# Couples' use of Woman's Condom in China: results from a performance, safety, and acceptability study

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# Woman's Condom – designed and validated through user-centered development process

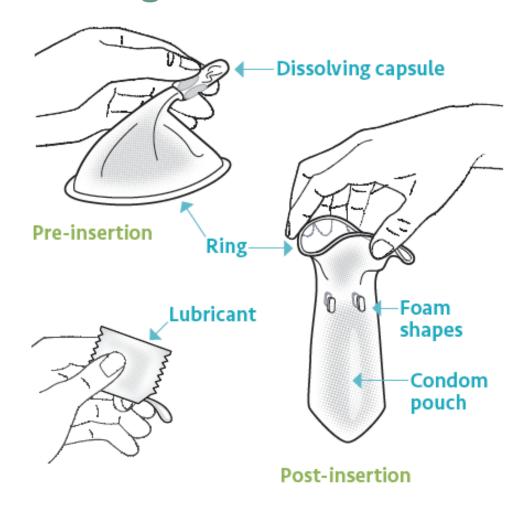
#### **Performance objectives:**

- Easy to handle and insert
- Easy to use (especially for new users)
- Stable during use
- Comfortable for both partners
- Easy to remove



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### Woman's Condom – unique features allow ease of use and good sensation



# Woman's Condom acceptability and performance confirmed in multiple studies

#### Three-country design verification study<sup>1</sup>

 Majority of users found the device comfortable, easy to insert, and stable during use.

#### US Phase I comparative performance, failure mode, and safety study<sup>2</sup>

• Woman's Condom had fewer failures and less slippage, and it was preferred by men and women when compared with FC1.

#### South Africa comparative performance and acceptability study<sup>3</sup>

- Woman's Condom performed well and was preferred over two other female condom designs.
- 1. Coffey P, Kilbourne-Brook M, Austin G, et al. Short-term acceptability of the PATH Woman's Condom among couples at three sites. *Contraception*. 2006:73;588–593.
- 2. Schwartz J, Barnhart K, Creinin M, et al. Comparative crossover study of the PATH Woman's Condom and the FC Female Condom. *Contraception*. 2008:76;465–473.
- 3. Joanis C, Beksinska M, Hart C, et al. Three new female condoms: Which do South African women prefer? *Contraception*. 2011:83;248–254.

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# Formative research: 18 FGDs with potential user groups in preparation for Phase I study

- University students (F/M)
- College-educated professionals (F/M)
- Married couples (F/M)
- Migrant workers (F/M)
- Women in the entertainment industry





 Conducted in collaboration with Shanghai Institute of Planned Parenthood Research

Photo credit: iMorpheus flickr



### FGD Participant Characteristics (n=130)

- 100% Han ethnicity; most were highly educated.
- About 50% used contraception (rates varied by group).
  - Highest rates: migrant women, married women, women in the entertainment industry.
  - Female students had much lower rates of contraceptive use.
- Low awareness of female condoms.
- Male condom used for contraception, not for STI prevention.
- Very low perception of risk of STIs.



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#### **FGD** Key Findings

- Men expressed more willingness to use a female condom than women.
- Men expressed positive images about the Woman's Condom: "fresh, mystical, brilliant, exquisite."
- Women's lack of interest possibly related to satisfaction with existing contraceptive method and perceived lack of risk for STIs.
- Women's concerns: unsure about insertion, partner's satisfaction, use of lubricant.
- Migrant women and women in the entertainment industry were most motivated to use Woman's Condom.

"Women can use it by ourselves; that's reassuring."

### Performance and failure mode study summary

- Study design: single-arm, multisite, non-blinded study implemented among 60 couples in Shanghai.
- Research sites: Shanghai Institute of Planned Parenthood Research and Fudan University OB/GYN Hospital.
- Primary endpoints: clinical and nonclinical failures, safety, and acceptability.
- Data collection methods: surveys completed after each product use; SMS text message after each product use; debrief interview after four product uses.

# Performance and failure mode study: participant characteristics

- Age: (F) 25-55 years; (M) 27-57 years
- Duration of current partnership: average of 13 years
- Education: Over 70% completed junior high school; almost 50% of women attended university; about 30% of men attended university
- **Employment:** 70-80% of M/F were company or factory workers
- Current contraceptive method use: IUD, Oral Contraceptives
- Previous female condom use: None

### **Key Failure Modes for Female Condoms**

- Clinical Breakage is defined as a female condom that breaks during intercourse or removal of the condom from the vagina
- Misdirection is defined as vaginal penetration whereby the penis is inserted between the female condom and the vaginal wall
- *Invagination* is defined as part or all of the external components of the female condom being pushed into the vagina during intercourse.
- *Slippage* is defined as a female condom that slips completely out of the vagina during intercourse.

### Clinical performance of Woman's Condom

| Failure modes           | Condoms | Events<br>n (%)    | Couples | Events<br>n (%) |
|-------------------------|---------|--------------------|---------|-----------------|
|                         |         |                    |         |                 |
| Total breakage          | 236     | 2 (1)              | 59      | 2 (3)           |
| Nonclinical<br>breakage | 236     | 2 (1)              | 59      | 2 (3)           |
| Clinical breakage       | 234*    | 0 (0)              | 59      | 0 (0)           |
| Misdirection            | 234     | 5** (2)            | 59      | 2 (3)           |
| Invagination            | 234     | 2 <sup>†</sup> (1) | 59      | 0 (0)           |
| Slippage                | 234     | 3 (1)              | 59      | 3 (5)           |

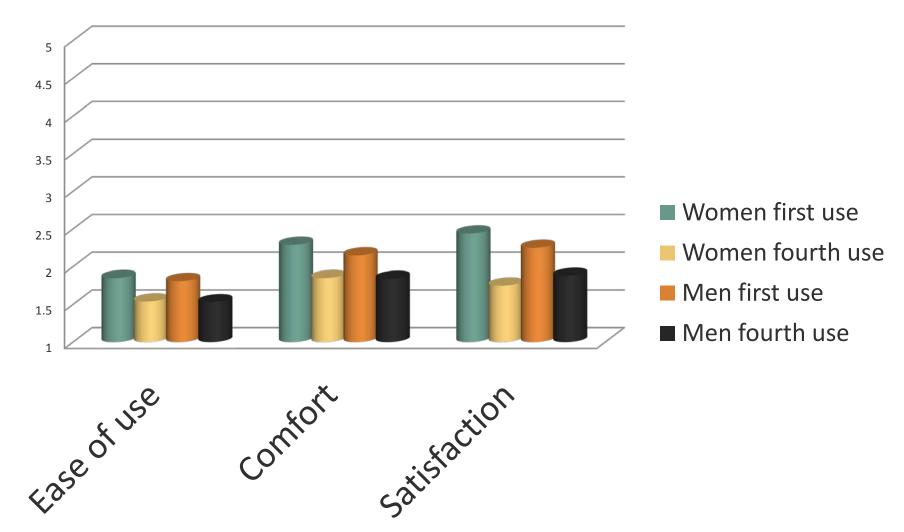
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### Adverse events by condom, female and male users

|  | Condoms used<br>(n=234) | Women<br>(n=59) | Men<br>(n=59) |  |  |  |
|--|-------------------------|-----------------|---------------|--|--|--|
|  | With event,             | With event,     | With event,   |  |  |  |
|  | n (%)                   | n (%)           | n (%)         |  |  |  |
| Type of event                                  |                         |                 |               |  |  |  |
| Genital pain/discomfort                        | 3 (1)                   | 2 (3)           | 0 (0)         |  |  |  |
| Burning, stinging, or pressure while urinating | 4 (2)                   | 2 (3)           | 0 (0)         |  |  |  |
| Genital itching                                | 7 (3)                   | 2 (3)           | 2 (3)         |  |  |  |
| Genital irritation/rash                        | 1 (0.4)                 | 0 (0)           | 1 (2)         |  |  |  |

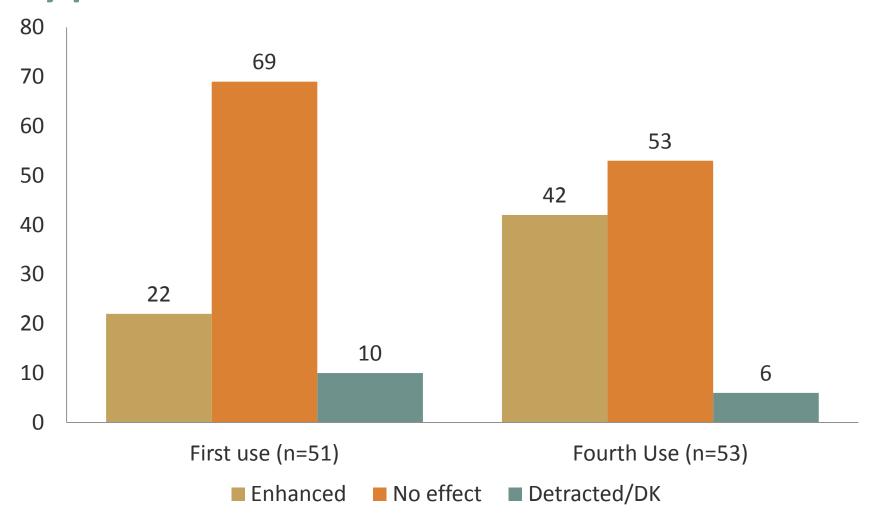
### Trends in acceptability for female and male users



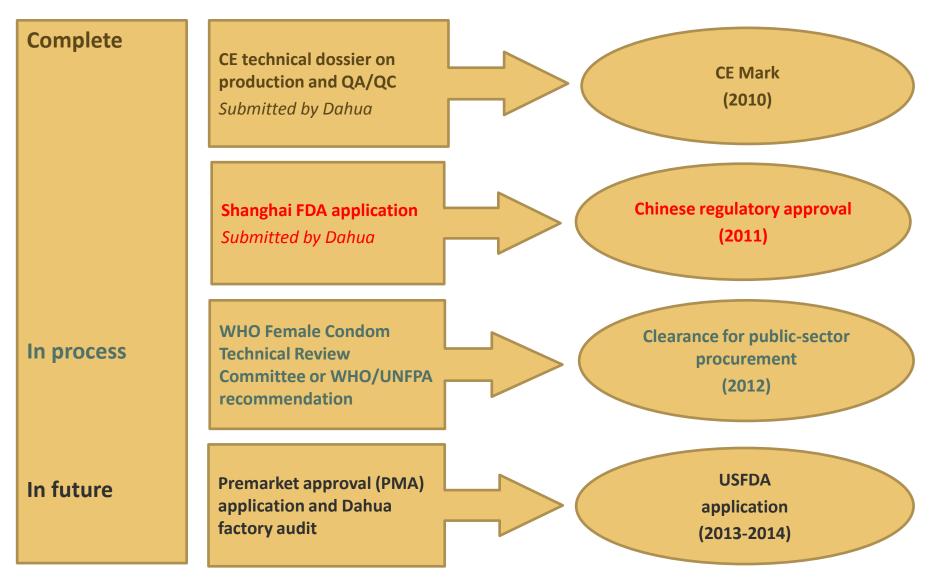
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# Effect of lubricant on sexual experience by percent of female users



### Regulatory strategy



### **Key lessons learned**

- Formative research helped prepare the researchers for the couples' use study.
  - Explored product perceptions; pretested the user instructions, developed language to describe the product.
- Important to liaise with regulatory authority regarding size/type of study necessary for market approval.
- Woman's Condom performed comparable to other female condom designs.

# Thanks to our funders and researchers who made Woman's Condom possible

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