

Improving maternal health – lessons from the basic health services project in China

China's rural health system has experienced major problems in adapting to the emerging market economy. The central government has recognised that it needs to take action to ensure more equitable access to services. This policy briefing paper summarises lessons from a ten year project that piloted strategies for addressing these problems in 97 poor counties, home to 46.78 million people. One dramatic outcome was a 40 per cent fall in maternal mortality. This was achieved by combining activities across a range of system components, including human resources, infrastructure, financing and institutional capacity development, oriented towards meeting clearly defined targets for priority health programmes. This brief describes these interventions and explores evidence on the effects made on improving maternal and child health outcomes. It is based on evaluations by internal and external teams.

During the 1970s China won international admiration for its rural health system, which provided almost universal access to essential public health services and basic medical care. The transition to a market economy has been associated with increases in rural incomes and a fall in the number of people living in poverty. It has also been associated with problems in the health system such as weakening of preventive programmes, decline of risk-sharing arrangements, rapid cost increases and a deterioration of health infrastructure. At the same time, demographic changes have been associated with a rising burden of non-communicable disease. By the mid-1990s the government was aware that something had to be done. It issued several policy statements that began to outline a broad strategy for supply and demand-side reforms. It set targets for improved access to services, including hospital delivery. However there were disagreements about the detailed design of interventions and the best strategy for helping governments of poor counties implement reforms.

The Basic Health Services Project (known as H8/SP) financed through a combination of government contributions, World Bank credit and a grant from DFID, provided an opportunity for 97 poor counties and 10 provinces to develop service delivery strategies for implementing the following aspects of the government's rural health programme improvements:

- Strengthening of county government health planning, management, regulation and investment to improve basic health facilities, materials and equipment.



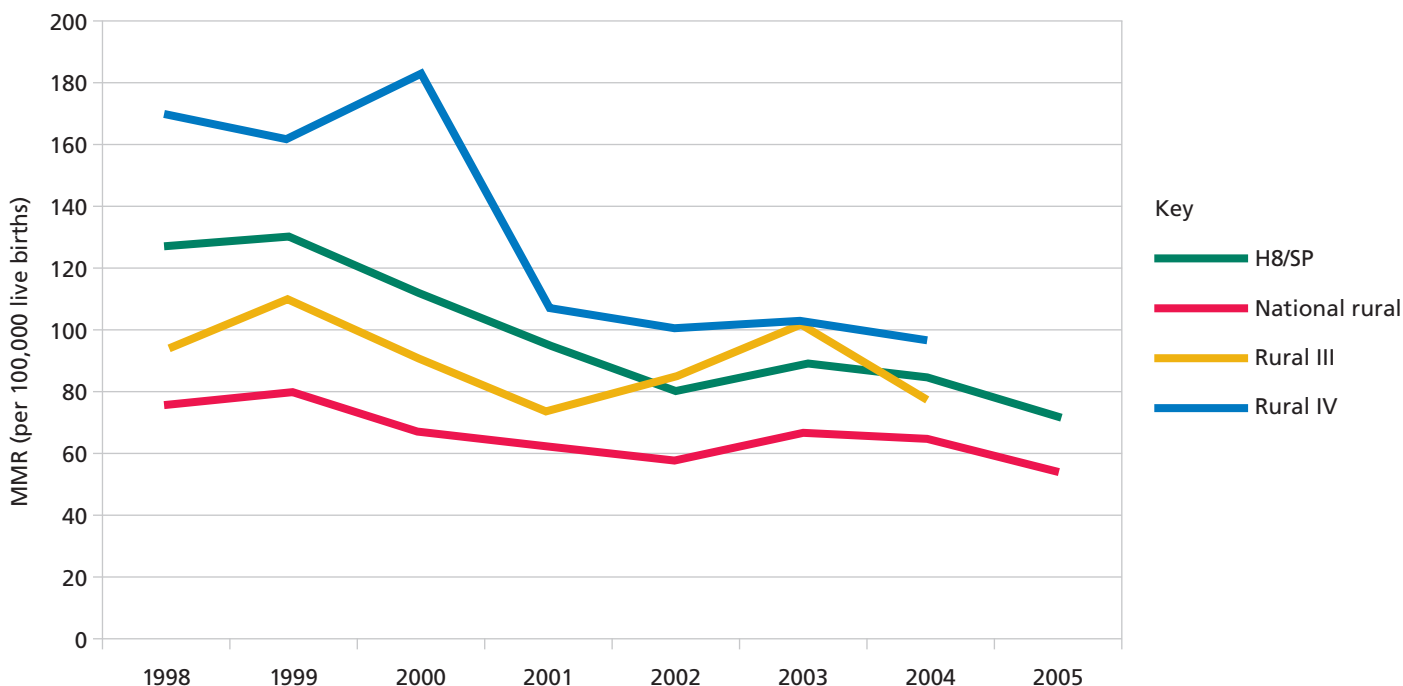
Mother and baby in Guizhou Province, China

- Improvements of both preventive programmes and medical care in terms of accessibility, effectiveness and cost, including both demand and supply side interventions through training and management strengthening
- Introducing new means of reducing financial barriers for the poor through piloting forms of rural health insurance and creating health safety nets.
- Strengthening the capacity of provincial and national levels to support rural health reforms.

The project's objectives were to provide sustainable benefits to the population of

the project counties and contribute to the government's efforts to formulate realistic strategies for achieving major improvements in health services in all rural counties. The project undertook carefully managed internal and external evaluations during its last year of operations to identify key achievements and lessons for future rural health programmes. This document presents the major conclusions of these assessments with regard to maternal and child health outcomes. Reports of the findings of the internal and external evaluations are available in the final report on the China basic health services project.

DIAGRAM 1 MMR of H8/SP counties compared with national rural, rural III and rural IV counties



Health outcomes and system performance

There were substantial declines in maternal mortality. Between 1998 and 2005 it fell from 125.5 to 68.2 per hundred thousand births, a decrease of over forty percent in seven years. These impressive gains mirror national trends for rural areas, but the evidence summarised in the figure suggests that project counties did particularly well. Their falls in mortality were much steeper than the national average for rural counties. It was also steeper than for the third of four categories of counties that extend from the most to the least developed. The falls in mortality in project counties continued after 2004, when the national trends had flattened. This suggests that the project had a sustaining trend towards improving health outcomes.

The falls in maternal mortality were associated with increases in coverage of maternal health services. The percentage of women receiving at least one antenatal visit rose from 67.9 to 86.6 percent between 1998 and 2005. This was a slightly larger increase than the national average. Analysis of county-level results on ANC coverage suggests that the project contributed directly to improvements in coverage; in some counties coverage increased by two-thirds. There was a substantial increase in the proportion of women delivering in a health institution from 20 to 70 percent between 1998 and 2006. The rapid rise began in 2001/2002 stimulated by a new government policy that discouraged home deliveries.

These changes occurred as project investments were skilfully used by county and township officials to supplement government inputs, and rapidly accelerate implementation of national policy changes. Project investments in both supply and demand side interventions paved the way for national MCH programme changes. The next section of this brief describes some of the key institutional capacity development activities that contributed to these improved health outcomes.

Impact Evaluation in the New Aid Environment

The shift towards greater alignment and harmonization is changing the way foreign assistance is provided to developing countries. Direct budget support and pooled sectoral support are increasingly being used to support development of national institutions and processes. The new aid environment asks new questions of impact evaluation, such as:

- What is driving progress towards achievement of national goals and targets?
- How do donor agency funds contribute to progress made?
 - accelerate or sustain progress
 - increase magnitude of change

There is a tension between demonstrating the effects of public funded foreign assistance and the principles of the Paris Declaration. The external evaluation of the Basic Health Services Project illustrates how an impact evaluation can provide evidence that is useful to all stakeholders.

Contributions to health outcomes and improved service performance

One major contributor to the success of project counties was the highly visible commitment by the Central Government to the reduction in maternal mortality. This was manifested in policies to discourage village midwives from undertaking home deliveries, the creation of targets for the development of obstetrics services and the allocation of resources to subsidise institutional deliveries, including support for transportation and other costs associated with referral. Development in other sectors, such as transportation and communication networks, also contributed directly to the reductions in maternal mortality.

Many project counties experienced big economic changes during the life of the project. This was associated with China's rapid economic growth and with the massive government investment in the development of poor counties. A large proportion of adults from these counties now work in an urban area, although many women return home to give birth. They earn more money and are exposed to new cultural values. The widespread ownership of radios and televisions has also influenced attitudes.

The project undertook a number of activities to reinforce the government commitment and build on the rapidly changing economic and cultural context. It organised workshops to inform local

government leaders about the purposes of health reform. It provided training to health workers about the need to be more responsive to the users of their services. It organised activities to inform people about the advantages of institutional delivery. These included the use of different media, local change agents and participatory approaches.

There was a substantial investment in improving the township health centres. This included a rethinking of the ways they could be made more attractive to patients by heating the rooms, providing toilets, respecting privacy and keeping the facilities clean. The project incorporated systematic quality control of building and renovation work. These facilities also acquired up-to-date equipment which was partially selected based on local need or demand. Training in equipment maintenance was available. The project also organised training for township and village-level staff. This covered both technical skills and new approaches to dealing with patients. There was special training for staff of the maternal and child health departments including introducing an element of reflective practice. This enabled them to work with village midwives to redefine their role in encouraging women to deliver in hospital. It also enabled them to refine the skills they needed to operate much busier hospital obstetrics services.

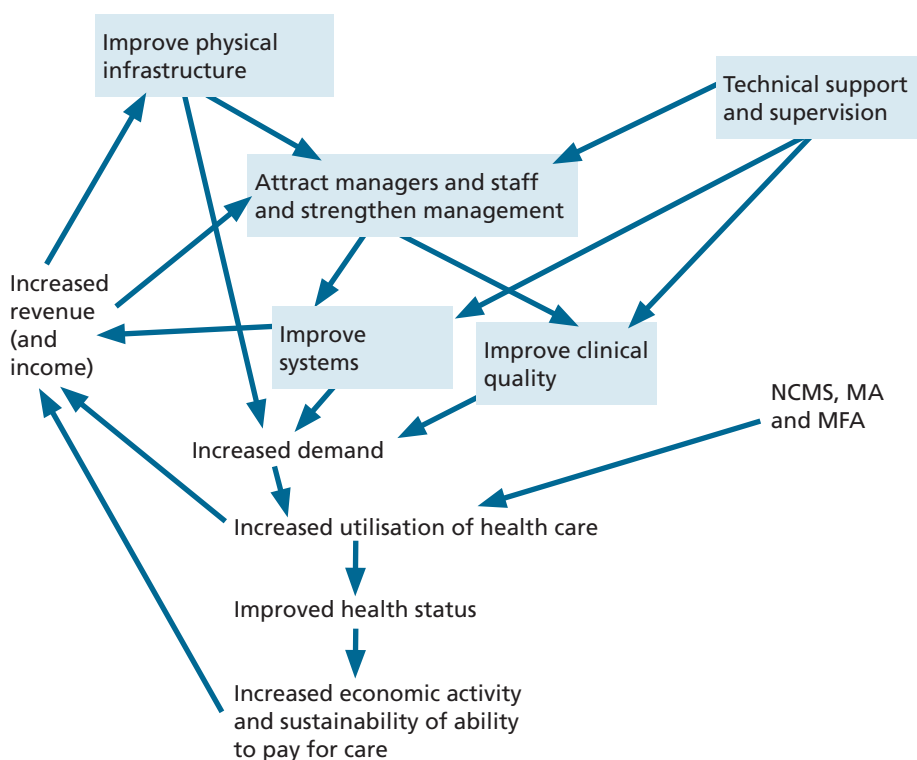
The health centres invested a lot of effort in improving their management. This was

supported by creating a cadre of national and provincial experts who provided facilitative supervision. Many of the health centres replaced their directors through a process of competitive recruitment. They brought new approaches to management of their renovated facilities. Increased utilisation of facilities resulted in higher institutional income which meant staff remuneration increased and it became easier to recruit and retain staff. This virtuous circle of sustainability (see diagram 2, below) will rely on continued investment of

income in maintenance and replacement of equipment which is a key factor in attracting users.

The project also addressed issues concerning the affordability of obstetric services. Some counties used project funds to subsidise deliveries. They all established a health safety net, which paid for institutional delivery for the poorest women. Many counties also established rural health insurance schemes, which reimbursed a part of the cost of delivery.

DIAGRAM 2 Model of sustainability



Improved managerial Capacity at Township Level Centre – A case study from Basong Township, Kangle county Gansu

In order to be appointed as Director of Basong THC, the successful candidate had to undergo a transparent recruitment process where he was asked to demonstrate competences in management, clinical knowledge and law. His attitudes relating to a user focus and increasing accessibility were also explored.

Once appointed, he was subject to regular appraisal and, in turn, set objectives and appraised his subordinates. As a result of good performance, the director's salary increased by 300 Yuan a month and he felt that this increased the likelihood of him remaining in post, even though this was a predominately poor, rural area.

In his new role he was supported by both provincial and national experts as well as through distance learning. He perceived that he had increased his competence particularly in business management and public health.



Achievements under management of the director:

- Revenue of THC increased from 80,000 Yuan to 300,000 Yuan p.a.
- Outpatient numbers rose from under 5,000 to over 20,000 p.a. This was perceived to result from better facilities, improved staff attitudes and financial support
- The THC had no in-patients in 1999 but by 2005 had treated 183 admissions
- Institutional delivery rate reached 94% in 2005

LEFT Director of Basong township Health Centre, Kangle county who had recently been confirmed in post through a competitive selection process and was able to demonstrate increased service delivery and income. He had undergone significant managerial development. November 2006

Conclusions

- The project accelerated and sustained declines in maternal mortality between 1998 and 2005. It also contributed to reductions in infant and under-five mortality. There were differences between counties, with some reporting steep and continual declines and others reporting gains early in the project period which then levelled off.
- There is consistent and credible evidence of strong coordination and multiple/positive synergistic effects between project and non-project interventions.
- The project's training and supervision system was clearly beneficial to improving the technical capacity of health care providers. There was a shift in attitudes towards the public health service, as evidenced by an increased use of outreach and preventive health care services.
- The quality of maternal death reviews has been good, however, misclassification of deaths as 'unavoidable' is more likely to have occurred after 2004, coinciding with opening of litigation on medical services. The recommendations from maternal death reviews generally addressed programmatic instead of clinical actions and were not consistently actionable.
- Although a lot of attention was given to improving the generation and use of information, this is an area where the project's achievements were less substantial. Three areas are flagged for attention: (i) lack of an information culture, (ii) information overload and gaps in the data base, (iii) data manipulation (fudging). Project supervision was at times overly-intensive and intrusive on operations, particularly the required documentation on process-related actions and insufficient attention to impact analyses.
- The project made a significant impact on improving health care providers' technical and managerial competences. However, human resource capacity remains a constraint to universal coverage, particularly in poorer and more remote rural areas. Future initiatives involving managerial and technical training and development should be based on a predetermined competence framework by function and level.
- Sustained attention is required to reduce equity gaps in the utilisation of health care services and achieve national health goals. The design of future programmes should build on the project's experience in using multiple and interacting interventions, including the utilisation of different funding modalities (e.g., mix of grants and loan with varying conditionalities, budget transfers from national and provincial to county, etc.).

FURTHER READING

Beijing: China Financial & Economic Publishing House. Liu Yunguo & Liu Gucong. (2007). First edition. June 2007, p1-212 (Chinese language version of the internal report)

Building rural health systems: the experience of China's Health VIII and Health VIII support projects. Foreign Loan office, Ministry of Health, P.R. China

Health VIII (China Basic Health Services Project)/ Health VIII Support Project External Evaluation Final Report, June 2007

CREDITS

This DFID briefing was written by Dale Huntingdon, Liu Yunguo, Liz Ollier and Gerry Bloom and edited by Samantha Reddin. It draws on lessons from the WB/DFID/GoC Basic Health Services Project for future projects in China and other countries aimed at strengthening health systems and reducing maternal mortality.



Signboard, Basong. This advertising hoarding provides information on both medical services available for patients but also performance against targets. November 2006