Maternal and Newborn Health

Key Points for Providers and Clients

- **Wait until the youngest child is at least 2 years old before trying to become pregnant again.** Spacing births is good for the mother's and the baby's health.
- **Make the first antenatal care visit within the first 12 weeks of pregnancy.**
- **Plan ahead for family planning after delivery.**
- **Prepare for childbirth.** Have a plan for normal delivery and an emergency plan, too.
- **Breastfeed for a healthier baby.**

Many health care providers see women who want to become pregnant, who are pregnant, or who have recently given birth. Providers can help women plan pregnancies, plan for contraception after delivery, prepare for childbirth, and care for their babies.

Planning Pregnancy

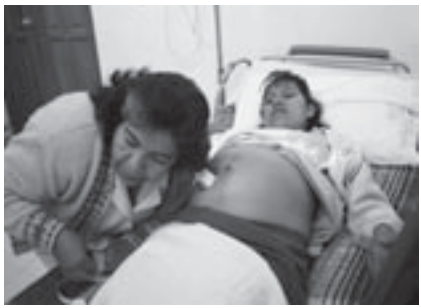
A woman who wants to have a child can use advice about preparing for safe pregnancy and delivery and having a healthy child:

- It is best to wait at least 2 years after giving birth before stopping contraception to become pregnant.
- At least 3 months before stopping contraception to get pregnant, a woman should begin taking care to eat a balanced diet, and she should continue doing so throughout pregnancy. Folic acid and iron are particularly important.
  - Folic acid is found in such foods as legumes (beans, bean curd, lentils, and peas), citrus fruits, whole grains, and green leafy vegetables. Folic acid tablets may be available.
  - Iron is found in such foods as meat and poultry, fish, green leafy vegetables, and legumes. Iron tablets may be available.

- If a woman has, or may have been exposed to a sexually transmitted infection (STI), including HIV, treatment can reduce the chances that her child will be born with an infection. If a woman thinks she has been exposed or might be infected, she should seek testing, if available.

During Pregnancy

The first antenatal care visit should come early in pregnancy, ideally before week 12. For most women, 4 visits during pregnancy are appropriate. Women with certain health conditions or complications of pregnancy may need more visits, however. Provide care or refer for antenatal care.



Health Promotion and Disease Prevention

- Counsel women about good nutrition and eating foods that contain iron, folate, vitamin A, calcium, and iodine and avoiding tobacco, alcohol, and drugs (except medications recommended by a health care provider).
- Help pregnant women protect themselves from infections.
  - If she is at risk for STIs, discuss condom use or abstinence during pregnancy (see Sexually Transmitted Infections, Including HIV, p. 275).
  - Ensure that pregnant women are immunized against tetanus.
  - To prevent or treat anemia, where hookworm infection is common provide treatment (antihelminthic therapy) after the first trimester.
- Help pregnant women protect their babies from infections.
  - Test for syphilis as early in pregnancy as possible, and treat as needed.
  - Offer HIV testing and counseling.
- Pregnant women are particularly susceptible to malaria. Provide insecticide-treated bed nets for malaria prevention and effective malaria treatment to every pregnant woman in areas where malaria is widespread, whether or not malaria is diagnosed (presumptive treatment). Monitor pregnant women for malaria and provide immediate treatment when diagnosed.

Planning for Family Planning After Delivery

Help pregnant women and new mothers decide how they will avoid pregnancy after childbirth. Ideally, family planning counseling should start during antenatal care.

- Waiting until her baby is at least 2 years old before a woman tries to become pregnant again is best for the baby and good for the mother, too.

- A woman who is not fully or nearly fully breastfeeding is able to become pregnant as soon as 4 to 6 weeks after childbirth.
- A woman who is fully or nearly fully breastfeeding is able to become pregnant as soon as 6 months postpartum (see Lactational Amenorrhea Method, p. 257).
- For maximum protection, a woman should not wait until the return of monthly bleeding to start a contraceptive method, but instead she should start as soon as guidance allows (see Earliest Time That a Woman Can Start a Family Planning Method After Childbirth, p. 293).

Preparing for Childbirth and Complications

Potentially life-threatening complications develop in about 15% of pregnancies, and all of these women need immediate care. Most complications cannot be predicted, but providers can help women and their families be prepared for them.

- Help women arrange for skilled attendance at birth, and ensure that they know how to contact the skilled birth attendant at the first signs of labor.
- Explain danger signs during pregnancy and childbirth to women and their families (see below).
- Help the woman and her family plan how she will reach emergency care if complications arise: Where will she go? Who will take her there? What transport will they use? How will she pay for medical help? Are there people ready to donate blood?

Danger Signs During Pregnancy and Childbirth

If any of these signs appears, the family should follow their emergency plan and get the woman to emergency care immediately.

- Fever (38° C/101° F or higher)
- Foul-smelling discharge from vagina
- Severe headache/blurred vision
- Decreased or no fetal movements
- Green or brown fluid leaking from vagina
- High blood pressure
- Vaginal bleeding
- Difficulty breathing
- Convulsions, fainting
- Severe abdominal pain

After Childbirth

- Coordinate family planning visits with an infant's immunization schedule.
- Optimal breastfeeding offers triple value: important improvements in child survival and health, better health for mothers, and temporary contraception. Still, any breastfeeding is better than none (except if a woman has HIV). See Preventing Mother-to-Child Transmission of HIV, p. 294.

Guidelines for Best Breastfeeding

1. **Begin breastfeeding the newborn as soon as possible—within 1 hour after delivery**
   - Stimulates uterine contractions that help prevent heavy bleeding.
   - Helps the infant to establish suckling early on, which stimulates milk production.
   - Colostrum, the yellowish milk produced in the first days after childbirth, provides important nutrients for the child and transfers immunities from mother to child.
   - Avoids the risks of feeding the baby contaminated liquids or foods.
2. **Fully or nearly fully breastfeed for 6 months**
   - Mother's milk alone can fully nourish a baby for the first 6 months of life.
3. **At 6 months, add other foods to breastfeeding**
   - After 6 months babies need a variety of foods in addition to breast milk.
   - At each feeding breastfeed before giving other foods.
   - Breastfeeding can and should continue through the child's second year or longer.

Earliest Time That a Woman Can Start a Family Planning Method After Childbirth

Family Planning Method	Fully or Nearly Fully Breastfeeding	Partially Breastfeeding or Not Breastfeeding
Lactational Amenorrhea Method	Immediately	(Not applicable)
Vasectomy	Immediately or during partner's pregnancy[‡]	
Male or female condoms	Immediately	
Spermicides		
Copper-bearing IUD	Within 48 hours, otherwise wait 4 weeks	
Female sterilization	Within 7 days, otherwise wait 6 weeks	
Levonorgestrel IUD	4 weeks after childbirth	
Diaphragm	6 weeks after childbirth	
Fertility awareness methods	Start when normal secretions have returned (for symptoms-based methods) or she has had 3 regular menstrual cycles (for calendar-based methods). This will be later for breastfeeding women than for women who are not breastfeeding.	
Progestin-only pills	6 weeks after childbirth[§]	Immediately if not breastfeeding[§] 6 weeks after childbirth if partially breastfeeding[§]
Progestin-only injectables		
Implants		
Combined oral contraceptives	6 months after childbirth[§]	21 days after childbirth if not breastfeeding[§] 6 weeks after childbirth if partially breastfeeding[§]
Monthly injectables		
Combined patch		
Combined vaginal ring		

[‡] *If a man has a vasectomy during the first 6 months of his partner's pregnancy, it will be effective by the time she delivers her baby.*

[§] *Earlier use is not usually recommended unless other, more appropriate methods are not available or not acceptable.* *See also p. 129, Q&A 8.*

Preventing Mother-to-Child Transmission of HIV

A woman infected with HIV can pass HIV to her child during pregnancy, delivery, or breastfeeding. Preventive antiretroviral (ARV) therapy (prophylaxis) given to the mother during pregnancy and labor can greatly reduce the chances that the baby will be infected while developing in the uterus or during delivery. During breastfeeding, ARV therapy for the mother, for the HIV-exposed infant, or for both, also can significantly reduce the chances of HIV transmission through breast milk.

How can family planning providers help prevent mother-to-child transmission of HIV?

- *Help women avoid HIV infection* (see Sexually Transmitted Infections, Including HIV, Preventing Sexually Transmitted Infections, p. 280).
- *Prevent unintended pregnancies:* Help women who do not want a child to choose a contraceptive method that they can use effectively.
- *Offer HIV counseling and testing:* Offer counseling and testing to all pregnant women, if possible, or offer to refer them to an HIV testing service, so they can learn their HIV status.
- *Refer:* Refer women with HIV who are pregnant, or who want to become pregnant, to services for prevention of mother-to-child transmission, if available.
- *Encourage appropriate infant feeding:* Counsel women with HIV on safer infant feeding practices to reduce the risk of transmission, and help them develop a feeding plan. If possible, refer them to someone trained to counsel on infant feeding.
  - For all women, including women with HIV, breastfeeding, and especially early and exclusive breastfeeding, is an important way to promote the child's survival.
  - HIV-infected mothers and/or their infants should receive the appropriate ARV therapy, and mothers should exclusively breastfeed their infants for the first 6 months of life, then introduce appropriate complementary foods and continue breastfeeding for the first 12 months of life.
  - Breastfeeding should then stop only once a nutritionally adequate and safe diet without breast milk can be provided. When mothers decide to stop breastfeeding, they should stop gradually within one month, and infants should be given safe and adequate replacement feeds to enable normal growth and development. Stopping breastfeeding abruptly is not advised.
  - Even when ARV therapy is not available, breastfeeding (exclusive breastfeeding in the first 6 months of life and continued

breastfeeding for the first 12 months of life) may still give infants born to mothers infected with HIV a greater chance of survival while still avoiding HIV infection than not breastfeeding at all.

- In some well-resourced countries with low infant and child mortality rates, however, avoiding all breastfeeding will be appropriate. A woman with HIV should be advised of the national recommendation for infant feeding by HIV-infected mothers and counseled and supported in the feeding practice that best suits her situation.
- An HIV-infected mother should consider replacement feeding if—and only if—all the following conditions are met:
  - safe water and sanitation are assured in the household and community;
  - the mother or caregiver can reliably provide infant formula:
    - sufficient for normal growth and development of the infant
    - cleanly and frequently, to avoid diarrhea and malnutrition, and
    - exclusively in the first 6 months;
  - the family is supportive of this practice; and
  - the mother or caregiver can obtain health care that offers comprehensive child health services.
- If infants and young children are known to be HIV-infected, mothers should be strongly encouraged to exclusively breastfeed for the first 6 months of life and continue breastfeeding up to 2 years or beyond.
- If a woman is temporarily unable to breastfeed—for example, she or the infant is sick, she is weaning, or her supply of ARVs has run out—she may express and heat-treat breast milk to destroy the HIV before feeding it to the infant. Milk should be heated to the boiling point in a small pot and then cooled by letting the milk stand or by placing the pot in a container of cool water. This should be used only short-term, not throughout breastfeeding.
- Women with HIV who are breastfeeding need advice on keeping their nutrition adequate and their breasts healthy. Infection of the milk ducts in the breast (mastitis), a pocket of pus under the skin (breast abscess), and cracked nipples increase the risk of HIV transmission. If a problem does occur, prompt and appropriate care is important (see Sore or cracked nipples, p. 296).

Managing Any Breastfeeding Problems

If a client reports any of these common problems, listen to her concerns and give advice.

Baby is not getting enough milk

- Reassure the woman that most women can produce enough breast milk to feed their babies.
- If the newborn is gaining more than 500 grams a month, weighs more than birth weight at 2 weeks, or urinates at least 6 times a day, reassure her that her baby is getting enough breast milk.
- Tell her to breastfeed her newborn about every 2 hours to increase milk supply.
- Recommend that she reduce any supplemental foods and/or liquids if the baby is less than 6 months of age.

Sore breasts

- If her breasts are full, tight, and painful, then she may have engorged breasts. If one breast has tender lumps, then she may have blocked ducts. Engorged breasts or blocked ducts may progress to red and tender infected breasts. Treat breast infection with antibiotics according to clinic guidelines. To aid healing, advise her to:
  - Continue to breastfeed often
  - Massage her breasts before and during breastfeeding
  - Apply heat or a warm compress to breasts
  - Try different breastfeeding positions
  - Ensure that the infant attaches properly to the breast
  - Express some milk before breastfeeding

Sore or cracked nipples

- If her nipples are cracked, she can continue breastfeeding. Assure her that they will heal over time.
- To aid healing, advise her to:
  - Apply drops of breast milk to the nipples after breastfeeding and allow to air-dry.
  - After feeding, use a finger to break suction first before removing the baby from the breast.
  - Do not wait until the breast is full to breastfeed. If full, express some milk first.
- Teach her about proper attachment and how to check for signs that the baby is not attaching properly.
- Tell her to clean her nipples with only water only once a day and to avoid soaps and alcohol-based solutions.
- Examine her nipples and the baby's mouth and buttocks for signs of fungal infection (thrush).