



UNDP/UNFPA/WHO/WORLD BANK  
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Research Training in Human Reproduction (HRP)

# Improving the safety and effectiveness of contraception in China: a case-study in promotion and improvement of family planning

Reviewer

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# Contents

Executive summary	1
Introduction	4
Rationale of HRP's work in China	6
Process	8
Outputs	14
Outcomes	15
Cost-effectiveness	19
Future	23
References	26
Annex 1. The case-study in the context of HRP's broader contribution	29
Annex 2. The data dilemma	34
Annex 3. Most relevant findings of the Chongqing strategic assessment	36
Annex 4. The systematic reviews and the process of engagement	40
Annex 5. Centre for Contraceptive Adverse Reaction Surveillance	43
Annex 6. Once-a-month pills and the monthly injectable contraceptive	45
Annex 7. Terms of reference and HRP budget	51



# Executive summary

HRP has a long history of successful collaboration in China. WHO is widely respected in that country, and HRP benefits from its prestige. Since 1979, HRP has helped establish and strengthen a network of research institutes and provided support to build the capacity of Chinese sexual and reproductive health researchers. Today, HRP facilitates a wide array of research and capacity-building activities that are contributing in strategic ways to improve the quality of care and outcomes in family planning and sexual and reproductive health in China.

This case-study addresses one example of this long, multi-faceted collaboration: HRP's assistance in improving the safety and effectiveness of China's locally produced contraceptives. The terms of reference for this case-study called for examination of HRP's role in the withdrawal of less effective IUDs (stainless-steel and copper rings) and the once-a-month oral contraceptive, in particular.

All contraceptives used in China are produced domestically. IUDs are the most widely used, by about 110 million women, constituting about 50% of contraceptive methods. A pivotal study was conducted in 1991–1992 to quantify the numbers of unplanned pregnancies, abortions and cases of reproductive morbidity due to use of the steel-ring IUD. It projected the health cost savings and other benefits that would accrue from shifting IUD use from steel rings to copper-T IUDs (TCu 220C and TCu 380A) and recommended this shift. In 1993, the Chinese Government banned production of the steel-ring device. Factories, however, turned to producing a copper-treated variant, which was also considerably less effective than the recommended copper-Ts.

Once-a-month oral contraceptives have been the most popular and most widely used oral contraceptives in China. Concern about their efficacy and long-term safety were raised during a strategic

assessment conducted in Chongqing, which led to systematic reviews, the results of which guided recent decisions about procurement.

## Methods

The case-study was based on extensive document review, a study visit to HRP counterparts in China (interviewed in Chinese and English, 5–13 December 2007), in-depth telephone interviews and hundreds of e-mail exchanges with key informants, a follow-up questionnaire, and feedback from multiple reviewers.

## Findings

### *Effective collaborations*

Achievements were made possible by collaborative relationships. HRP's principal partner was China's National Population and Family Planning Commission, which oversees the national family planning programme. HRP's principal research partner in this work was the Shanghai Institute of Planned Parenthood Research, which HRP has assisted since 1979.

### *Process*

The HRP formula that brought about the changes described is a combination of evidence-based research methods and processes that involve policy-makers from the start. HRP's Strategic Approach was a significant innovation, involving high-level policy-makers in rural field assessments (carried out in the year 2000), which gave them perspectives and feedback from providers and clients. HRP then worked with Chinese counterparts to complete seven systematic reviews that involved policy-makers in a series of experts' meetings (years 2002–2004) and generated evidence on the safety and effectiveness of commonly used contraceptives, providing the evidence base for policy-making.





### *Outputs*

The most significant outputs were:

- the research findings;
- recommendations that four widely used contraceptives should be removed from the national family planning programme on the basis of considerations of safety and effectiveness: these were the copper ring, the once-a-month pill, a 'visiting' pill and a daily pill;
- a new conceptual guiding framework for overall quality of care in sexual and reproductive health in China; and
- better understanding by colleagues in family planning and sexual and reproductive health about systematic, evidence-based research and evidence-based contraceptive improvement.

Other outputs included generation of new research questions, individual and institutional capacity-building, training and dissemination workshops, and more than a dozen publications in authoritative English and Chinese journals.

### *Cost-effectiveness*

This work was highly cost-effective in comparison with research for policy change in other large programmes for family planning and sexual and reproductive health. The financial input of HRP for this work has been modest: total expenditure for the strategic assessment and the systematic reviews was approximately US\$ 300 000 over five years (2000–2004). There is no evidence that HRP resources could have been used much more effectively.

### *Outcomes and public goods*

The outcome of this collaboration was the policy decision, in 2004, by the National Population and

Family Planning Commission to withdraw the four problematic contraceptives from the national family planning programme. They were removed from the list of centrally procured contraceptives, and, as of 2005, they were no longer purchased or provided by the National Commission. The research findings and recommendations also led to decisions in India (and perhaps Thailand) not to import the Chinese once-a-month pill. Publication in the prestigious journal *Contraception* of findings on the high estrogen content and potential safety concerns about this pill reduces the likelihood of formal importation by other countries.

### *Impact*

The phasing-out of less-effective IUDs and higher-dose hormonal contraceptives might be averting millions of unplanned pregnancies, abortions and adverse reactions. We consider that the decrease in reported abortion rates since 1991 may be attributable to three main factors: phasing-out of steel and copper rings in favour of more effective copper-bearing IUDs; changed Government policies; and improved quality of care in family planning services. We estimate that about one third of the decrease in abortion rates might be due to phasing-out of ring IUDs (about 1.4 million abortions averted in 2007).

### **Conclusions**

- Removal of the four contraceptives from the procurement list for the national family planning programme was a major policy achievement by China, attributable in significant part to collaboration with HRP and leading to a significant reduction in the numbers of unintended pregnancies and abortions and associated pain and suffering.

- While UNFPA and other partners provided important support for China's family planning and sexual and reproductive health quality-of-care movement, it is unlikely that the translation of research to policy and the decision taken in 2004 would have occurred when it did without the input by HRP. The National Population and Family Planning Commission and Chinese researchers have stated that, without HRP, the decision would have taken much longer and the process would have been less rigorous.

The phasing-out of the contraceptives is still under way, as they continue to be manufactured, are available for purchase and are provided through some public channels in China. Family planning manuals contain cautions about using the once-a-month pill, although it is still available, and it is reportedly available in the private sector in neighbouring countries.

## Recommendations

- Future engagements of HRP should be strategic to ensure that its investment has the greatest impact on health. The National Population and Family Planning Commission and researchers have stated that their greatest need from HRP is technical support to ensure that their research and programmes are up to date. HRP should support the unfinished research that emerged from the Chongqing strategic assessment and the systematic reviews (e.g. rationalizing the mix of available contraceptive methods and reconsidering the efficiency and the need for a quarterly IUD check-up). HRP should help conceptualize the research agenda and provide modest technical assistance. It should consider supporting use of the Strategic Approach by Chinese colleagues in assessing the actions required to improve the quality of care in abortion services.
- WHO in general should use its prestige in China to ensure that contraceptives of established safety and efficacy are used in China or exported, including supporting the full phasing-out of the four contraceptives from health facilities throughout the country and the discontinuation of production. Given UNFPA's commitment to the Programme of Action of the International Conference on Population and Development and its position to provide "contraceptives of assured quality", HRP and WHO should use the WHO/UNFPA Strategic Partnership Programme and other links with UNFPA to support China's progress towards these goals.



# Introduction



Issues of population and sexual and reproductive health in China have a long, important history, not only because of the size of China's population, now over 1.3 billion, but also because China sees itself as a leader in Asia and in the world. Over the years, it has considered that its programme to limit births makes a major contribution to controlling population growth globally.

At the time of the establishment of the People's Republic of China in 1949, China had a population of just over 540 million and a total fertility rate of 6.14. Many in the Government (even Mao Zedong) argued that a large population was good. The Health Ministry, directed by pro-natalist military doctors opposed to contraception, issued a ban on importation of foreign contraceptives. China's first census, in 1953, showed that 87% of its population was rural and that it was growing faster than the agricultural output. By the mid-1950s, many in China's leadership had shifted from pro-natalist stances to 'approving' and then 'advocating' birth control as essential for lifting China's large population out of poverty. This would include providing low-cost contraceptives and loosening earlier restrictions against abortion and sterilization (Greenhalgh, Winckler, 2005).

Local production of contraceptives began in 1955 (UNFPA, 1995). The most important means was

## Collaboration with HRP

HRP has a history of almost 30 years of successful, well-appreciated collaboration in China. WHO is widely respected in China, and HRP benefits from WHO's prestige. In early 1979, after some three decades during which Maoist China was largely closed to the Western world, WHO was the first United Nations agency to establish an office in China, and HRP was the first WHO programme to send a mission. HRP was the first international organization to collaborate in China with the Government, to address the country's needs in population and family planning. UNFPA was also an early partner, launching its first country programme in 1980 (Andersen, 2004), and was also a major cosponsor of HRP. Over the years, the two organizations have worked in distinct but complementary ways. In China, HRP's contributions centred on creating and supporting a network of sexual and reproductive health research institutions, building their capacity and linking them with the international community working on population, family planning and sexual and reproductive health (researchers as well as programme and policy-makers). Its emphasis was to support clinical, biomedical and social science research in accordance with the highest possible scientific and ethical standards (Annex 1). This allowed Chinese scientists and institutions to participate in multinational

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