

# Enhancing financial protection under China's social health insurance to achieve universal health coverage

**Hai Fang and colleagues** highlight the need for better financial protection for poor people

**U**niversal health coverage means that all individuals and communities should get the quality health services they need without incurring financial hardship.<sup>1</sup> It has three dimensions: population coverage, covering all individuals and communities; service coverage, reflecting the comprehensiveness of the services that are covered; and cost coverage, the extent of protection against the direct costs of care.<sup>2</sup>

The UN sustainable development goals in 2016 committed countries to achieve universal health coverage by 2030 with a focus on essential health services and financial protection.<sup>3</sup> A recent report by the World Health Organization and the World Bank showed that China had a fairly high score for coverage of essential health services on 16 health indicators but a low score for financial protection to reduce the risk of illness induced poverty.<sup>4</sup>

China started comprehensive health system reforms in 2009, and in another article in this series Meng and colleagues provide a detailed review of these.<sup>5</sup> An important goal of China's health system reforms was to achieve universal health coverage through building a social health insurance system. We examine China's progress in enhancing financial protection of social health insurance and identify the

main gaps that need to be filled to fully achieve universal health coverage.

## What was proposed in the 2009 reform?

The 2009 health system reforms proposed a universal health insurance system that consisted of three main social health schemes: urban employee basic medical insurance (UEBMI), urban resident basic medical insurance (URBMI), and rural new cooperative medical scheme (RNCMS), with other supplementary insurance and private insurance (table 1).<sup>7</sup> The 2009 reforms aimed to cover all the Chinese population with one of the three basic schemes to give them greater financial protection. In 2016, the urban resident and rural schemes merged to form the urban rural resident basic medical insurance (URRBMI) to improve administrative efficiency.<sup>8</sup>

To give added protection to patients with critical illnesses, catastrophic medical insurance (also called critical illness insurance or *Da Bing Yi Bao*) was initially launched in 2012 and implemented nationally in 2015. It covers patients with critical illnesses whose out-of-pocket expenses are more than the average disposable income per capita in the local area, providing extra reimbursement and removing the benefit ceiling.

The medical aid programme (also called medical financial assistance or *Yi Liao Jiu Zhu*), which was launched in 2003 in rural areas and expanded to urban areas in 2005, provides a further safety net. It was designed to provide medical aid to the poorest people by paying their medical insurance premiums and reducing out-of-pocket expenses after receiving reimbursement from the basic social health insurance schemes and catastrophic medical insurance. Funding for medical aid is mainly from governments, welfare lotteries, and social donations.<sup>9</sup>

China also invested a substantial amount of public funds in health services. Government healthcare budgets financed building and renovating government primary care facilities, subsidies to

replace provider revenues generated from drug dispensing, purchase of medical equipment for public hospitals, expansion of public health services, and training and continuing medical education. These investments into the public health system increased the number of health workers from 3.48/1000 population in 2003 to 6.47/1000 in 2017 and the number of hospital beds from 2.34/1000 in 2003 to 5.72/1000 in 2017, among other effects.<sup>6,10</sup> Government investments also helped keep the prices of healthcare services low.

## What has been achieved in financial protection since 2009?

The expansion of health insurance improved access to and use of healthcare. In 2011, China achieved near-universal health insurance coverage, with more than 95% of the Chinese population covered by health insurance.<sup>11</sup> The percentage of people who were reported a "need" for hospital admission but did not receive inpatient care decreased from 29.6% in 2003 to 25.1% in 2008, and to 17.1% in 2013.<sup>12</sup> The average number of outpatient visits per capita increased from 1.7 in 2003 to 5.9 in 2017, and the annual inpatient hospital admission rate (the number of admissions in the country divided by the total population) also increased from 3.6% in 2003 to 17.6% in 2017.<sup>6,13,14</sup> Use of outpatient services in China was comparable with the global average, but admission rates were much higher.<sup>15</sup>

## Drop in out-of-pocket health expenses

The expansion of health insurance coverage in China reduced the share of out-of-pocket health expenses in total health expenditures. In China, national health expenditures are categorised according to three health funding sources: government budgets (including health service investments and social health insurance subsidies), social expenditures (including individual and employer contributions to social health insurance, private health insurance contributions, and social donations), and out-of-pocket spending.<sup>6</sup> High

## KEY MESSAGES

- China has achieved near-universal health insurance coverage, which has greatly increased access to and use of health services
- Financial protection for poor populations needs to be enhanced as they are more likely to have catastrophic health expenses
- Increased spending on health will not improve financial protection without further measures to increase health system efficiency, strengthen primary care, and reform provider payment systems

**Table 1 | Main features of China's three basic social health insurance schemes<sup>6</sup>**

Scheme	Launch year	Covered population	Coverage rate in 2015	Pooling level	Premium contribution
Urban employee basic medical insurance	1998	Urban employees and retired	95%	City	Employee and employer
Urban resident basic medical insurance*	2007	Urban non-employed and self employed	95%	City	Individual with government subsidies
Rural new cooperative medical scheme*	2002	Rural people	99%	County	Individual with government subsidies

\*Merged in 2016 to form the urban rural resident basic medical insurance (URRBMI).

out-of-pocket health expenses often mean low financial protection.

Figure 1 shows that the share of out-of-pocket health expenses in total health expenditures fell from 56% in 2003 to 29% in 2017. It is projected to decrease to 25% by 2030.<sup>16</sup>

**Enhanced financial protection for poor populations**

Catastrophic medical insurance and medical aid were effective in supplementing the basic social health insurance schemes and provided extra financial protection to a range of vulnerable groups, including people who are poor; chronically ill or disabled, disadvantaged by geographical factors, very young, or frail and old. By 2017, more than a billion people in China were covered by catastrophic medical insurance and 11 million people received extra benefits of more than ¥30bn (£3.4bn; €3.9bn; \$4.3bn).<sup>17</sup> The insurance reduced the average proportion of out-of-pocket expenses after reimbursement from basic social health schemes by about 10%.<sup>18</sup> In 2017, through medical aid, 56.2 million people (4% of the population) received subsidies to pay for their social health insurance premiums, and 35.2 million people (2.5%) received on average ¥757 (about 12% of average inpatient spending per admission in 2017) to cover out-of-pocket expenses.<sup>6</sup>

**What should be done to further progress?**

**Reduce out-of-pocket health expenses**

Although the proportion of health expenditures accounted for by out-of-pocket payments is decreasing, the payments

remain fairly high. Figure 1 shows that the amount of out-of-pocket health expenses per capita continued to increase. In 2013, out-of-pocket expenditure per inpatient admission represented 33% and 30% of annual disposable for the population covered by RNCMS and URBMI, respectively.<sup>12</sup>

High out-of-pocket spending is one of the main reasons for catastrophic health expenses and low financial protection in China.<sup>14 19</sup> Catastrophic health expense is often defined to occur when a household's total out-of-pocket health payments is 40% or more of the household's capacity to pay (ie, net income after essential spending).<sup>20</sup> According to this definition, the incidence of catastrophic health expenses in the total population was 12.2% in 2003, 14% in 2008, and 12.9% in 2011.<sup>14</sup> Though no national official statistics for catastrophic health expenses were released after 2011, studies using regional data suggest that the rate of catastrophic health expenses has not declined since 2011 (table 2).

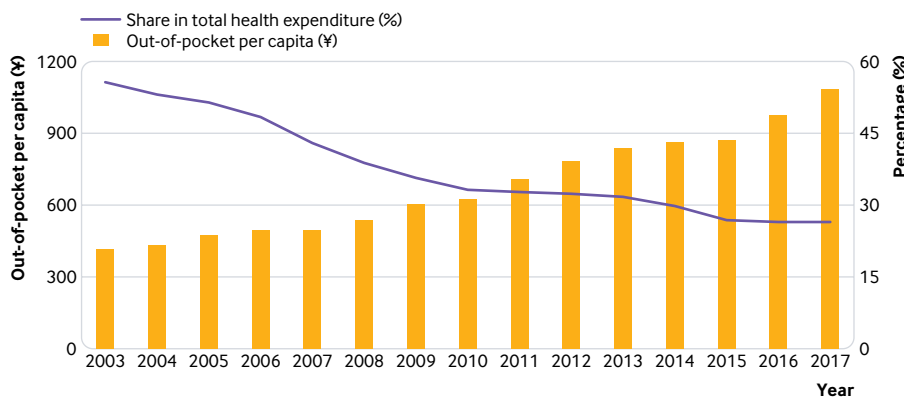
To reduce out-of-pocket expenses, eventually the entire social health insurance system should be further consolidated.<sup>26</sup> Currently, there are two separate social health insurance schemes: URRBMI covering the urban non-employed and self employed population and rural population, and UEBMI covering the urban employed population and retired people. The out-of-pocket expenses for URRBMI are much higher and more likely to lead to catastrophic health expenses than the UEBMI.<sup>12</sup> Consolidating the schemes and their risk pooling levels as well as equalising the benefit packages

through more government funding, would substantially reduce out-of-pocket expenses for urban non-employed and self employed people as well as rural populations. However, this increased government spending on healthcare will not be sustainable without further measures to increase health system efficiency, strengthen primary care, and control provider behaviour through reform of the payment systems.

**Catastrophic medical insurance and medical aid should be expanded**

Catastrophic health expenses disproportionately affect deprived populations. Table 2 shows that the incidence of catastrophic health expenses for the poorest fifth of the population was much higher than for the richest fifth. Household spending on health as a percentage of total household consumption expenditures also increased in both urban and rural areas, as shown in figure 2, but the increase in household expenditures on health seems to have been greater in rural than in urban areas (rural areas tend to be relatively underdeveloped).

Catastrophic medical insurance currently does not target poor people, and medical aid is relatively small in scale. Pilot studies using regional data have not shown that catastrophic medical insurance reduces the incidence of catastrophic health expenses.<sup>27 28</sup> Catastrophic medical insurance was designed to reduce the out-of-pocket burden for patients with critical illnesses but it currently covers all patients with critical illness, providing extra financial protection, as long as their out-of-pocket expenses are more than the average disposable income per capita in the local area. The cost sharing rate of catastrophic medical insurance (currently 50%) is identical regardless of the patient's economic status, but poor people have a higher disease burden and need more financial protection.<sup>12</sup> Not everyone eligible for catastrophic medical insurance will have catastrophic health expenses. To better protect vulnerable people, further increase in funding should be more focused on poor people, such as by linking benefit eligibility to household disposable income instead of an absolute threshold. The cost sharing rate could also be lower for poorer people.



**Fig 1 | Level and share of out-of-pocket expenses in total health expenditures, 2003-17**

Table 2 | Incidence of catastrophic health expenses between 2003 and 2016

Reference	Year	Region	Population	% incurring catastrophic health expenses*		
				Poorest	Average	Richest
Meng et al <sup>14</sup>	2003	National	All	N/A	12.2	N/A
Meng et al <sup>14</sup>	2008	National	All	N/A	14	N/A
Meng et al <sup>14</sup>	2011	National	All	N/A	12.9	N/A
Xu et al <sup>21</sup>	2013	Shaanxi Province	All	22.4	15.8	12.9
Sun et al <sup>22</sup>	2014	Inner Mongolia	Rural	N/A	17.5	N/A
Wang <sup>23</sup>	2014	National	Rural	31.6	15.8	5.7
Xu and Chu <sup>24</sup>	2015	National	≥45 years old	N/A	16.5	N/A
Jing et al <sup>25</sup>	2016	Shandong Province	Type 2 diabetes	17.†	13.8†	9.3†

N/A=not available.  
 \*The poorest is the bottom fifth of the distribution of household income and the richest the top fifth.  
 †Study reported the lowest 25% and highest 25% rather than fifths.

Medical aid in China covers only a minority of patients with catastrophic health expenses, although it aimed to cover everyone whose needs were not met by basic social health insurance schemes and catastrophic medical insurance. In 2011-16, medical aid covered around one quarter of the patients with catastrophic health expenses. It continued to impose benefit caps. Medical aid should be further expanded to cover all those who still incur catastrophic health expenses after catastrophic medical insurance reimbursements. It should also cap out-of-pocket expenses for extremely poor people (ie, poverty alleviation household, *Jian Dang Li Ka Hu*) as determined through strict eligibility criteria based on household disposable income, fixed assets, financial assets, real estate, etc.

**Conclusions**

By achieving near-universal population coverage of social insurance China has improved access to and use of health services and reduced the proportion of out-of-pocket spending. Although the Chinese government attempted to provide additional financial protection, catastrophic health expenses for poor people are still high. This group should be targeted within the current insurance system to enhance

financial protection in China. Such targeting requires a clear and integrated policy encompassing the basic social health insurance schemes, catastrophic medical insurance, medical aid, and improved healthcare efficiency. Protection of poor people from healthcare costs in health poverty alleviation (*Jian Kuang Fu Pin*) should be regarded as an important element of targeted poverty alleviation (*Jing Zhun Fu Pin*) in China, to break the vicious cycle of illness induced poverty (*Yin Bing Zhi Pin*) and return to poverty because of illness (*Yin Bing Fan Pin*).

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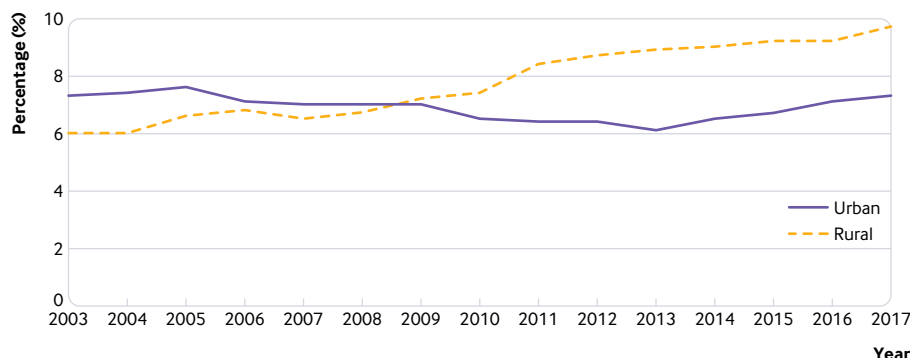


Fig 2 | Household spending on health as a percentage of total household consumption expenditures, 2003-17

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