



Mother to child transmission of HIV in China

Katherine T Chen and Han-Zhu Qian

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without turning into the agents of destruction of creation itself.³ Indeed, in his first homily as pope he stated that he would continue to underline unequivocally “the inviolability of human beings, the inviolability of human life from conception to natural death.”⁴ In response to the papal election the former Anglican archbishop of Cape Town, Desmond Tutu, said, “We would have hoped for someone more open to the recent developments in the world, the ministry of women, and a more reasonable position with regards to condoms and HIV/AIDS.”⁵

Yet Cardinal George Cottier, one of the Vatican’s most influential theologians, supports the use of condoms as defence against HIV in special cases.⁶ Furthermore, Cardinal Lozano Barragan, effectively the Vatican’s minister of health, has said that a spouse has the right to use a condom or oblige their marriage partner to do so in self defence against HIV infection.⁷ Will Benedict XVI accept and even develop this revolutionary idea for Catholics?

The defence of life is an essential Catholic philosophy, enshrined in the most influential and controversial encyclicals signed by past leaders of the Roman Catholic church: *Humanae Vitae* of Paul VI (1968)² and *Evangelium Vitae* of John Paul II (1995).⁸

The Catholic church is traditionally against abortion, which it sees as a contravention of moral law, with the legal status of the unborn child starting at conception.⁹ The church is also against euthanasia, which it considers to be a form of murder.¹⁰ Might the Vatican allow the condom’s ability to defend life, albeit only within marriage, to take priority over its ability to prevent conception?

The Catholic church opposes the use of stem cells derived from the human embryo.¹¹ It is not, however, against scientific progress and supports some controversial recent advances such as adult stem cell research and xenotransplantation, despite their ethical problems. The Vatican supports organ transplantation,¹² and it sets ethical limits only around any related loss of human dignity, the use of the body as “a container” of organs, and any failure to use objective criteria to confirm the death of the donor.

Ratzinger wrote three years ago: “It is legitimate to accept the culture of transplanted tissue and donation of organs spontaneously and in all conscience” and also declared: “I enrolled in the organisation (for organ donors) years ago and carry the paper saying that my organs will be made available to whoever may need them. It’s a sign of love.”¹³

Since becoming pope, Joseph Ratzinger has not made a direct statement on the use of condoms to protect against HIV. His previous views on pro-life issues worry many observers, particularly those campaigning for better health in less developed countries, but it may be unfair to judge him only on the basis of his past opinions. It is still not clear whether, and by how much, the Catholic church is interested in abandoning its traditional pro-life position. This seems unlikely to happen, given the recent support by Pope Benedict XVI to calls for a boycott of an Italian referendum on fertility rules.¹⁴ Nor is it clear whether a change in the pope’s position on condom use would change the behaviour of many of the more than one billion Catholics around the world.

Daniele Maria Scalise *freelance journalist*

Via S S Quattro, 31-00184 Rome, Italy

Giulio Bognolo *assistant editor, BMJ*

(gbognolo@bmj.com)

Competing interests: DMS is agnostic. GB is a non-practising Catholic.


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Mother to child transmission of HIV in China

The numbers are small but rising, and two provinces have worrying HIV prevalence rates in pregnant women

As the number of people with HIV infection increases in China, the potential for the epidemic to spread from high risk groups to the general population, including children, is a concern. An estimated 840 000 adults and children (a prevalence of 0.1%) were living with HIV in China in 2003.¹ That number may approach 10 million by 2010

if the current trends persist.² An HIV prevalence of over 1% among pregnant women has been considered an indicator of a generalised epidemic.³ Whether that rate is currently being seen in any parts of China

 Sentinel surveillance data of HIV infection in pregnant women in China and a map are on bmj.com

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is of great public health importance. Here we review the current state of mother to child transmission in China.

The most common modes of HIV transmission have been sharing of contaminated needles among intravenous drug users in southern and western China, unsafe blood collection in central China, and unsafe sexual practices among commercial sex workers, men who have sex with men, and migrant workers.⁴ The potential for HIV infection to spread from commercial sex workers to their clients and then to the clients' steady partners is highlighted by a report on chlamydial infection in the general Chinese population.^{5,6} The heterosexual transmission of HIV from infected blood donors and infected blood recipients to their steady partners may also fuel the epidemic.⁷ Thus, many women may become infected with HIV with the potential for subsequent mother to child transmission.

In 1995, the first case of mother to child transmission was reported to the Chinese Center for Disease Control and Prevention in Yunnan province. Since then, data from China HIV and AIDS case reports have shown a small number of cases: 3-4 in 1997-9, 10 in 2000, 32 in 2001, and 41 in 2002.⁸ However, the proportion of reported cases of HIV and AIDS attributed to transmission from mother to child has increased from 0.1% in 1997 to 0.4% in 2002. Studies have shown a high prevalence (30-38%) of HIV infection among children born to HIV infected mothers in certain areas of China.^{9,10}

In 1995, China's government established a national sentinel surveillance system to monitor trends in HIV and AIDS in four target groups: clients of sexually transmitted infection clinics, commercial sex workers, intravenous drug users, and truck drivers. In 1997, the first sentinel site for pregnant women was set up in Yining city, Xinjiang province. Since then, additional national and provincial sentinel sites have been established.

To obtain the most recent estimate of HIV prevalence among pregnant women in China, we abstracted information from HIV sentinel surveillance reports from the eight provinces with national and provincial sentinel sites. As of 2003, 18 national sentinel sites for pregnant women were set up in eight provinces. The geographic distribution of reported HIV/AIDS cases and national sentinel sites in pregnant women in China are depicted in the figure. In 2003 the average HIV prevalence among pregnant women in the eight provinces of China with national and provincial sentinel sites was 0.4% with a range from 0% to 1.4% (see table on bmj.com).

As two provinces in China have HIV prevalence in pregnant women of over 1%, preventing further HIV infections through heterosexual transmission is an urgent priority. Pilot interventions have been developed by the ministry of public security and the ministry of health to promote the use of condoms at places of entertainment.⁸

Prevention of mother to child transmission is also an imperative, especially since use of antiretroviral therapy for the mother during pregnancy and for the infant after birth is an effective measure. Efforts to prevent transmission in China are under way, and China's government has mandated that they be scaled up

rapidly. In 2002, the ministry of health and Chinese Center for Disease Control and Prevention joined with Unicef to conduct a programme in Henan province. Voluntary counselling and testing were provided by the health ministry in other areas to facilitate pilot work.⁸ In addition, under the guidance of the ministry of health, the division of maternal and child health (affiliated with the Chinese Center for Disease Control and Prevention) are enrolling women from Guangdong, Guangxi, Henan, Xinjiang, and Yunnan provinces to find effective strategies.¹¹ In 2004 the ministry of health published guidelines to prevent mother to child transmission, addressing issues of testing for HIV infection, provision of antiretroviral treatment, and infant feeding.^{12,13}

China currently has few HIV cases related to mother to child transmission and an overall low prevalence of HIV infection in pregnant women. However, two provinces in China have HIV prevalence rates in pregnant women in excess of 1%, a rate that is indicative of a generalised epidemic. Efforts to prevent heterosexual transmission of HIV and mother to child transmission are underway in areas of increasing HIV prevalence in adults. The course of the HIV epidemic in China should be easier to discern over the next few years.

Katherine T Chen *assistant professor of obstetrics and gynaecology and epidemiology*

College of Physicians and Surgeons and Mailman School of Public Health, Columbia University, 722 West 168th Street, New York, NY 10032, USA
(ktc10@columbia.edu)

Han-Zhu Qian *doctoral graduate student*

Department of Epidemiology, School of Public Health, University of Alabama at Birmingham; 1530 Third Avenue South, Birmingham, AL 35294, USA

Competing interests: None declared.

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