Appendix B: Answer Key for COC Case Studies

Combined Oral Contraceptives (COCs)

Case Study 1—Answer Key

Answers to Question Set A

1. **How does the pill prevent pregnancy?**
   COCs contain low doses of estrogen and a progestin, similar to the hormones in a woman's body. COCs work in two primary ways. First, they prevent the release of an egg from the ovary (ovulation). Without an egg, sperm have nothing to fertilize. Second, they cause the mucus in the cervix (entrance to the uterus) to become thick. This makes it more difficult for sperm to enter the uterus and fertilize an egg, if ovulation were to take place.

2. **What are some of the advantages of taking the pill?**
   - They are very effective contraception.
   - Fertility returns quickly after stopping use of the pills.
   - They can be stopped at any time without a provider's help.
   - They do not interfere with sex.
   - For many women, monthly bleeding is more regular and cramping is reduced.
   - They have some additional health benefits aside from preventing pregnancy, such as reducing symptoms of endometriosis, and providing protection from ovarian cysts, symptomatic pelvic inflammatory disease, iron-deficiency anemia, and ovarian and endometrial cancers.

3. **What are some of the limitations of taking the pill?**
   - Some users experience bothersome, but not harmful, side effects.
   - The pills must be taken correctly and consistently; otherwise they are not as effective.
   - They provide no STI/HIV protection.
   - On very rare occasions, complications may occur.

Answers to Question Set B

1. **What tool would you select to help screen for medical eligibility?**

   The *Checklist for Screening Clients Who Want to Initiate Combined Oral Contraceptives (COCs)* identifies clients who have conditions or characteristics that prevent the safe use of COCs. The *WHO Medical Eligibility Criteria Wheel for Contraceptive Use,* or the *Quick Reference Chart for the WHO Medical Eligibility Criteria for Contraceptive Use* could also be used.

1. **Do her current medical conditions affect her eligibility for COCs?**

   No, her current health conditions have no effect on her eligibility for COCs.
   - *Antibiotic treatment*: Antibiotics taken for a urinary tract infection would not have any effect on COC effectiveness. The only two antibiotics which may diminish the effectiveness of COCs are rifampicin and rifabutin, which are used for tuberculosis treatment. However, neither antibiotic affects the safety of COCs.
   - *Anemia*: Presence of anemia is classified by WHO medical eligibility criteria as Category 1 for COCs (use without any restrictions). In fact, COC use may help the client conserve

her iron stores because the monthly bleeding will be less. This is one of the non-contraceptive health benefits of COCs.

3. **How does breastfeeding affect her eligibility to use COCs? What additional information about the effect of COCs on breastmilk should you offer to breastfeeding women who are considering COCs?**
   Use of COCs during breastfeeding may diminish the quantity of breastmilk and decrease the duration of lactation, which may have implications for the health of the baby. As a result, the WHO medical eligibility categories regarding COCs for breastfeeding women are as follows:

Condition: Breastfeeding	**WHO Category**	**Category Explanation**
< 6 weeks postpartum	4	Do not use the method
> 6 weeks to < 6 months postpartum	3	Do not use the method unless no other method is available
≥ 6 months postpartum	2	Generally, use the method

   Because Nadia's baby is now six months old, she is eligible to start COCs, especially because she is beginning supplementation and weaning. At this point, reduction in the quantity of breastmilk should not pose a problem. COCs do not impact the quality or safety of breastmilk for an infant at any time.

Answers to Question Set C

1. **What information should you discuss with Nadia?**
   - Make sure she understands how to take the pills and the importance of taking a pill every day—it is necessary for the pill to be effective and it will reduce the likelihood of spotting.
   - Link pill-taking to daily activities to improve compliance (e.g., take the pill every evening just after dinner or before going to bed).
   - Discuss what to do if she misses pills, possible side effects, and warning signs of rare complications of COCs.

2. **What should you tell her about missing her pills or starting a new pack late?**
   Carefully review these instructions with Nadia and provide her with a client brochure, if available, that explains how to use pills.

   - Take one pill each day. Taking a pill at the same time each day may make it easier to remember. You can reduce nausea by taking a pill with food or right before going to bed.
   - If you miss active pills one or two days in a row or start a pack one or two days late:
     - Always take a pill as soon as you remember and continue taking one pill each day. Depending on when you remember that you missed a pill(s), you may take two pills on the same day—one at the moment you remember and the other at the regular time—or even at the same time.
     - There is no need for additional contraceptive protection.
   - If you miss three or more active pills in a row or start a pack three or more days late:

  - Take a pill as soon as possible, continue taking one pill each day, and use condoms or avoid sex or use a backup method for the next seven days.
  - In addition, if you missed these pills in week three, finish the active pills in the pack and start a new pack. Throw away the inactive pills.
  - Also if you had unprotected sex within the last 5 days, consider using emergency contraception.
- If you miss any inactive (nonhormonal) pills, throw away the missed pills and continue taking pills, one each day.

3. How will you help Nadia prepare for possible side effects?

- Review the possible side effects with her.
- Remind her that side effects are not signs of illness and they usually lessen or diminish with time; that they are common but not all women have them.
- Tell her to return to the clinic if she has any questions or concerns about side effects.

4. What will you tell her about follow-up and resupply?

- Instruct Nadia to return anytime she has questions or concerns or if she experiences any warning signs of complications. If she experiences any of these symptoms, she should stop taking the pills, use a backup method, and return to the clinic immediately.
- Tell her it is important to return for resupply before she runs out of pills.

Answers to Question Set D

1. How will you address Nadia's concerns? What information should you gather from Nadia?

- First, reassure Nadia that mild headaches, nausea, and spotting are normal side effects of COCs, are not harmful or signs of illness and usually diminish over time.
- Ask probing questions and make detailed notes about the side effects that Nadia is experiencing to determine the severity of the bleeding irregularities, headaches and nausea to ensure that these are not caused by underlying problems or that she has developed migraine headaches.
- Check if she is taking pills consistently and correctly and ask about the time of intake.

2. Is spotting normal with pills? What other conditions will cause spotting?

- Spotting is a normal side effect of COCs. Other causes of spotting include missed pills, taking pills at a different time each day, vomiting or diarrhea, or taking anticonvulsants or rifampicin.

3. How will you advise Nadia to manage the spotting, nausea, and headaches?

- To reduce spotting, advise Nadia to take pills at the same time each day, perhaps with the evening meal or at bedtime, which will also reduce nausea. Inform her that taking pills in the morning or on an empty stomach may increase nausea.
- If the headaches bother her, she may use aspirin, ibuprofen, paracetamol, or other pain relievers.
- If the nausea or headaches continue to persist and are bothersome, she may try using another formulation of COCs, or you could help her choose another contraceptive method.
- Remind her to return immediately if headaches become severe or are preceded by a bright area of lost vision in one eye (aura).

Combined Oral Contraceptives

Case Study 2—Answer Key

Answers to Question Set A

1. **What questions would you ask Miriam?**
   - Do you want more children in the future or do you want to stop having children altogether?
   - Do you think you will remember to take a pill every day?
   - Would you like me to tell you about other available methods that would allow for regular periods?
2. **How would you explain to Miriam how COCs work?**
   COCs contain low doses of estrogen and a progestin, similar to the hormones in a woman's body. COCs work in two primary ways. First, they prevent the release of an egg from the ovary (ovulation). Without an egg, sperm have nothing to fertilize. Second, they cause the mucus in the cervix (entrance to the uterus) to become thick. This makes it more difficult for sperm to enter the uterus and fertilize an egg, if ovulation were to take place.
3. **What do you tell Miriam about the advantages and limitations of using COCs?**
   - Advantages include:
     - They are very effective contraception.
     - Fertility returns quickly after stopping use of the pills.
     - They can be stopped at any time without a provider's help.
     - They do not interfere with sex.
     - For many women, monthly bleeding is more regular and cramping is reduced.
     - They have some additional health benefits aside from preventing pregnancy, such as reducing symptoms of endometriosis, and providing protection from ovarian cysts, symptomatic pelvic inflammatory disease, iron-deficiency anemia, and ovarian and endometrial cancers.
   - Limitations include:
     - Some users experience bothersome, but not harmful, side effects.
     - The pills must be taken correctly and consistently; otherwise they are not as effective.
     - They provide no STI/HIV protection.
     - On very rare occasions, complications may occur.
4. **What other information should you provide to Miriam?**
   COCs do not provide protection from STIs, including HIV, so if she thinks she may be at risk of exposure to STIs, she should use condoms in addition to COCs.

Answers to Question Set B

1. **What tool would you select to help screen Miriam for medical eligibility?**
2. The *Checklist for Screening Clients Who Want to Initiate Combined Oral Contraceptives (COCs)* identifies clients who have conditions or characteristics that prevent the safe use of COCs. The *WHO Medical Eligibility Criteria Wheel for Contraceptive Use*, or the *Quick Reference Chart for the WHO Medical Eligibility Criteria for Contraceptive Use* could also be used.

2. **How might Miriam's current method use and smoking history affect her eligibility for COCs?**

Miriam should be congratulated on her choice to stop smoking, and the following information should be shared with Miriam in the event that she does decide to smoke again in the future. Women age 35 and older who smoke should not use COCs because COCs may increase their risk for blood clots. Miriam should be urged not to start smoking again.

3. **Is Miriam eligible to start using COCs today? Why or why not?**
   Since she has been receiving DMPA injections on time, you can be reasonably sure Miriam is not pregnant. Because she came to the clinic during her reinjection window for DMPA, which starts two weeks before her scheduled reinjection date, she is eligible to start using COCs today. There is no need for her to use a backup method, because she will be protected from pregnancy by her previous DMPA injection for another six weeks.
4. **What type of medical exam does Miriam require before starting to use COCs?**
   No medical exams are required for starting to use COCs. If you have the means to take her blood pressure you should do so; if not, she may still start COCs.

Answers to Question Set C

1. **When should Miriam start taking the pills?**
   She can start today, the first day of her reinjection window for DMPA. Clients who are switching from using injectables may start COCs during the reinjection window for their next injection.
2. **What topics should you cover during counseling?**
   - Safety and effectiveness
   - How COCs work
   - How to take the pills and what to do when pills are missed
   - The importance of taking a pill every day
   - Health benefits
   - Side effects
   - That COCs do not protect against STIs/HIV and the need to use condoms if at risk of infection.
   - Warning signs of possible complications and reasons to return
3. **How would you explain about how to manage missed pills?**
   - Take one pill each day, preferably at the same time each day. This makes it easier to remember. The chance of nausea is less if pills are taken with food.
   - If you miss active pills one or two days in a row or start a pack one or two days late:
     – Always take a pill as soon as you remember, and continue taking one pill each day. Depending on when you remember that you missed a pill(s), you may take two pills on the same day—one at the moment you remember and the other at the regular time—or even at the same time.
     – There is no need for additional contraceptive protection.
   - If you miss three or more active pills in a row or start a pack three or more days late:
     – Take a pill as soon as possible, continue taking one pill each day, and use condoms or avoid sex for the next seven days.
     – In addition, if you missed these pills in week three, finish the active pills in the pack and start a new pack. Throw away the inactive pills.
     – Also if you had sex within the last five days, consider using emergency contraception.
   - If you miss any inactive (nonhormonal) pills, throw away the missed pills and continue taking pills, one each day.

4. **What should you say about when to return?**
   - Instruct Miriam to return anytime she has problems, questions, or concerns or if she experiences any warning signs of potential complications, including sharp pains in the abdomen, chest, or leg; severe headache; or blurred vision or loss of vision. If she experiences any of these symptoms, she should stop taking the pills, use a backup method, and return to the clinic immediately.

Answers to Question Set D

1. **How will you respond to Miriam's report of headaches?**
   Ask about the severity and frequency of the headaches and about any visual symptoms she may be experiencing to better understand her headaches. Her description indicates that she may be experiencing migraine headaches.
2. **Is Miriam eligible to continue using COCs? Why or why not?**
   No. Regardless of age, a woman who develops migraine headaches, with or without aura or whose migraine headaches become worse while using COCs should stop using them.
3. **What is your plan of action, and why?**
   - Tell her to stop taking COCs.
   - Give her a backup method.
   - Help her choose a method without hormones. Because Miriam did not tolerate amenorrhea while using injectables, implants—the only other available hormonal method without estrogen that she has not tried—would not be a good choice for her. The provider might discuss the IUD, condoms, or sterilization, depending on her fertility intentions.
   - Refer her for treatment of migraines.

Note: The recommendations provided in the Answer Key comply with the guidance in *Family Planning: A Global Handbook for Providers (2017 update).* If national guidelines are available and provide guidance on these topics, participants should follow the recommendations in the national guidelines.