# Progress and challenges of the rural cooperative medical scheme in China

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**Problem** During China's transition to a market economy in the 1980s and 1990s, the rural population faced substantial barriers to accessing health care and encountered heavier financial burdens than urban residents in paying for necessary health services.

Approach In 2003, China started to implement a rural cooperative medical scheme (RCMS), mainly through government subsidies. The scheme operates at the county level and offers a modest benefit package.

Local setting In spite of rapid economic growth since the early 1980s, income disparities in China have increased, particularly between rural and urban populations. In response, the government has put greater emphasis on social development, including health system development. Examples are the prioritization of improved access to health services and the reduction of the burden of payment for necessary services.

Relevant changes After 10 years of implementation, the RCMS now provides coverage to the entire rural population and has substantially improved access to health care. Yet despite a drop in out-of-pocket payments as a proportion of total health expenditure, paying for necessary services continues to cause financial hardship for many rural residents.

Lessons learnt In its first decade, the RCMS made progress through political mobilization, government subsidies, the readiness of the health-care delivery system, and the availability of a monitoring and evaluation system. Further improving the RCMS will require a focus on cost containment, quality improvement and making the scheme portable.

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

#### Introduction

The BRICS countries - Brazil, the Russian Federation, India, China and South Africa - have made remarkable advances in economic growth. To sustain this growth, countries such as China have started to focus more on social development, including health-care coverage. However, like many other transitional economies, China faces great challenges in providing access to good quality health services and financial protection for patients.

With a lower capacity to pay than urban dwellers, people in rural areas encounter more difficulties in accessing health services; they also have a greater financial burden owing to the out-of-pocket payments that are required at the point of obtaining health services. The lack of effective financial protection mechanisms for the rural population has led to increasing inequalities in health and health care between urban and rural areas and among different groups within the rural population.1

The central government of China is committed to achieving universal health coverage. In 2002, it decided to strengthen the rural health system to improve access to health care and reduce the financial burden of medical costs for the rural population. This decision was one of the strategies for closing the gap in public services and social protections between rural and urban areas.

China currently has three main health insurance schemes: urban employee insurance, an urban residence medical scheme and a rural cooperative medical scheme (RCMS). Through these schemes, the government aims to improve access to good quality health services and financial protection for its whole population.

Among the three insurance schemes, the RCMS has made the greatest progress over the past 10 years. By the end of 2012, after a decade of implementation, the RCMS covered 805 million rural dwellers (98% of the total rural population).<sup>2</sup> The scheme is now a cornerstone of China's rural health system and exemplifies the success of current health system reforms that aim to achieve universal health coverage by 2020.

With the development of the RCMS, China has inspired many other developing countries in their efforts to expand insurance coverage to the informal sector. This paper discusses China's experiences in developing the RCMS, with a focus on the progress and setbacks encountered in implementing the scheme.

# **Approach**

#### **Political commitment**

An official document entitled Decisions on the strengthening of the rural health system was issued in 2002 by the Central Committee of the Communist Party of China and the State Council, the country's highest decision-making authorities.3 This policy document laid out the principles for the RCMS, including its sources of funding, level of fund pooling, benefit package and fund management. It also defined the responsibilities of each level of government in fund collection, management and service procurement.

#### **Features and implementation**

The RCMS was piloted in 2003 and it expanded rapidly, with strong administrative and financial support from the government. In China, the distribution of public funds usually follows political decisions. Besides subsidies to the RCMS fund, the government allocates extra budgetary funds to support the operation of the scheme by setting up county RCMS offices. Since 2003, several guidelines and policy documents have been developed by the government to address RCMS operational issues.

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Table 1. Features and implementation of the rural cooperative medical scheme in its first decade

Elements of the RCMS	Features	Implementation
Eligibility	Entire rural population, including rural migrants in urban areas	Population coverage increased from 10% in 2003 to 98% in 2012.
Government role	Guiding principles from the central government, overall implementation plan from provincial governments, and concrete implementation plans from county governments	Accountability of each level of government has been more clearly defined.
Fund collection	About 20% from rural households and 80% from government subsidies	The fund increased tenfold between 2003 and 2012.
Fund pooling	The fund is pooled at the county level, with an average population of a half million	Discussions about raising level of fund pooling to increase capacity of financial protection are ongoing.
Fund management	An RCMS management committee led by the county government	RCMS management staff and staff capacity have increased.
	An RCMS office in each of the counties for daily operation	
Benefit package	Service package: both outpatient and inpatient	The service package has been extended and co-payment has been gradually reduced.
	Reimbursement: adjusted according to availability of funds and scope of services covered	
Service procurement	Contracting with health providers	New payment systems, including capitation and casebased payment methods, have been adopted.
	Encouraging alternative payment systems to replace fee- for-service payment method	

After 10 years, the RCMS has established stable institutions. The scheme is mainly supported by government taxes, supplemented by household contributions (Table 1). Funds are pooled at the county level. Although there is no direct risk-equalization mechanism, both central and provincial government subsidies are weighted in favour of poor counties.

The RCMS benefit package was modest initially; in most cases it covered only inpatient services. Today, some high-expenditure outpatient services are covered by the RCMS, although the fraction of the cost that is coverage depends on the availability of funding. The payment to providers is still dominated by the fee-for-service model, but a growing number of counties have been piloting and implementing alternative payment methods, such as capitation and casebased payment.

# **Progress and challenges**

#### Rapid expansion of population coverage

The initial strategy for the development of the RCMS was to start with a modest benefit package but rapidly expand population coverage. For historical and political reasons the RCMS is, in principle, a voluntary scheme. Initial efforts to avoid low participation rates and adverse selection (i.e. lack of participation by healthy people) made the scheme vulnerable. The central government has

taken a series of actions in this respect, including steps to link allocation of its subsidies with population coverage in each of the counties, and the establishment of population coverage targets for local authorities. Local governments have a strong incentive to expand population coverage to increase subsidies from the central government.

In addition to the aforementioned approaches, other policies and measures for expanding population coverage include: continuously increasing government subsidies for the RCMS (Fig. 1 shows increases in RCMS funding per capita - 80% from the government and 20% from individuals - and in population coverage); increasing public awareness of the benefits of the RCMS through the media; changing the individual-based enrolment policy to a family-based one (one of the most effective methods for rapid expansion); simplifying procedures for enrolment and reimbursement; and attracting people to join by expanding the service package.

# Increasing service and cost coverage

The scope of services covered by the RCMS in its first five years was limited to selected inpatient care in most counties. Coverage of services has gradually been expanded, along with funding. By 2008, the RCMS in most of the counties covered both inpatient and outpatient care.6 The RCMS drug reimbursement list currently includes about 1138 drugs.7 Part of the funds of the RCMS are allocated to outpatient medicines for patients with noncommunicable diseases. Since 2012, 15 Chinese yuan per capita per year have been pooled, on average, to cover 70% to 80% of total expenditures for 20 highcost health conditions.8

#### Better access, lower expenditure

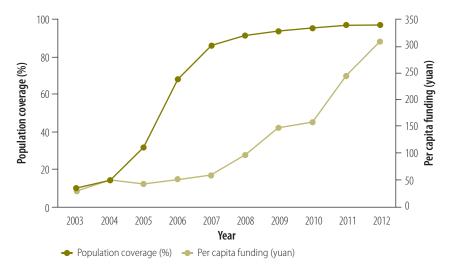
Health-care use increased substantially after the implementation of the RCMS. Before 2003, the annual hospitalization rate was steady at around 3%,9-11 but by 2011 it had increased to 8.4%.12 However, excessive and unnecessary use of health-care services resulting from the expansion of health insurance coverage has occurred. One example is the rise in caesarean deliveries in rural areas. 13,14

Although RCMS funding has rapidly increased and co-insurance has declined, some rural dwellers still face financial hardship in paying for necessary health services. Between 2003 and 2008, the rate of impoverishment due to medical expenditures declined from 5.5% to 4.6% overall, but it continued to increase for the poor. 10,15 Compared with the urban employee insurance, the RCMS benefit package is still small. However, now that the RCMS covers most of the rural population, the priority is to expand the benefit package to cover more services and costs.

# **Controlled costs, improved quality**

Rapid increases in health-care use and in demand (possibly supplier-induced) have caused an escalation of medical

Fig. 1. Population coverage and per capita funding for the rural cooperative medical scheme, China, 2003–2012



The average conversion rate during the study was 1 yuan to US\$ 0.139 (2003: 1 yuan to US\$ 0.12; 2012: 1 yuan to US\$ 0.158).

Data source: National Health and Family Planning Commission<sup>2</sup> and Ministry of Health.<sup>4,5</sup>

#### **Box 1. Summary of main lessons learnt**

- Political commitment and actions by both central and local governments are critical for scaling up the rural cooperative medical scheme (RCMS).
- The matching method, whereby local governments match central government RCMS subsidies and rural household RCMS contributions, creates an incentive for local governments to organize the RCMS and for rural dwellers to enrol, and it also holds all three parties to account.
- A functional service delivery system is the essential platform for establishing health insurance; any increase in the RCMS benefit package must be accompanied by improved service quality and cost control.

expenditures in a way that threatens the sustainability of the scheme. Government and RCMS administrators have been actively exploring solutions. For example, in 2012, the central government issued guidelines for reforming provider payment systems in an effort to replace the fee-for-service payment method with alternative payment systems, such as capitation, case-based payment and a global budget.<sup>16</sup>

Quality of care is a central issue in RCMS management. Various indicators are used for paying health providers; they include rational use of drugs, provider compliance with standards and protocols of medical care, and patient satisfaction. Medical expert panels monitor the quality of health care. However, it will take time to improve the quality of care in village clinics and township health centres because of a lack of qualified health workers.

# **Portable for rural migrants**

Migration from China's rural areas to its cities is enormous: 165 million people in

2012.<sup>17</sup> About 70% of the rural labourers in urban areas are self-employed or work in private and small enterprises, commonly in high-risk jobs with low pay.<sup>18</sup> In most counties, migrant workers seeking medical services are required to pay the full service cost and can only be reimbursed when they return to their hometowns. This is the case even though few counties with intensive outflow of migrants try to make reimbursements and services convenient for these migrants by contracting with health providers in the cities where the migrants are residing. The central government is working on making the RCMS portable by using information technology and by integrating the RCMS with urban health insurance schemes. Both approaches will take time to produce palpable results.

#### **Lessons learnt**

The RCMS has progressed rapidly in its first decade. High-level political commitment has been a critical factor for its nationwide scale-up. The

RCMS is one of the top priorities on China's social development agenda and the scheme was included in the country's 11th (2006–2010) and 12th (2011–2015) national five-year development plans.

Transforming political will into actions is the key to the success of China's RCMS. The central government as well as local governments have allocated substantial budgets to subsidize the enrolment of rural dwellers in the RCMS. In fact, about two thirds of the funding for the RCMS comes from government taxes. The government subsidy to RCMS is one of the most important factors attracting people to join and trust the system.

Box 1 summarizes the main lessons learnt from implementing the RCMS. Incentives for local government are very important. The matching method (in which local government matches the central government's subsidies and rural households' contributions) has worked well in this context for mobilizing support from local governments and encouraging rural dwellers to join the RCMS. Furthermore, the progress on the RCMS is one of the performance indicators for assessing local governments.

Another factor that is often overlooked is the service delivery system. Insurance is a demand-side intervention; if the services covered by the insurance do not exist, there is nothing to be insured. China has relatively good three-tier health-care delivery systems in rural areas – one of the preconditions for establishing the RCMS. Increased resources through the RCMS in turn strengthen the capacity of the health-care delivery system in rural China.

Now that the RCMS covers nearly the entire rural population, the next step will be to improve the benefit package. Compared with the urban employee scheme, the RCMS provides a modest benefit package in terms of the range of services covered and the fraction of the cost that is reimbursed. Service coverage and financial protection are the major concerns in connection with the RCMS once its population coverage has reached a high level. While expanding the benefit package, RCMS is putting more emphasis on cost control and quality improvement through different provider payment methods. These are daunting tasks and close monitoring and constant adjustment are required.

**Competing interests:** None declared.

الخدمات الضرورية.

التغيّرات ذات الصلة يوفر النظام الطبي التعاوني الريفي الآن، بعد مرور 10 سنوات على تنفيذه، التغطّية لجميع سكان المناطق الريفية كما أدى إلى تحسين الوصول إلى الرعاية الصحية بشكل كبير. ولكن على الرغم من الانخفاض في المدفوعات التي تنفق من الجيب الخاص كنسبة من إجمالي الإنفاق الصحي، مازال دفع تكاليف الخدمات الضرورية يتسبب في أعباء مالية للعديد من سكان المناطق الريفية.

الدروس المستفادة أحرز النظام الطبي التعاوني الريفي في عقده الأول تقدماً من خلال التعبئة السياسية والإعانات الحكومية واستعداد نظام إيتاء خدمات الرعاية الصحية وتوافر نظام للرصد والتقييم. وستتطلب زيادة تحسين النظام الطبي التعاون الريفي التركيز على احتواء التكاليف وتحسين الجودة وجعل النظام قابلا

التقدم في النظام الطبي التعاوني الريفي في الصين وتحدياته المشكلة خلال أنتقال الصين إلى اقتصاد السوق في ثمانينيات وتسعينيات القرن العشرين، واجه سكان المناطق الريفية عوائق أساسية في الوصول إلى الرعاية الصحية، وواجهوا أعباء مالية أشد وطأة عن تلكُّ التِّي وَأَجههَا سكان المناطق الحضريَّة في دفع تكاليف الخدمات الصحية الضرورية.

الأسلوب بدأت الصين في عام 2003 تنفيذ النظام الطبي التعاوني الريفي (RCMS)، بالاعتاد بشكل رئيسي على الإعانات الحكومية. ويعمل النظام على الصعيد القطري ويقدم حزمة مزايا

المواقع المحلية على الرغم من النمو الاقتصادي السريع منذ أوائل ثمانينيات القرن العشرين، أزدادت فوارق الدخل في الصين، لاسيها بين سكان المناطق الريفية والحضرية. وتجاوباً مع ذلك، ركزت الحكومة بشكل أكبر على التنمية الاجتماعية، بما في ذلك تطوير النظام الصحى. وتتضمن الأمثلة تحديد الأولويات في تحسين الوصول إلى اتخدمات الصحية وتقليل عبء دفع تكاليف

# 摘要

#### 中国农村合作医疗计划的进展和挑战

问题 中国在二十世纪八十年代和九十年代向市场经济 转型期间,农村人口面临获得医疗保健服务的巨大障 碍, 在花钱看病方面肩负着比城市居民更重的经济负 担。

方法 2003 年, 中国开始实施主要通过政府补贴的农村 合作医疗计划 (RCMS)。该计划在县一级开展、提供 适度的服务包。

当地状况 尽管自二十世纪八十年代初期以来中国经济 快速增长, 但是中国的收入差距加剧, 城乡人口之间 尤其如此。对此, 政府更加重视社会发展, 其中包括

卫生系统的发展。这方面的例子有提高卫生服务可及 性以及降低必要服务费用负担的优先地位。

相关变化 经过10年的实施,"新农合"现在覆盖了整 个农村人口,大大改善卫生保健的可及性。然而,尽 管现金支付占医疗总开支的比例在减少, 必要服务的 费用依然导致许多农村居民陷入经济困难。

经验教训 在第一个十年,新农合凭借政治动员、政府 补贴、医疗输送系统的准备以及提供监测和评价系统 得以发展。新农合的进一步改善需要将重点放在控制 成本、提高质量以及使计划具有可携带性上。

#### Résumé

# Progrès et défis du plan médical coopératif rural en Chine

Problème Au cours de la transition de la Chine vers une économie de marché dans les années 1980 et 1990, la population rurale a été confrontée à d'importants obstacles à l'accès aux soins de santé et a supporté des charges financières plus lourdes que les habitants des zones urbaines pour le paiement des soins de santé indispensables.

**Approche** En 2003, la Chine a commencé à mettre en œuvre un plan médical coopératif rural (PMCR), principalement grâce aux subventions gouvernementales. Le plan agit au niveau du comté et offre un ensemble d'avantages sociaux modestes.

**Environnement local** Malgré une croissance économique rapide depuis le début des années 1980, les inégalités de revenus en Chine ont augmenté, en particulier entre les populations des zones rurales et des zones urbaines. En réaction, le gouvernement a mis davantage l'accent sur le développement social, y compris le développement du système de santé. Les exemples en sont la priorisation de l'amélioration de l'accès aux services de santé et la réduction de la charge du paiement pour les services indispensables.

Changements significatifs Après 10 ans de mise en œuvre, le PMCR assure maintenant la couverture de la totalité de la population rurale et a considérablement amélioré l'accès aux soins de santé. Cependant, malgré une baisse de la part des paiements restant à charge dans les dépenses totales de santé, le paiement des services indispensables continue de causer des difficultés financières pour de nombreux habitants des zones rurales.

**Leçons tirées** Au cours de sa première décennie d'existence, le PMCR a fait des progrès grâce à la mobilisation politique, aux subventions gouvernementales, à la disponibilité du système de prestation des soins de santé et d'un système de suivi et d'évaluation. Pour améliorer davantage le PMCR, il faudra se concentrer sur la maîtrise des coûts, l'amélioration de la qualité et la mobilité du plan.

#### Резюме

# Достижения и трудности системы сельского кооперативного медицинского страхования в Китае

Проблема В период перехода Китая к рыночной экономике в 1980-90-х гг. сельское население столкнулось с существенными трудностями доступа к медицинской помощи и, по сравнению с городскими жителями, несло более тяжелое финансовое бремя оплаты необходимых услуг здравоохранения.

Подход В 2003 году Китай приступил к реализации схемы сельского кооперативного медицинского страхования (RCMS) в основном за счет государственных субсидий. Эта схема работает на уровне уезда и включает в себя небольшой пакет медицинских услуг.

Местные условия Несмотря на быстрый экономический рост с начала 1980-х годов, разрыв в доходах населения в Китае особенно увеличился между сельским и городским населением. В ответ на это правительство стало уделять больше внимания социальному развитию, в том числе развитию системы здравоохранения. Примерами этого являются приоритизация улучшенного доступа к медицинским услугам и снижение бремени оплаты за необходимые услуги.

Осуществленные перемены К настоящему моменту, спустя 10 лет после введения схемы, RCMS охватывает все сельское население Китая и обеспечивает значительное улучшение доступа к медицинской помощи. Тем не менее, несмотря на снижение доли собственных платежей населения в составе общих расходов на здравоохранение, оплата необходимых медицинских услуг продолжает вызывать финансовые трудности у многих сельских жителей.

**Выводы** В течение первого десятилетия схема RCMS позволила добиться улучшения ситуации посредством политической мобилизации, выделения государственных субсидий, готовности системы оказания медицинской помощи и наличия системы мониторинга и оценок. Дальнейшее улучшение схемы RCMS потребует акцента на сдерживании расходов, улучшении качества медицинского обслуживания и мобильности данной

#### Resumen

#### Avances y desafíos del sistema médico cooperativo rural en China

Situación Durante la transición de China hacia una economía de mercado en las décadas de 1980 y 1990, la población rural se enfrentó a importantes barreras para acceder a la atención sanitaria y tuvo que hacer frente a cargas financieras mayores que los residentes urbanos para pagar los servicios de salud necesarios.

**Enfoque** En 2003, China comenzó a poner en práctica un sistema médico cooperativo rural (RCMS, en sus siglas en inglés) a través, principalmente, de subsidios del gobierno. El esquema funciona a nivel de condado y ofrece un paquete modesto de beneficios.

Marco regional A pesar del rápido crecimiento económico desde comienzos de la década de 1980, las disparidades en los ingresos han aumentado en China, en particular entre las poblaciones rurales y urbanas. En respuesta, el gobierno ha puesto un mayor énfasis en el desarrollo social, incluido el desarrollo del sistema de salud. Ejemplos de ello son la priorización de un mejor acceso a los servicios sanitarios y la reducción de la carga de pago por los servicios necesarios.

Cambios importantes Tras 10 años de implementación, el RCMS proporciona en la actualidad cobertura para toda la población rural y ha mejorado sustancialmente el acceso a la atención médica. A pesar de una reducción de los pagos directos del gasto total en salud, el pago por servicios necesarios sigue provocando dificultades financieras para muchos residentes rurales.

Lecciones aprendidas En su primera década, el RCMS ha logrado avances por medio de la movilización política, los subsidios gubernamentales, la buena disposición del sistema de atención sanitaria y la disponibilidad de un sistema de supervisión y evaluación. Con objeto de seguir mejorando el RCMS, será necesario centrarse en reducir los costes, mejorar la calidad y lograr un sistema móvil.

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