Factors affecting catastrophic health expenditure and impoverishment from medical expenses in China: policy implications of universal health insurance

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Objective To assess the degree to which the Chinese people are protected from catastrophic household expenditure and impoverishment from medical expenses and to explore the health system and structural factors influencing the first of these outcomes.

Methods Data were derived from the Fourth National Health Service Survey. An analysis of catastrophic health expenditure and impoverishment from medical expenses was undertaken with a sample of 55 556 households of different characteristics and located in rural and urban settings in different parts of the country. Logistic regression was used to identify the determinants of catastrophic health expenditure.

Findings The rate of catastrophic health expenditure was 13.0%; that of impoverishment was 7.5%. Rates of catastrophic health expenditure were higher among households having members who were hospitalized, elderly, or chronically ill, as well as in households in rural or poorer regions. A combination of adverse factors increased the risk of catastrophic health expenditure. Families enrolled in the urban employee or resident insurance schemes had lower rates of catastrophic health expenditure than those enrolled in the new rural corporative scheme. The need for and use of health care, demographics, type of benefit package and type of provider payment method were the determinants of catastrophic health expenditure.

Conclusion Although China has greatly expanded health insurance coverage, financial protection remains insufficient. Policy-makers should focus on designing improved insurance plans by expanding the benefit package, redesigning cost sharing arrangements and provider payment methods and developing more effective expenditure control strategies.

Abstracts in عربي, 中文, Français, Русский and Español at the end of each article.

Introduction

According to the *World health report 2000*, one of the fundamental functions of a health system is to put in place a health financing system that protects the population against the financial risks associated with ill health. Such risks can be quantified in terms of catastrophic health expenditure and impoverishment from medical expenses. Catastrophic health expenditure is defined as out-of-pocket spending for health care that exceeds a certain proportion of a household's income with the consequence that households suffer the burden of disease.[1] A household is said to have been impoverished by medical expenses when health-care expenditure has caused it to drop below the poverty line.[2]

In China, health insurance coverage has increased dramatically over the last decade, from 15% in 2000 to 96% in 2011.[3,4] The Medical Insurance for Urban Employees (MIUE) scheme, designed exclusively for urban employees, is a mandatory programme based on cost sharing between employers and employees, with risk pooling managed at the municipal level.[5] The Medical Insurance for Urban Residents scheme (MIUR) is for urban residents who are not covered by the MIUE and is co-financed by enrolees and local government.[6] The New Cooperative Medical Scheme (NCMS) is a voluntary programme based on cost sharing between government and farmers and covers mostly inpatient services and a few outpatient services.[7] However, despite China's great strides in health insurance coverage,[4,8] in a more comprehensive sense such coverage is not universal. It falls short when held up to the definition of universal coverage put forth by the World Health Organization (WHO), which includes equitable access to health services for all at an affordable cost and has three dimensions: breadth, depth and height. Breadth refers to population coverage, depth refers to the range of services covered and height refers to the extent to which health service costs are covered.[9,10]

Despite China's repeated rounds of health sector reform over the last three decades, increasing public dissatisfaction, particularly with health-care costs, motivated a new round in 2009. Although it had some positive effects, to what extent increased public spending and expanded coverage have reduced people's financial barriers, if at all, remains unclear. The percentage of total health expenditure paid out of pocket in China increased from 20% in 1978 to 60% in 2001, then dropped to 40% in 2008.[11] With weak expenditure controls in place, the increased breadth of coverage, combined with low benefit levels, may have actually contributed to higher utilization rates and hence to a higher burden of out-of-pocket payments. Under such circumstances increasing the breadth of coverage may not be enough to protect people from catastrophic health expenditure or impoverishment from medical expenses.

The vicious circle linking poverty and disease has been regarded as the biggest hindrance to government efforts to fight absolute poverty. Although the number of people living

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in absolute poverty in China dropped from 250 million in 1978 to 27 million in 2011, impoverishment from medical expenses has not disappeared.[12–14] In 2004, 23.3% of rural households were impoverished by medical expenses.[15,16]

In this article, we analyse the rates of catastrophic health expenditure and of impoverishment from medical expenses in China and how they are distributed throughout the country and in the population, and we try to identify the structural factors that underlie the risk of the first of these outcomes. We review catastrophic health expenditure and impoverishment within the wider socioeconomic context to provide guidance for the next phase of health reform.

Methods

Data source and sampling method

The primary data used to calculate catastrophic health expenditure rates were obtained from the Fourth National Health Service Survey (NHSS, 2008). The NHSS is organized by the Chinese government every five years under the direction of the Ministry of Health. For the fourth NHSS, the ministry used a multi-stage, stratified cluster sampling method with systematic random sampling at each stage.[17] The stages were as follows: All cities – i.e. political, economic, social and cultural centres having a non-agricultural population above 100 000 – in 31 provinces were ranked into five groups according to their socioeconomic, educational, demographic and health indicators. From these five groups, 94 sample cities were selected, and in each city five townships were selected, for a total of 470 townships. Two administrative villages were selected in each township (940 villages in total) and 60 households were selected in each village. This gave a final sample of 56 400 households across China.[18]

Data collection and quality control

The survey questionnaire covered the following: general status of the household based on income and household consumption expenditure (out-of-pocket health expenditure and food consumption expenditure); health status of the head of household based on his/her socio-demographic characteristics (age, sex, education, employment and insurance), overall household health status and health service utilization (illness of a household member in previous two weeks, presence of chronic disease in a household member over the past six months, and outpatient and inpatient service utilization by household members during the past year). After use in four national surveys, this questionnaire has been shown to be consistent and reliable. Face-to-face household interviews were conducted by qualified investigators. Quality control was implemented by supervisors charged with guiding and inspecting every step of the survey. Of sampled households, 5% were revisited to check the accuracy of the data, which was > 95%.[17] Data consistency was tested and no age bias was detected (Myer's Index: 3.48%).[17] The DELTA dissimilarity coefficient and the GINI concentration ratio showed good consistency in household size between the surveyed population and the general population.[17]

Statistical analysis

After the data cleaning process – a small number of households with incomplete or anomalous data were excluded – a sample of 55 556 households (175 577 people) remained and the corresponding data were entered into a database for analysis using SAS (SAS Institute Inc., Cary, United States of America). WHO's method was employed to calculate catastrophic health expenditure, which was defined as an out-of-pocket payment for health care ≥ 40% of a household's capacity to pay.[2] Monthly household consumption expenditure was ranked into quintiles after adjustment for standard household size. This adjustment, recommended by WHO, allows any differences in health spending across countries to be attributed to factors other than the differential composition of their populations. The poverty line was defined by subsistence spending, i.e. the average monthly food expenditure of the household whose food expenditure as a share of total household consumption expenditure fell between the 45th and 55th percentiles of the entire sample. The subsistence spending of each household was calculated as the poverty line multiplied by standard household size. If a household's total expenditure was less than this figure, the household was categorized as poor. Household non-subsistence spending was used as a proxy for capacity to pay. However, whenever food expenditure was less than subsistence spending, capacity to pay was defined as total expenditure minus food expenditure.

A descriptive analysis was undertaken to identify morbidity, service utilization and health-care spending. Logistic regression was used to predict determinants of catastrophic health expenditure. The independent variables included head of household's sex, education, employment and health insurance status, and several household characteristics, namely expenditure quintile, household size, having at least one member older than 60 or younger than 5 years, having at least one member with tuberculosis or any chronic, non-communicable condition and having at least one hospitalized member.

Results

Health-care needs and service utilization

The rate of morbidity during the two most recent weeks was 17.9% overall: 17.0% in rural areas and 19.3% in urban areas. The total prevalence of chronic, non-communicable disease was 15.8%. Among rural households, 6.8% had a hospitalized member, compared with 7.1% of urban households and 6.8% of all households.

The "non-admission rate", defined as the percentage of patients needing hospitalization who were not hospitalized, was 27.9%. Of these patients, 70.2% were not hospitalized because of financial difficulties. The lowest expenditure quintile had the highest non-admission rate: 39.1%, a rate twice as high as that of the wealthiest group. People without insurance had the highest rate of non-admission (35.4%), followed by those covered by the MIUR (30.5%) and by the NCMS (27.6%). In 2008 the average cost of inpatient care per year was 721.9 United States dollars (US$) (exchange rate: 6.9451 yuan to US$ 1.00). The average reimbursement rate was 43.2% but varied among different insurance schemes. The MIUE offered the highest reimbursement rate (55.0%), followed by the MIUR (40.0%) and by the NCMS (30.4%).

Catastrophic health expenditure in different groups

Catastrophic health expenditure rates were inversely associated with the

Table 1. **Distribution of household health expenditure across consumption expenditure quintiles, China, 2008**

Indicator	Expenditure quintile[a]					
	1	2	3	4	5	All
Average monthly out-of-pocket health expenditure (US$)[b]	6.8	11.6	15.7	22.6	50.8	21.7
Average capacity to pay (US$)[b]	32.0	56.6	84.2	135.2	327.6	129.2
Out-of-pocket share of monthly household expenditure (%)	12.7	12.0	11.6	11.6	12.3	12.1
Capacity to pay out of pocket (%)	22.2	20.5	18.5	16.6	14.9	18.5
Households with catastrophic health expenditure (%)	15.8	14.3	12.7	11.3	10.7	13.0

US$, United States dollars.
[a] Quintile 1 is the poorest and quintile 5 the wealthiest.
[b] Based on a currency exchange rate of 6.9451 yuan to US$ 1.00.

household's economic level. The average catastrophic health expenditure was 13.0%. The average out-of-pocket payment and capacity to pay rose steadily with rising expenditure quintile; the wealthier the quintile, the higher the out-of-pocket payment and capacity to pay. Conversely, the out-of-pocket payment occupied a progressively smaller fraction of capacity to pay with rising expenditure quintile. Thus, the economic burden borne by the wealthier population segments is proportionately smaller because their capacity to pay is higher (Table 1).

Catastrophic health expenditure distribution

We compared catastrophic health expenditure rates among urban and rural households with different health-related characteristics located in China's eastern, middle and western provinces (corresponding to affluent, middle-income and poor regions) (Table 2). Rural households were at greater risk of experiencing catastrophic health expenditure than urban households. Households located in the wealthier provinces were at lower risk of catastrophic health expenditure than poorer regions. Household characteristics, such as having health insurance or having chronically ill, elderly or hospitalized members, were associated with the risk of catastrophic health expenditure in urban and rural households in all regions. The catastrophic health expenditure rate for households covered by the MIUE and MIUR was lower than the national average; the rates for households covered by the NCMS (range: 13.8–16.0%) were above the national average.

A combination of several family-level risk factors with location-related factors, such as living in a rural area, increased household vulnerability to catastrophic health expenditure. Households with hospitalized members and located in rural areas had the highest catastrophic health expenditure rate (35.0%), followed by those with hospitalized members (32.8%), Noncommunicable diseases (NCDs) (23.1%) and elders above 60 (19.7%).

When these vulnerabilities existed together, the risk of catastrophic health expenditure increased. Households with NCD members who were hospitalized had catastrophic health expenditure rates of 39.3%, which was two times higher than households with NCD but not hospitalized and eight times higher than the rate for households without either characteristic.

Table 2. **Catastrophic health expenditure distribution among different households and areas, China, 2008**

Household characteristic	Area (%)					
	All	Urban	Rural	Eastern	Middle	Western
Member with chronic disease	23.1	17.1	26.0**	19.8	23.9	25.9**
Member > 60 years of age	19.7	15.1	21.9**	17.8	20.5	21.0**
Member < 5 years of age	14.3	7.9	15.8**	13.5	14.6	14.6
Hospitalized member	32.8	26.6	35.0**	31.9	32.8	33.4**
Health insurance status						
MIUE	9.4	9.2	10.8	8.5	9.6	10.5*
MIUR	8.5	8.9	6.4	7.9	12.1	7.2
NCMS	14.8	9.3	14.9**	13.8	14.1	16.0**
Other insurance plan	12.2	11.6	13.6	10.6	18.5	9.5
None	11.7	10.8	13.0*	8.8	12.5	13.1**

MIUE, Medical Insurance for Urban Employees; MIUR, Medical Insurance for Urban Residents; NCMS, New Cooperative Medical Scheme; *$P < 0.05$; **$P < 0.01$.

Poverty levels and impoverishment analysis

In our study, the poverty line was US$ 449.40 per year. Without taking out-of-pocket payments into consideration, poor households accounted for 18.2% of all households and for 86.0% of the households in the poorest quintile. After out-of-pocket payments, 7.5% of non-poor households became poor. As expected, impoverishment from medical expenses was more common in the poorest quintile. Rural households had higher rates of poverty and of impoverishment than urban households (Table 3). The rural poverty rate was almost eight times higher than the rate in urban areas and the rate of impoverishment was about three times higher.

Determinants of catastrophic health expenditure

Logistic regression yielded a wide range of determinants linked with catastrophic health expenditure (Table 4). Households headed by a female, an unemployed person or a person having little education, and households having at least one member who was elderly, ill from tuberculosis or any chronic non-communicable illness, or hospitalized were more likely to experience catastrophic health expenditure. Households without insurance were at higher risk of catastrophic health expenditure

compared with those covered by the MIUE and MIUR. Economic status was inversely associated with catastrophic health expenditure, that is, wealthier households were more protected against catastrophic health expenditure. Urban households were more likely to escape catastrophic health expenditure than rural households. Having a large family and at least one young member appeared to be protective factors.

Discussion

Rates of catastrophic health expenditure and impoverishment from medical expenses provide insight into the level of financial protection that a health-care financing system provides for its citizens. It reflects the financial burden

Table 3. **Percentage of poor households and of households impoverished by medical expenses, by household location and expenditure quintile, China, 2008**

Characteristic	Poor	Impoverished
Location		
Urban	3.1	3.3
Rural	24.6	9.3
Eastern province	11.3	5.5
Middle province	17.4	7.9
Western province	25.2	9.0
Expenditure quintile[a]		
1	86.0	10.6
2	0	19.1
3	0	4.2
4	0	2.2
5	0	1.6
Total	**18.2**	**7.5**

[a] Quintile 1 is the poorest and quintile 5 the wealthiest.

Table 4. **Determinants of catastrophic health expenditure,[a] China, 2008**

Determinant	*β*	SE	Wald	*P*	OR (95% CI)
Gender of household head (male vs female)	−0.147	0.035	17.278	< 0.0001	0.863 (0.805–0.925)
Educational level of head of household					
None vs university or above	1.073	0.141	57.600	< 0.0001	2.924 (2.216–3.857)
Primary school vs university or above	0.806	0.139	33.745	< 0.0001	2.239 (1.706–2.939)
Junior high school vs university or above	0.488	0.138	12.467	< 0.0001	1.629 (1.242–2.135)
Senior high school vs university or above	0.385	0.143	7.251	0.007	1.469 (1.110–1.943)
Technical secondary school vs university or above	0.385	0.161	5.681	0.017	1.469 (1.071–2.016)
Junior college vs university or above	−0.090	0.177	0.259	0.611	0.914 (0.646–1.292)
Employment status of head of household					
Employed vs unemployed	−0.567	0.040	206.000	< 0.0001	0.567 (0.525–0.613)
Retired vs unemployed	−0.119	0.068	3.089	0.079	0.888 (0.778–1.014)
Student vs unemployed	−0.805	0.376	4.595	0.032	0.447 (0.214–0.933)
Insurance status of head of household					
MIUE vs none	−0.365	0.075	23.937	< 0.0001	0.694 (0.600–0.804)
MIUR vs none	−0.462	0.105	19.514	< 0.0001	0.630 (0.513–0.773)
NCMS vs none	0.012	0.057	0.044	0.834	1.012 (0.905–1.131)
Other vs none	−0.080	0.194	0.171	0.679	0.923 (0.631–1.35)
Household having:					
Member with chronic disease (yes vs no)	1.047	0.030	1247.289	< 0.0001	2.848 (2.687–3.018)
Hospitalized member (yes vs no)	1.525	0.032	2248.972	< 0.0001	4.597 (4.316–4.896)
Member with tuberculosis (yes vs no)	0.575	0.109	27.697	< 0.0001	1.778 (1.435–2.203)
No. of household members (≥ 5 vs ≤ 4)	−0.728	0.034	448.930	< 0.0001	0.483 (0.451–0.516)
Members aged > 60 years (yes vs no)	0.627	0.033	367.713	< 0.0001	1.872 (1.755–1.995)
Five or more members (yes vs no)	−0.211	0.064	10.925	0.001	0.810 (0.715–0.918)
Area					
Rural vs urban	0.054	0.007	54.468	< 0.0001	1.055 (1.040–1.07)
Expenditure quintile[b]					
Quintile 1 vs 5	0.306	0.052	34.728	< 0.0001	1.358 (1.227–1.504)
Quintile 2 vs 5	0.269	0.052	27.084	< 0.0001	1.309 (1.183–1.449)
Quintile 3 vs 5	0.141	0.051	7.567	0.006	1.151 (1.041–1.272)
Quintile 4 vs 5	0.006	0.049	0.015	0.903	1.006 (0.914–1.108)

CI, confidence interval; MIUE, Medical Insurance for Urban Employees; MIUR, Medical Insurance for Urban Residents; NCMS, New Cooperative Medical Scheme; OR, odds ratio; SE, standard error.

[a] Out-of-pocket payment divided by capacity to pay ≥ 40%.

[b] Quintile 1 is the poorest and quintile 5 the wealthiest.

shouldered by families and the financial barriers that reduce their access to health care. In our study, the rates of catastrophic health expenditure and impoverishment were 13.0% and 7.5%, respectively. Such rates are higher than those found in other low-income countries.[19–21] The drivers of catastrophic health expenditure are summarized in subsequent sections.

Health-care needs, utilization and capacity to pay

Our logistical results show that health-care needs and service utilization are key determinants of catastrophic health expenditure. The risk of households with NCD is 2.8 times higher than those without. Households experiencing hospitalization are 4.6 times more likely to suffer catastrophic health expenditure. The financial protection provided by the present mix of insurance schemes is inadequate.

The risk of catastrophic health expenditure and impoverishment are closely linked with economic status. Households in poorer quintiles are more at risk of suffering catastrophic health expenditure and their impoverishment is more common, which is similar to other studies.[22,23] The capacity to pay of the wealthiest population quintile is around 10 times higher than that of the poorest. Disparities in social, economic and environmental conditions in different regions of China also play a part in the risk of experiencing catastrophic health expenditure.

Demographic factors

Logistic regression showed that demographic factors such as age, sex, education, household size, employment status of the head of household and location exert an influence on the risk of catastrophic health expenditure. Households headed by a male or by someone with higher education or employment are less likely to suffer catastrophic health expenditure. Larger household size and the presence in a household of a member less than 5 years of age are protective factors, as reported in studies from Argentina and Turkey.[24,25] The high rate of catastrophic health expenditure in households with elderly members is of special relevance in view of China's ageing demographic profile. An integrated, poverty-oriented social policy approach is needed to address these factors.

Health insurance coverage

In 2008, 87% of China's population was covered by various insurance schemes, which suggests that the breadth of coverage needs to be expanded further to achieve universal coverage. Catastrophic health expenditure rates varied across affiliates of the different insurance schemes. They were lower among MIUE and MIUR affiliates (9.4% and 8.5%, respectively) than among NCMS enrolees (14.8%). Catastrophic health expenditure rates among MIUE and MIUR enrolees are higher than rates in other developing countries.[26] The depth and height of coverage are still insufficient; service coverage is inadequate and out-of-pocket payments remain high.

Benefit packages and cost sharing

A comprehensive benefit package includes not only services, but also cost-sharing mechanisms.[27] China's medical insurance schemes rely on high co-payments to control the financial risk carried by the insurer. Net co-payment rates are 45%, 60% and 70% for MIUE, MIUR and NCMS enrolees, respectively, even though Chinese policy stipulates that the reimbursement rate for inpatients should be above 60%.[28]

China's medical insurance schemes are designed to protect against catastrophic expenses during episodes of major illness and hospitalization rather than to prevent such episodes. Because of the limited coverage of pharmaceuticals and outpatient services, households having a chronically ill member may refrain from seeking care until advanced illness sets in. Extending insurance coverage to long-term care for chronically ill patients, outpatient services, routine essential drugs and rehabilitation services should be a priority.

Provider payment methods and cost containment

In China, the main payment method for hospital charges is fee-for-service. In the absence of effective expenditure controls and with limited risk sharing by hospitals, the financial risk has been shifted to the insurer and the patients. Hospitals have no incentives for cost control under an environment of maximum profit-seeking. Bonus payments to medical staff, tied to service volume and revenue, comprise a large fraction of medical remuneration. This constitutes an internal incentive to maximize volume, particularly of high-margin services. The price-cost margin is low for labour-intensive services, but it is higher for drugs and high-technology services, which further intensifies hospitals' dependency on revenue from provider-induced demand. Hospitals receive less than 8% of their revenues from government support.[29] This conjunction of factors contributes to escalating health-care costs. In response, the Chinese Government has promoted a series of pilot studies of alternative payment methods, such as episode-based payment.[30]

High out-of-pocket payments such as those seen in China (40% of total health expenditure in 2008) and Viet Nam (53.5% of total health expenditure in 2010)[17,31] are a risk factor for impoverishment.[32] Basing health-care financing largely on out-of-pocket payment is regarded as both inefficient and inequitable.[33–36] The high out-of-pocket and high rates of catastrophic health expenditure and impoverishment in China suggest that the support provided by insurance has been surpassed by increased service volumes and charges. More worrying is the possibility that, without effective cost controls, the increased flow of government subsidies to insurance companies has actually helped increase service volumes and charges through provider-induced demand.

Health insurance design

To reduce the risk of catastrophic health expenditure, the current mix of insurance schemes will need to be redesigned to include a mandatory essential benefit package, an essential component of universal coverage.[36] Coverage should be extended. Cost- and risk-sharing arrangements need to be reformed. Cost sharing in China favours the insurers rather than the patients. Insurers use exclusions, up-front deductibles and item ceilings to contain costs, and once a medical expenditure surpasses the ceiling, patients take over the remaining burden. This explains the disparity between reimbursement rates as stipulated in policy and actual rates in China. The main risk for hospitals is posed by uncollected debts. The insurers carry some risk with respect to volume, but most of the risk is borne by the enrolee. Insurance arrangements free of the per-

verse incentives associated with these arrangements can be designed.

The fee-for-service payment to health-care providers offers an incentive for reducing unit costs while increasing service volumes; it encourages provider-induced demand with over-servicing and over-prescription. This enables hospitals to shift the financial risk to insurers and patients and has implications in terms of service quality and of the financial burden borne by households and the government.

Conclusion

China's health sector reform has achieved unprecedented progress, but protecting vulnerable groups from health-care-related impoverishment remains a challenge. Health insurance, intended to reduce inequities and increase access to services, does not always accomplish these aims. As shown by our study, expanded coverage doesn't always translate into improved health-service coverage or better protection against health-care costs. Designing health insurance appropriately is critical; if the benefit package is small and cost sharing inadequate, universal coverage will be difficult to achieve. Provider payment methods can have different outcomes; under China's unique circumstances, fee-for-service payment creates perverse incentives that exacerbate catastrophic health expenditure.

More systematic monitoring of catastrophic health expenditure will assist in steering the development of health financing policies in China. The country should focus on addressing the financial access barriers facing vulnerable groups and on developing effective cost-control measures. A more integrated reform strategy is needed to enhance the breadth, depth and height of insurance coverage. In the long run, the various insurance schemes will need to be integrated and harmonized. ■

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ملخص

العوامل المؤثرة على النفقات الصحية الباهظة والإفقار الناتج عن النفقات الطبية في الصين: الآثار السياسية للتأمين الصحي الشامل

الغرض تقييم الدرجة التي وصل إليها مستوى حماية الشعب الصيني من الإنفاق المنزلي الباهظ والإفقار الناتج عن النفقات الطبية واستكشاف النظام الصحي والعوامل الهيكلية المؤثرة على أولى هذه النتائج.

الطريقة تم استخلاص البيانات من المسح الرابع للخدمات الصحية الوطنية. وتم إجراء تحليل للنفقات الصحية الباهظة والإفقار الناتج عن النفقات الطبية مع عينة تتألف من 55556 أسرة ذات خصائص مختلفة وفي بيئات ريفية وحضرية في مناطق مختلفة من البلد. وتم استخدام الارتداد اللوجيستي بغية تعريف محددات النفقات الصحية الباهظة.

النتائج بلغ معدل النفقات الصحية الباهظة 13.0 ٪ وبلغ معدل الإفقار 7.5 ٪. وارتفعت معدلات النفقات الصحية الباهظة بين الأسر التي تضم أفراداً تم إدخالهم إلى المستشفيات أو كبار سن أو مرضى مزمنين، بالإضافة إلى الأسر في الأقاليم الريفية أو الأكثر فقراً. وزادت مجموعة من العوامل السلبية من خطورة النفقات الصحية الباهظة. وكانت معدلات النفقات الصحية الباهظة بالنسبة للأسر المسجلة في أنظمة التأمين لدى الموظفين الحضريين أو المقيمين منخفضة عن تلك المسجلة في النظام المشترك الريفي الجديد. وكانت الحاجة للرعاية الصحية واستخدامها والديموغرافيات ونوع حزمة المزايا ونوع طريقة الدفع لمقدمي الخدمات هي محددات النفقات الصحية الباهظة.

الاستنتاج على الرغم من قيام الصين بتوسيع تغطية التأمين الصحي على نحو كبير، إلا أن الحماية المالية لا تزال غير كافية. ويتعين على صناع السياسة التركيز على تصميم خطط التأمين المحسنة من خلال توسيع حزمة المزايا وإعادة تصميم ترتيبات تقاسم التكاليف وطرق الدفع لمقدمي الخدمات ووضع استراتيجيات أكثر فعالية لمراقبة الإنفاق.

摘要

中国灾难性卫生支出和因病致贫影响因素分析

目的 评估中国居民在灾难性家庭卫生支出和因病致贫方面的受保护程度。探究影响灾难性卫生支出发生的卫生系统因素及结构性因素。

方法 利用第四次全国卫生服务调查数据。对中国不同地区、城市和农村中具有不同特征的55556户家庭样本进行灾难性卫生支出和因病致贫原因分析。运用逻辑回归的方法确定灾难性卫生支出发生的影响因素。

结果 发生灾难性卫生支出的比率为13.0%；致贫比率为7.5%。家庭成员中有住院病人、老年人或慢性病人，以及在农村或贫困地区居住的家庭，其发生灾难性卫生支出的比例较高。多种不利因素的组合增加了灾难性卫生支出发生的风险。参加新型农村合作医疗的家庭比参加城镇职工或居民基本医疗保险的家庭，发生灾难性卫生支出的比例高。对卫生保健服务的需求和利用、人口学因素、医疗保险的福利包类型以及供方支付方式，均是灾难性卫生支出的影响因素。

结论 虽然中国已经大大拓展了医疗保险的覆盖面积，但其对居民抵御疾病经济风险的保护能力仍然不足。决策者今后的重点应该是：通过扩大医疗保险福利包的覆盖范围、重新设计费用分摊方法和供方支付方式、并制定更加有效的费用控制策略，进而设计出更好的医疗保险计划。

Résumé

Facteurs affectant les dépenses de santé catastrophiques et l'appauvrissement dû aux dépenses médicales en Chine: implications des politiques de l'assurance de santé universelle

Objectif Évaluer dans quelle mesure le peuple chinois est protégé contre les dépenses catastrophiques et l'appauvrissement dû aux dépenses médicales, mais aussi étudier le système de santé et les facteurs structurels qui influencent le premier de ces résultats.

Méthodes Des données ont été obtenues de la quatrième enquête nationale sur les services de santé. Une analyse des dépenses de santé catastrophiques et de l'appauvrissement dû aux dépenses médicales a été réalisée sur un échantillon de 55 556 ménages présentant diverses caractéristiques et vivant dans des environnements ruraux et urbains de différentes régions du pays. La régression logistique a été utilisée pour identifier les déterminants des dépenses de santé catastrophiques.

Résultats Le taux des dépenses de santé catastrophiques s'élevait à 13,0 % et celui de l'appauvrissement à 7,5%. Les taux de dépenses de santé catastrophiques étaient supérieurs dans les familles dont certains membres étaient hospitalisés, souffraient de maladies chroniques ou étaient des personnes âgées, ainsi que dans les familles des régions rurales ou plus pauvres. Une combinaison de facteurs défavorables augmentait le risque de dépenses de santé catastrophiques. Les familles bénéficiant de régimes d'assurance de résident ou d'employé urbain présentaient des taux de dépenses de santé catastrophiques inférieurs aux familles bénéficiant du nouveau régime corporatif rural. Le besoin en soins de santé et leur utilisation, les données démographiques, le type d'assurance et le type de méthode de paiement des fournisseurs étaient les déterminants des dépenses de santé catastrophiques.

Conclusion Bien que la Chine ait considérablement développé la couverture de son assurance-maladie, la protection financière reste insuffisante. L'objectif des responsables politiques doit être de créer des programmes d'assurance améliorés en étendant les prestations sociales, en redessinant les arrangements du partage des coûts et les méthodes de paiements des fournisseurs, mais aussi en développant des stratégies de contrôle des dépenses plus efficaces.

Резюме

Факторы, влияющие на катастрофические расходы на медицинское обслуживание и связанное с этим обнищание в Китае: выводы для экономической политики универсального медицинского страхования

Цель Оценить степень защищенности населения Китая от катастрофических расходов домохозяйств и обнищания из-за расходов на медицинское обслуживание, а также изучить систему здравоохранения и структурные факторы, влияющие на первый из вышеназванных процессов.

Методы Данные получены из 4-го исследования Государственной службы здравоохранения. Анализ катастрофических расходов на здравоохранение и обнищание из-за расходов на медицинское обслуживание был предпринят с выборкой 55 – 556 домохозяйств с разными параметрами и проводился в сельских и городских условиях в разных частях страны. Логистическая регрессия использовалась для установления определяющих факторов катастрофических расходов на здравоохранение.

Результаты Уровень катастрофических расходов на здравоохранение составлял 13%; уровень обнищания – 7,5%. Уровни катастрофических расходов на здравоохранение были выше среди домохозяйств, имеющих госпитализированных, пожилых или хронически больных членов, а также в домохозяйствах в сельских или бедных регионах. Сочетание неблагоприятных факторов повысило риск катастрофических расходов на здравоохранение. Семьи, участвующие в системах страхования городских служащих или местных жителей, имели более низкие показатели катастрофических расходов на здравоохранение, по сравнению с зачисленными в новую сельскую корпоративную систему. Потребность в медицинской помощи, а также ее использование, демографические данные, тип страхового пакета и тип способа оплаты поставщика являлись детерминантами катастрофических расходов на здравоохранение.

Заключение Несмотря на то, что Китай имеет весьма широкое страховое покрытие, финансовая защита остается неудовлетворительной. Ответственным за политику в области здравоохранения следует сконцентрироваться на разработке усовершенствованных планов страхования посредством расширения страховых пакетов, переработки соглашений о долевом участии и методов оплаты поставщикам услуг, а также разработки более эффективных стратегий по контролю за расходами.

Resumen

Factores que afectan a los gastos sanitarios catastróficos y el empobrecimiento provocado por los gastos médicos en China: repercusiones políticas de un seguro sanitario universal

Objetivo Evaluar el grado de protección de los habitantes de China frente a los gastos familiares catastróficos y el empobrecimiento provocado por los gastos médicos y examinar el sistema sanitario y los factores estructurales que influyen en el primero de estos resultados.

Métodos Los datos se obtuvieron de la 4ª Encuesta nacional sobre los servicios sanitarios. Se emprendió la tarea de analizar los gastos sanitarios catastróficos y el empobrecimiento provocado por los gastos médicos con una muestra de 55.556 hogares con características diferentes localizados tanto en entornos rurales como urbanos en distintas partes del país. Se empleó un modelo de regresión logística para identificar los determinantes del gasto sanitario catastrófico.

Resultados La tasa del gasto sanitario catastrófico fue del 13.0% y la del empobrecimiento, del 7,5%. La tasa del gasto sanitario imprevisto fue superior en los hogares en los que alguno de los miembros estaba hospitalizado, era anciano o sufría una enfermedad crónica, así como en los hogares de zonas rurales o más pobres. Una combinación de factores adversos aumentó el riesgo de sufrir gastos sanitarios catastróficos. Las familias inscritas en los seguros urbanos para empleados o residentes presentaron una tasa menor de gastos sanitarios catastróficos que aquellas que estaban inscritas en el nuevo seguro corporativo rural. La necesidad y el uso de la atención sanitaria, la demografía, el tipo de prestaciones así como

el método de pago al proveedor fueron los determinantes del gasto sanitario imprevisto.

Conclusión Aunque China ha ampliado mucho la cobertura del seguro de salud, la protección financiera sigue siendo insuficiente. Las autoridades deberían centrarse en diseñar planes de seguros mejorados aumentando las prestaciones, rediseñando los acuerdos para la financiación de los gastos y los métodos de pago al proveedor y desarrollar estrategias más eficaces para el control de los gastos.

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