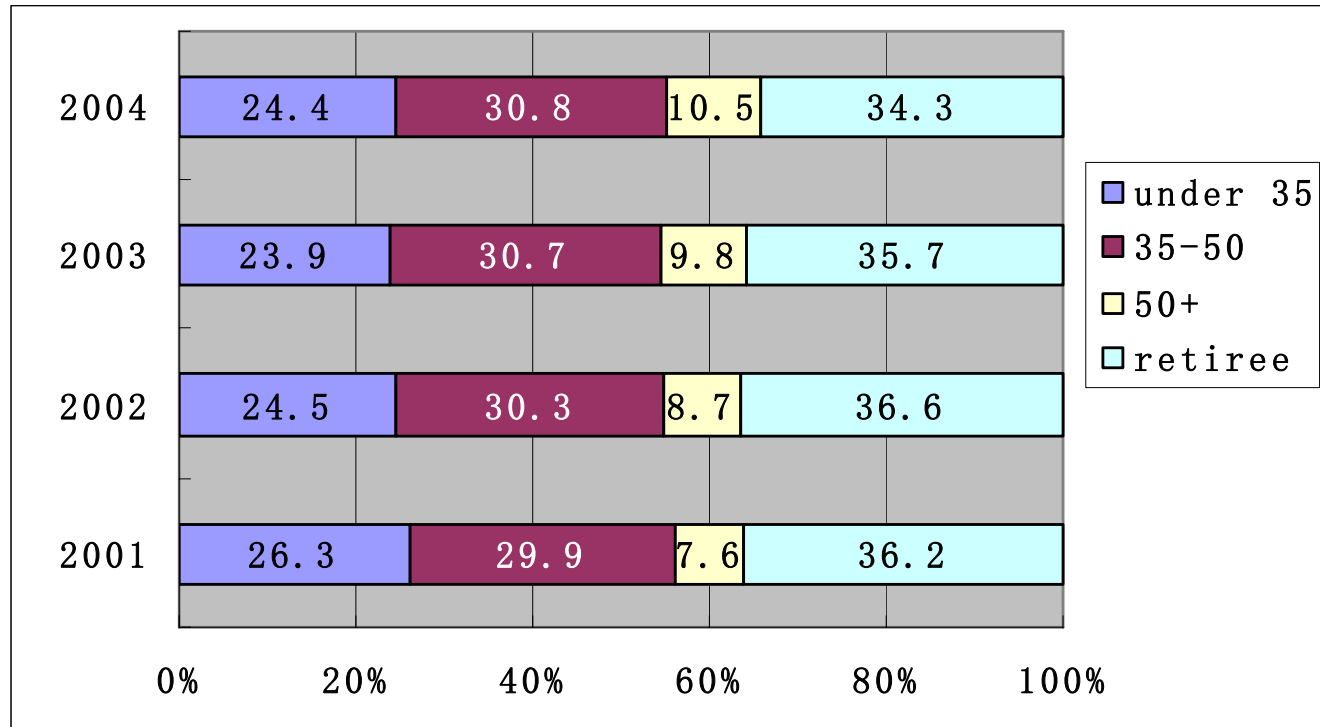
The total number of participants was increasing year by year, with more males than females. The ratio of male to female was increased slightly but stable at around 1.17.

Age-group distribution of participants



The total number of participants as well as the number of participants in each group was increasing yearly.

Age-group distribution of participants



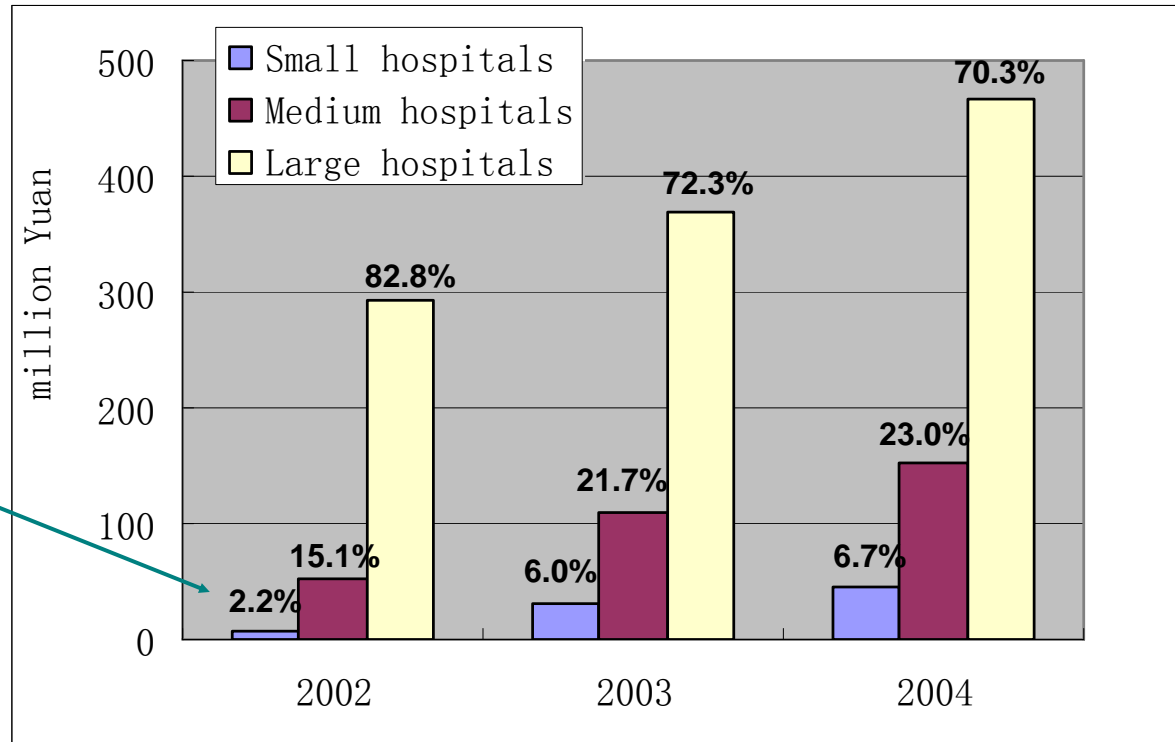
By the view of the proportion, the group under 34 years and retirees reduced slightly, while the proportion of the other two age groups showed increase trends. Retirees were the biggest population group in four years, account for a little more than one third of total number of participants.

Table 3 Total medical expenditure in 2002 – 2004

Year	Medical expenditure (1000 Yuan)			Annual growth rate (%)			Ratio of clinical expenses to the total (%)	Average annual cost per person (Yuan)
	Clinical services	Hospital services	Total	Clinical services	Hospital services	Total		
2002	10,181	36,740	46,921				22	865
2003	21,410	52,223	73,633	110.3	42.1	56.9	29	1,102
2004	28,526	68,301	96,827	33.2	30.8	31.5	29	1,320

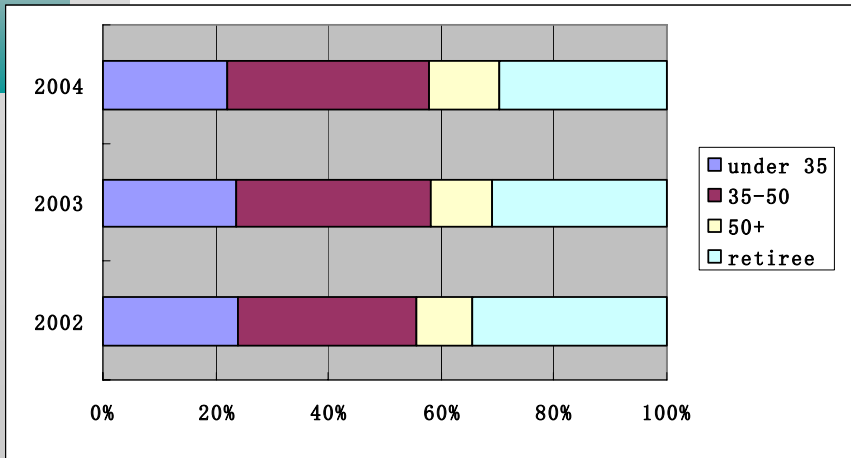
The total expenditure and the average expenditure per person increased annually. The growth rate in 2004 was less than that in 2003. The ratio of clinical expenses to the total expenses was a little less than 30%.

hospitalization expenses in different level of hospitals



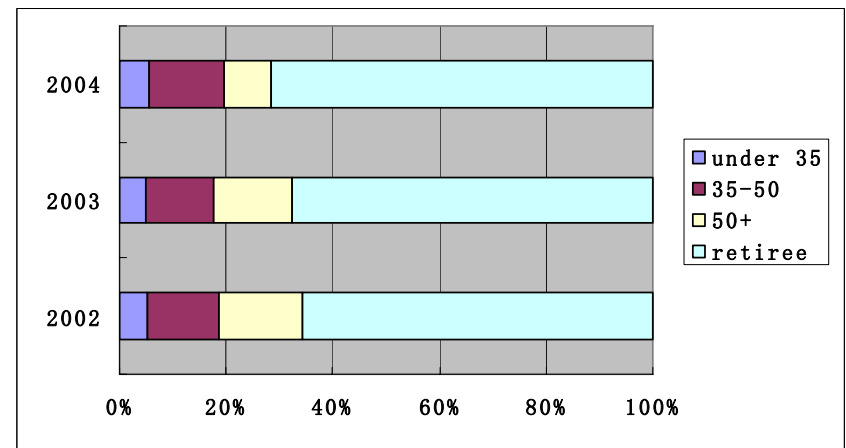
Percent of total cost

The proportion of medical expenses occurred in large hospitals reduced yearly, remained a little above 70 per cent in 2004, while the same proportions occurred in small and medium hospitals kept increasing in 2002-2004.



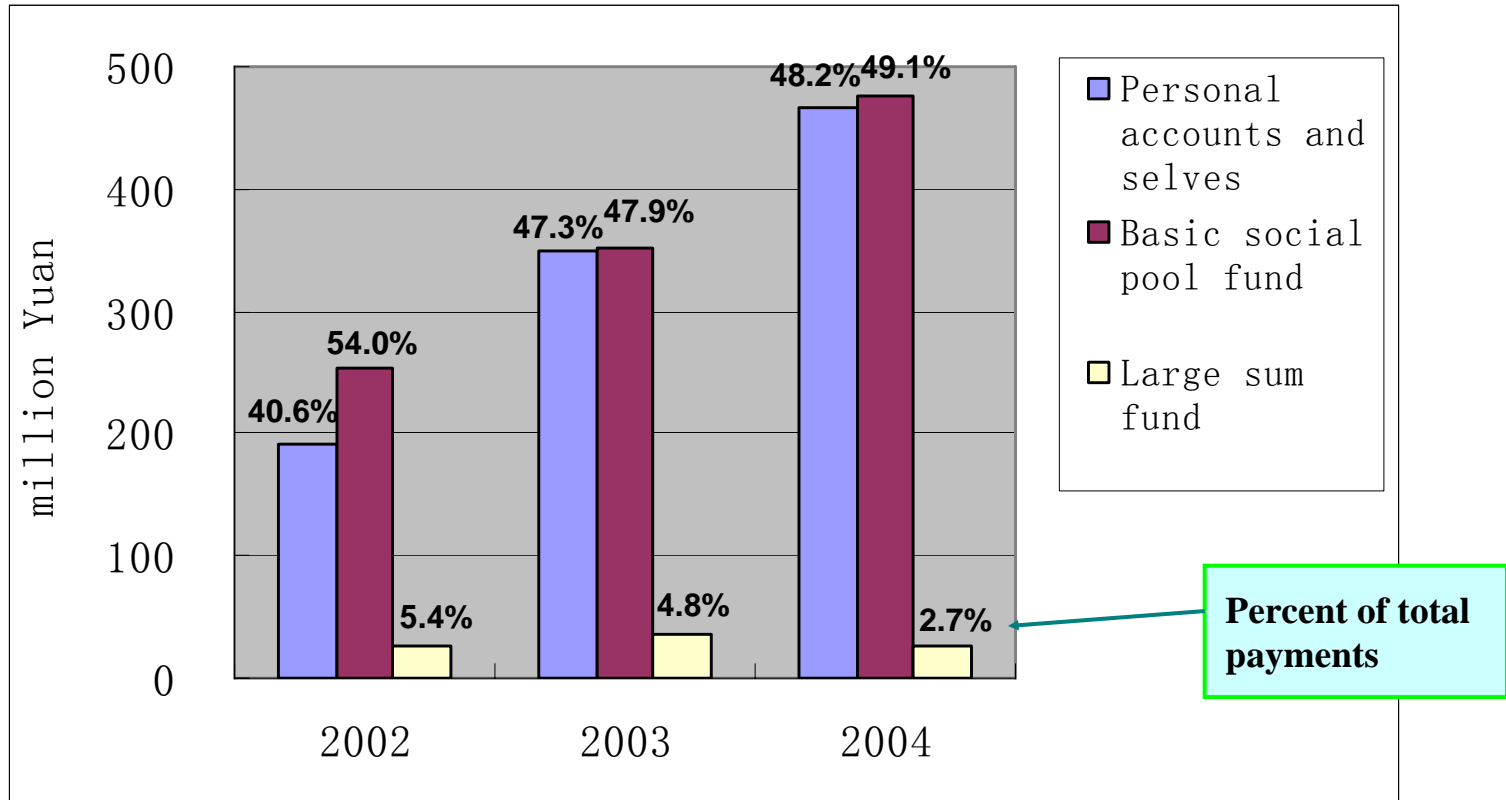
Proportion of expenses in clinical services

Proportion of hospitalization expenditure



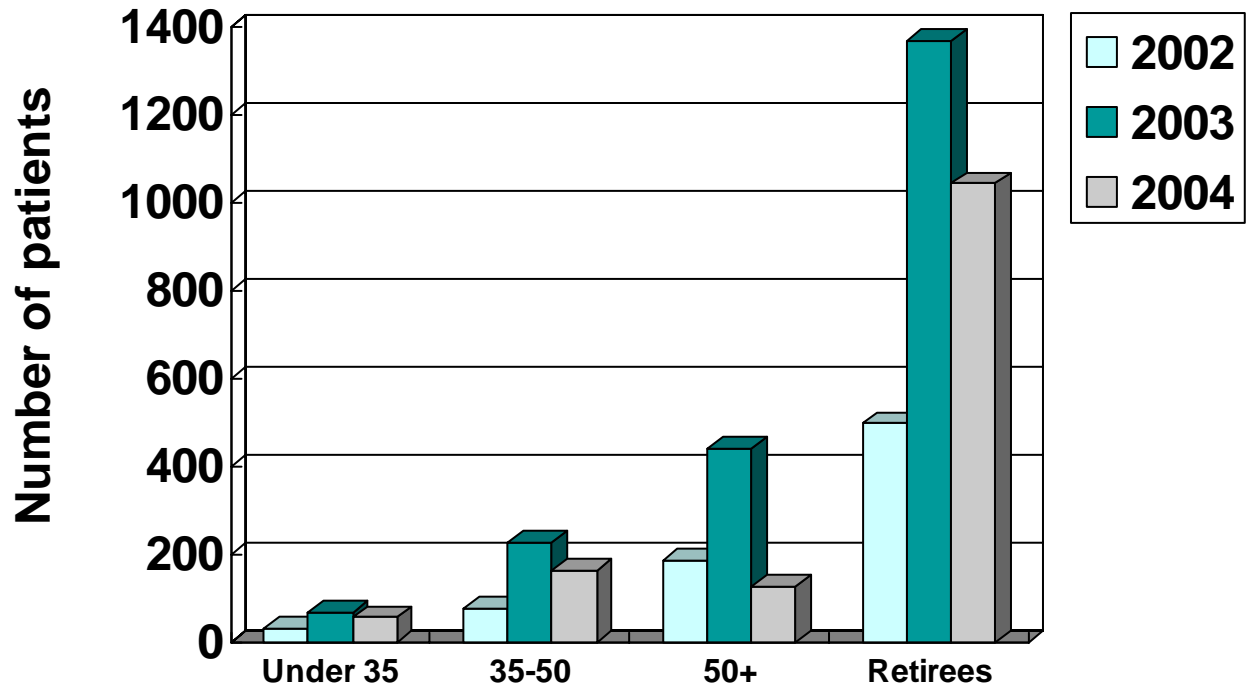
Example, in 2004, the retirees who accounted for 34% of the total participants, consumed about 70% of the total hospitalization expenses while at the same time, consumed about 30% of the total clinical expenses.

Medical expenses and payments



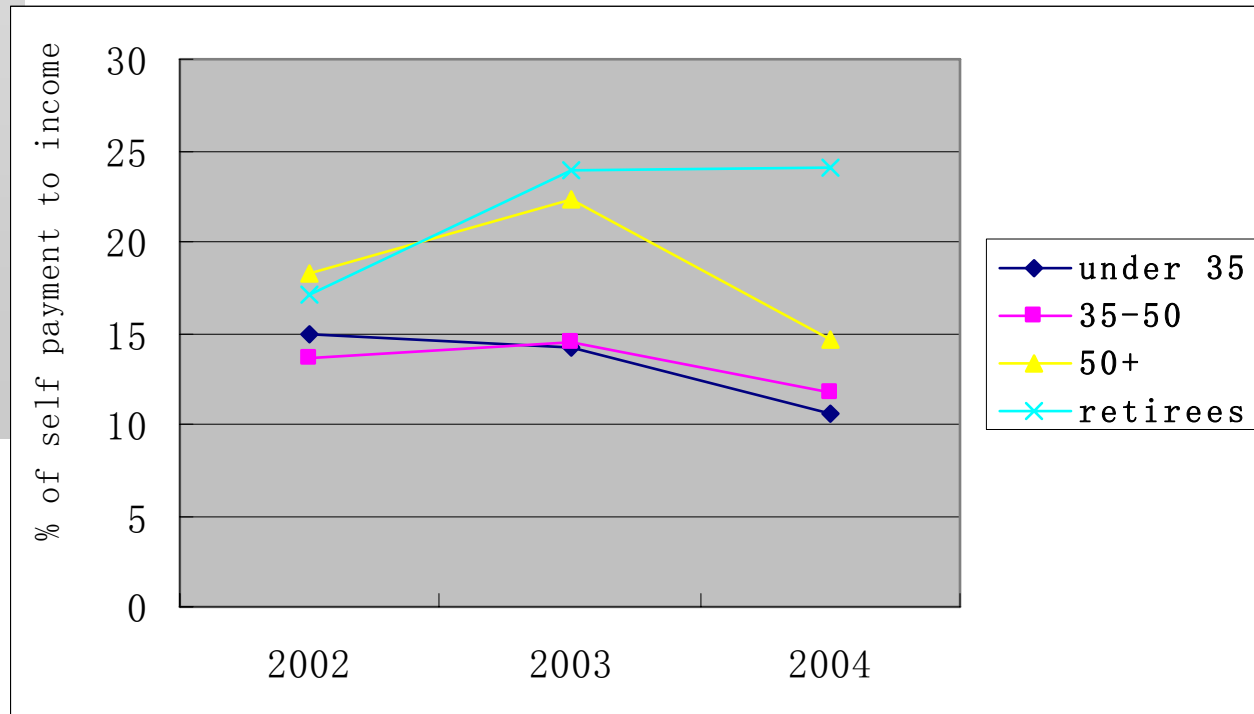
The payment by the basic social pool fund plus large sum fund account for a little more than 50% of total medical expenses.

Distribution of patients covered by large sum fund



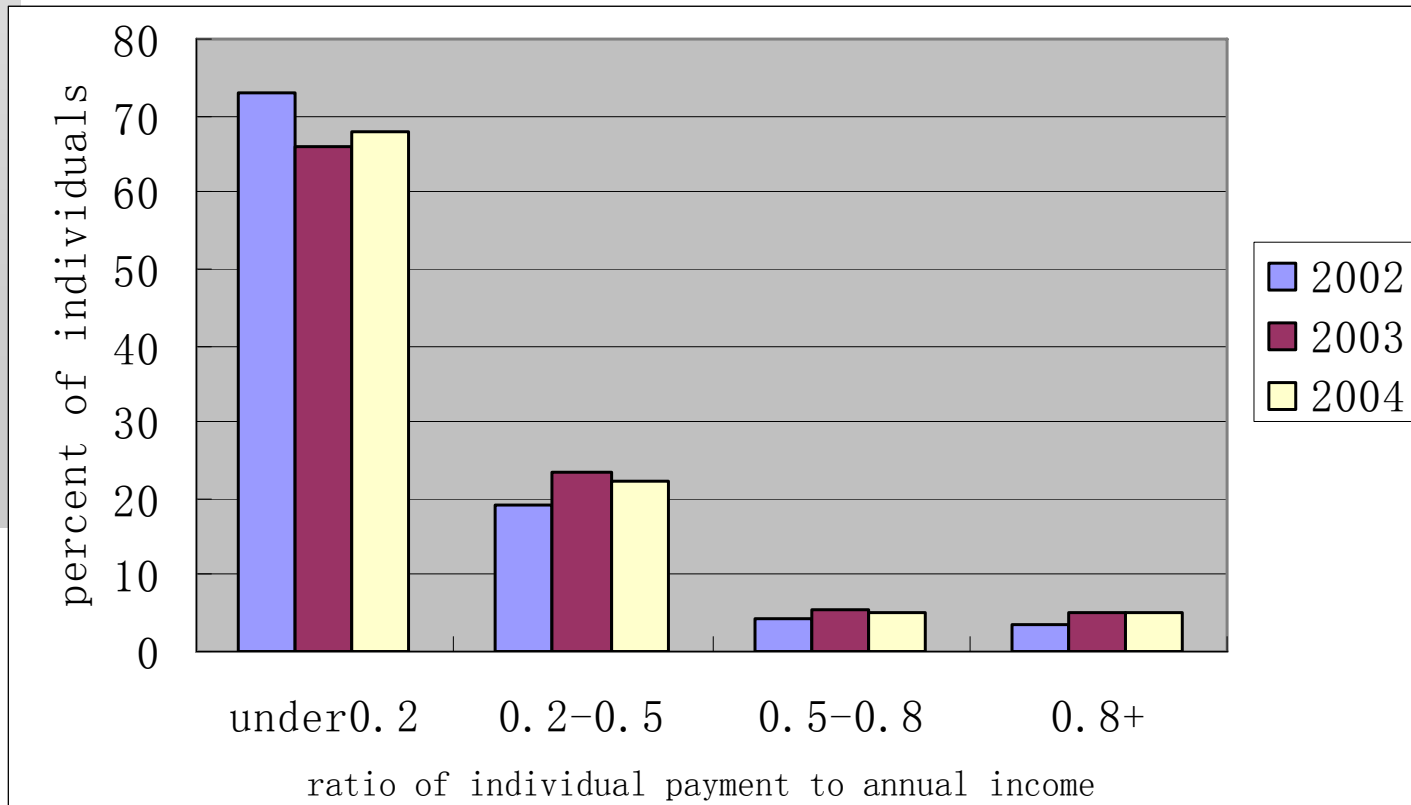
Each year, more than 60% of patients covered by large sum fund were retirees. The retirees are the main beneficiary age group of the large sum fund, followed by employees over 50 years of age.

Ratio of individual hospitalization payments to their income



The average individual payment of hospitalization expenses per year was about 18% of individual's annual income. Retirees had the highest individual payment ratio, which was over 23% in 2003 and 2004. The second highest was employees aged over 50 years.

Distribution of ratio of individual payment to annual income



In average, there were about 69% of inpatients whose individual hospitalization payment was under 20% of their annual income. In the mean time, there were about 5% of inpatients whose individual payments account for more than 80% of their annual income.

Discussions

- Enlarge the coverage of medical insurance project and encourage younger employees who are not covered by the basic medical insurance to enter the system.
- Retirees' demand of clinical services was probably restrained. Appropriate policies should be set up to benefit retirees.
- Those inpatients whose ratios of out of pockets' payments to their annual income are significantly higher than the other insurants should be subsidized financially.

Future Work

- On the basis of this data analysis, combine the analysis report of 2003 third national health services survey and the fifth national population census in 2000, the research will create a microsimulation model for medical insurance policy in Kunming.
- With the proposed microsimulation model, different medical insurance policy settings will be predicted for five years from 2006 until 2010.

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