ADDRESSING VULNERABILITY IN AN EMERGING ECONOMY:

CHINA’S NEW COOPERATIVE MEDICAL SCHEME (NCMS)

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Summary

China’s New Cooperative Medical Scheme (NCMS) is the successor of the nation-wide Cooperative Medical Scheme that existed during the 1950s-1970s. NCMS was developed in response to the decline in health care services since the economic reforms started in 1978, following intense discussions about the form health provisions should take, and has social insurance principles as central organizational principle. The central government launched NCMS pilots in 300 of China’s more than 2000 rural counties. It has been implemented in the same way most other policies in China are implemented: according to a centrally determined framework which grants local governments the autonomy to make adjustments given their own regional peculiarities. Policy guidelines for NCMS stipulate enrollment must be voluntary and catastrophic expenditures must be covered. It is seen as a response to poverty as well as disparities in health care, and an integral part of the social security system China is building up, with renewed attention since the stimulus package after the financial crisis. While the scheme promises much improvement for protection of the rural population, and coverage expanded very rapidly, lack of funding, financial management issues, and constraints to access and the dualistic system of provision still limit its effectiveness particularly for the poorest populations.

Introduction: global health challenges and social protection

In many countries, health challenges continue to determine the face of poverty. Among the off-track MDGs, health-related ones figure prominently, with maternal health and health of newborns among the most significant challenges. In many developing countries and ‘emerging’ economies, disparities between richer and poorer, urban and rural areas continue to exist, and in many cases are rising. At the same time, public funding for health care tends to receive relatively little priority in many countries, and large portions of health care are funded out-of-pocket, causing significant risks of falling into poverty, or an inability to obtain the necessary care. Emerging economies like China – the subject of this paper – and India face challenges in health care that are no less significant than in low-income countries, as demographic transitions, economic reforms, and opening up to global markets, all cause new and no less complicated choices, and new diseases and old and new risks continue to emerge. Internationally, over the last decade commitments to health care have significantly increased (Murray et al. 2011,
Ravishankar et al. 2009), thus increasing the need to understand the impact of different policy approaches.

In addressing – or neglecting – health challenges, alongside technical questions, important political choices are being made (Mackintosh and Tibandebage 2004). The choice of systems of delivery are deeply political, as the debates in the US illustrate, as well as in China where the debate on the role of state versus market of course as a direct bearing on the health care reform (Wang HF 2009; Blomqvist et al. 2009), and have direct implications for the form of social ‘contracts’ between citizens and their states (or, as in the case of Canada, Provinces). Coverage for health care can be important elements of bottom-up or grassroots organizational efforts, as the case of the Self Employed Women’s Association in Ahmedabad, India indicates. Neo-liberalism has included a growing – and for many misplaced – trust in markets to deliver health services, a growing significance of private health care providers, and of private insurance mechanisms. Social insurance has become an increasingly significant mechanism for the funding and delivery of health care, with for example Ghana, Tanzania, the Philippines and Colombia having set up social insurance system, in which – like in China - local government plays an important managerial role (Fei Yan et al 2010).

Study of the reforms in health care in China is important for a number of reasons, as was articulated at the launch of the The Lancet’s series on China’s health care reform in October 2008 (Han et al. 2008). Because of the size of its population, health improvements in China have a large impact on global MDGs. Heath risks and events in China have the potential to impact the rest of the world, as the SARS crisis in particular (and HIV/AIDS to a lesser extent) showed. Finally, as China’s development path is now increasingly seen as a model for the development world, the reforms in the health sector – and within that the choice of insurance as both funding and organizational principle – is increasingly of interest to the global development community (where, in general, the knowledge of China has remained limited; de Haan 2010).

To inform the global debate on social protection, this paper – first prepared as background note for the European report on Development – analyses the evolution of China’s new scheme for social insurance. It first discusses the decline in health services during the period of economic reforms, and how this led to the piloting – following established patterns of decentralized policy implementation – of the new insurance scheme for rural areas. It then discusses the modality of financing, and gradual increase in government contributions, followed by a description of the organization of the insurance scheme. The impact on poverty has been well-researched, and the emerging evidence is discussed in the subsequent section. The concluding section looks at the lessons that can be drawn from China’s new social insurance program.

**China’s economic miracle and decline of public health services**

The New Cooperative Medical Scheme (NCMS) is the successor of the Cooperative Medical Scheme (CMS) instituted in the 1950s and developed through the 1960s and 1970s. CMS was a health provision system based within the commune administration system, which provided free basic health care in rural areas, and 90% subsidized basic health care in urban areas. CMS was
widely considered one of the more successful models of health care provision in a developing

country (Zhang, L. X. et al. 2010).

With the economic reforms since 1978, and its phenomenal growth and record of poverty
reduction, the CMS, and its financial support mechanisms, slowly deteriorated with the moves
away from the collective system towards the Household Responsibility System (You &
Kobayashi 2009). During the 1970s CMS covered more than 90% of rural residents, whereas by
2003 only 9.5% of the rural population was covered by CMS (Zhang, L.X. 2010). Government
subsidies towards health care and hospitals gradually decreased, causing hospitals to develop
other revenue generating mechanisms in order to cover their costs (ISSA 2009). This was done
within the limits of the central stipulated policy which allowed for a capped percentage mark up
on non-basic medicines (basic medicines were still priced at below cost prices to keep them
accessible to poor patients), and high-tech diagnostic treatments, which among other things
resulted on over prescription of medicines and treatments (Dumoulin-Smith 2010; Wagstaff et al.
2007), “medicines maintained hospitals (Wen 2009: 5),” causing the cost of medical care to rise
beyond the reach of an increasingly large sector of the population.

Outpatient costs in 2006 were six times as much as they were in 1990, and inpatient costs
10 times as much (Wen 2009). In 2000, in rural areas 87% of sick people paid for their own
medical expenses in full, 25% were forced to borrow to be able to cover the expenses
(Dumoulin-Smith 2010). In 1995, medical expenditures caused 2.5% of households to fall below
the poverty line and in 1998 22% of poor households attributed their poverty to illness or injury
(You & Kobayashi 2009). In 1998, 63.7% of those in rural areas who should seek medical
attention did not, by 2003 this figure had reached 75.4% (Hougaard et al. 2008). Average
hospitalization expenditures in rural areas had increased from 613RMB in 1993 to 2,649RMB in
2003 (Sun et al. 2010). 45% of poor households had fallen below the poverty line due to out-of-
pocket medical costs (Sun et al. 2010). According to You and Kobayashi (2009) and Zhang, L. Y.
et al. (2010), illness and catastrophic health expenditure have become primary cause of poverty
in rural areas.

A National Health Survey conducted by the Chinese Ministry of Health in 2003, found
that of those who stated that they should have been hospitalized but were not, approximately
80% were rural residents (Zhang, L. X. 2010). Furthermore, 85% of the poorest quintile had not
sought health care for financial reasons (Zhang, L. X. 2010). Nationally, in 2003, 38% of the sick
did not seek medical assistance, and health-payment induced debt caused many households to
reduce food consumption (You & Kobayashi 2009). Following its relatively good performance
pre-1978, in the 2000s China’s ranked 144th among the WHO’s 191 member states in terms of its
health system, mainly due to its lack of equality and lack of government funding (Dumoulin-
Smith 2010).

In light of the decline in quality of medical (related to over prescriptions), the increasing
costs preventing the poor for seeking medical care (Wagstaff et al 2007), and growing regional
disparities in health (Zhang and Kanbur 2003), the Chinese government and a number of
international organizations attempted to revive the CMS during the 1990s (Zhang, L. X. 2003),
including it in the health sector reform initiated in 1997. However, a lack of financial and
political support and poor management caused these attempts to falter (Meng 2009; Sun et al.
2010; You & Kobayashi 2009).
The problems of China’s health care, thus, were not a mere by-product of its fast economic growth, and demographic transitions, but in fact directly related to the economic model chosen; as a result, current and future reforms continue to address challenges of finance and management that resulted from this success – we turn to these next, first how China successfully piloted the new social insurance approach.

NCMS: from pilot to program

In the early 2000s, as the failings of the health care system became ever more apparent and health payment-induced poverty became even more severe, the central government launched NCMS pilots in 300 of China’s more than 2000 rural counties. This effort in the health sector was not isolated in the broader public policy: enhanced efforts were made also in education, poverty reduction programs (and to a lesser extent pensions; see Cook and Lam forthcoming), encapsulated in 2005 in the formulation of the objective to promote a ‘harmonious society’. As many social policy initiatives historically, these were driven by both political urgency, and the articulation of needs and vulnerabilities.

NCMS intends to cover only rural areas, and participants need to have a rural residence permit (nongcun hukou), as urban areas have their own dedicated medical schemes (as described below). Enrollment in NCMS is usually on the basis of a whole household enrolling rather than on an individual basis (You & Kobayashi 2009). The goal of NCMS is to reduce the financial risks of catastrophic illness and improve access to health care for rural populations (Zhang, L. X. 2010; Zhang, L. Y. 2010). Coverage of catastrophic and inpatient expenses is one of the main objectives, aiming to reduce medical induced poverty (You & Kobayashi 2009; Zhang, L. Y. 2010). Poor households who are not able to make the government stipulated minimum contribution of 10RMB, or the locally stipulated minimum contribution, have their contribution either wholly or partially subsidized by the government (Wagstaff et al. 2007).

The number of pilot projects soon multiplied, covering 600 counties in 2005, and 1,433 counties in 2006.1 By 2008, more than 95% of rural counties were implementing the scheme (Zhang, L. X. 2010). Due to the vast regional, economic and social differences within China, NCMS has been introduced in the same way most other policies in China are, according to a centrally determined framework which grants local governments the autonomy to make adjustments given their own regional peculiarities. While NCMS guidelines prescribe that enrollment must be voluntary and catastrophic expenditures must be covered (You & Kobayashi 2009, local county level governments have been free to determine the following according to their own socio-economic situation:2 contributions paid by the farmers, contributions paid by the local and central governments, reimbursement ceilings for all three levels of hospitals (township/village, county, province), reimbursement percentages, deductibles, coverage for inpatient and outpatient costs, and coverage of out-of-county medical costs. As the total pooled funds only cover between 20-30% of per capita medical costs, local governments have to adjust

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1 Wagstaff et al. (2007). One reason for allowing autonomy in design is to promote learning concerning the different models of implementation and their successes and failures, which are reported to higher levels of government for evaluation and further policy design.

2 See Yan, F et al for study of differences in four counties.
their reimbursement packages in such ways as to not exhaust their funds through reimbursements (Brown & Theoharides 2009).

Although all participating counties cover inpatient costs, many do not cover outpatient costs, and some only cover catastrophic expenses (Wagstaff et al. 2007). In the counties studied by Wagstaff et al. (2007), inpatient reimbursements varied from 100% to 66%. Zhang, L. X. et al. (2010), report that there are four basic models of NCMS reimbursement: 1). Inpatient expenses only (16% of the 25 counties under their study), 2). Inpatient expenses and family accounts for outpatient expenses (36%), 3). Inpatient expenses and catastrophic outpatient expenses (20%), 4). Inpatient expenses and family accounts for outpatient expenses and catastrophic outpatient expenses (28%). Deductibles vary from Rmb.0-1,500, and ceilings vary from Rmb.5,000-40,000 depending on geographic area and socio-economic situation. Deductibles and copayment rates are often increased for treatment outside of the local county, in order to control reimbursement expenditures, possibly also to reduce the burden of minor health complaints at higher-level hospitals (Brown & Theoharides 2009; You & Kobayashi 2009).

Unlike its predecessor, NCMS is a voluntary scheme (Wagstaff et al. 2007). The scheme operates at the county rather than village level, meaning that there is a greater degree of risk pooling and organizational and managerial economies of scale (Sun et al. 2010). Although the scheme is voluntary, local governments have, through intensive campaigns, attempted to increase the levels of participation, including publicizing cases were NCMS participants have been successfully reimbursed (Zhang, L. X. 2010). Furthermore, the central government only provides subsidies to poorer provinces which meet the minimum level of 80% participation, further encouraging local governments to increase participation through publicity campaigns and door-to-door appeals (Brown & Theoharides 2009; You & Kobayashi 2009).

The 2008 financial crisis and the following stimulus package (formulated in a policy paper in January 2009) led to a significant push in the promotion of NCMS and the health care system more broadly. The government announced the objective for universal coverage of basic health care for all its citizens by 2020, with major reforms in the public health system, medical care delivery system, health security system, and the pharmaceutical system. In 2008, Premier Wen Jiabao stated that the government would increase spending on health care by 25%. Rmb.850 billion ($125 billion) was committed from central and local governments over three years to supporting the reforms.

The objective of the 2009 health sector reform is to achieve universal coverage for basic health care by 2020 (ISSA 2009; Meng 2009; NDRC 2009). The aim is to cover 90% of urban and rural residents through social health insurance schemes by 2011 (Meng 2009). The government also committed to improve grassroots-level hospitals and clinics, in its recent health

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3 NCMS further differs from its predecessor in that provincial governments are obliged to make financial contributions to the NCMS in counties under their jurisdiction (Sun et al. 2010). Subsidies are provided to areas that are unable to meet supplementary premium requirements in order achieve the minimum premium.

4 An additional political incentive for the health sector reforms is the goal of stimulating domestic consumption in order to bolster its economy, and wean it off dependence on exports to foreign countries, especially given the global financial crisis (Meng 2009). This is based on the understanding that many households in China have high savings rates, one of the highest in the world (Sun et al. 2010). Fear of medical impoverishment is one of the top three reasons given for high savings rates, and increased coverage by medical insurance schemes like NCMS, would thus reduce the need to save, increase the amount of disposable income, and increase domestic consumption (Wen 2009).
sector reform declaration, through increased financial assistance and through a system whereby hospitals in developed areas and cities establish counterpart relations with lower-tier hospitals and clinics (NDRC 2009; Yuan & Jiang 2009). Meng (2009) argues that there are three reasons for the recently increased political support of the health sector reforms: 1) improved capacity for financing health services, 2) concerns by the general public about health care access, 3) and an increasing awareness by the political leaders in Beijing of the importance of health care for socioeconomic development. All levels of political leadership have been urged to put health care as a priority on their agendas.

Financing NCMS

The minimum individual contribution, as determined by the central government, was Rmb.10 annually (Brown & Theoharides 2009; Wagstaff et al. 2007). This is then supplemented by a minimum of Rmb.20 by the local government, and in the case of poorer central and western provinces, this is matched by a Rmb.20 contribution by the central government, achieving the Rmb.50 minimum level of financing per individual, which was raised to Rmb.80 in 2008/09 (Gao and Meng undated, and to Rmb.120 in 2010 (NDRC 2009).

The return on the 10RMB contribution increased from 14RMB out of total 35RMB, to 47RMB out of total 50RMB between 2004 and 2007. However, the share of those covered by NCMS who were reimbursed did not increase from 22% in 2004 (in fact, it decreased to 21% in 2007; Zhang, L. X. 2010). Nevertheless, the processing period for reimbursements was reduced, and the overall real reimbursement rate did increase between 2004 and 2007 from 7% for inpatients and 3% for outpatients to 15% and 4% respectively. Reimbursement rates for catastrophic expenses were lower than non-catastrophic expenses (ibid.).

The government has stated the intention to increase the annual reimbursement ceiling from 3-4 times average wage, to 6 times (ISSA 2009), and to increase the hospitalization expense reimbursement rate under NCMS from 38% to 50%, in addition to reimbursement rate increases in its other medical insurance schemes (ISSA 2009).

By 2006 total NCMS revenue had reached 24.49 billion RMB, six times the amount of 2004, and doubled again by 2007. The composition of this revenue if presented in the following Table, showing the crucial role of local governments – even though the central government also provides subsidies to local governments in poorer regions.

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5 Health care has been declared a “a fundamental factor in determining the quality of life, building of a fair society, and realization of a people-centered development model for the country (Meng 2009: 14).”

6 Zhang, L. X. (2010). Measures used for catastrophic expenses by different authors vary. Zhang, L. X. uses a measure of 4,000RMB, while others have used percentages of income.

7 Wagstaff et al (2007); medical assistance program subsidies increased by 58.7% during 2008-2009 (ISSA 2009).
Table: Composition of NCMS Revenue 2006

<table>
<thead>
<tr>
<th></th>
<th>Total (billion Rmb)</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Central government</td>
<td>4.27</td>
<td>18</td>
</tr>
<tr>
<td>Local government</td>
<td>10.78</td>
<td>44</td>
</tr>
<tr>
<td>Rural population</td>
<td>5.8</td>
<td>24</td>
</tr>
<tr>
<td>Previous surplus</td>
<td>3.33</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>24.49</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: You & Kobayashi 2009

The program is considered to be severely under-funded, and unable to achieve its own goal of reducing the financial risk to the poor of catastrophic illness (Zhang, L. X. 2010). The government has dedicated 850 billion RMB to health sector reforms, of which the NCMS is one element (ISSA 2009; Meng 2009; Wen 2009). Zhang, L. X. et al. (2010) argue that even with the increased funding promised by the government in March 2009 - increasing premium subsidies to Rmb.120 – funding levels would still not be enough to meet the promised level of reimbursement for catastrophic expenses, due to the price elasticity of health care expenditures. Most county governments face fiscal deficits, and are therefore unable to cover reimbursements that exceed their revenue pool. Meng (2009) calculates that a total of 104 billion RMB annually would be needed in order to cover the increased premium subsidies for the 850 million people insured under the rural and urban medical insurance schemes. This would leave only 179 billion RMB annually out of the 850 billion promised for 2009-2011, for further health sector reforms including primary health facility investments and essential public health service delivery. Moreover, local governments already suffer from fiscal constraints, exacerbated by the central government policy of only providing subsidies when the local government contribution has been fulfilled (ibid.).

Administration and institutions

While in general administrative capacity has proven to be very high in China, the challenges of reform have proven to be significant. Challenges to reach out to poorest (and ethnic-minority) areas remain significant, and more generally, after “the incredible growth produced by three decades of economic liberalisation, policy makers are now struggling to come to grips with hospitals that operate like profit-maximising businesses but which produce outcomes discordant with the public interest” (Alcorn 2011).

NCMS does not operate in isolation. Alongside NCMS, the government has also established a medical assistance scheme, which assists poor and near poor households facing high medical costs. Among those covered are households in China’s wubao, tekun, and dibao programs, and near poor households in which one member or more suffers from chronic illness. NCMS is thus one of the three pillars of China’s overall health insurance scheme, the others being: the Urban Employees’ Basic Medical Insurance (UEBMI) program which covers employees in government organizations, social groups, enterprises, and non-profit organizations; and the Urban Residents Basic Medical Insurance (URBMI) which, with the help of government subsidies, covers non-salaried people, e.g. elderly and children. The three pillars and one crutch
system includes the Medical Assistance Programs, which cover poor households in both rural and urban areas (ISSA 2009).

Two ministries are responsible for the development of the social health insurance policy, namely, the Ministry of Health and the Ministry of Labor and Social Security. NCMS management and administrative institutions are responsible for charging rural residents, and large-scale social mobilization and house revenue collection are commonly used methods. Fees are deposited, along with local sponsored funds, in a dedicated state-owned commercial bank account used for NCMS (You & Kobayashi 2009). Other structural reforms have been implemented to facilitate the implementation of health care sector reform. The authorities of the Ministry of Health have been expanded to improve coordination among the relevant agencies. A leadership committee within the State Council has been established to coordinate between the ministries involved in the health sector reform, including the Ministry of Health, the Ministry of Finance and the National Development and Reform Commission (Meng 2009).

The NCMS at the county level is managed by an NCMS committee and an NCMS office. This is composed of the heads of the county bureaus of the ministries of Health, Finance and Civil Affairs, as well as heads of towns, villages and hospitals. The committee is chaired by the head of the county, and is responsible supervising the implementation of NCMS. The NCMS office is responsible for developing financing, reimbursement and cost control policies, as well as the daily management and administration of the scheme. The office designates a number of health care providers covered by the scheme and signs service-level agreements (Zhang, L. Y. et al 2009).

NCMS offices have been found to lack professional and experienced staff capable of appropriate reimbursement and financing policy development, and fund management (Zhang, L. Y. et al. 2009). Yan F. et al (2010) study in four countries also identifies a range of staff and managerial constraints, but highlight the capacity to innovate to overcome these challenges.

Financial management issues include risk averse management maintaining low reimbursement rates and building up large surpluses. Further, this study noted a lack of competence with regard to managing cooperative insurance funds. The voluntary nature of the scheme has lead to high management costs, in one county in Yunnan a survey carried out by Beijing University found that management costs were 17% of the total NCMS fund for the county (You & Kobayashi 2009). As risk is pooled at the township level, there is a greater risk of insolvency.

Health costs, in NCMS policy, are controlled on the demand side, through high deductibles and co-payment rates, and low ceilings, rather than on the supply side (Zhang, L. Y. et al. 2010). This has led to the continued high levels of medical expenditures (due to moral hazard),

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8 Dumoulin-Smith (2010); Article 45 of the Chinese constitution legally requires the state to provide social health insurance.
9 Wen (2009). Small risk pools also increase the risk of “bad risks”, those with expensive and chronic illnesses, subscribing more, increasing the premiums and causing the “good risks” to drop out, while “good risk” drop out is high as many young rural residents look for work in urban areas, leaving only “bad risks” in the risk pool.
10 A main component of recent reforms is the implementation of an essential (basic) medicines list, with relative high reimbursement rates, prohibiting providers from levying any additional charges on them. This would represent
as was also prevalent prior to the recent health care system reforms when the over prescription of non-essential medicines and high-tech diagnostic tests was utilized as a revenue generating mechanism needed to meet the budgetary demands of hospitals. Zhang, L. Y. et al. (2010) found that supply side cost control mechanisms piloted in Chongqing have reduced hospitalization expenditure and economic burden.

Impact on poverty and vulnerability

Medical insurance coverage in rural areas is increasingly not only seen as a health protection measure but also as a poverty reduction strategy (Sun et al. 2010). However, findings on the reduction of health payment-induced poverty are mixed, with regional variation making assessments complicated. Zhang L. X. (2010) for example cites sources reporting on data from Hebei which state that NCMS played an important role in reducing the incidence of health payment-induced poverty, but data also showed that many rural residents in Jiangxi were still not utilizing health care as the costs were too high. In Shandong, Sun et al. (2010) found that 5.1% of sample households fell below the national poverty line due to medical expenditures prior to NCMS reimbursement, while 4.0% fell below the national poverty line due to medical expenditures after NCMS reimbursement, indicating a small impact on reducing health payment-induced poverty.

NCMS has increased farmers’ medical service utilization by 23% for outpatient visits and 27% for inpatient episodes (You & Kobayashi 2009; Zhang, L. X. et al. 2010). You and Kobayashi (2009) found that there was a higher than average number of prescriptions in NCMS villages than in non-NCMS villages, and a higher number of prescriptions to insured patients in NCMS villages than uninsured patients. However, Wagstaff et al. (2007) concluded that medical care utilization for the poorest 10% of China’s rural population had not increased. Utilization had increased among other groups, which is likely due to the high coinsurance rates. Those living in richer provinces, or in central and western provinces (as opposed to poorer eastern provinces) were more likely to enroll in NCMS (Wagstaff et al. 2007; You & Kobayashi 2009).

One group not covered by NCMS, or any other medical insurance scheme, is migrant workers (Dumoulin-Smith (2010), of which there an estimated 200 million in China. However, the government declarations of July 2009 (Cui 2010; NRDC 2009) have addressed this issue by allowing migrant workers to enroll in UEBMI if they have employment contracts, or NCMS or URBMI if they have difficulties participating in UEBMI (IOSCPRC 2009) – but effective implementation is likely to take time.

Catastrophic spending has increased under the scheme, in line with increased utilization of health services (Wagstaff et al. 2007). The scheme has increased average out-of-pocket spending and reduced the frequency of catastrophic spending among the poorest decile (ibid.). Catastrophic spending among higher deciles (3-10) had increased, with no effect on average out-of-pocket spending (ibid.). Evidence shows that reimbursement rate, and program contributions

\[ a \text{ substantial loss in physicians' income, who will be compensated with direct government payments, effectively uncoupling their income from the quantity or price of drugs they prescribe (Alcorn 2011).} \]

\[ 11 \text{ You and Kobayashi’s (2009) study found that an average of 3.3% of total participants had been reimbursed.} \]
to catastrophic expenses, are low (You & Kobayashi 2009; Zhang, L. X. 2010), with NCMS reimbursements playing a more important role in richer areas in reducing the incidence of catastrophic medical payments than in poor areas therefore not (yet, or by itself) achieving the government stated goal of reducing the financial risk to the poor of catastrophic illness. Given the increased deductibles at higher administrative levels, patients are less likely to seek medical help there (Brown & Theoharides 2009). High minimum spending levels and low maximum benefits in some counties has meant that there is a low incidence of care seeking in NCMS approved hospitals in these counties.

Enrollment was lower among poor households, as mentioned, but higher among households in which one member or more was chronically sick. Larger households and ethnic minority households were more likely to enroll in NCMS. However, gendered patterns of utilization need careful review, as at least one study of a pilot CMS comments that not all family members benefit equally (women over 65 being a particularly vulnerable group, and the evaluations should take individuals rather than households as unit of analysis (Qicheng Jian 2011). Higher age and sickness reduced the health seeking behaviour of participants (Brown and Theoharides 2009).

Low effective reimbursement rates and low benefit levels mean that the financial burdens remain high, even after NCMS reimbursement. You and Kobayashi (2009) found that NCMS has not had a significant effect on average out-of-pocket medical expenses or on reducing the risk catastrophic expenses. Zhang, L. Y. et al. (2010), found that the occurrence and intensity of catastrophic expenditures was greater among poor NCMS inpatients than non-poor. Furthermore, poor inpatients benefited more from NCMS than non-poor. For poor patients the average reimbursement was 978RMB, while it was 625RMB for non-poor patients, representing 26% and 25% of their total hospital expenditure respectively. They found that supplementary assistance schemes, such as the Medical Assistance Program, is effective in alleviating the frequency and extent of catastrophic health expenditures.

Although poor households are exempt from paying premiums in a number of models, poverty and the inability to pay out-of-pocket expenses limits access to medical care (You & Kobayashi 2009). The “pay first, claim later” model, is regarded by participants, health providers and NCMS managers alike as a disincentive for the poor to seek medical attention (Yu et al. 2010). Reimbursement procedures are complicated and time consuming, often requiring repeated visits and numerous signatures authorizing the reimbursement (Yu et al. 2010; Zhang, L. Y. et al. 2009). As the NCMS does not compensate transport and loss of production costs, and actual reimbursement rates are often quite low, many members do not seek compensation for smaller amounts (Yu et al. 2010). Co-payments are still high due to low ceilings and high deductibles (Wagstaff et al. 2007; You & Kobayashi 2009; Zhang, L. X. 2010), meaning that the reduction of health payment-induced poverty is minimal (Sun et al. 2010). Although all participating

12 High levels of co-payments might exclude some from participating, though the poor can have their contributions partially or wholly subsidized by the government through the medical assistance programs.
13 In 2010, rural insurance was supported by government contributions of only CNY120 ($18) per enrollee. Although plan specifics vary slightly by province, 40% of inpatient care is reimbursed on average with a cap of CNY30000 ($4619); any expenses beyond this fall on the patient (Shuo Zhang, health specialist at the World Bank).
counties cover inpatient costs, many do not cover outpatient costs, and some only cover catastrophic expenses (Wagstaff et al. 2007).

**Conclusion: what lessons from NCMS?**

This article has reviewed China’s NCMS, as an example of new policies for delivering health care, in poor areas, and in the context where the impact of three decades of liberalization is felt distinctly throughout the health sector. NCMS has chosen social insurance as a main organizational principle. The new scheme implies progress in terms of protecting the rural population against health risks and related vulnerability of falling into poverty, but it is gradually being expanded in terms of coverage and levels of reimbursement and funding, and is still quite far away from reaching the set objectives, notably to protect the poorest.

For many, this progress is too slow, and indeed the policy follows a long period where economic reforms were not accompanied by adequate social policies. And even this ‘national’ scheme remains based in the dualistic public policies which continue to favor urban over rural areas – integration of systems will take time. Vested interests within the medical sector (fees, medicines) continue to create blockages for effective and universal coverage. Public finance modalities continue to carry a bias against poorer areas, and increased central commitments will be necessary to address the large and probably still-growing disparities. Nevertheless, the progress in health care in China is significant, and the lessons from its reforms are worth studying.

There are many lessons from the new health insurance scheme, and its (limited) success so far. The current reforms follow earlier attempts, which had little impact. There have been particular circumstances that led to the high levels of commitment, particularly since 2003, both related to public health concerns, and the general considerations to improve public services as a result of growing public demand. Since 2003 there has been growing awareness of the need for a public system for health care as precondition for broader development, as China’s capacity for public finance has of course greatly increased. Attention to health care, reinforced after the 2008 financial crisis, also is part of the leaders’ response to growing public resentment and unrest, and since 2009 part of a focus to promote domestic consumption – the crisis thus providing the ‘opportunity’ which political leadership used effectively.

The evidence from existing studies - and policy responses – clearly indicate that the social insurance is not the only – or even the main – policy variable that matters. It remain important to assess this against the broader health sector reforms, as in itself NCMS would do little to address the deep-rooted challenges, both of out-reach to most remote areas, and of addressing the institutional problems and vested interests that developed during the post-1978 economic and public policy reforms, and those that existed earlier (such as the dualism in the health care system). The direction in which health sector reforms have moved is probably irreversible, but it the precise directions continue to be defined and refined on a regular basis, and success of the system – particularly towards universalisation – depend on continued capacity and commitment to reform.
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