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# The free perinatal/postpartum contraceptive services project for migrant women in Shanghai: effects on the incidence of unintended pregnancy☆,☆☆

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**Abstract**

**Objective:** In 2006, the incidence of unintended pregnancy among rural-to-urban migrant women (RUMW) in Shanghai was reported as 12.8 per 100 women-years during the first year postpartum. Among permanent residents of Shanghai, that same rate was 3.8 per 100 women-years. An intervention study was designed to address the unmet need for family planning services among this underserved population of RUMW and reduce their high postpartum unintended pregnancy incidence.

**Study design:** We enrolled 840 migrant women into an intervention study that provided free contraceptive counseling and a choice of methods.

Subjects were recruited into the study during hospitalization for childbirth and offered a contraceptive method according to their choice prior to discharge. Counseling and further support were offered at 6 weeks and at 3, 6, 9 and 12 months postpartum via scheduled telephone calls and/or clinic visits.

**Results:** Among all study participants, the median time to contraceptive initiation and sexual resumption was 2 months postpartum, respectively. The overall contraceptive prevalence at 12 months was 97.1%, and more than half of the women were using long-acting contraception. The incidence rate of unintended pregnancy during the first year postpartum was 2.2 per 100 women-years (95% confidence interval: 1.3–3.6).

**Conclusions:** Integrating free family planning services into existing childbirth delivery services in a maternity setting in Shanghai was effective in addressing the unmet need for family planning and reduced the risk of unintended pregnancy during the first year postpartum.

**Implications:** The maternity setting at the time of early labor and prior to postpartum hospital discharge is a practical venue and an optimal time to provide contraception counseling and for postpartum women to initiate use of contraceptive methods. Supporting services during the first year postpartum are also essential to encourage women to continue contraceptive use and reduce the incidence of postpartum unintended pregnancy.



*Keywords:* Free contraceptive services; Unintended pregnancy; Postpartum period; Migrants; China; Intervention study

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## 1. Introduction

During the past 20 years, increased government investment in health care in China has improved the overall health status of the Chinese population [1]. While registered residents in cities are entitled to a wide range of benefits, including health insurance from city governments, the household registration system in China (hukou) limits most rural-to-urban migrants from obtaining such benefits [2]. In 2011, Shanghai had approximately 9.3 million migrants who accounted for nearly 40% of its total population; about 80% of whom came from rural areas [3,4]. Lacking health insurance, rural-to-urban migrant women (RUMW) often do not obtain adequate medical care, and their reproductive health remains largely underserved [2,5–8]. As compared with permanent residents, migrant women have a higher unmet need for contraception and experience increased levels of unintended pregnancy [5,6]. They also have delayed and less frequent prenatal check-ups and are at a higher risk for maternal morbidity and mortality [7,8].

To encourage contraceptive use and reduce the unintended pregnancy rate among RUMW, free family planning services were established for this population in 2004 [6,9]. However, certain restrictions remained, i.e., only married couples who had temporary Shanghai resident permits and certificates of marriage and procreation (documentation of their reproductive history) were eligible [9]. There was no specific provision to ensure free contraceptive services among unmarried couples regardless of their household registration status [10].

Results of a survey conducted in 2006 to assess the results of this new program launched in 2004 showed that awareness and utilization of free family planning services among RUMW were low: 25% and 2%, respectively [9]. Another 2006 study described the unintended pregnancy incidence rate among a cohort of RUMW in Shanghai at 12.8 per 100 women-years during the first year postpartum [6], which was much higher than that observed among permanent residents (3.8 per 100 women-years) [11]. The high incidence of unintended pregnancy among the postpartum RUMW was attributed to nonuse of contraception (86%) or contraceptive failure (14%) [6]. These data indicated an urgent need to promote awareness of free family planning services among underserved RUMW in Shanghai and to make such services more accessible during the postpartum period, including to unmarried women.

Accordingly, we designed the *Perinatal and Postpartum Contraceptive Services Project for Migrant Women* (*PPCSP*) to provide free contraceptive counseling and methods in the maternity setting prior to postpartum discharge, as well as additional support and services during the first postpartum year. Specifically, we sought to determine if free contraceptive services initiated in the maternity setting at the time of childbirth and supported over a 1-year period would affect the incidence of unintended pregnancy among RUMW.

## 2. Materials and methods

This study was approved by the Ethics Committee of the International Peace Maternal and Child Health Hospital and was conducted at the Pu Jiang Community Health Center.

Study participants were enrolled between July and October 2006. After admission to the maternity ward during early labor, RUMW were informed about the *PPCSP* and provided a one-page leaflet that briefly described the study. Migrant women who were interested in learning about or participating in the study were asked to provide written informed consent to complete the *Willingness to Participate* (*WTP*) Questionnaire. The questionnaires were used to (1) collect demographic and reproductive history data and (2) document prenatal health status information. Following data collection, the investigator discussed with each respondent the inclusion criteria for the *PPCSP*, including (1) both women and their partners, regardless of marital status, lived in rural areas before migrating to the city and did not have a household registration in Shanghai; (2) did not plan to have another child within 2 years after the index childbirth; (3) were healthy and did not have any pregnancy complications or severe systemic disease; (4) planned to live in Shanghai with their partners during the first year postpartum and (5) were able to provide a telephone number for follow-up. Women who met these criteria were tracked through delivery, at which point they were excluded if they experienced severe delivery complications, had a stillbirth or gave birth to an infant with birth defects or any other serious health problem. Women who continued to be eligible provided additional informed consent to participate in the follow-up study.

After enrollment, each participant and her partner received contraceptive counseling, which was guided by a multi-page study pamphlet that contained information about the (1) *PPCSP* study; (2) efficacy, side effects, risks and benefits of long-acting and short-acting contraceptive methods; (3) timing of return-to-fertility and resumption of sexual activity after delivery; (4) risks associated with unintended pregnancies; (5) accessibility of free family planning services and (6) telephone numbers of investigators if questions about maternal and child health and contraceptive use arose. During counseling sessions, each woman had the option of selecting the contraceptive method of her choice. The following long-acting contraceptive methods were provided prior to hospital discharge: (1) tubal ligation, performed during the time of cesarean delivery; (2) copper intrauterine device (Cu-IUD), inserted immediately after cesarean or vaginal delivery or (3) depot-medroxyprogesterone acetate (DMPA) injections at the time of discharge. Women who wished to initiate one of these long-acting contraceptives were screened for contraindications and, if eligible, provided written informed consent. A second counseling session was scheduled after delivery if time did not allow for completion of the entire counseling prior to childbirth. Women who did not initiate long-acting