

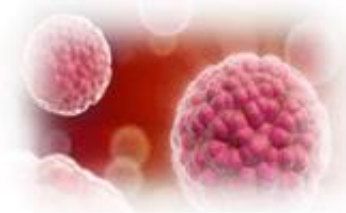
Disadvantaged Population and Reproductive Health

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Economic Development & Internal Migration in China

- ▶ Unbalanced economic development between rural and urban area in last 30 years in China has led to a vast internal migration
- ▶ People move from rural area to cities to seek jobs with higher income for a better life

In 2010, China:
Total Population: 1.3 billion
Internal Migrants: 0.3 billion
Overall Population of USA in 2000

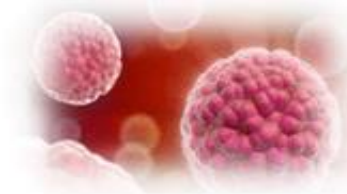
In 2010, Shanghai:
Total Population: 19 million
Internal Migrants: 9 million
Overall Population of Senegal

Migrant women in city:

- Low social economic status
- Not involved in health insurance provided by city government

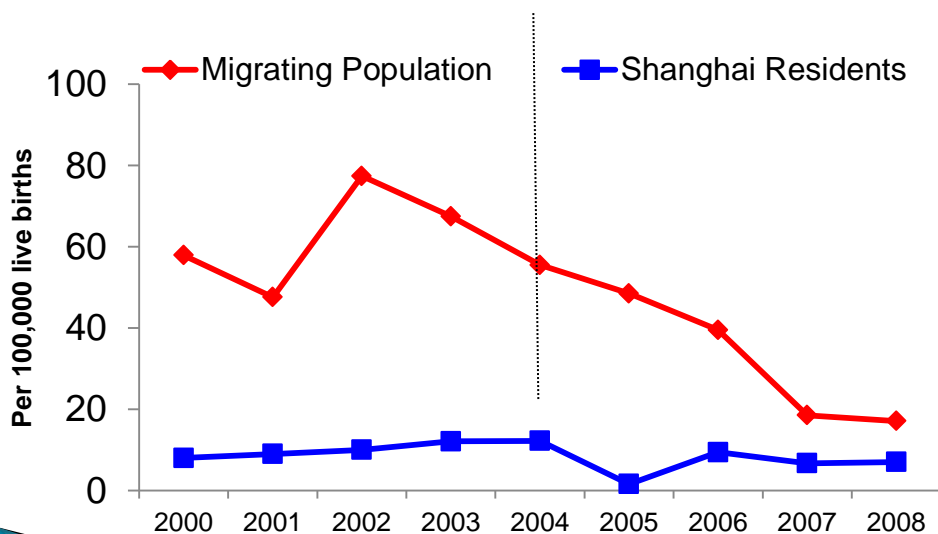


Pregnant woman, Dajing Lu market, Shanghai, China, 2007

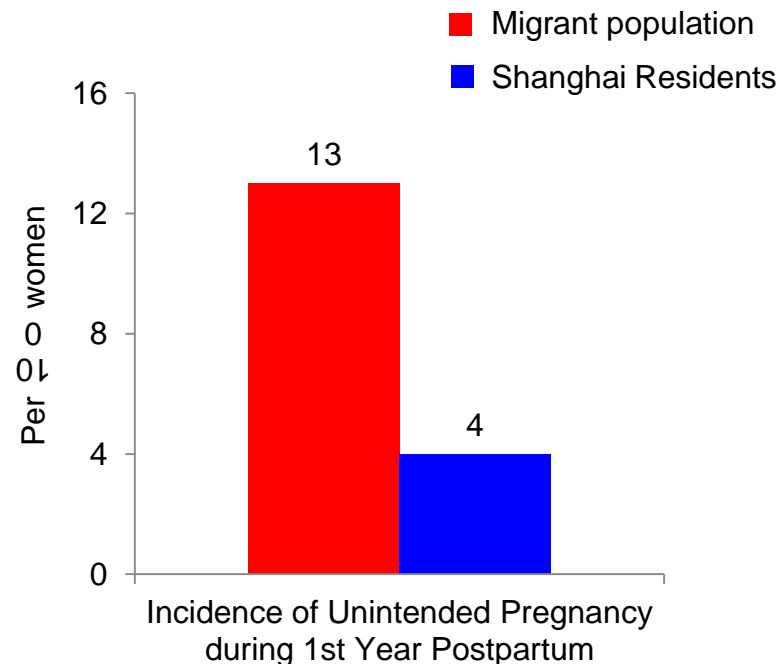


Reproductive Health of Migrant Women in Shanghai

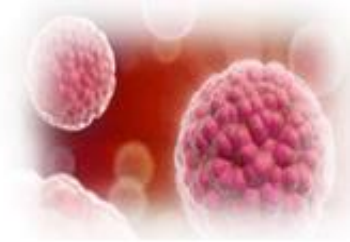
- Improved maternal health care & family planning services for migrants since 2004: established maternal health center for impoverished migrant women & extended free family planning services to married migrant couples
- MMR decreased significantly since then
- Postpartum unintended pregnancy remains high



Maternal Mortality Ratio in Shanghai, 2000-2008



Du L, et al . *Reprod Health Matters* 20 :73-80
 Huang YM, et al. *Contraception*: 2012, 86(6):731-8

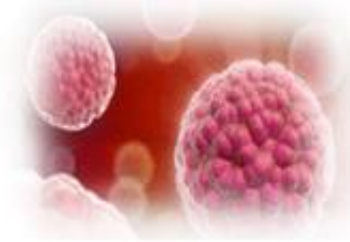


Why migrant women had such a high incidence of postpartum unintended pregnancy?

- ▶ **Delaying contraception use and subsequent exposure to unprotected sexual intercourse**
 - 86% unintended pregnancies resulted from non-use of contraception
 - Median month of contraception initiation vs. sexual intercourse resumption after childbirth: 7.5 month vs. 2 month
- **Low awareness and utilization of free family planning services:** 24% for awareness & <2% for utilization

Challenge:

How to improve migrant women's access to free family planning services, increase their early use of contraception after delivery, and decrease the high incidence of unintended pregnancy during the first year postpartum?



Study Design: A Prospective Study

Study project: Perinatal and Postpartum Contraceptive Services Project for Migrant Women

Study Site: Pu Jiang Community Health Center (The first and most widely used maternal health center in Shanghai)

Study Participants: Migrant women who gave birth from January to October 2006 & met inclusion/exclusion criteria

Study Period: From admission to the maternity ward during early labor to the end of first year postpartum

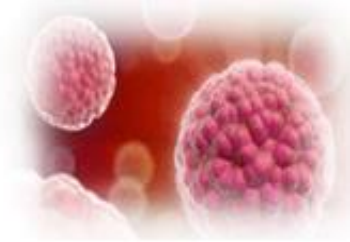
Study Endpoints: Incidence of unintended pregnancy

Time of contraception initiation

Contraception prevalence by the end of first year



Huang YM, et al. Contraception: 2014, 89(6):521-7

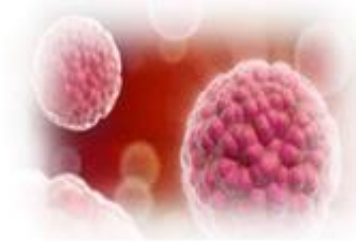


Intervention Measures

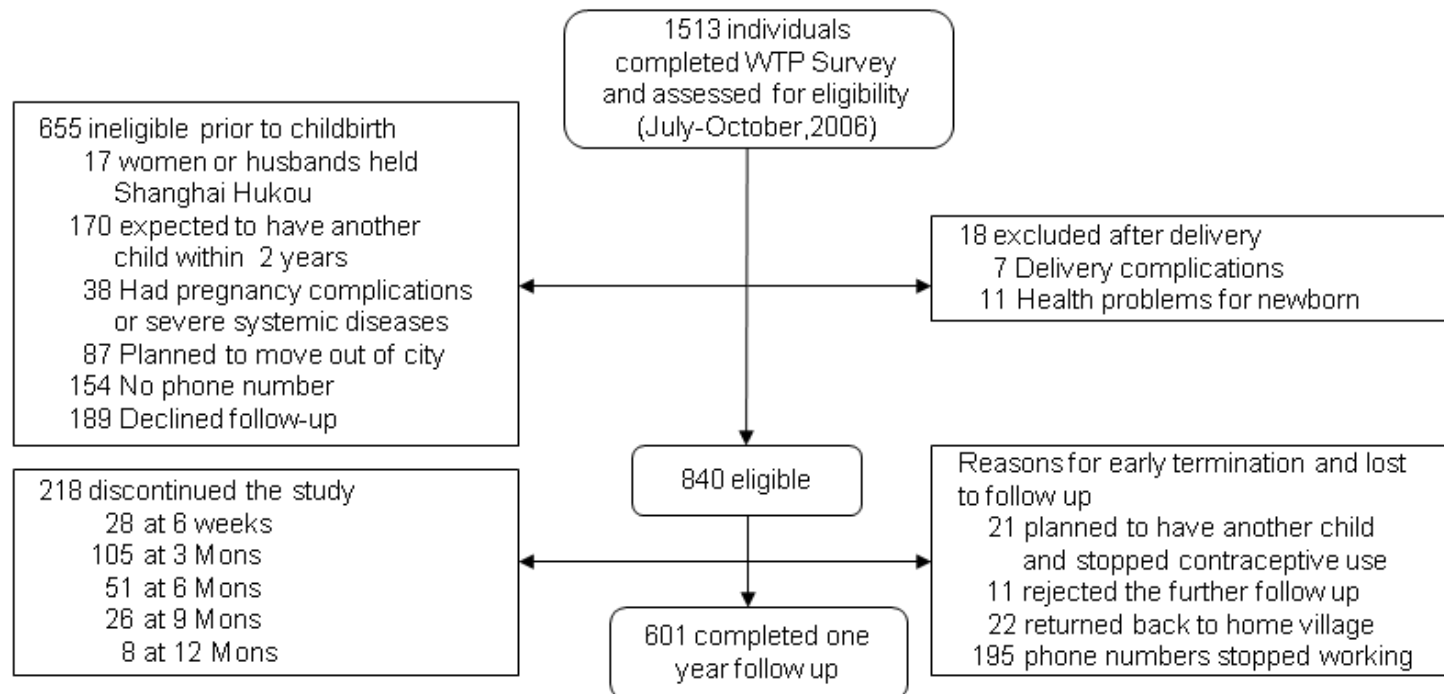


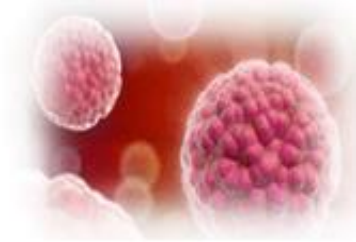
- Contraception Counseling
- Health leaflet
- Contraceptive services:
 - Tubal Ligation
 - IUD Insertion
 - DMPA
 - Male condom

- Maternal & Child Health Counseling
- Contraception Counseling
- Free family planning policy advertising
- Data collected:
 - M & C Health
 - Infant feeding
 - Menses
 - Sexual frequency
 - Occurrence of pregnancy

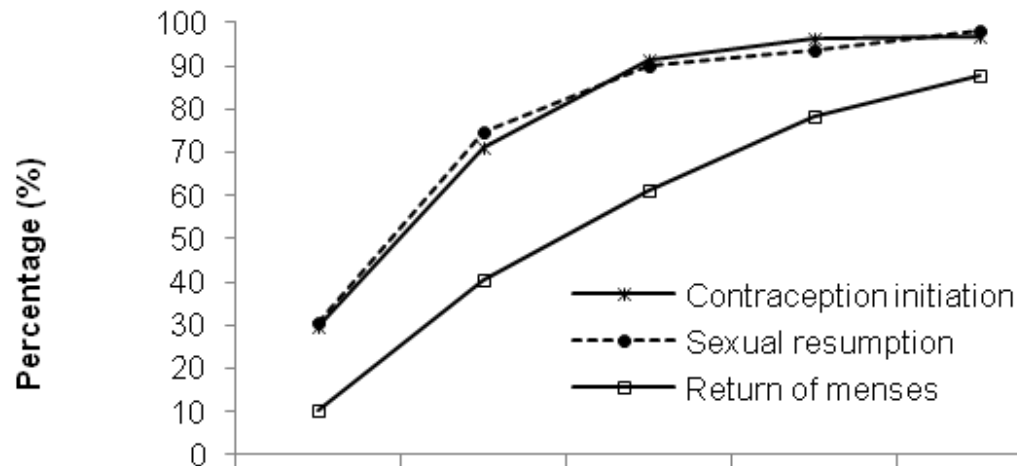


Flow chart of study participants

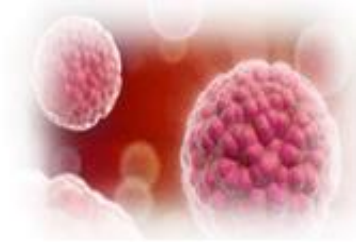




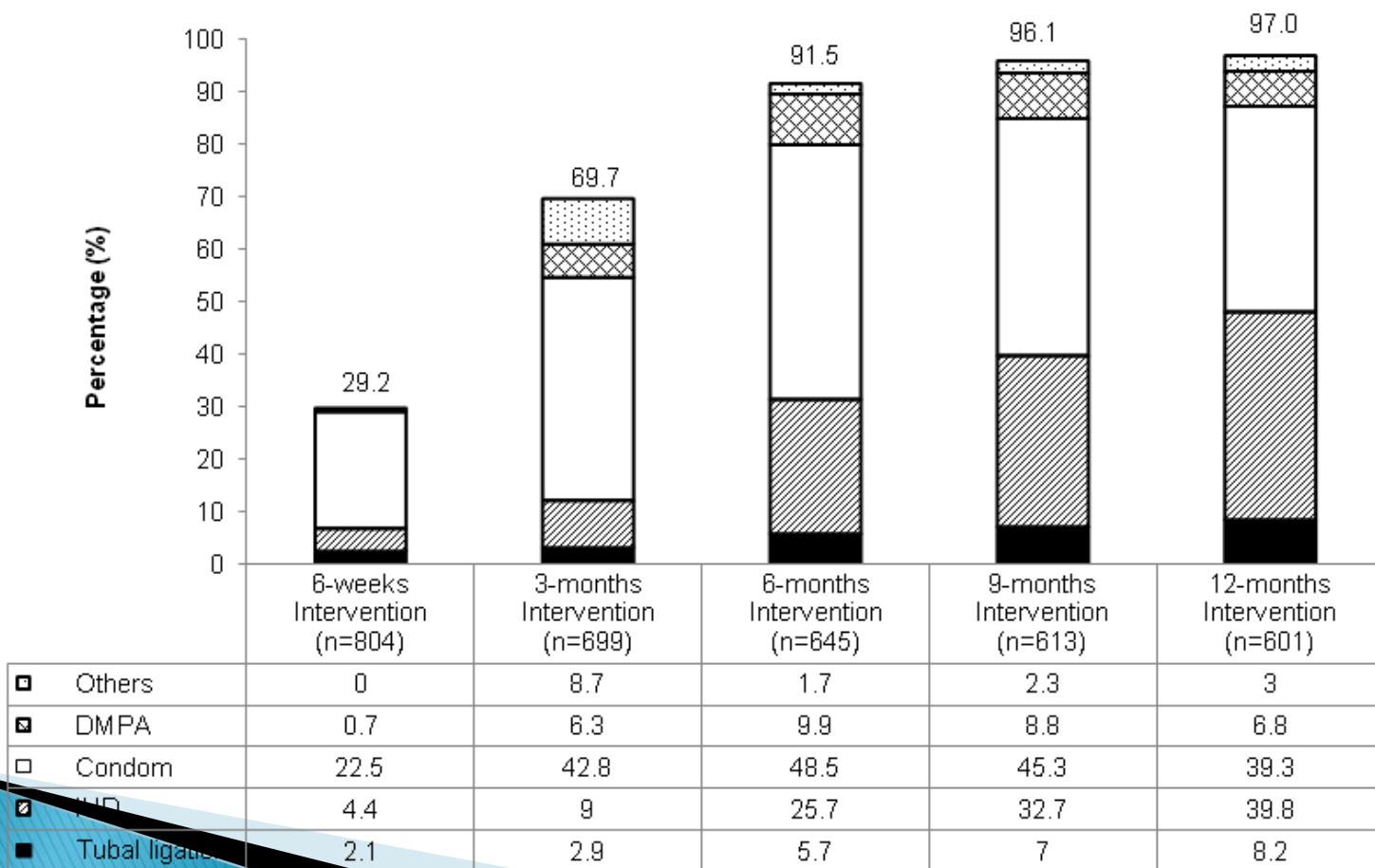
Contraceptive initiation, sexual resumption, and menses return, by time, among study participants



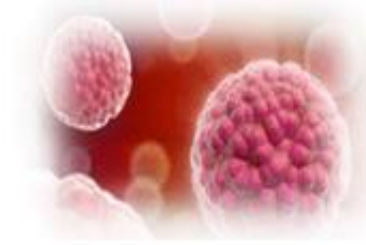
| | 6-Weeks (n=804) | Mon3 (n=699) | Mon6 (n=645) | Mon9 (n=613) | Mon12 (n=601) |
|--------------------------|--------------------|-----------------|-----------------|-----------------|------------------|
| Contraception initiation | 29.7 | 71.1 | 91.6 | 96.2 | 97 |
| Sexual resumption | 30.8 | 74.8 | 90.1 | 93.5 | 98.2 |
| Return of menses | 10.4 | 40.3 | 61.2 | 78.4 | 87.9 |



Methods of postpartum contraception used among study participants over time after childbirth



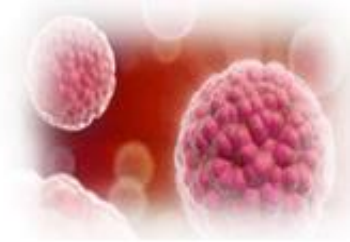
Other contraceptive methods included oral contraceptive pills and spermicides



Comparison with non-intervention cohorts

| | Intervention cohort | Cohort 2006 | Cohort 2005 |
|--|---------------------|-------------|-------------|
| Median time to sexual initiation (Months) | 2 | 2 | 2 |
| Median time to contraception start (Months) | 2 | 8.5 | 7.5 |
| Prevalence of contraception by the end of first year (%) | 97 | 73.6 | 62.9 |
| Incidence rate of unintended pregnancy within one year postpartum (100 women year) | 2.2 | 12.8 | 9.6 |

Cohort 2006 enrolled 720 migrants who delivered between January to May in 2006
Cohort 2005 included 588 migrants who gave birth in the calendar year of 2005



- ▶ In conclusion, providing free contraceptive counseling, along with offering free contraceptive methods, in maternity setting initiated at the time of childbirth and supported over a one-year postpartum period is an effective approach for promoting early use of contraception and decreasing the incidence of postpartum unintended pregnancies among rural-to-urban migrant women in Shanghai.
- ▶ This approach can be introduced for the benefit of women in other impoverished settings where access to healthcare and resources are limited.