

MEDEX

MID-LEVEL
HEALTH WORKER
TRAINING MODULES

Instructor's
Manual

Prenatal Care Labor and Delivery Postnatal Care

ISBN: 32 367

- PN - AAN - 922 -



PRENATAL CARE

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The MEDEX Primary Health Care Series

PRENATAL CARE

Instructor's Manual

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University of Hawaii, Honolulu, Hawaii, U.S.A.**

Library of Congress Catalog Card No. 83-80675

First Edition

Printed in U. S. A.

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FUNDED BY THE U. S. AGENCY FOR INTERNATIONAL DEVELOPMENT CONTRACT NO. DSPE-C-0006. The views and interpretations expressed are those of the Health Manpower Development Staff and are not necessarily those of the United States Agency for International Development.

TABLE OF CONTENTS

SCHEDULE	7
TEACHING PLAN FOR UNIT 1	
Teaching Plan 1 - Changes during Pregnancy	9
Answers to Review Questions	11
TEACHING PLANS FOR UNIT 2	
Teaching Plan 2 - Taking and Recording a Prenatal Medical History	13
Answers to Review Questions	15
Teaching Plan 3 - Performing and Recording a Prenatal Physical Examination	20
Teaching Plan 4 - Identifying High Risk Factors	22
Teaching Plan 5 - Assessing a Pregnant Woman; Clinical Practice	23
TEACHING PLANS FOR UNIT 3	
Teaching Plan 6 - Providing Prenatal Care	25
Answers to Review Questions	27
Teaching Plan 7 - Providing Patient Care for Common Conditions during Pregnancy	31
TEACHING PLAN FOR UNIT 4	
Teaching Plan 8 - Pregnancy Problems	33
Answers to Review Questions	35

TEACHING PLAN FOR UNIT 5

Teaching Plan 9 - Sharing Health Messages about Prenatal Care	40
Answers to Review Questions	42

TEACHING PLAN FOR UNIT 6

Teaching Plan 10 - Assessing Pregnant Women; Skill Development	44
--	----

TEACHING PLAN FOR UNIT 7

Teaching Plan 11 - Providing Prenatal Care; Clinical Rotation	45
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TEACHING PLAN FOR UNIT 8

Teaching Plan 12 - Helping Pregnant Women Prevent and Care for Pregnancy Problems; Community Phase	47
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SCHEDULE PRENATAL CARE

DAY 1	DAY 2	DAY 3	
Introduction to the Prenatal Care module Teaching Plan 1: Changes during Pregnancy Teaching Plan 2: Taking and Recording a Prenatal Medical History	Teaching Plan 5: Assessing a Pregnant Woman; Clinical Practice	Teaching Plan 8: Pregnancy Problems	
	Teaching Plan 6: Providing Prenatal Care Teaching Plan 7: Providing Patient Care for Common Conditions during Pregnancy	Teaching Plan 9: Sharing Health Messages about Prenatal Care	
Teaching Plan 3: Performing and Recording a Prenatal Physical Examination Teaching Plan 4: Identifying High Risk Factors		Posttest	

Skill development: one week- Teaching Plan 10
 Clinical rotation: one month- Teaching Plan 11
 Community phase: three months- Teaching Plan 12

Teaching Plan 1

Changes during Pregnancy

- OBJECTIVES**
1. Describe the changes that occur in a woman's body during pregnancy.
 2. Describe the main stages in the development of the fetus.
- METHODS** Self-instruction, discussion, review of drawings or pictures, instructor presentation, student presentation
- MATERIALS** Student Text- Unit 1, pictures or drawings of the physical changes that occur during pregnancy
- PREPARATION** Complete your analysis of pretest results. Assign each student to a working group of three to four persons. Each group should include students with high pretest scores and students with low pretest scores. Try to include in each group students experienced in caring for pregnant women.
- Collect pictures or drawings of the physical changes that occur during pregnancy. If possible, identify women at different stages of pregnancy who are willing to come to the class to help you demonstrate the changes that occur during pregnancy. Prepare a presentation on the signs of pregnancy.
- Tell the students to review the anatomy and physiology of the female reproductive system and the reproductive process. Select two students to review the reproductive process and the early stages of pregnancy. Help the students prepare the presentation.
- Tell the students to read Unit 1 in the Student Text and to answer the review questions.

TIME: 1 hr 25 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| 1. Introduce and explain the Task Analysis Table.
Answer any questions. | 15 min |
| 2. Students present a review of the reproductive process and the early stages of pregnancy. | 15 min |
| 3. Discuss the student presentation. Present information on the signs of pregnancy. | 10 min |
| 4. Lead a class discussion of the review questions for Unit 1. Reinforce this discussion with pictures or drawings of the physical changes that occur during pregnancy. Or, have the students observe pregnant women at different stages of pregnancy. | 30 min |
| 5. Students summarize what they learned during the session and explain how it will be useful in providing prenatal care. | 15 min |

ANSWERS TO REVIEW QUESTIONS

Changes during Pregnancy

1. TRUE(T) or FALSE(F)

F A woman cannot become pregnant after the delivery of a baby if her regular menstrual periods have not resumed.

2. When is it possible to feel the enlarged uterus during pregnancy?

About the 12th to the 13th week of pregnancy

3. Match the changes in pregnancy listed in column B with the approximate time in pregnancy in which they occur. Write the letter of your answer in the space provided.

A	B
<u>e</u> 4 - 8 weeks	a. The woman may have shortness of breath and swollen ankles
<u>c</u> 38 - 40 weeks	b. Fetal parts and movements may be felt
<u>f</u> 16 - 20 weeks	c. The fetus' head settles into the woman's pelvis
<u>a</u> 32 - 36 weeks	d. The woman has increased urination. Her vagina is bluish purple in color.
<u>d</u> 8 - 13 weeks	e. The woman may experience nausea in the mornings or evenings
<u>b</u> 22 - 30 weeks	f. Fetal heart sounds may be heard

4. TRUE(T) or FALSE(F)

T A fetus born at twenty-four weeks cannot survive.

5. Describe the fetus at twenty-eight weeks of development.

The fetus' brain is developed but is unable to control temperature. The fetus' skin is red and covered with a white, greasy substance. If born at this stage,

the fetus is able to move its limbs, breathe, and cry weakly. However, a fetus born at this stage of development is not likely to survive. It usually weighs about 1140 grams.

6. About how much does a fetus weigh at forty weeks of development?

Approximately 3200 grams

Teaching Plan 2

Taking and Recording a Prenatal Medical History

OBJECTIVES	<ol style="list-style-type: none">1. Demonstrate how to take a prenatal medical history.2. Demonstrate how to record a prenatal medical history on the Maternity Card.
METHODS	Self-instruction, class discussion, instructor demonstration, role-play
MATERIALS	Student Text- Unit 2, Maternity Card's
PREPARATION	<p>Prepare a demonstration on how to take and record a prenatal medical history. Select a student to be a pregnant woman and together develop a role-play. Copy the Maternity Card on large, flipchart-sized paper to demonstrate how to record a prenatal medical history.</p> <p>Prepare copies of the Maternity Card for the students to use in their role-plays.</p> <p>Ask the students to read Unit 2 in the Student Text and to answer the review questions.</p>

TIME: 2 hrs 20 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| <ol style="list-style-type: none">1. Ask one student to summarize the steps for taking an adult medical history. Ask another student to explain the purpose for taking and recording a prenatal medical history. | 10 min |
| <ol style="list-style-type: none">2. Demonstrate how to take and record a prenatal medical history. Demonstrate how to record the prenatal medical history on the flipchart copy of the Maternity Card. | 30 min |

	TIME
3. Discuss the presentation. Encourage the students to ask questions	10 min
4. Divide the class into groups of three. Tell two members of each group to role-play a pregnant woman and a health worker while the other member acts as an observer. The health worker will interview the pregnant woman. The observer and the pregnant woman should work together to develop the woman's role.	20 min
5. Groups conduct their role-plays. Observers take notes on the strengths and weaknesses of the medical history taking procedures.	30 min
6. Ask each group to discuss the role-plays. The observer should share his comments.	10 min
7. The full group meets. The students discuss their work in the small groups and the problems or concerns that arose during the role-plays. Students compare their recorded medical history information with the flipchart copy of the Maternity Card.	20 min
8. Students summarize what they learned during the session and how it will be useful in providing prenatal care.	10 min

ANSWERS TO REVIEW QUESTIONS

Assessing a Pregnant Woman

1. During a prenatal medical history you ask the woman when she had her last menstrual period. Why is this information important?

Knowing when her menstrual periods stopped will help you estimate the age of the fetus and the expected date of delivery.

2. What should you do if you find out that a woman is pregnant with an IUD in place?

Do not remove the IUD. Refer the woman to the hospital.

3. TRUE (T) or FALSE (F)

 T Medications taken during pregnancy can pass through the placenta and affect the development of the fetus.

4. What questions should you ask a pregnant woman at each prenatal revisit?

"How are you feeling? Do you have any problems or discomfort related to pregnancy?"

"Are you taking any medications?"

"Have you been smoking or drinking?"

"How is your appetite? What did you eat yesterday?"

"Have you been taking folic acid and iron tablets regularly? Do you need more tablets?"

5. Why is it helpful to calculate a woman's expected date of delivery before you do a prenatal physical examination?

An expected date of delivery is useful in comparing physical examination findings to how far along in her pregnancy the woman should be.

6. List the four steps in calculating the expected date of delivery.

- a Ask the woman for the date of the start of her last normal menstrual period
- b Add seven to the first day of her last normal menstrual period
- c Count nine months ahead
- d Correct for the year

7. TRUE (T) or FALSE (F)

 F The main purpose of a prenatal physical examination is to determine the position of the fetus in the uterus

8. During the abdominal examination you use four palpation steps. Briefly describe what you are looking for in each step.

You palpate the abdomen to determine the size of the uterus and the position of the fetus. In the first step, you determine the size of the uterus and decide which part of the fetus is in the top of the uterus. In the second step, you palpate the sides of the uterus to feel the fetus' back. In the third step, you decide which part of the fetus is in the lower abdomen. In the fourth step, you face the woman's feet and palpate from the abdomen toward the pelvis to confirm your findings.

9. Why should you examine the musculoskeletal system of a pregnant woman as part of a prenatal physical examination?

Examine the musculoskeletal system to look for deformities of the legs, back, or pelvis. A deformity may be a sign of an abnormal pelvic opening. Vaginal delivery may be difficult or impossible.

10. What signs of pregnancy might you detect during a female genital examination?

A soft, bluish cervix and bluish purple vaginal walls

11. Match the pelvic measurement points in column A with the way these points are measured and recorded in column B. Write the letter of your answer in the space provided.

A	B
<u>c</u> Diagonal diameter	a. Describe as admitting more or fewer than two fingers
<u>a</u> Sacrosciatic notch	b. Should be 9 cm or more
<u>a</u> Sub-pubic angle	c. Should be 12 cm or more
<u>b</u> Space between the ischial tuberosities	d. Describe as blunt or sharp
<u>d</u> Ischial spines	e. Describe as well-curved, flat, or irregularly shaped
<u>e</u> Curve of the spine	

12. What parts of the prenatal physical examination should you perform at a prenatal revisit?

Check the woman's blood pressure, weight, and urine. Check for signs of edema and anemia. Perform an abdominal examination to determine the size of the uterus and the position of the fetus. Listen for fetal heart sounds.

13. TRUE (T) or FALSE (F)

T Early detection of high risk factors is the main reason for prenatal visits.

14. Explain how the age of a pregnant woman can be considered a risk factor.

Women in certain age groups are at risk of complications during pregnancy and delivery. Women younger than sixteen often have premature deliveries and give birth to small babies. Women over thirty who are having a first child often have long labors and difficult deliveries. Women older than thirty-five have an increased tendency to bleed during and after labor. An older woman is also at risk of giving birth to an abnormal baby.

15. Why is a woman who has had more than five pregnancies at risk of complications during subsequent pregnancies?

Women with a history of more than five previous pregnancies are likely to bleed immediately after delivery. They can also deliver so fast as to injure the newborn.

16. Why should a woman who has had a previous cesarean section delivery have a hospital delivery?

A woman who has delivered by cesarean section has a weak area in her uterus. The uterus may rupture during labor.

17. You find out that a pregnant woman has had two miscarriages and an infant who died within one week after birth. Why is this important information? What additional information would you want to have?

A disease such as diabetes, tuberculosis, or syphilis, may have caused the miscarriages and infant death. You need to find out more about the woman's current condition and past medical history. Special patient care may prevent another miscarriage or infant death from occurring.

18. List some of the medical conditions that are risk factors for a pregnant woman.

- a Heart disease or shortness of breath*
- b Kidney disease*
- c Sickle cell disease*
- d Diabetes*
- e Tuberculosis*
- f Malaria*
- g Severe anemia*
- h Malnutrition*

19. Match the condition in column A with its indication or the complication it may cause in column B. Write the letter of your answer in the space provided.

A	B
<u>c</u> Less than 152.5 cm tall	a. May be a sign of diabetes
<u>j</u> Small or deformed pelvis	b. May cause infection of the uterus
<u>g</u> Severe anemia	c. May cause a long, difficult labor
<u>i</u> Blood pressure above 140/90	d. Sign of a possible miscarriage
	e. Sign of heart disease

- e Heart murmur
- f Large, soft uterus
- b No fetal heart sounds or movement after the 24th week
- d Bleeding from the vagina
- b Early rupture of the bag of waters
- a Sugar in the urine
- f May be a sign of excess fluid in the uterus
- g May lead to heart failure
- h May be a sign of fetal death
- i Sign of possible preeclampsia
- j Vaginal delivery may be difficult or impossible

Teaching Plan 3

Performing and Recording a Prenatal Physical Examination

OBJECTIVES	<ol style="list-style-type: none">1. Demonstrate how to perform a prenatal physical examination.2. Demonstrate how to record a prenatal physical examination on the Maternity Card.
METHODS	Self-instruction, class discussion, instructor demonstration, student practice in small groups
MATERIALS	Student Text– Unit 2, procedure for assessing a pregnant woman, Assessing a Pregnant Woman skill checklist, equipment for performing a prenatal physical examination, Maternity Cards used by the students in the previous class session, flipchart-sized Maternity Card used during the previous class session
PREPARATION	<p>Find a pregnant woman who is willing to help you demonstrate the physical examination procedures. Gather the supplies and equipment you will need to demonstrate the physical examination procedures. Prepare manikins or models for student practice, if necessary.</p> <p>Remind the students to review Unit 2 in the Student Text. Tell the students to review the procedure for assessing a pregnant woman in the appendix of the Physical Examination module. Remind the students to bring to class the Maternity Cards that they used during the previous class session.</p>

TIME: 2 hrs

LEARNING ACTIVITIES

- | | |
|--|--------|
| 1. Demonstrate the procedures for performing a prenatal physical examination. Explain how to record the findings on the Maternity Card. | 1 hr |
| 2. Encourage the students to ask questions about the procedures. Divide the class into groups of three. Tell the students to go through the sequence of procedures using the skill checklist as a guide. If models or manikins are available, allow students to practice the female genital examination procedure also. At this point, however, it is more important that they understand the sequence of procedures. Explain that they will have an opportunity to actually perform the examination during another session. | 45 min |
| 3. Students ask questions and express their concerns about the prenatal physical examination procedures. They summarize what they learned during the session. | 15 min |

Teaching Plan 4

Identifying High Risk Factors

OBJECTIVE	Describe the high risk factors that can be detected during a prenatal medical history and physical examination.
METHODS	Self-instruction, class discussion, instructor presentation, small group discussion
MATERIALS	Student Text- Unit 2
PREPARATION	Remind the students to review Unit 2 in the Student Text Prepare a presentation on the high risk factors related to pregnancy. Prepare questions about high risk factors to ask the students.

TIME: 1 hr 55 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Explain high risk factors. Make a presentation on the high risk factors related to pregnancy. | 45 min |
| 2. Divide the class into working groups. Tell the groups to discuss the high risk factors presented in Unit 2. Tell them to discuss the factors that can be detected from the medical history and those that can be detected from the physical examination. The discussion should focus on why each factor is a high risk factor. | 5 min |
| 3. Groups discuss high risk factors. | 20 min |
| 4. The full group meets to discuss the small group work. Ask the students to explain why certain factors are considered high risk factors. Discuss the review questions for Unit 2. | 30 min |
| 5. Students summarize the important points made in this session about high risk factors. | 15 min |

Teaching Plan 5

Assessing a Pregnant Woman; Clinical Practice

- OBJECTIVES**
1. Take and record a prenatal medical history.
 2. Perform and record a prenatal physical examination.
 3. Identify high risk factors during a prenatal medical history and physical examination.

METHODS Supervised clinical practice, discussion

MATERIALS Assessing a Pregnant Woman skill checklist, supplies and equipment needed to perform prenatal physical examinations, Diagnostic and Patient Care Guides, Formulary, evaluation records

PREPARATION Identify pregnant women who are willing to come to the maternal and child health or outpatient clinic to be interviewed and examined by students. Arrange for student supervision during four hours of clinical practice in the maternal and child health or outpatient clinic. Remind students to review Unit 2 in the Student Text and the skill checklist

TIME: 4 hrs

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Review the sequence of procedures for the prenatal medical history and physical examination. | 20 min |
| 2. Divide the class into pairs. Assign each pair to a pregnant woman and a supervisor. | 10 min |
| 3. Students practice interviewing pregnant woman and performing prenatal physical examinations. | 3 hrs |

TIME

One student interviews and examines a woman while the other student observes, using the skill checklist as a guide. Students change roles after completing a medical history and physical examination. If enough women are not available, students may take turns with various parts of the medical history and physical examination.

4. Students discuss the clinical practice and any questions or concerns that arose as a result of the experience. Students summarize what they learned from the clinical practice.

30 min

Teaching Plan 6

Providing Prenatal Care

OBJECTIVE	Explain supportive prenatal care, preventive prenatal care, and patient care for common conditions during pregnancy.
METHODS	Class discussion, group work, informal question and answer session
MATERIALS	Student Text - Unit 3
PREPARATION	Remind the students to read Unit 3 in the Student Text and to answer the review questions.

TIME: 1 hr 25 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| <ol style="list-style-type: none"> 1. Divide the class into two groups with an equal number of students per group. Tell the groups to think of ten questions about providing prenatal care. Encourage the students to make the questions difficult. Explain that each group will ask the other group ten questions. The group with the most correct answers will win a favor from the other group. | 10 min |
| <ol style="list-style-type: none"> 2. Groups write their ten questions. | 20 min |
| <ol style="list-style-type: none"> 3. Choose one group to ask the first question of the other group. Explain that a group may give only one answer, so they should choose a spokesman before answering. Groups alternate asking questions until all the questions have been asked. The group with the most correct answers wins a favor from the other group. In the case of a tie, ask each group a series of | 40 min |

TIME

questions. The first group to answer a question incorrectly loses.

4. Discuss the question and answer session. Have the students summarize what they learned during the session.

15 min

ANSWERS TO REVIEW QUESTIONS

Providing Prenatal Care

1. Name the three types of routine prenatal care.

- a *Supportive care*
- b *Preventive care*
- c *Patient care for common conditions during pregnancy*

2. What should you include in an explanation of the process of pregnancy and delivery?

Explain fetal development, when the woman might expect fetal movement, and the stages of labor and delivery. Emphasize that pregnancy and delivery are normal processes. Reassure the woman that care will be available when she needs it.

3. Name four things that you should include in a discussion with a pregnant woman about preparing for the care of a newborn.

- a *Talk about bedding and clothing needs for the newborn.*
- b *Talk about care for other children in the family.*
- c *Discuss the time needed to care for a new baby.*
- d *Discuss arrangements for help in the woman's home, if necessary.*

4. A high risk pregnant woman wants to have her baby at home. What should you tell her?

Explain to the woman that, because of the risks to her and her baby, it is best to deliver in the hospital where the necessary level of help is available in case of problems or complications. Tell her that you will reconsider this decision at each prenatal visit.

5. How should you and the woman's family prepare for a home delivery?

Select an area in the home for the delivery. Prepare a clean mat or bed clothes for the woman to lie on. Gather clean cloths, newspapers, or grass to soak up water and blood. Set aside a bar of soap and cord cutting instruments. Prepare clean pieces of cloth or sanitary pads for the woman to wear after delivery. Visit the home again two weeks before the expected date of delivery.

6. Why is it a good idea to invite the traditional birth attendant to accompany the woman on prenatal visits?

You can include the traditional birth attendant in discussions about home preparations. It is also an opportunity to share information with the traditional birth attendant.

7. TRUE (T) or FALSE (F)

F A pregnant woman has a special need for carbohydrate rich foods such as sugar, bread, and potatoes.

8. A pregnant woman is breast-feeding a one-and-one-half-year-old child. What should you advise the woman about her own nutrition and that of her young child?

Tell the woman that she has an increased need for food since her body is feeding both a young child and a growing fetus. Tell her that she needs to eat protein rich foods, such as beans, legumes, ground nuts, eggs, milk, fish, meat, and green, leafy vegetables. Also advise her to gradually begin weaning her breast-feeding child to other food so that he will be able to do without breast milk when the new baby is born. In this way, both children will get the nutrition that they need.

9. Why should a pregnant woman take iron and folic acid tablets?

To prevent anemia and to ensure the health of the fetus

10. A woman having her first baby will want to know what labor is like and when she should call her traditional birth attendant or go to the health center. How should you counsel a woman with a normal pregnancy?

Counsel the woman to call her birth attendant when she feels a sudden gush of fluid from her vagina, notices a bloody discharge, or experiences a series of repeated abdominal cramps within an hour.

11. TRUE(T) or FALSE(F)

T You should see a pregnant woman at the health center at least three times during her pregnancy.

12. A pregnant woman wants to know why she should avoid drugs and medicines, smoking, and alcohol. What should you tell her?

Tell her that drugs and medicines that a woman takes during pregnancy can harm the fetus. Advise her not to take drugs or medicines except for iron and folic acid. You should review any drugs or medicines prescribed by the hospital or a health worker for their possible effect on the fetus. Allow the woman to continue taking a drug or medicine only if absolutely necessary. Also tell her that smoking and alcohol may cause the fetus to develop abnormally. Therefore, she should not smoke or drink alcohol during pregnancy.

13. Proper cord care at the time of delivery is the best way to prevent tetanus of the newborn. What else can help prevent this disease?

Giving tetanus toxoid to pregnant women will also help prevent tetanus of the newborn. The injections will help protect the newborn against tetanus in the early weeks of life.

14. How should a pregnant woman prepare her nipples for breast-feeding?

A pregnant woman should massage her nipples daily with cold water. Daily massaging may help prevent cracks and fissures which can make breast-feeding painful.

15. Why is it important to discuss traditional beliefs and practices about pregnancy and childbirth with a pregnant woman?

Discussing traditional beliefs and practices will let you know if the woman is engaging in practices that may be harmful to her or to the newborn. Support pregnant women by encouraging helpful traditional practices and advising against harmful ones.

16. What are some of the common conditions that occur during pregnancy?

- a Morning sickness*
- b Heartburn*
- c Vaginitis*
- d Constipation and hemorrhoids*
- e Pain or burning on urination*
- f Anemia*
- g Chronic cough*
- h Swollen, twisted veins*
- i Backache*
- j Shortness of breath*

17. Match the common condition found during pregnancy in column A with the appropriate patient care advice in column B. Write the letter of your answer in the space provided.

A	B
<u> j </u> Morning sickness	a. Do not use metronidazole for this condition
<u> i </u> Heartburn	b. May be prevented with iron and folic acid
<u> h </u> Constipation	c. If lasts more than four weeks, do sputum smears
<u> g </u> Hemorrhoids	d. Rest with feet raised
<u> a </u> Vaginitis	e. Preventable by exercising daily
<u> k </u> Pain or burning on urination	f. Walk slowly and rest frequently
<u> b </u> Anemia	g. Advise hot soaks
<u> d </u> Swollen, twisted veins	h. Eat plenty of raw fruits and vegetables and whole grains
<u> f </u> Backache	i. Take chewable antacid tablets as needed
<u> e </u> Shortness of breath	j. Eat a snack before rising in the morning
<u> c </u> Chronic cough	k. Treat with sulfadimidine

Teaching Plan 7

Providing Patient Care for Common Conditions during Pregnancy

OBJECTIVE	Describe the patient care for these common conditions during pregnancy: Morning sickness Heartburn Constipation and hemorrhoids Vaginitis Pain or burning on urination Anemia Chronic cough Swollen, twisted veins Backache Shortness of breath
METHODS	Self-instruction, small group work, group presentations, discussion
MATERIALS	Student Text - Unit 3, Patient Care Guides
PREPARATION	Tell students to review Unit 3 in the Student Text. Also tell them to review the appropriate Patient Care Guides for the conditions listed.

TIME: 1 hr 45 min

LEARNING ACTIVITIES

1. Divide the class into working groups. Assign each group two or three of the common conditions of pregnancy discussed in Unit 3. Tell the groups to prepare a five or ten minute presentation on the assigned conditions. The presentations should include:

10 min

	TIME
a. A description of the condition	
b. How to recognize it	
c. The patient care for the condition	
2. Groups work on their presentations	20 min
3. Groups make their presentations. Discuss each presentation.	1 hr
4. Students summarize what they have learned about providing prenatal care.	15 min

Teaching Plan 8

Pregnancy Problems

- OBJECTIVES**
1. Describe the clinical picture for each of these pregnancy problems:
 - Severe anemia
 - Diabetes
 - Heart disease
 - Ectopic pregnancy
 - Septic abortion
 - Preeclampsia and eclampsia
 - Fetal death
 - Bleeding early in pregnancy
 - Bleeding late in pregnancy
 - Malaria
 - Sickle cell disease

2. Describe the patient care and preventive measures for each of the problems.

METHODS Self-instruction, small group work, group presentations, class discussion

MATERIALS Student Text- Unit 4, Patient Care Guides

PREPARATION Remind the students to read Unit 4, in the Student Text and to answer the review questions

TIME: 3 hrs 25 min

LEARNING ACTIVITIES

1. Divide the class into pairs. Assign each pair of students one of the pregnancy problems listed in Unit 4. Tell the students to prepare a ten-minute presentation on the clinical picture, patient care, preventive measures, and counseling points for the problem.

10 min

	<u>TIME</u>
2. Students prepare their presentations	45 min
3. Students make their presentations. Discuss each presentation.	1 hr 45 min
4. Lead a class discussion of the review questions for Unit 4.	30 min
5. Students summarize what they learned during this session and how they might use it in their work.	15 min

ANSWERS TO REVIEW QUESTIONS

Pregnancy Problems

1. A pregnant woman comes to the prenatal clinic. You notice that she looks pale. Her conjunctivae and mucous membranes are also pale. Her nail beds and tongue are pale. What condition do you suspect? How should you care for this woman?

Suspect anemia. Look for the cause of the woman's anemia. Treat the cause. Tell the woman to take iron and folic acid tablets daily. Refer the woman to the hospital if signs of heart failure develop.

2. TRUE(T) or FALSE(F)

T Diabetes cannot be prevented

3. How can you diagnose diabetes in a pregnant woman?

A woman will usually have no presenting complaint related to diabetes unless she is a known diabetic. A complete prenatal medical history and physical examination can help you diagnose the disease. Test for sugar in her urine.

4. A pregnant woman has no signs of diabetes other than a positive urine test for sugar of 1+ or higher. What should you do?

Refer her to the hospital for evaluation.

5. Why is heart disease during pregnancy considered a high risk factor?

Pregnancy makes the heart work harder. Heart disease strains the heart even more. Heart disease may lead to heart failure and death during pregnancy or delivery.

6. TRUE(T) or FALSE(F)

T In examining a pregnant woman with suspected heart disease, look for pallor. Anemia can increase the risk of heart failure.

7. Describe how to prevent heart disease and some of its complications

Early diagnosis of heart disease during prenatal physical examinations will result in good patient care and will prevent deaths of pregnant women with heart failure. Early diagnosis and treatment of bacterial tonsillitis will help prevent heart disease. Supplemental iron and folic acid will prevent the worsening of heart failure symptoms associated with anemia.

8. What is an ectopic pregnancy?

An ectopic pregnancy is a fertilized ovum that is growing outside the uterus, usually in a fallopian tube.

9. What is the most common presenting complaint of a woman with an ectopic pregnancy?

A woman with an ectopic pregnancy usually complains of sudden, severe pelvic pain and bleeding from the vagina. She may be in shock.

10. Describe how to care for a woman with a suspected ectopic pregnancy.

Transfer the woman immediately to the hospital. If necessary, treat her for shock during the transfer. She will need blood transfusions. Send relatives and friends to the hospital to give blood.

11. A woman whom you have seen recently in the prenatal clinic comes to the health center with vaginal bleeding and fever. Her lower abdomen is tender to palpation. A pelvic examination reveals a blood-tinged discharge from the cervix. The cervix is open. What condition do you suspect? How should you care for the woman?

Suspect a septic abortion. Remove any stick, grass, or other object that you see in the vagina or cervix during the pelvic examination. Give the woman antibiotics quickly and in large doses to treat the infection. Keep the woman in a semi-seated position to help drain the infected pelvic area. Refer the woman to the hospital. Her condition could get worse at any time.

12. What symptoms and signs of preeclampsia might you find during a prenatal medical history and physical examination?

a. History of convulsions during pregnancy

- b *Vision problems*
- c *Headaches*
- d *Increased edema*
- e *High blood pressure*

13. TRUE(T) or FALSE(F)

T High blood pressure is the most important sign of preeclampsia.

14. You are called to a woman's home for an emergency. The woman is twenty-two years old. She is lying down and is in obvious discomfort. Her skin is cool and damp. She is not fully responsive. Her blood pressure is 90/50. She has severe abdominal pain.

The family tells you that the woman is married and has a two-year-old child. Her abdominal pain started quite suddenly. She has missed three menstrual periods, but has had some light bleeding for the last two weeks.

What is the most likely diagnosis?

Ectopic pregnancy

15. Describe the patient care for a pregnant woman with a blood pressure reading of 140/90 or higher.

Refer the woman to the hospital.

16. Circle the letter of your answer. If eclampsia occurs, the woman should be:

- a. Advised to spend several hours resting in bed
- b. Given antibiotics

c. Treated as an emergency

17. Explain some of the causes of fetal death.

A disease of the mother such as diabetes, syphilis, or viral diseases may cause fetal death. A genetic abnormality of the fetus or a combined abnormality between the mother and fetus may also cause fetal death. Fetal death may also occur as a result of an attempted abortion.

18. A woman in her fourth month of pregnancy complains of vaginal bleeding and abdominal pain. You find that the woman's bleeding has been heavy and prolonged and that the abdominal pain has lasted several hours. The woman's cervix is open. What problem do you suspect? How should you care for the woman?

Suspect that the woman's pregnancy has been or will be aborted. The fact that the woman has had heavy and prolonged bleeding may mean that the abortion is incomplete and that there still is tissue in the uterus. The woman is also at risk of shock. Refer her to the hospital. Give her 0.5 mg of ergonovine IM and start an IV with Ringer's lactate solution before the transfer.

19. Circle the letter of your answer. Bleeding after twenty-eight weeks of pregnancy is usually caused by:

- a. The placenta separating from the uterine wall
- b. A cervical laceration
- c. Preeclampsia

20. Describe how you should care for a woman suffering from premature separation of the placenta.

Treat the woman for blood loss. Start an IV with Ringer's lactate solution. Transfer her as quickly as possible to the hospital.

21. TRUE (T) or FALSE (F)

 T The stress of pregnancy makes a woman more susceptible to malaria.

22. What steps can you take to help prevent malaria in the pregnant women of your community?

Give extra folic acid to pregnant women living in areas where malaria is common. Also give preventive malaria treatment during the last three months of pregnancy.

23. Circle the letter(s) of your answer. Which of the following may be signs of sickle cell disease in a pregnant woman?

- a. Pale mucous membranes, conjunctivae, and nail beds
- b. Skin rash
- c. Bone deformities
- d. Swollen joints

24. Describe how to care for pregnant women with sickle cell disease.

Give women with sickle cell disease large doses of folic acid during pregnancy. Refer pregnant women with sickle cell disease to the hospital for care. They should plan to deliver in the hospital. Give the woman in sickle cell crisis IV fluids and transfer her to the hospital.

Teaching Plan 9

Sharing Health Messages about Prenatal Care

OBJECTIVES

1. Explain the importance of sharing health messages about prenatal care with pregnant women.
2. List health messages related to prenatal care and pregnancy that you can share with pregnant women and possible ways to share these messages.
3. Describe how to use small group discussions to share health messages about prenatal care.
4. Demonstrate how to use small group discussions to share health messages about prenatal care.

METHODS

Self-instruction, instructor presentation, small group work, group presentations, role-play demonstration, class discussion

MATERIALS

Student Text - Unit 5, chalkboard or flipchart, chalk or markers, paper that can be used for flashcards or posters

PREPARATION

Prepare a presentation on the importance of sharing health messages about prenatal care with pregnant women.

Select five or six students to help you prepare a role-play demonstration on using a small group discussion to share health messages. Include the different kinds of discussion questions that you can use in a small group as well as several possible subjects for discussion.

Remind the students to read Unit 5 in the Student Text and to answer the review questions.

TIME: 2 hrs 45 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Make a presentation on the importance of sharing health messages about prenatal care with pregnant women. | 5 min |
| 2. Divide the class into three groups. Assign each group a different aspect of prenatal care: supportive care, preventive care, and patient care for common conditions during pregnancy. Tell the students to list health messages related to the assigned aspect of prenatal care. Tell them to also list possible ways to share these health messages with pregnant women. Tell them to prepare a brief demonstration on sharing health messages with pregnant women. | 10 min |
| 3. Students work in small groups | 45 min |
| 4. Small groups make their presentations and demonstrate how they might share health messages about prenatal care. Discuss each presentation. | 45 min |
| 5. With the help of the selected students, lead a class discussion on the advantages of using small group discussion to share health messages about prenatal care. Present your role-play on how to conduct a small group discussion. Discuss the role-play. | 45 min |
| 6. Tell the students to summarize what they learned during this session and how they will use it in their work. | 15 min |

ANSWERS TO REVIEW QUESTIONS

Sharing Health Messages about Prenatal Care

1. What kind of information is important to pregnant women?

Information that helps prepare a pregnant woman for the birth and care of her child is important. Information about the process of pregnancy and delivery, the importance of self-care during pregnancy, the advantages of breast-feeding, preparations for a home delivery, and preparations for a new baby is important.

2. Why is a small group discussion a good way to share health messages about prenatal care?

Pregnant women feel comfortable sharing ideas with women like themselves.

3. TRUE (T) or FALSE (F)

F The setting for a small group discussion should be as formal as possible. Arrange the chairs, mats, or pillows in straight rows.

4. Briefly describe the three types of questions you can use to guide a small group discussion.

- a A closed question focuses the discussion on one point. A closed question usually has a short, exact answer.*
- b An open question has several different, usually long, answers. Answers to open questions usually reflect peoples' attitudes about certain subjects. Open questions make people think and give their opinions.*
- c A redirected question allows a group member to answer a question that was directed to the group leader. A redirected question takes attention away from the group leader and places the responsibility for answering the question on the group.*

5. What should you do if the discussion group members become uncomfortable with the topic or with any of the issues that come up?

Change the discussion subject and suggest that these issues or sensitive areas be discussed individually with you after the session

6. How can you find out if the woman with whom you have shared prenatal health messages actually learned the information?

Make home visits to see if the women are practicing good prenatal care. Or, during regular prenatal visits, ask the women what they are doing to care for themselves during pregnancy.

Teaching Plan 10

Assessing Pregnant Women; Skill Development

OBJECTIVES	<ol style="list-style-type: none">1. Take and record a prenatal medical history.2. Perform and record a prenatal physical examination3. Identify high risk pregnant women
METHODS	Supervised clinical practice
MATERIALS	Assessing a Pregnant Woman skill checklist, evaluation records, Diagnostic Guides
PREPARATION	Arrange for students to be supervised during one week of skill development in a maternal and child health or outpatient clinic.

TIME: 1 week

LEARNING ACTIVITIES

Students interview and examine pregnant women and identify high risk pregnancies. This week of skill development coincides with the one week of skill development for the Postnatal Care module. Students should complete their Level I requirements for these modules during this time.

Teaching Plan 11

Providing Prenatal Care; Clinical Rotation

- OBJECTIVES**
1. Provide supportive prenatal care, preventive prenatal care, and patient care for common conditions during pregnancy.
 2. Identify high risk pregnancies and provide patient care according to the procedures outlined in the Prenatal Care module and the Patient Care Guides.
 3. Advise pregnant women seeking prenatal care about the process of pregnancy and delivery, self-care during pregnancy, and preparations for the delivery and care of a newborn.
 4. Share health messages about prenatal care with groups of pregnant women.
- METHODS** Supervised clinical practice
- MATERIALS** Evaluation records, Diagnostic and Patient Care Guides, Formulary
- PREPARATION** See Unit 8 in the Student Text for entry level skills and knowledge.
- During this month of clinical experience, the students practice providing prenatal care. They also practice caring for infants and children, counseling couples about child spacing, and providing postnatal care. Give each student the opportunity to fulfill the Evaluation Level II requirements for each of these modules by the end of this experience. Assess the facilities, patient load, and supervisory potential in the various patient care areas to decide where the students will be placed and for what period of time.

TIME: 1 month

LEARNING ACTIVITIES

- 1. Students perform and record prenatal medical histories and physical examinations.**
- 2. Students identify high risk pregnant women and provide appropriate patient care.**
- 3. Students provide supportive prenatal care, preventive prenatal care, and patient care for common conditions during pregnancy.**
- 4. Students counsel the pregnant women they see and share health messages about prenatal care with them.**

Teaching Plan 12

Helping Pregnant Women Prevent and Care for Pregnancy Problems; Community Phase

- OBJECTIVES**
1. Provide supportive prenatal care, preventive prenatal care, and patient care for common conditions during pregnancy.
 2. Identify high risk pregnant women and arrange for special prenatal care.
 3. Advise pregnant women in the community about the process of pregnancy and delivery, self-care during pregnancy, and preparations for the delivery and care of a newborn.
 4. Identify and prepare other members of the health team who can help provide prenatal care and identify high risk pregnancies.
- METHODS** Practice providing prenatal care, counseling women, and training community health workers
- MATERIALS** Log book, reference materials
- PREPARATION** See Unit 8 in the Student Text for details of entry level skills and knowledge. See the Community Phase manual for details on the organization and supervision of community practice.

TIME: 3 months

LEARNING ACTIVITIES

1. Students provide prenatal services for pregnant women in the community.
2. Students survey the community to identify the number of pregnant women in the community.

3. Students identify local customs and practices that increase or decrease the occurrence of pregnancy problems.
4. Students talk to pregnant women in the community about prenatal care.
5. Students begin training a community health worker to help provide routine prenatal care and identify high risk pregnant women.

The MEDEX Primary Health Care Series

LABOR AND DELIVERY

Instructor's Manual

© 1983

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John A. Burns School of Medicine
University of Hawaii, Honolulu, Hawaii, U.S.A.**

A.

Library of Congress Catalog Card No. 83-80675

First Edition

Printed in U.S.A.

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FUNDED BY THE U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT CONTRACT NO. DSPE-C-0006. The views and interpretations expressed are those of the Health Manpower Development Staff and are not necessarily those of the United States Agency for International Development

TABLE OF CONTENTS

SCHEDULE	7
TEACHING PLANS FOR UNIT 1	
Teaching Plan 1— History and Physical Examination of a Woman in Labor	9
Answers to Review Questions	12
Labor History Situations	15
Teaching Plan 2— Assessing a Woman in Labor; Clinical Observation and Practice	17
TEACHING PLANS FOR UNIT 2	
Teaching Plan 3— Labor and Delivery	19
Answers to Review Questions	21
Teaching Plan 4— Assisting Labor and Delivery; Clinical Observation and Practice	25
TEACHING PLANS FOR UNIT 3	
Teaching Plan 5— Common Problems of Labor and Delivery	27
Answers to Review Questions	29
Answer to Review Exercise	33
TEACHING PLANS FOR UNIT 4	
Teaching Plan 6— Abnormal Presentations during Delivery	34
Answers to Review Questions	36
Answers to Review Exercises	38

TEACHING PLANS FOR UNIT 5

Teaching Plan 7— Emergencies during Labor and Delivery	41
Answers to Review Questions	43

TEACHING PLAN FOR UNIT 6

Teaching Plan 8— Assessing the Woman in Labor and Assisting Labor and Delivery; Skill Development	47
---	----

TEACHING PLAN FOR UNIT 7

Teaching Plan 9 - Assisting Labors and Deliveries; Clinical Rotation	48
--	----

TEACHING PLAN FOR UNIT 8

Teaching Plan 10 - Assisting Labors and Delivery in the Community; Community Phase	50
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**SCHEDULE
LABOR AND DELIVERY**

DAY 1	DAY 2	DAY 3	DAY 4
Teaching Plan 1: History and Physical Examination of a Woman in Labor	Teaching Plan 3: Labor and Delivery	Teaching Plan 5: Common Problems of Labor and Delivery	Teaching Plan 6: Abnormal Presentations during Delivery
Teaching Plan 2: Assessing a Woman in Labor; Clinical Observation and Practice	Teaching Plan 4: Assisting Labor and Delivery; Clinical Observation and Practice	Teaching Plan 4: Assisting Labor and Delivery; Clinical Observation and Practice	Teaching Plan 4: Assisting Labor and Delivery; Clinical Observation and Practice

DAY 5			
Teaching Plan 7: Emergencies during Labor and Delivery			
Teaching Plan 4: Assisting Labor and Delivery; Clinical Observation and Practice			
Posttest			

8

Skill development: one week—Teaching Plan 8
Clinical rotation: one month—Teaching Plan 9
Community phase: three months—Teaching Plan 10

AK

Teaching Plan 1

History and Physical Examination of a Woman in Labor

OBJECTIVES

1. Describe how to take and record the medical history of a woman in labor.
2. Describe how to perform a general examination, an abdominal examination, and a vaginal examination of a woman in labor.
3. Demonstrate how to use a labor chart to record information from assessing a woman in labor.

METHODS

Self-instruction, class discussion, role-play demonstration by instructor, small group role-play and work, informal question and answer session

MATERIALS

Student Text— Unit 1, skill checklist for Assessing a Woman in Labor, labor history situations, labor charts, supplies for performing a general examination, abdominal examination, and vaginal examination of women in labor

PREPARATION

Complete your analysis of pretest results. Assign each student to a working group of three to four persons. Each group should include students with high pretest scores and students with low pretest scores. Also try to include in each group students who have experience in caring for women during labor and delivery.

Review Unit 1 in the Student Text. Look at the answers to the review questions. Prepare copies of a labor chart for each student. Prepare copies of the labor history situations. Remind students to read the Student Text and answer the review questions.

Select a student to help you in a role-play demonstrating how to take the medical history of a woman in

labor. The student should present with information like that outlined in the labor history situations.

Prepare supplies for performing a general, abdominal, and vaginal examination of a woman in labor. Find a pregnant woman who is near term and willing to help you demonstrate the general and abdominal examinations. You need only describe the procedures for performing a vaginal examination.

Prepare some brief questions to ask the students with respect to the procedures in assessing a woman in labor.

TIME: 3 hrs 20 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| <p>1. Introduce and explain the Task Analysis Table. Explain to students that because problems, complications, and emergencies of labor and delivery are not common, they may not have an opportunity to see or to manage them in a clinic. However, the procedures will be studied and explained in class.</p> | 15 min |
| <p>2. Review with the students the review questions for Unit 1.</p> | 30 min |
| <p>3. Present your role-play demonstration of how to take the history of a woman in labor. Record your findings on a labor chart drawn on a chalkboard or a flipchart.</p> | 20 min |
| <p>4. Divide the class into working groups. Give each group a different labor history situation. Ask each group to role-play a health worker and woman in labor. Remind students to record important history information on their labor chart. Also ask them to outline a plan for caring for the woman they interview. That is, they should outline what they would do after taking the woman's history to care for her during her labor.</p> | 10 min |

do

	TIME
5. Students work in their small groups, using their skill checklist, <i>Assessing a Woman in Labor</i> , as a guide.	45 min
6. Ask a couple of the groups to report on their role-plays. Discuss any problems. Have other groups report on their plans for care of the woman in labor.	20 min
With the help of a pregnant woman near term, demonstrate the procedures for doing a general physical examination and an abdominal examination. Record your findings on the large labor chart you used for the history demonstration. Describe the procedures in performing a vaginal examination of a woman in labor. Use a manikin or model to demonstrate these procedures, if possible. Students should follow these procedures with their skill checklist for <i>Assessing a Woman in Labor</i> as a guide.	30 min
8. Discuss your demonstration with students. Answer any questions or concerns the students may have about the procedures.	10 min
As an informal way of assessing what the students learned from the session, ask questions about the information and activities. Ask several students to summarize what they learned from the session.	20 min
You may also wish to have the students question each other about assessing the woman in labor. Remind students that the next session will be in a clinic.	

ANSWERS TO REVIEW QUESTIONS

History and Physical Examination of a Woman in Labor

1. Write nine questions you would ask a woman who came to you in labor.

- a. *When did your labor pains begin? How often do they come?*
- b. *Have you been examined at a prenatal clinic?*
- c. *Have you had any bloody show?*
- d. *Has your bag of waters broken?*
- e. *When did you last eat?*
- f. *When did you last pass a stool?*
- g. *Have you taken any medicine or treatment to increase or decrease your labor?*
- h. *Do you have a traditional birth attendant? What is her name? Can she assist with your labor?*
- i. *Have you bled from your vagina?*

2. TRUE (T) or FALSE (F):

F If a woman is having her first baby, labor usually will last five to ten hours.

T As labor progresses, the pains of labor will come every three to five minutes.

3. Briefly describe why you should perform a general examination of a woman in labor.

A general physical examination allows you to find any new problems or any problems that you might have missed in a prenatal examination. All the problems that should have been handled prenatally must be determined so they can be handled now.

4. What is the purpose of an abdominal examination of a woman in labor?

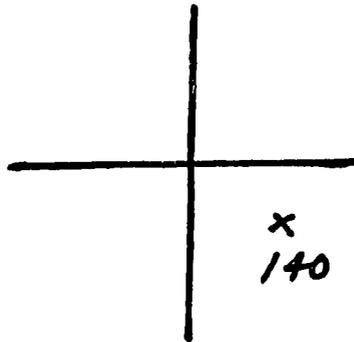
The purpose of an abdominal examination is to learn the length and frequency of labor contractions, the position of the fetus, and the condition of the fetus.

5. After following the four steps in palpating the position of the fetus, you should listen for the fetal heart beat. How and why should you do this?

Using a stethoscope or fetoscope, listen for the heartbeat on the part of the abdomen which is over the chest or back of the fetus. If you cannot find it easily, listen carefully in all four quadrants of the abdomen until you find it. Count the beats per minute. Do not count the fetal heart rate during a uterine contraction. The fetal heart rate should be about one hundred forty beats per minute. Check the rate with the mother's pulse rate so you do not confuse the two. In the first stage of labor, the fetal heart rate should be checked every half hour. The fetal heart sounds are a good way to tell how the baby is doing. Towards the end of stage one, listen to the fetal heart rate every fifteen minutes or more often.

6. When you record the fetal heart rate on the labor chart, how can you show the place where you heard the heart?

By drawing a small diagram of the four abdominal quadrants and writing the fetal heart rate in the quadrant where you heard the fetal heart. For example, the diagram below would mean you heard the fetal heart in the lower right quadrant and the fetal heart rate was 140.



7. Why should you avoid repeating vaginal examinations of a woman in labor?

Because the examination has a risk of contaminating the vagina, cervix and uterus. This may result in an infection which would affect the mother and the fetus.

8. TRUE (T) or FALSE (F)

T Repeated vaginal examinations of women in labor should be avoided because the more examinations done, the greater the risk of infection.

9. Match the items in column A with those in column B. Place the letter of your answer in the space provided.

A	B
<u>d</u> Blood pressure	a. Best indication of the condition of the fetus
<u>a</u> Fetal heart rate	b. The thinning of the cervix
<u>b</u> Cervical effacement	c. Used to record the progress of labor
<u>e</u> Crowning	d. Give information about a woman's status during labor
<u>c</u> Labor chart	e. When the presenting part can be seen at the vaginal opening

Labor History Situation 1

A young woman in her ninth month of pregnancy comes to the health center because she feels sharp pains in her stomach and has had some vaginal bleeding. She says this is her first child. She has had the pains in her stomach for about two hours. They come about every twenty minutes.

She has not been to a prenatal clinic. Her bag of waters has not broken. The bleeding from her vagina appears to be more severe than bloody show. She ate a large meal about two hours ago and has not passed a stool for about ten hours. She is not taking any medications and does not have a traditional birth attendant.

Labor History Situation 2

A message comes to the health center that a young woman in the community has gone into labor with her fourth pregnancy. She has had labor pains for about an hour and they are coming every fifteen minutes.

Upon arrival at the young woman's home, you find that her labor pains are now coming every ten minutes. The woman has been to a prenatal clinic in another village. She is visiting her sister. She says that only one of her other three pregnancies went to full term and she delivered a healthy child.

Her bag of waters has not broken but she has had some bloody show. She ate about four hours ago and passed a stool about two hours ago. She is not taking any medications and her traditional birth attendant is in her home village. She has had no vaginal bleeding other than the slight bloody show.

Labor History Situation 3

A woman comes to the health center and says that her bag of waters has broken. She has had labor pains for nearly two hours and they are now coming about every ten minutes. She has been to prenatal clinics and has had a healthy pregnancy. This is her third child.

She ate a big meal about four hours ago but has not passed a stool in the last twenty-four hours. She is not taking any medications. Her traditional birth attendant has been told of her labor. She says that her traditional birth attendant wishes to attend this birth and will be coming to the health center shortly. The woman has not bled from her vagina.

Labor History Situation 4

A pregnant woman and her husband come to the health center. The woman is in labor and needs assistance. She has had labor pains for about five hours. They are coming every five minutes. She has some slight bloody show. Her bag of waters broke about four hours ago.

The woman has not been to a prenatal clinic. She says that she has a problem with high blood pressure. She has had four other pregnancies, two of which ended in normal deliveries.

She has not eaten anything in the last ten hours or so and passed a stool about the time she started labor. She is not taking any medications. Her traditional birth attendant does not know that she is in labor. The woman has had no vaginal bleeding other than the slight bloody show.

Teaching Plan 2

Assessing a Woman in Labor; Clinical Observation and Practice

- OBJECTIVES**
1. Demonstrate how to take and record the medical history of a woman in labor.
 2. Demonstrate how to perform a general physical examination, an abdominal examination, and a vaginal examination.
 3. Demonstrate how to use a labor chart to record information from assessing a woman in labor.
- METHODS** Supervised observation and practice in a clinical setting or a home
- MATERIALS** Student Text— Unit 1, procedures for performing a general physical examination, an abdominal examination, and a vaginal examination, skill checklist for Assessing a Woman in Labor, clinical performance records
- PREPARATION** During this week of study of the Labor and Delivery module, arrange for the students to get as much clinical observation and practice as possible. Students should have an opportunity to spend at least two or three hours each day on a labor ward, in a clinic, or in other clinical settings where they can observe and practice procedures related to labor and delivery. In addition, small groups of four or five students should be on call during the evenings so they will have as many opportunities as possible to observe and assist labors and deliveries under supervision. A small group of students might also observe and assist in deliveries that occur in homes near the training site.
- For this teaching plan on Assessing a Woman in Labor,



arrange for an afternoon of clinical observation and practice. Also, arrange for a group of four to five students to be on call during the evening.

TIME: 3 hrs

LEARNING ACTIVITIES

- | | |
|--|-------|
| 1. Demonstrate or have a doctor or trained midwife demonstrate the procedures for assessing a woman in labor. Students should take notes and later ask questions about the procedures they observed. | 1 hr |
| 2. Give as many students as practical the opportunity to practice the procedures for assessing a woman in labor under your close supervision, or that of a doctor or trained midwife. | 2 hrs |
| 3. Remind the first group of four or five students that they will be on call during the evening to observe and assist with labors and deliveries. | |

Teaching Plan 3

Labor and Delivery

- OBJECTIVES**
1. Describe the emotional and physical support and care a woman in labor needs.
 2. Describe the three stages of labor and what distinguishes one stage from another.
 3. Describe the usual movements of the fetus during a vertex presentation delivery.
 4. Describe the purpose and method of giving a newborn an APGAR score.

MATERIALS Student Text—Unit 2

METHODS Self-instruction, class discussion, group work and presentations

PREPARATION Prepare any materials that may be useful to the students for their presentations. Prepare a ten-minute introduction to the importance of emotional and physical support for the woman in labor. Also, prepare a twenty-minute presentation on using the APGAR score to assess the condition of a newborn. You may wish to enlarge the APGAR score chart that appears in the Student Text.

Remind the students to read Unit 2, answer the review questions, and review the skill checklists related to this unit.

TIME: 3 hrs 15 min

LEARNING ACTIVITIES

1. Introduce the session with a brief presentation about the importance of emotional and physical sup-

20 min

TIME

<p>port for the woman in labor. Ask students to comment on their clinical observation and practice of the day before. Ask them whether they had any problems or unusual occurrences which they would like to share.</p>	10 min
<p>2. Divide the class into three groups. Assign each group one of the three stages of labor and ask them to:</p> <ol style="list-style-type: none"> a. Prepare a twenty- to thirty-minute presentation on the particular stage of labor which they have been assigned b. Include in their presentations information about what happens to the woman and the fetus during this stage of labor, what care and support is needed by the woman or fetus during this stage, and the procedures which the health worker should use to assist the woman or fetus during this stage. 	10 min
<p><i>Encourage students to use visual aids or other materials that will help make their presentations interesting and easy to understand.</i></p>	
<p>3. Groups prepare their presentations.</p>	30 min
<p>4. Groups make their presentations. Brief discussion and comments follow each presentation.</p>	90 min
<p>5. Give your presentation on the purpose and method of giving the newborn an APGAR score.</p>	20 min
<p>6. Ask the students questions to see if they understood your presentation.</p>	10 min
<p>7. Students summarize what they learned during the session and how they will use it in their work.</p>	15 min

168

ANSWERS TO REVIEW QUESTIONS

Labor and Delivery

1. Briefly describe labor.

Labor is a natural process in which the fetus, placenta and membranes are expelled from the uterus.

2. Why should a woman in labor pass stools and empty her bladder?

Because stool and a full bladder take up space the fetus needs when it is descending.

3. What are the three stages of labor?

The first stage begins with uterine contraction and lasts until the cervix is completely dilated. This is the longest stage. The second stage starts with complete dilation of the cervix and lasts until the delivery of the baby. The third stage is from the delivery of the baby to the delivery of the placenta.

4. TRUE (T) or FALSE (F):

T Contractions of the uterus cause the thinning and dilating of the cervix.

T When labor contractions begin, they usually are fifteen minutes apart and gradually occur closer together.

5. A vaginal examination can help you determine whether a cervix is fully dilated. However, you should avoid repeating vaginal examinations because of the risk of infection. Therefore, you should look for other signs that the second stage of labor has begun. What are some of these signs?

a. The contractions often become stronger. The woman begins to bear down almost without stopping.

b. The rectum begins to open a little and remains open.

c. The vulva begins to open.

- d. You can begin to see the presenting head.*
- e. As a late sign, the perineum itself begins to bulge. This means the baby will be delivered very soon.*

6. When the fetal head appears at the vaginal opening, the perineal phase of the second stage of labor begins. How can you help the woman during this time?

Help the woman get into a comfortable position. A pillow or a friend supporting her head and upper back will help. Show her how to bend her knees and grasp her legs. When she has a contraction, have her take a deep breath, hold it, and push down as if she is going to pass a stool. When she has pushed as hard and as long as she can, have her let out her air, relax for a minute until the next contraction, then take another deep breath and push again. The woman should only push during contractions. Tell her what is happening as the baby advances. Prepare for the delivery of the baby.

7. TRUE (T) or FALSE (F):

T Once the perineal phase has begun, no advance in fifteen minutes with good contractions is a sign of a possible problem.

8. Describe four signs that indicate the separation of the placenta from the uterus.

- a. The uterus feels hard and round, not soft and flat.*
- b. The uterus rises to the umbilicus and can be seen lying just under the abdominal wall.*
- c. The umbilical cord lengthens at the vaginal opening as the placenta slides into the vagina.*
- d. You can see the placenta at the vaginal opening.*

9. Why should you know the usual movements for a vertex presentation delivery?

So that you will be able to recognize any unusual occurrences during labor and delivery.

10. Match the words in column A with their meaning in column B. Place the letter of your answer in the space provided.

A	B
<u>d</u> Flexion	a. Sideways bending of the spine
<u>e</u> Internal rotation	b. When the head may be seen at the vulva
<u>b</u> Crowning	c. Turning of the head back to its natural position related to the shoulders
<u>f</u> Extension	d. Allows the smallest diameter of the head to pass through the canal
<u>c</u> Restitution	e. Turning of the head forward
<u>a</u> Lateral flexion	f. When the back of the neck rotates against the lower border of the symphysis pubis

11. Explain why working with a traditional birth attendant during a delivery in a home is important and helpful.

Most home deliveries are attended by traditional birth attendants. These people usually have years of practical experience. They also have the confidence of the woman and her family. You may be able to learn a lot from working with the traditional birth attendant. The traditional birth attendant may be able to learn from you too. If she is not knowledgeable about how cleanliness helps prevent infections, then working with her during a home delivery is a good time to teach methods of safe childbirth including the importance of sterility and cleanliness.

12. What is an episiotomy and why is it done?

An episiotomy is a surgical incision into the perineum. It makes the vulvar opening larger to hasten the second stage of labor and the delivery. It also helps to prevent uncontrolled tears that might result from the fetal head being too large or from a perineum that will not stretch.

13. The APGAR score is used to assess the condition of a newborn immediately after delivery. List the five parts of the APGAR score and describe what you should look for in each part.

- a. *Appearance*—Note the color of the newborn's skin.
 b. *Pulse*—Listen to the newborn's heart and count the number of beats per minute.

- c. *Grimace*—*Rub the soles of the newborn's feet with one of your fingers. Note the reaction on the newborn's face. Or, note the newborn's reaction when you suck the mucus from his mouth and throat with a mucus extractor.*
- d. *Activity*—*Note how the newborn's arms and legs move.*
- e. *Respirations*—*Watch the newborn's chest and abdomen, and note how he breathes.*

14. Explain why you should cut an umbilical cord only with sterile instruments.

Newborn deaths are often caused by improper cutting procedures. Unsterile cutting instruments may cause septicemia or tetanus of a newborn.

Teaching Plan 4

Assisting Labor and Delivery; Clinical Observation and Practice

- OBJECTIVE** Demonstrate these procedures for assisting a labor and delivery:
- Assessing a woman in labor
 - Providing support and care to a woman in labor
 - Performing and repairing an episiotomy
 - Providing immediate care to a newborn
 - Repairing perineal lacerations
 - Determining a newborn's APGAR score
- METHODS** Supervised observation and practice in a clinic or a home
- MATERIALS** Student Text— Unit 2; skill checklists for Assessing a Woman in Labor, Assisting a Delivery in a Home, Assisting a Delivery in a Health Center, Performing and Repairing an Episiotomy, Cutting an Umbilical Cord, Determining a Newborn's APGAR Score, and Repairing Perineal Lacerations; clinical performance records
- PREPARATION** Arrange for an afternoon of supervised clinical observation and practice so that the students may observe and practice assisting labors and deliveries. Also, arrange for a group of four to five students to be on call during the evening in order to observe and assist labors and deliveries under supervision.
- Remind the students to review the skill checklists in Units 1 and 2.

TIME: 3 hrs

LEARNING ACTIVITIES

1. While accompanied by you, a doctor or a trained midwife, have the students observe and practice:
 - Assessing a woman in labor
 - Providing support and care for a woman in labor
 - Assisting a delivery
 - Performing and repairing an episiotomy
 - Providing immediate care to a newborn
 - Cutting an umbilical cord
 - Repairing perineal lacerations
 - Determining a newborn's APGAR score
2. Remind the next group of four or five students that they will be on call during the evening to observe and assist with labors and deliveries.

3 hrs

Teaching Plan 5

Common Problems of Labor and Delivery

- OBJECTIVES**
1. Describe the following common problems of labor and delivery:
 - Fetal distress
 - Maternal distress
 - Urine in the bladder
 - Premature labor
 - Incomplete fetal rotation
 - Small or abnormally shaped pelvis
 - Early rupture of the bag of waters
 - Retained placenta
 - Prolonged labor
 2. Describe breathing problems that may affect a newborn.
 3. Describe how to manage common problems of the woman and fetus or newborn during labor and delivery.
- METHODS** Self-instruction, class discussion, group work, and presentations
- MATERIALS** Student Text—Unit 3, Patient Care Guides for common problems of labor and delivery, and skill checklist for Manually Removing the Placenta
- PREPARATION** Review the review questions and answers for Unit 4. Be prepared to lead a discussion of these questions. Remind the students to read the Student Text and answer the review questions.

TIME: 3 hrs

LEARNING ACTIVITIES

- | | |
|--|-------------|
| 1. Discuss the review questions for Unit 4. Ask students to comment on their clinical observation and practice of the day before. Ask them if they had any problems or unusual occurrences that they would like to share. | 45 min |
| 2. Ask students to join their working groups. Assign each group an equal number of common problems of labor and delivery, including breathing problems of newborn. Ask them to study the problems and prepare a presentation that includes:
A description of the problems and their causes or possible causes
A description of the problems' course and complications
Information about how the problems may be managed | 15 min |
| 3. Student groups prepare their presentations. The group preparing its presentation on manually removing a retained placenta should be sure to review the Skill Checklist for this procedure and review it with the class. | 30 min |
| 4. Student groups give their presentations. Brief comments and discussion follow each presentation. | 1 hr 15 min |
| 5. Students summarize what they learned during the session and how they will use it in their work. Remind students of their afternoon clinical observation and practice. | 15 min |

ANSWERS TO REVIEW QUESTIONS

Common Problems of Labor and Delivery

1. List at least three causes of fetal distress during labor and delivery.

The most common cause of fetal distress during labor and delivery is a lack of oxygen. Pressure on the cord which happens when the cord comes out ahead of the presenting part will cause fetal distress. Separation of the placenta from the uterine wall. Certain drugs that are given to the mother may also cause fetal distress.

2. What patient care is recommended for fetal distress?

Referral to a hospital is recommended.

3. List six causes of maternal distress.

A woman who is severely anemic or has a chronic disease such as tuberculosis or malnutrition can be expected to show signs of distress during labor. Heart disease, diabetes, renal disease, and high blood pressure also are associated with signs of distress during labor and delivery. Prolonged labor and a lack of sleep may cause distress even in a healthy woman. Severe pain may also cause signs of maternal distress. A pelvic infection or a generalized infection may also cause maternal distress. Infections may occur after early rupture of the membranes. Diarrhea and vomiting will lead to dehydration and maternal distress. Any cause of bleeding or marked blood loss will cause signs of maternal distress.

4. TRUE (T) or FALSE (F)

T A pulse that stays above ninety beats per minute is an early sign of maternal distress.

5. List four signs of maternal distress that you should watch for during labor and delivery.

- a. A temperature over 37.5°C
- b. Vomiting and diarrhea

c. Blood pressure of 140/90 and above or rising blood pressure of 90/60 and below

d. An anxious facial expression with paleness around the mouth

6. What is the most important means of preventing maternal distress?

Early identification of possible problems prenatally and referral to a hospital for delivery is the most important patient care that can be given.

7. Describe some of the complications of labor and delivery that urine in a woman's bladder might cause.

The urinary retention may cause a prolonged labor which harms the fetus. Labor may stop. If the labor continues and the newborn finally delivers despite the urine retention, there may be damage to the woman's bladder.

8. How can you help a woman prevent prolonged labor caused by a full bladder?

Problems caused by a full bladder during labor may be prevented if the woman urinates at least every three hours. If she cannot urinate, especially at the beginning of the second stage of labor, pass a catheter.

9. If a woman is experiencing premature labor and is bleeding, what should you do?

Start an intravenous infusion and hasten the delivery by rupturing the membranes.

10. Explain what is meant by incomplete fetal rotation.

Normally, during the movements of delivery, the head of the fetus rotates from a transverse or sideways direction in the pelvis to a vertical position. This helps ease the passage of the head through a limited space. When the fetal head does not rotate, it remains in the sideways or transverse direction. Because of this, the head cannot pass through the pelvis and delivery is delayed and labor prolonged.

11. A fetus in incomplete rotation may eventually rotate and deliver without assistance. However, fetal distress is common. Explain how you would manage a fetus in incomplete rotation.

- a. *If there are signs of maternal or fetal distress when the woman arrives, treat that first. Transfer may be necessary.*
- b. *While doing the vaginal examination, insert your hand alongside the fetal head and try to sweep it into a vertical position. Monitor the fetus and the woman very closely. At any sign of distress, stop the procedure and refer her to a hospital.*

TRUE (T) or FALSE (F)

T A small or abnormally shaped pelvis can prolong labor and lead to fetal distress.

13. What physical examination findings would probably indicate a small or abnormally shaped pelvis?

On abdominal and vaginal examination, you may find that the fetus is still high in the pelvis or the presenting part is wedged into a narrow pelvis.

14. What is a green fluid discharge from a pregnant woman's vagina a sign of?

It means that meconium from the fetus is in the fluid and is a sign of fetal distress.

15. The most severe complication of an early rupture of a woman's bag of waters is: Circle the letter of the correct answer.

- a. Infection
 b. Bleeding
 c. Premature labor

16. Describe the patient care you would give a woman who has experienced early rupture of her bag of waters.

- a. *If labor starts soon after rupture of the membranes and the infant delivers within twenty-four hours, no special treatment is necessary.*
- b. *If labor does not begin within twelve hours after the rupture of the membranes, give the woman ampicillin every six hours.*
- c. *If the woman has a fever above 37.5°C or if the fluid that remains in her uterus has a foul odor, start her on ampicillin and transfer her to a hospital.*

17. A woman delivers a healthy baby but you notice that after nearly forty-five minutes the placenta has still not delivered. What would you do?
- a. Gently and steadily pull on the cord. Support the uterus by placing your left hand on the woman's abdomen.*
 - b. If this is unsuccessful, manual removal may be necessary. If the mother is not bleeding, she should be transferred to a hospital for the manual removal. If she is bleeding, the placenta must be removed quickly.*
18. Describe what you would do if the baby you helped deliver is pink and struggling to breathe, but does not cry as soon as he is delivered.
- a. Hold the newborn so his head is lower than his body.*
 - b. Gently rub his back and flick the bottom of his feet with your fingers.*
 - c. Use your hand to milk any fluid from his nose.*

ANSWER TO REVIEW EXERCISE

Common Problems of Labor and Delivery

1. A woman has successfully delivered a healthy, 3.5 kg boy. However, an hour after the delivery, the placenta has still not delivered. Describe the procedures you would use to manually remove the placenta from the woman's uterus. Do not look at your text to describe the procedures until you have finished.

Begin by preparing the following supplies: sterile surgical gloves, soap, water, and antiseptic solution. Thoroughly scrub your hands and arms and put on the sterile gloves. Ask the woman to lie on her back with her knees bent and her legs raised. Be certain that her bladder is empty. Quickly clean her vulva with soap and water and antiseptic solution.

If you are right handed, hold the umbilical cord taut with your left hand. Insert your right hand into the vagina and follow the cord up into the uterus to the placenta. Release the cord and place your left hand on the abdomen to steady the uterus and hold it in the pelvis within reach of the right hand.

Next, slip the fingers of your right hand between the edge of the placenta and the uterine wall. With your palm facing the placenta, use a sideways slicing movement to gently detach the placenta. With your left hand, rub the abdominal wall above the uterus to produce a contraction. Remove the placenta with your right hand during the contraction.

If bleeding continues, rub the uterus through the abdominal wall and give 1 ml of ergonovine IM. Examine the placenta thoroughly. If you think remnants of the placenta or the membranes remain in the uterus, refer the woman to a hospital.

Teaching Plan 6

Abnormal Presentations during Delivery

- OBJECTIVES**
1. Describe the clinical picture for each of the following abnormal presentations:
 - Face-up presentation
 - Face presentation
 - Breech presentation
 - Transverse presentation
 - Multiple pregnancy
 2. Describe how to manage a face-up presentation and a face presentation.
 3. Describe how to manage a breech presentation and a multiple pregnancy in cases where it is impossible to refer them.
- METHODS** Self-instruction, discussion of review questions, instructor presentation, class discussion, and an informal question and answer session
- MATERIALS** Student Text—Unit 4; review questions and answers; skill checklists for *Assisting Delivery in a Breech Presentation* and *Assisting Delivery in a Multiple Pregnancy*; a manikin or model of the uterus that may be used to show the positions of the fetus in abnormal presentations
- PREPARATION** Review the answers to the review questions and be prepared to lead a discussion on these questions. Prepare your presentation about abnormal presentations. Use a manikin or model of the uterus, if one is available, to show the positions of the fetus in abnormal presentations. You may also show these positions using a chalkboard or flipchart drawing.

Remind the students to read the Student Text and answer the review questions.

TIME: 3 hrs 35 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Discuss the review questions for Unit 4. Ask students to comment on their clinical observation and practice of the day before. Ask them if they had any problems or unusual occurrences they would like to share. | 45 min |
| 2. Give your presentation on abnormal presentations. | 30 min |
| 3. Lead a class discussion of the information given in your presentation. | 20 min |
| 4. Divide the class into two groups. Ask each group to develop ten challenging questions related to abnormal presentations. Explain that each group will ask the other their ten questions, and the group with the most correct answers will win a favor from the other group. | 10 min |
| 5. Groups develop their ten questions. | 20 min |
| 6. Groups take turns asking each other their questions. Only one answer should be allowed in response to a question. | 30 min |
| 7. If manikins are available, students work in pairs to practice procedures for managing a face presentation, a face-up presentation, a breech presentation, and a multiple pregnancy. If manikins are not available, student pairs go over procedures together and quiz each other on how to manage these problems. Also, discuss the review exercises for this unit during this time. | 45 min |
| 8. Students summarize what they learned during the session and how they will use it in their work. Remind students of their afternoon clinical observation and practice. | 15 min |

ANSWERS TO REVIEW QUESTIONS

Abnormal Presentations during Delivery

1. In most cases of a face-up presentation, the delivery will be normal. However, if flexion does not occur and labor is prolonged, what may you do to help?

You may be able to aid flexion by pushing on the front of the head or by rotating the head.

2. TRUE (T) or FALSE (F):

T You should perform an episiotomy when delivering a fetus in a face presentation.

3. Write two conditions in which you should refer a woman whose fetus is in face presentation to a hospital for delivery.

- a. If the head stops high and does not descend
b. If the chin does not push forward*

4. TRUE (T) or FALSE (F):

T The risk of a prolapsed cord at the time of the rupture of the membranes is greater in a breech presentation than in a vertex presentation.

5. Briefly describe the difference between a breech presentation and a vertex presentation.

Most fetuses deliver with the head coming out first. This is called a vertex presentation. But in some cases the buttocks or legs come out first. These are called breech presentations.

6. A fetus lying sideways in the uterus with the head on one side of the abdomen and the buttocks on the other is called a: Circle the letter of the correct answer.

- a. Face-up presentation
- b. Breech presentation
- c. Transverse presentation**

7. TRUE (T) or FALSE (F)

T The fetus cannot deliver in a transverse position. A cesarean section is necessary.

8. Explain what patient care you would give a woman whose fetus is in a transverse presentation.

The woman must be referred to a hospital for a cesarean section. Give the woman dextrose and water IV during the transfer if she is in distress.

9. Describe some of the complications that may arise with a multiple pregnancy.

Although not necessarily a complication, multiple pregnancies often result in small or premature babies. These newborns need special care. Breech and transverse presentations are more common in multiple pregnancies. A delay of one or two days between the delivery of the first fetus and the second may cause infections or death of the second fetus from lack of oxygen.

10. Under what circumstances should you attempt to deliver a woman with a multiple pregnancy?

Only if labor has already started and if you cannot transfer the woman to a hospital should you attempt to deliver a woman with a multiple pregnancy.

ANSWERS TO REVIEW EXERCISES

Abnormal Presentations during Delivery

1. All the steps in the procedure for assisting delivery of a fetus in breech presentation are listed below, but they are not in their correct order. Number the steps in their correct order without looking at your text. Then check your answers with the text.

- 8 Allow the buttocks and body of the baby to deliver to the level of the umbilicus.
- 5 Wash the pubic area, thighs, and buttocks with soap and water.
- 14 Grasp the baby by the iliac crest and apply downward pressure.
- 12 If the arms are extended over the head, turn the baby's body 180°.
- 6 Scrub your hands with antiseptic soap for five minutes.
- 17 Suck out fluid and mucus from the nose and mouth.
- 19 Note the time of delivery and examine the newborn very carefully.
- 10 If the feet have not come down by themselves, use one finger to flex the knees.
- 2 Make sure the same supplies and equipment as for a normal delivery are prepared.
- 13 Rotate the baby's body a half circle in the opposite direction.
- 4 Catheterize the woman if she has a full bladder and cannot urinate.
- 16 Pick up the feet until the mouth and nose are free of the perineum.
- 11 Determine the location of the baby's arms.
- 1 Decide whether it is possible to transfer the woman to a hospital. If not, proceed.

- 15 Deliver the shoulders.
 - 7 Scrub the woman's vulva and the feet and legs of the baby with an antiseptic solution.
 - 9 When the umbilicus is visible, gently pull down on the cord.
 - 3 Cover a table with a waterproof sheet and clean cloth sheet. Have the woman lie on the table so her buttocks are at its edge and her feet are supported.
 - 18 Let the mother slowly push out the rest of the baby's head.
2. Following is a description of how a mid-level health worker assisted delivery of a multiple pregnancy. Read the description and decide if the health worker performed the procedure correctly. If he did not, explain what steps are missing or what he did incorrectly. Do not refer to your text when you do this exercise. Refer to the text to check your findings only when you have finished.

Jono is a respected health worker in a very remote area. People from very distant villages come to him for care. One day a young woman who Jono had been seeing in the prenatal clinic came to Jono's health center complaining of labor pains. This surprised Jono for he had calculated the woman's expected date of delivery as being another month and a half away. Even more surprising was that during his assessment of this young woman, he detected two fetal heart beats. Jono was now faced with the task of assisting the delivery of twins. The district hospital was too far away to refer the woman. So Jono began preparing all of the necessary supplies and sterile instruments for the delivery. He prepared two sets of these so he would have a sterile set for each baby. He sent a message to the home of his auxiliary nurse to tell her that he would need her help.

During this time, the young woman's labor pains became more frequent and more intense. Jono knew that delivery of the first baby would happen soon. He monitored the young woman's labor as he would for a normal delivery, but he recorded and monitored both of the fetal heart rates. He watched the young woman closely for any signs of maternal distress.

After about seven hours of labor, the woman's bag of waters broke. The first fetus began to come out. Jono performed an episiotomy to

ease the resistance of the perineum and speed the process. Jono also had the auxiliary nurse monitor the second fetus while he assisted the delivery. The first child was born with no problem.

Jono tied and cut the cord of the first child. He wrapped the child in a clean wrap and gave him to the nurse assistant to monitor. Jono then took over monitoring the second fetus. During his palpations of the young mother's abdomen, he detected that the second fetus was lying sideways in the uterus. He listened to the fetal heart but did not detect any distress. He immediately located the head and back of the fetus and began to apply steady pressure to the young woman's uterus so that the fetus' head was pushed toward its chest. With the other hand, he pushed the lower part of the fetus' body in the opposite direction. He did this because he knew that the fetal head must be flexed against the chest for delivery to occur normally. When he felt that the fetus was in the correct head-down and feet-up longitudinal position, he ruptured the membranes of the second fetus and the fetus' head became engaged in the pelvis. The young woman had about three more intense contractions and the second fetus delivered.

Jono then instructed the auxiliary nurse to give the first baby to the mother to hold and let suckle. The auxiliary nurse also gave the young mother 1 ml of ergonovine so the mother's uterus would begin contracting. The young woman's bleeding stopped and Jono examined the second baby carefully. Soon, the second baby's placenta delivered. Jono sutured the episiotomy incision and cleaned the delivery table and the young woman. He monitored the twins and the mother for several hours. He also gave the mother important advice on breast-feeding and nutrition.

Jono did not let the mother and her twins go home that day. He decided that since the babies were more than a month premature, he would keep them at the health center for observation. However, by the next day he saw that the mother and the twins were very healthy. The twins had exceptional appetites and the young mother and father, who arrived late in the night before, beamed with pride.

What do you think? Did Jono assist this delivery using the correct procedures? If not, what did he forget to do or what did he do incorrectly?

Jono performed the procedures correctly and did not forget any steps.

Teaching Plan 7

Emergencies during Labor and Delivery

- OBJECTIVES**
1. Describe the following emergencies during labor and delivery:
 - Prolapse of the cord
 - Rupture of the uterus
 - Preeclampsia or eclampsia
 - Blceding
 - Postpartum bleeding
 2. Describe some of the emergencies that may occur in a newborn.
 3. Describe how to manage emergencies during labor and delivery as well as emergencies of the newborn.
- METHODS** Self-instruction, class discussion, instructor presentation, small group work
- MATERIALS** Student Text— Unit 5, Patient Care Guides for emergencies during labor and delivery, sample labor and delivery problem
- PREPARATION** Review the answers to the review questions. Be prepared to lead a discussion of these questions. Also prepare a ten to fifteen minute presentation on recognizing emergencies of the newborn and how to manage them. Remind the students to read Unit 5 and answer the review questions.

TIME: 3 hrs 45 min

LEARNING ACTIVITIES

1. Discuss the review questions for Unit 5. Ask students to comment on their clinical observation and

45 min

	TIME
<p>practice of the day before. Ask them whether they had any problems or unusual occurrences that they would like to share.</p>	
2. Give your presentation on how to recognize and manage emergencies of the newborn.	15 min
3. Divide the class into five groups. Assign each group a different emergency of labor and delivery discussed in this unit. Groups should not let others know the nature of their emergency problem. Each group should first review the Student Text, and discuss the emergency they have been assigned. Then, each group should make up a labor and delivery problem based on the information about their emergency. Explain that the labor and delivery problem each group develops will be given to the other groups to solve, so each group will have four problems to solve. A sample labor and delivery problem is attached to this teaching plan.	15 min
4. Student groups develop their labor and delivery problems.	30 min
5. Student groups exchange labor and delivery problems with other groups, record the situation, and continue to exchange case studies until all of the groups have recorded four different emergency situations.	15 min
6. Then, in their small groups, the students discuss each of the four labor and delivery problems, decide what the problems are in each situation, and how they would manage them.	45 min
7. When the student groups have finished their work, discuss the five labor and delivery problems. Ask the students to comment on how they decided the patient care in each situation.	45 min
8. Students summarize what they learned during the session and how it may be used in their work. Remind students of their afternoon clinical observation and practice.	15 min

ANSWERS TO REVIEW QUESTIONS

Emergencies during Labor and Delivery

1. Why does prolapse of the umbilical cord threaten the fetus?

Because during the uterine contraction and advancement of the presenting part, the cord may be squeezed against the pelvic tissues. This closes off the blood flow to the fetus and causes the death of the fetus.

2. What should you do if it is impossible to correct prolapse of the cord during labor?

If possible, transfer the woman speedily to a hospital. Place her on her knees and chest with her head down. This will take the pressure away from the pelvis. Transport her as fast as possible in that position.

3. What are three signs of rupture of the uterus?

- a. Strong contractions suddenly stop*
- b. Signs of fetal distress are present*
- c. Signs of shock occur with low blood pressure and clammy, cold skin*

4. Describe one way to prevent a rupture of the uterus.

Make sure that any woman who has had a previous cesarean section delivers in the hospital.

5. Briefly describe the difference between preeclampsia and eclampsia.

Preeclampsia is a hypertensive disease during pregnancy. It is characterized by high blood pressure and is usually seen more often in women having their first child than woman who already have children. When convulsions occur, the disease is called eclampsia.

6. Describe the patient care for a woman diagnosed as having preeclampsia.

This disease usually improves after the delivery of the fetus so that rapid delivery of the fetus is recommended. If at all possible, this woman should be

delivered at a hospital. Speedy transfer is recommended. Give magnesium sulfate deep IM before transfer. If a convulsion occurs, give emergency treatment.

- a. Turn the woman on her side to prevent the aspiration of vomited material.*
- b. Stop the convulsions by giving 10 mg diazepam IV very slowly every minute until the convulsions stop. The total dose should not be over 50 mg.*

7. What is the usual cause of bleeding during labor? Circle the letter of the correct answer.

- a. Laceration of the membranes
- b. Early separation of the placenta from the uterus
- c. Laceration of the cervix

8. TRUE (T) or FALSE (F):

 T Fetal death is common in cases of bleeding during labor.

9. Explain why you should never do a vaginal examination of a woman who has vaginal bleeding during labor.

Your hand may tear the placenta and cause even more bleeding which may result in the woman's death.

10. What usually causes postpartum bleeding?

Postpartum bleeding is usually caused by incomplete contraction of the uterus, retained placental pieces in the uterus, or a lacerated cervix or vagina.

11. Why is postpartum bleeding an emergency?

It is considered an emergency because severe continuous blood loss leads to shock, coma, and death. This may occur quite rapidly.

12. If a woman continues to bleed after delivery and her uterus is firm, what will you suspect and how will you handle the situation?

If the uterus is firm, the bleeding is probably coming from a laceration. Suturing of the laceration is necessary to stop the bleeding. The laceration will probably be high and may be difficult to suture.

13. Name six problems in a newborn that must be seen by a doctor as soon as possible.
- a. Irregular breathing after delivery*
 - b. Blueness of the lips and skin*
 - c. Jaundice appearing in the first twenty-four hours after birth*
 - d. Continuous vomiting*
 - e. No opening in the anus*
 - f. Any unusual actions such as rolling eyes, extreme irritability, stiffness, or convulsions*

Sample Labor and Delivery Problem

A woman who is having her first child comes to the health center in labor. She says that a rush of water came out of her and she is not feeling well. An abdominal examination reveals that the fetal heart rate is more rapid than it should be. A vaginal examination reveals that a firm, slippery, pulsating, rope-like mass is at the cervical opening. The woman's cervix is not yet fully dilated. What would you do in such a situation? Describe the steps you would take.

Teaching Plan 8

Assessing the Woman in Labor and Assisting Labor and Delivery; Skill Development

- OBJECTIVES**
1. Take and record the labor history of a woman in labor.
 2. Perform a general physical examination, an abdominal examination, and a vaginal examination of a woman in labor.
 3. Assist a labor and delivery.

METHODS Supervised clinical practice

MATERIALS Skill checklists for Assessing a Woman in Labor, Assisting a Delivery in a Home, and Assisting a Delivery in a Health Center; clinical performance records

PREPARATION Arrange for the students to be supervised during one week of activity in a hospital ward, clinic or perhaps a home.

Remind the students to review their skill checklists.

TIME: 6 days

LEARNING ACTIVITIES

1. Students take and record the labor histories of women in labor, perform physical examinations of these women and assist them with the delivery of their babies. This one week of skill development coincides with the skill development practice for the Problems of Women module. Students should complete their Level I requirements for these modules during this time.

Teaching Plan 9

Assisting Labors and Deliveries; Clinical Rotation

- OBJECTIVES**
1. Provide physical and emotional support and care to a woman in labor.
 2. Monitor the progress of a woman's labor.
 3. Assist a delivery, including performing an episiotomy.
 4. Provide immediate care for the newborn, including cutting the umbilical cord.
 5. Provide care for the mother after delivery including repairing an episiotomy or any perineal lacerations.
 6. Determine a newborn's APGAR score.

METHODS Supervised clinical practice

MATERIALS Performance records and these skill checklists: *Assisting a Delivery in a Home, Assisting a Delivery in a Health Center, Performing and Repairing an Episiotomy, Cutting an Umbilical Cord, Determining a Newborn's APGAR score, Repairing Perineal Lacerations*

PREPARATION See Student Text — Unit 7 for entry level skills and knowledge. During this month of clinical experience, the students practice assisting women during labor and delivery. They also practice caring for women with reproductive system problems. Give each student the opportunity to fulfill the Evaluation Level II requirements for each of these modules by the end of this experience. Assess the facilities, patient load, and

supervisory potential in the various patient care areas to decide where the students will be placed and for what period of time.

TIME: 1 month

LEARNING ACTIVITIES

1. Students provide physical and emotional support and care to women in labor.
2. Students monitor the progress of labor.
3. Students assist deliveries.
4. Students perform episiotomies and repairs if they are necessary.
5. Students cut and care for the newborn's umbilical cord.
6. Students provide immediate care for the newborn.
7. Students repair perineal lacerations if necessary.
8. Students determine the newborns APGAR score

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Teaching Plan 10

Assisting Labor and Delivery in the Community; Community Phase

- OBJECTIVES**
1. Assist labors and deliveries in the community by:
 - Assessing women in labor
 - Providing physical and emotional support and care during labor
 - Monitoring labor
 - Performing and repairing episiotomies and repairing perineal lacerations
 - Providing care for the mother and newborn after delivery
 2. Identify women in the community who are near labor and advise them about the importance of a safe and clean delivery.
 3. Identify and prepare other members of the health team with whom you may work to ensure safe labors and deliveries.
- METHODS** Community practice in assisting labors and deliveries, identifying and advising women near term, and training community health workers
- MATERIALS** Community experience log book, reference materials
- PREPARATION** See Student Text—Unit 8 for details of entry level skills and knowledge. See Community Phase manual for details on organization and supervision of community practice.

TIME: 3 months

LEARNING ACTIVITIES

1. Students assist labors and deliveries in the community.
2. Students survey the community to identify women who are near term.
3. Students observe and listen in the community to determine local customs and practices regarding labor and delivery.
4. Students talk with pregnant women near term about the importance of a safe and clean delivery.
5. Students begin training a community health worker to help advise pregnant women near term about the importance of a safe and clean delivery.

27

The MEDEX Primary Health Care Series

POSTNATAL CARE

Instructor's Manual

© 1983

**Health Manpower Development Staff
John A. Burns School of Medicine
University of Hawaii, Honolulu, Hawaii, U.S.A.**

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Library of Congress Catalog Card No. 83-80675

First Edition

Printed in U. S. A.

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FUNDED BY THE U. S. AGENCY FOR INTERNATIONAL DEVELOPMENT CONTRACT NO. DSPE-C-0006. The views and interpretations expressed are those of the Health Manpower Development Staff and are not necessarily those of the United States Agency for International Development.

TABLE OF CONTENTS

SCHEDULE	7
TEACHING PLAN FOR UNIT 1	
Teaching Plan 1 - Postnatal Changes in a Woman	9
Answers to Review Questions	11
TEACHING PLAN FOR UNIT 2	
Teaching Plan 2 - Postnatal Care	13
Answers to Review Questions	14
TEACHING PLAN FOR UNIT 3	
Teaching Plan 3 - Normal Changes in a Newborn	16
Answers to Review Questions	18
TEACHING PLAN FOR UNIT 4	
Teaching Plan 4 - Care of a Newborn	20
Answers to Review Questions	22
TEACHING PLAN FOR UNIT 5	
Teaching Plan 5 - Postnatal Problems	24
Answers to Review Questions	26
TEACHING PLAN FOR UNIT 6	
Teaching Plan 6 - Other Postnatal Problems	28
Answers to Review Questions	29

TEACHING PLAN FOR UNIT 7

Teaching Plan 7 - Common Problems of the Newborn	31
Answers to Review Questions	33

TEACHING PLAN FOR UNIT 8

Teaching Plan 8 - Other Problems of the Newborn	35
Answers to Review Questions	36

TEACHING PLAN FOR UNIT 9

Teaching Plan 9 - Birth Defects	39
Answers to Review Questions	40

TEACHING PLAN FOR UNIT 10

Teaching Plan 10 - Selecting Health Education Material and Giving Health Messages	41
---	----

TEACHING PLANS FOR UNIT 11

Teaching Plan 11 - Assessing Postnatal Women and Newborns; Clinical Practice	43
Teaching Plan 12 - Assessing Postnatal Women and Newborns; Skill Development	44

TEACHING PLAN FOR UNIT 12

Teaching Plan 13 - Providing Care for Postnatal Women and Newborns; Clinical Rotation	45
---	----

TEACHING PLAN FOR UNIT 13

Teaching Plan 14 - Helping a Community Prevent Problems and Care for Postnatal Women and Newborns; Community Phase	47
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SCHEDULE POSTNATAL CARE

DAY 1	DAY 2	DAY 3	DAY 4
Introduction to Postnatal Care module Teaching Plan 1: Postnatal Changes in a Woman	Teaching Plan 3: Normal Changes in a Newborn	Teaching Plan 5: Postnatal Problems Teaching Plan 6: Other Postnatal Problems Teaching Plan 7: Common Problems of the Newborn	Teaching Plan 10: Selecting Health Education Materials and Giving Health Messages
	Teaching Plan 4: Care of a Newborn		Teaching Plan 11: Clinical Practice
Teaching Plan 1: Postnatal Changes in a Woman Teaching Plan 2: Postnatal Care		Teaching Plan 8: Other Problems of the Newborn Teaching Plan 9: Birth Defects	Posttest

Skill development: five days- Teaching Plan 12
 Clinical rotation: one week- Teaching Plan 13
 Community phase: three months- Teaching Plan 14

Teaching Plan 1

Postnatal Changes in a Woman

- OBJECTIVES**
1. Describe the normal physical changes in a postnatal woman.
 2. Interview a woman about her delivery and the condition of her newborn.
 3. Perform a physical examination of a postnatal woman.
 4. Record your findings on official forms.
- METHODS** Self-instruction, discussion, demonstration, practice
- MATERIALS** Student Text- Unit 1
- PREPARATION** Complete your analysis of pretest results. Have students work in pairs. Each pair of students should include one with a high pretest score and another with a low pretest score.
- Prepare to make short presentations on the normal physical changes that occur in a postnatal woman, how to do a medical history and physical examination of a postnatal woman, and how to use the skill checklist.
- Tell the students to read the Student Text for Unit 1 and answer the review questions. Also, tell the students to read the Appendix section of the Physical Examination module on assessing a postnatal woman.
- Identify a postnatal woman who is willing to be interviewed and examined while the students observe.
- Make arrangements at a postnatal clinic for students to assess postnatal women.

TIME: 4 hrs 30 min

LEARNING ACTIVITIES

- | | |
|--|-------------|
| 1. Introduce and explain the Task Analysis Table. | 10 min |
| 2. Present and discuss the normal physical changes in a postnatal woman. | 10 min |
| 3. Present and discuss the procedure for doing a medical history and physical examination of a postnatal woman and how to use the skill checklist. | 30 min |
| 4. Demonstrate how to take a postnatal medical history and perform a postnatal physical examination using your volunteer. | 30 min |
| 5. Ask students to work with their assigned partners. Students should use the procedure for assessing a postnatal woman from the Appendix of the Physical Examination module and the skill checklist in their Student Text. | 1 hr 30 min |
| <p>Ask one student of each pair of students to role-play a patient while the other role-plays a health worker. The student in the patient's role creates a medical history of a woman who has delivered a child at home two days earlier. The patient has come to the health center for a routine physical examination.</p> <p>The student in the health worker's role interviews and examines the other. Then the students switch roles.</p> <p>When the students have completed playing both the patient and the health worker roles, the class discusses the procedure.</p> | |
| 6. Ask each student to examine a woman at a postnatal clinic. | 1 hr |
| 7. In the classroom, students discuss their examinations of postnatal women. | 30 min |
| 8. Assign one student to lead a discussion of the review questions. | 10 min |

ANSWERS TO REVIEW QUESTIONS

Postnatal Changes in a Woman

1. List five physical changes that occur in a postnatal woman.

- a. *The uterus shrinks*
- b. *The lining of the uterus is discharged. The discharge is called lochia*
- c. *Lactation occurs*
- d. *The cervix begins to close*
- e. *The muscle tone of the vagina improves*

2. TRUE (T) or FALSE (F)

- F One week after delivery, the uterus is almost as small as it was before the pregnancy.
- T The uterus begins to shrink right after the delivery.
- T The uterus usually sheds its lining after delivery.
- F Five days after the delivery, the discharge from the uterus is usually bright red.
- T Colostrum is secreted during the pregnancy and continues for three days after the delivery.

3. Describe the normal discharge from the uterus:

- a. Immediately after delivery red
- b. Four to seven days after the delivery pink
- c. Eight to ten days after the delivery pink, yellow, and white

4. Describe the normal appearance of a woman's breasts before her milk begins to flow.

Her breasts become larger and fuller.

The skin of her breasts becomes tense and veins appear swollen.

5. List at least six questions that you would ask a postnatal woman about her condition.

- a *"When was your delivery and what was the result?"*
- b *"Describe your vaginal discharge. How has it changed since delivery?"*
- c *"Did you have an episiotomy or a cesarean section?"*
- d *"Are you breast-feeding? Do you have enough milk for your baby?"*
- e *"Are you having any pain or tenderness of the abdomen or breasts?"*
- f *"Have you had a fever?"*
- g *"Are you smoking? Are you taking any medicine?"*
- h *"How is your appetite? What did you eat yesterday?"*
- i *"Have you been taking folic acid and iron regularly?"*

6. List seven steps you would follow when performing a postnatal physical examination after you have assembled your equipment and supplies

- a *Prepare an examination table in a well-lighted room*
- b *Test the woman's urine for sugar and protein*
- c *Determine the woman's blood pressure, weight, and temperature*
- d *Examine the woman's general appearance, eyes, ears, mouth, throat, neck, respiratory system, heart, and abdomen*
- e *Examine the woman's breasts*
- f *Inspect and palpate the woman's genitals*
- g *Explain your findings to the woman and record them on her Maternity Card*

Teaching Plan 2

Postnatal Care

OBJECTIVE Describe the most important points about these topics of interest to postnatal women:

- Supportive postnatal care
- Breast-feeding and breast care
- Care of genitals
- Exercise
- Nutrition
- Need for extra iron and folic acid
- Intercourse and child spacing

METHODS Self-instruction, discussion

MATERIALS Student Text- Unit 2

PREPARATION Ask the students to read Unit 2 of the Student Text and to answer the review questions.

Select seven students. Assign one of the postnatal care topics discussed in Unit 2 to each of the seven students. Ask each student to read the module text on his topic and to prepare a five minute presentation to be given to the class. The presentation should include a discussion of the most important points about the assigned topic.

TIME: 1 hr 15 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Briefly introduce this session's activities. Introduce the students who will be giving presentations | 5 min |
| 2. Students give their presentations. After the presentations, the class briefly discusses the major points presented | 1 hr |
| 3. Assign a student to lead a discussion of the review questions | 10 min |

ANSWERS TO REVIEW QUESTIONS

Postnatal Care

1. List three changes that a woman may notice in her body after a delivery.
 - a *Discharge from her vagina*
 - b *Protruding abdomen*
 - c *Breasts that feel full and tight*
2. List five points that you would tell a mother about breast-feeding.
 - a *Breast-feeding offers the best nutrition for a newborn.*
 - b *A newborn should be breast-fed frequently.*
 - c *A newborn should be fed from both breasts*
 - d *Breast-feed as soon as possible after delivery.*
 - e *Once milk has come in, a newborn should feed on one breast until it is empty and then finish on the other breast. At the next feeding, the newborn should start feeding on the second breast and finish on the first.*
3. List three points of advice to tell a mother about the care of her breasts.
 - a *Keep breasts clean*
 - b *Give good support to the breasts*
 - c *Expose the nipples to the air or sunshine after each feeding*
4. Why does a woman need to wash her genitals after a delivery?

Because the woman will be having a discharge for two to three weeks and will be wearing a pad. Cleaning the genitals prevents infections.
5. List at least four points that you would tell a mother about the care of her genitals.
 - a *Wipe from front to back after urinating or passing stool*

- b Wash the genitals with soap and water at least once a day. If the woman has had an episiotomy, she should wash her genitals each time she passes stool.*
- c Change the perineal pad or cloth at least twice daily when the discharge is heavy. Change the pad at least once a day as the discharge decreases.*
- d Wash her hands with soap and water before touching her genitals.*
- e Avoid touching stitches from an episiotomy repair.*

6. List five exercises that a woman can do to strengthen her abdominal and vaginal muscles.

- a Deep breathing*
- b Single leg raises*
- c Double leg raises*
- d Abdominal exercises*
- e Pelvic exercises*

7. Describe the recommended diet for a postnatal woman.

A postnatal woman needs more food. She should eat increased amounts of body building foods such as beans, eggs, milk, meat, and fish. She should increase the protective foods such as spinach and carrots. She should drink at least three quarts of fluid daily including one quart of milk.

8. When may intercourse be resumed after a delivery?

After the discharge stops

Teaching Plan 3

Normal Changes in a Newborn

- OBJECTIVES**
1. Describe the normal physical changes that occur in a newborn.
 2. Perform a physical examination of a newborn.
 3. Correctly record your findings on official forms.
- METHODS** Self-instruction, discussion, demonstration, practice examining newborns
- MATERIALS** Student Text-Unit 3, physical examination procedures for performing a newborn physical examination
- PREPARATION** Prepare a brief presentation on the normal physical changes that occur in a newborn and on how to do a newborn physical examination. Your presentation on how to do a newborn physical examination should include the physical changes that will be noted for newborns of different ages. Examples may include a newborn of six to twelve hours, one week, and six weeks.
- Identify a newborn to demonstrate how to do a newborn physical examination. Make arrangements for the newborn to be brought to class. Identify newborns of different ages to demonstrate the physical changes that occur at different ages. Make arrangements for the class to visit an outpatient clinic or newborn nursery to observe the changes that occur at different ages and to practice assessing newborns.
- Tell the students to read Unit 3 of the Student Text and to answer the review questions. Also, tell the students to read the procedure for assessing a newborn in the Appendix of the Physical Examination module.

TIME: 3 hrs 30 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| 1. Present and discuss the normal physical changes in a newborn. | 30 min |
| 2. Present, discuss, and demonstrate how to assess a newborn. Use a newborn as a part of your demonstration. | 30 min |
| 3. Present and discuss how to use the skill checklist for Assessing a Newborn. | 15 min |
| 4. Take the class to an outpatient clinic or newborn nursery. Use newborns of varying ages and demonstrate the changes that occur at different ages. | 30 min |
| 5. Ask each student to assess a newborn. | 1 hr |
| 6. In the classroom, discuss the findings of the assessments of the newborns. | 30 min |
| 7. Assign a student to lead a discussion of the review questions. | 15 min |

ANSWERS TO REVIEW QUESTIONS

Normal Changes in a Newborn

1. Describe three changes in a newborn which occur immediately after birth

- a. *The newborn's skin changes from pale blue to pink as his blood begins carrying oxygen through his circulatory system*
- b. *A newborn's temperature rises and falls as it adjusts to the temperature outside the uterus*
- c. *The newborn begins to suckle, and his gastrointestinal system starts to work*

2. Complete the following statements about a newborn's general appearance using the words "large" or "small".

- a. The newborn's head is large in proportion to the rest of the body.
- b. The newborn's chest is small compared to his abdomen.

3. What is the white, cheesy, and greasy substance that covers a newborn's skin at birth?

Vernix caseosa

4. Describe the appearance of a newborn's stool at the following times:

- a. First stool after birth: *Dark, greenish brown. May be almost black*
- b. Three days after birth: *Yellowish brown*
- c. Five days after birth: *Yellow*

5. TRUE (T) or FALSE (F)

T The umbilical cord begins to dry on the first day after birth.

T A newborn can normally see, hear, and feel

F Most newborns lose one pound during the first three days after birth.

T Some newborns develop a yellow skin color between the second and fifth day after birth, but it usually passes without any problems

6. Describe how you would examine these areas in a newborn:
 - a. Head

Inspect for irregular shapes, bruises, and swollen areas. Palpate the skull for molding at the suture lines. Feel the fontanelles.
 - b. Respiratory system

Inspect and check for rate and rhythm. Note any breathing problem, flaring of nostrils, or intercostal retractions.
 - c. Abdomen

Inspect the shape of the abdomen. Look at the umbilical cord. Auscultate for abdominal sounds. Palpate for masses and to check the liver, kidneys, and spleen. Inspect the anus for an opening.
 - d. Musculoskeletal system

*Palpate the bones of the arms, chest, and legs.
Check for dislocated hips.
Count the fingers and toes.*

7. Describe at least two abnormalities that you might find in a physical examination of a newborn's
 - a. Skin - *Jaundice, cyanosis, pallor*
 - b. Respiratory system - *Absence of respirations, fewer than thirty or more than sixty respirations, difficulty breathing, flaring nostrils, intercostal retractions, gasps, groans, grunting, deformity of chest wall, absence of breath sounds*
 - c. Abdomen - *Extremely flat or swollen abdomen, redness of umbilical stump, discharge from or around stump, absence of abdominal sounds, enlarged liver, spleen, or kidney, persistent or forceful vomiting, large amounts of blood in vomit, closed anus*
 - d. Musculoskeletal system - *Break, dislocation of joint, wrinkles at different places on thighs, a snap when examining hips, an abnormal number of fingers or toes*

Teaching Plan 4

Care of a Newborn

- OBJECTIVES**
1. Describe three basic needs of a newborn.
 2. Describe nine facts about breast-feeding that you might share with a new mother.
 3. Describe what you might share with a mother about her newborn's:

Warmth	Crying
Sleep	Bathing
Burping	Umbilical stump care
Spitting up	Immunizations
Circumcision	

METHODS Self-instruction, discussion, student presentation

MATERIALS Student Text- Unit 4

PREPARATION Ask the students to read Unit 4 in the Student Text and answer the review questions

Select seven students. Assign one topic from this unit to each of the seven students. Ask each student to read the Student Text material on his topic and prepare a five minute presentation to be given to the class. The presentation should include the most important points about the assigned topic.

Prepare a brief presentation on the basic needs of the newborn.

TIME: 1 hr 30 min

LEARNING ACTIVITIES

1. Present and discuss the basic needs of the newborn.

10 min

	TIME
2. Each of the seven assigned students gives his presentation. After the presentation, the class discusses the major points presented.	1 hr
3. Ask a student to lead a discussion of the review questions	10 min
4. Students summarize what they learned during this session.	10 min

ANSWERS TO REVIEW QUESTIONS

Care of a Newborn

1. List three of a newborn's basic needs.

Food, warmth, and sleep

2. Describe at least eight techniques of breast-feeding.

a. Allow the newborn to breast-feed right after birth.

b. Breast-feed the newborn whenever he is hungry or at least every two hours.

c. Hold the newborn halfway between lying flat and sitting up.

d. Encourage the newborn to suckle.

e. Help the newborn take the nipple so he can suckle and breathe freely.

f. Alternate breast-feeding from one breast to the other.

g. Small babies need to suckle more frequently than large babies.

h. When feeding twins, alternate breasts when beginning feeding. Alternate which baby is fed first.

i. If the mother has to go to a hospital, the baby should accompany her.

j. Do not give supplemental feeding.

3. Describe how to burp a newborn.

Place the newborn on its abdomen over a thigh. Gently pat or rub the newborn's upper back until he burps.

4. How does spitting up differ from vomiting?

Spitting up means that milk comes out slowly and drools from the mouth. With vomiting, the stomach contents come up with force.

5. What complication can be caused by a circumcision if all the instruments used are not sterile?

Tetanus

6. What advice can you give a mother about what to do when her newborn cries?

Newborns need to be held. If the baby cries, the mother should go to the baby and see what is wrong. If a newborn cries all of the time, take him to a health worker for assessment.

7. TRUE (T) or FALSE (F)

F A newborn should be bathed immediately after birth.

F A newborn should receive a full bath the third day after birth.

T A newborn should only remain in the water about five minutes when taking a bath.

F A newborn should be bathed twice a day after his umbilical stump dries.

T The umbilical cord will dry and shrivel naturally.

T Until the umbilical cord dries and falls off, the umbilical area can be a source of infection.

8. List at least three possible sources of infection of the umbilical cord

a. Urine

b. Stool

c. Irritation from diaper

d. Substances that a mother might put against the stump

9. How can a mother prevent irritation and infection of the umbilical cord?

Change the newborn's diaper frequently and wash the skin around the diaper area. Nothing should be put against the umbilical cord.

10. List three immunizations that are given to infants. After each, write when they should be given.

BCG – first week after birth

DPT – three months after birth

Oral polio – three months after birth

Teaching Plan 5

Postnatal Problems

- OBJECTIVES**
1. Recognize and describe these signs and symptoms of common postnatal problems:
 - Painful, swollen breasts
 - Lack of breast milk
 - Enlarged anal veins
 2. Describe how to treat and care for women with common postnatal problems.

METHODS Self-instruction, discussion

MATERIALS Student Text - Unit 5

PREPARATION Prepare a brief presentation on the common postnatal problems.
 Tell the students to read Unit 5 of the Student Text and answer the review questions.

TIME: 1 hr 20 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Lead a discussion about common postnatal problems. | 30 min |
| 2. Ask for six student volunteers. | 10 min |
| <ol style="list-style-type: none"> a. Three students will role-play health workers and three students will role-play patients. b. The students role-playing patients create a medical history about one common postnatal problem. Each "patient" should have a different postnatal problem. c. As the class watches, the students who are role-playing the health workers interview the stu- | |

	TIME
dents who are role-playing the patients. They diagnose the postnatal problem and give patient advice.	
3. The class discusses the interview, diagnosis, and advice after each role-play.	30 min
4. Assign a student to lead a discussion of the review questions.	10 min

ANSWERS TO REVIEW QUESTIONS

Postnatal Problems

1. Describe what causes swollen breasts.

The rapid production and retention of milk in the mother's breasts causes swelling and pain.

2. List two symptoms of swollen breasts.

Pain and heaviness

3. Describe five signs that you would look for when examining a woman with swollen breasts.

a Absence of fever

b Enlarged and distended breasts

c Tight and shiny skin

d On palpation the breasts will feel firm, hard and slightly warm.

e The breasts will be tender.

4. List four ways a woman can decrease swelling and pain when her breasts are swollen.

a She can gently massage each breast before feeding

b She can express some milk from each breast during feeding

c She can dry her nipples and massage them after feeding

d She can support her breasts with a good bra or binder.

5. What does "lack of breast milk" mean?

Not enough breast milk is being produced to adequately feed the newborn.

6. Describe four ways a mother may tell that she is not producing enough breast milk.

- a *Her baby seems hungry all of the time*
 b *Her baby sucks and easily becomes frustrated though his sucking is strong*
 c *Her baby is losing weight*
 d *Her breasts do not leak milk*
7. Describe at least two ways you can determine whether a mother is producing enough breast milk.
- a *Palpate her breasts. They will not be tender and they will not feel full*
 b *The mother will not be able to express any breast milk*
 c *The newborn will not have gained weight*
8. Describe what patient care you would advise for a woman who you suspect is not producing enough breast milk to feed her baby.
- a *If the woman is taking birth control pills or any other drug that suppresses the flow of milk, have her stop*
 b *Tell the woman to wear warm clothes or to warm her breasts with warm soaks before she starts to breast-feed her baby. The warmth on her breasts will help the flow of milk*
 c *Tell the woman to breast-feed her baby every two or three hours. Frequent feeding will increase the amount of milk her breasts produce*
 d *Tell the woman to use both her breasts when she breast-feeds her baby. She should start by breast-feeding for five or ten minutes on each breast, increasing the time to twenty minutes as her nipples toughen*
 e *Tell the woman to express the milk that remains in her breasts after her baby has nursed*
9. TRUE (T) or FALSE (F)
- T A newborn should be breast-fed every two to three hours.
 F Only one breast should be used at each feeding.
 T Warm clothes or warm water on the breasts before feeding will help stimulate the flow of milk.
 F Manually expressing milk decreases the flow of milk.
 F Oral contraceptives improve the flow of milk.
 F Giving a newborn food between breast-feedings will increase his desire for breast milk.
- 

Teaching Plan 6

Other Postnatal Problems

- OBJECTIVES**
1. Recognize and describe the signs and symptoms of these postnatal problems:
 - Cracks on nipples
 - Tender, red, and swollen breast
 - Soft, yellow area on a breast
 - Superficial lacerations of the vagina
 - Deep lacerations into the muscle of the vagina
 - Lacerations of the anus
 - Fever
 - Foul smelling vaginal discharge
 - Lower abdominal pain
 - Spongy uterus
 - Mother with a dead baby
 2. Describe how to treat and care for women with other postnatal problems.

METHODS Self-instruction, discussion

MATERIALS Student Text - Unit 6

PREPARATION Prepare to make a short presentation on postnatal problems described in this unit. Tell the students to read Unit 6 of the Student Text and to answer the review questions.

TIME: 45 min

LEARNING ACTIVITIES

- | | |
|---|--------|
| 1. Lead a discussion about postnatal problems. | 30 min |
| 2. Assign a student to lead a discussion of the review questions. | 15 min |

ANSWERS TO REVIEW QUESTIONS

Other Postnatal Problems

1. Nipple cracks can occur when a woman breast-feeds. Describe the usual symptoms and signs that will occur with nipple cracks.
 - a *Sharp pain on the nipples when the baby is sucking*
 - b *Crack on the nipple*
 - c *Blood on the cracks*
2. List two complications of nipple cracks.
 - a *Mother will stop breast-feeding*
 - b *Breast infection which may lead to an abscess*
3. List three findings that will help you decide whether a woman has a breast abscess.
 - a *High fever*
 - b *Warm, firm, tender, and reddened area*
 - c *Soft, yellow area on the breast*
4. Describe what treatment you would give a woman who has a breast abscess.
 - a **Drug treatment**
Give the woman 500 mg ampicillin by mouth four times a day for seven days
 - b **Home treatment**
Tell the woman to put clean, wet, hot pads on the swollen area for thirty minutes three times a day. Tell the woman to continue breast-feeding
5. What patient care would you give a woman who has an unrepaired perineal tear with a minor infection?

- a *Tell her to take hot baths with soapy water for thirty minutes three times a day.*
- b *Refer her to a hospital after the infection clears*

6. What is puerperal sepsis?

Puerperal sepsis is a postnatal infection of the reproductive system.

7. What is the usual cause of puerperal sepsis?

Bacteria entering the vagina and spreading to the uterus and the fallopian tubes causes puerperal sepsis. Premature rupture of the membranes, prolonged deliveries, or vacuum extraction deliveries may lead to the problem.

8. List four findings that will help you to decide whether a woman has puerperal sepsis.

- a *Fever*
- b *Lower abdominal tenderness*
- c *Blood tinged and foul-smelling discharge*
- d *Spongy and tender uterus*

9. Describe what care you would give a woman who has puerperal sepsis.

a. Drug treatment:

Give her 1.2 million units of procaine penicillin IM every twelve hours for seven days

Give her 0.5 g of streptomycine IM every twelve hours for seven days

b. If the woman shows no improvement in twelve hours, what should you do?

Refer her to a hospital

Teaching Plan 7

Common Problems of the Newborn

- OBJECTIVES**
1. Recognize and describe these signs and symptoms of common problems of the newborn:
 - Scaly, oily crusts on the scalp
 - Red, irritated skin beneath the diaper
 - Clear discharge from the nose
 - Jaundice
 - Swelling of the scalp
 2. Describe how to treat and care for newborns with common problems.

METHODS Self-instruction, discussion, demonstration

MATERIALS Student Text - Unit 7

PREPARATION Prepare a brief presentation on common problems of the newborn.

Tell the students to read Unit 7 of the Student Text and answer the review questions. Tell the students to prepare to discuss the signs and symptoms of common problems of the newborn and patient advice to the mother of a newborn.

TIME: 1 hr 15 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| 1. Discuss the common problems of the newborn. | 30 min |
| 2. Choose a student to describe each of the common problems of the newborn. The student should describe
The signs and symptoms that the mother will probably notice | 40 min |

TIME

The signs to look for in a physical examination

The most important points to be covered when giving the mother advice about the common problem of the newborn

All of the common problems of the newborn should be discussed. At the end of each discussion, the class comments on the presentations.

3. Assign a student to lead a discussion of the review questions.

5 min

ANSWERS TO REVIEW QUESTIONS

Common Problems of the Newborn

1. What causes cradle cap?

Oils from the scalp

2. Describe the usual signs of cradle cap

Scaly, oily crusts on the newborn's scalp

3. How would you treat cradle cap?

Remove the scaly patches by using a soft brush to scrub the newborn's head with soap and water. Apply 2.5% selenium sulfide lotion and rub it into the newborn's scalp with warm water. Leave the lotion on the scalp for fifteen minutes, then rinse it completely off. Repeat the treatment twice a week for two weeks, then once a week for the next two months. Advise the mother to protect her newborn's eyes and to take care that her newborn does not swallow any of the lotion.

4. Diaper rash is a skin problem that is caused by irritation from urine and stool in diapers.

- a. Describe the usual medical history.

Redness and irritation beneath the diaper

- b. Describe what signs of diaper rash you should look for in a physical examination.

Red, chafed, and moist skin beneath the diaper

- c. What will be your patient care for diaper rash?

Tell the mother to change the diaper soon after it gets dirty or wet. Wash the diaper area with a soft, soapy cloth, and rinse with clean water.

Expose the affected area to the air for several hours each day.

Do not use creams or oils until the skin heals.

5. TRUE(T) or FALSE(F)

- T A cold in a newborn is usually caused by a virus
- F You will need antibiotics to treat a cold
- T The symptoms of a cold usually last from three to ten days
- T One possible complication of a cold is that the infection may spread to the larynx and epiglottis

6. List at least five signs that you might find when examining a newborn with a cold

- a. *Normal temperature*
- b. *Active and alert but perhaps irritable newborn*
- c. *Possible noisy nasal breathing at times*
- d. *No appearance of severe illness*
- e. *Clear discharge from nose*
- f. *Clear lungs*

7. Describe what patient care you would suggest for a newborn with a cold

- a. *Clear his nose with a rubber syringe so he can nurse*
- b. *Continue to breast-feed frequently.*
- c. *Give .25% neosynephrine nose drops two to three times a day before feeding*

8. What causes simple swelling of a newborn's scalp?

Pressure on the newborn's head during delivery

9. What is the treatment for simple swelling of a newborn's scalp?

Assure the mother that the swelling will fade away.

Teaching Plan 8

Other Problems of the Newborn

- OBJECTIVES**
1. Recognize and describe these signs and symptoms problems of the newborn:
 - Swelling with hard edges and soft center on the scalp
 - Lack of movement on one side of the body
 - Irregularity in bone
 - Frequent, watery stools
 - Sunken fontanelles
 - Dry mucous membranes
 - Tenting of skin
 - Lethargy
 - Vomiting
 - Fever
 - Not breast-feeding well
 - Birth weight less than 2,500 g
 - Jaundice
 - Newborn without a mother
 2. Describe how to treat and care for newborns with other problems.

METHODS Self-instruction, discussion

MATERIALS Student Text - Unit 8

PREPARATION Prepare a brief presentation on other problems of the newborn.
Tell the students to read Unit 8 of the Student Text and to answer the review questions.

TIME: 1 hr

LEARNING ACTIVITIES

- | | |
|--|--------|
| 1. Present and lead a discussion of other problems of the newborn. | 40 min |
| 2. Assign a student to lead a discussion of the review questions. | 20 min |

ANSWERS TO REVIEW QUESTIONS

Other Problems of the Newborn

1. How do hematomas in a newborn's scalp usually occur?

Pressure on the scalp during delivery causes bleeding into the scalp tissues

2. Describe at least four signs of normal or abnormal conditions that you might find on physical examination of a newborn with an uncomplicated hematoma of the scalp.

a No temperature elevation

b Newborn will be active and alert

c Newborn will be easy to awaken

d Swelling of the scalp with hard edges and a soft center

e Swelling will have definite borders

3. What is the treatment of hematoma of the scalp?

None, unless complications occur. If complications occur then refer the newborn to a hospital

4. Name at least two sites where fractures usually occur during delivery of a newborn.

a Arms

b Legs

c Clavicles

5. Describe two signs of a fracture in a newborn.

a The newborn moves only one side

b Irregular feeling of bone on palpation

6. Why is diarrhea dangerous in a newborn?

Because a newborn can become easily dehydrated

7. List four signs of diarrhea and dehydration of the newborn.
- Watery, light colored stools*
 - Sunken fontanelles*
 - Dry mucous membranes*
 - Tenting of the skin*
8. What is the treatment of diarrhea and dehydration of the newborn?
- Continue breast-feeding and begin giving sips of oral rehydration solution.*
 - Transfer immediately to the hospital.*
9. Fever or low body temperature in a newborn can be a sign of generalized infection.
10. What is the treatment of fever of a newborn?
Refer the newborn to a doctor.
11. Low birth weight newborns weigh less than 2,500 g.
12. List six possible causes of low birth weight.
- Smoking by mother*
 - Poor nutrition of mother*
 - Multiple pregnancies*
 - Anemia*
 - Malaria*
 - Eclampsia*
13. Describe the physical appearance of a low birth weight newborn.
- He weighs less than 2,500 g*
 - He lacks fatty tissue, so his face, arms, and legs look thin.*
 - He is smaller than a term baby.*
14. What is a frequent complication of low birth weight newborns?
High death rate

15. List three recommendations for care of a low birth weight newborn.

- a. *Keep the newborn warm*
- b. *Breast-feed the newborn two to six hours after birth*
- c. *If the mother is unable to breast-feed, transfer the newborn and the mother to a hospital*

16. When does abnormal jaundice usually occur?

On the first day of life or after the sixth day

17. Where would you look for jaundice of the newborn?

Skin, sclerae, palms, and soles of feet

18. What is the patient care for jaundice of the newborn?

Transfer to a hospital

Teaching Plan 9

Birth Defects

- OBJECTIVES**
1. Describe birth defects.
 2. Discuss the signs and symptoms of these birth defects:

Extra finger or toe	Congenital heart disease
Birth marks	Clubfoot
Umbilical hernia	Dislocated hips
Undescended testes	Down's syndrome
Hare lip	Hypertrophic pyloric stenosis
Cleft palate	Gastrointestinal defects
Hydrocephalus	Imperforated anus
Spina bifida	Ectopic bladder

METHODS Self-instruction, discussion

MATERIALS Student Text - Unit 9

PREPARATION Prepare a brief presentation on birth defects. Tell students to read Unit 9 of the Student Text

TIME: 40 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| 1. Lead a discussion about birth defects | 30 min |
| 2. Assign a student to lead a discussion of the review questions | 10 min |

ANSWERS TO REVIEW QUESTIONS

Birth Defects

1. What are birth defects?

Birth defects are abnormalities that develop as the fetus is growing in the uterus

2. List at least six ways birth defects can be prevented.

- a Pregnant women should obtain good prenatal care*
- b Close relatives should not marry each other.*
- c Women should not smoke or drink alcohol during pregnancy.*
- d While pregnant, women should avoid taking drugs and medicines*
- e Pregnant women should avoid being around people with illnesses especially German measles*
- f During pregnancy, a woman should eat as much vegetables, fruits, eggs, beans, and meat as possible*
- g Women should consider having their children before age thirty-five*

Teaching Plan 10

Selecting Health Education Material and Giving Health Messages

OBJECTIVES	<ol style="list-style-type: none">1. Identify health education material that might benefit postnatal women.2. Develop health messages for postnatal women about postnatal care.
METHODS	Self-instruction, discussion, demonstration, practice giving health messages
MATERIALS	Student Text - Unit 10, health educational pamphlets, books, fact sheets, posters, community health worker training workbooks
PREPARATION	<p>Prepare a brief presentation on how to select health education material to distribute to patients or to use for finding information for giving health talks.</p> <p>Collect samples of health education books, pamphlets, fact sheets, and posters. The topics should be of interest to postnatal women. Obtain samples of the material for each student.</p> <p>Tell the students to read Unit 10 of the Student Text.</p>

TIME: 3 hrs 15 min

LEARNING ACTIVITIES

- | | |
|--|--------|
| <ol style="list-style-type: none">1. Lead a discussion about how to choose health education material and give health messages. Discuss how health education material can support health messages. Demonstrate how to give a health message. Distribute and discuss a pamphlet, fact sheet, or booklet that supports your health message. | 30 min |
| <ol style="list-style-type: none">2. Distribute to each of the students all the health education material that you collected. Ask the stu- | 30 min |

TIME

<p>dents to read the material. As they are reading they should think about:</p> <ul style="list-style-type: none"> The topic covered in the material The most important points about the topic Whether postnatal women would understand the information Whether the pictures, diagrams, or photographs clearly show what they are intended to show Whether the information in the material could be used in a health message Whether the booklet or pamphlet is appropriate for postnatal women 	15 min
<p>3. Ask for a student volunteer. Ask the student to discuss one of the booklets, pamphlets, or fact sheets. He should discuss each of the points listed in Activity 2. The class should discuss the student volunteer's presentation.</p>	
<p>4. Divide the class into groups of four. Each group will choose a topic for a health talk and collect and distribute health education material. Each group:</p> <ul style="list-style-type: none"> Selects a topic for a health message and distributes health education material Reads the module text or health education material to find the important points about the topic Lists the important points about the topic in the order that they will be presented Chooses a booklet, pamphlet, or fact sheet to distribute Makes a plan for how the health message will be given and for when the health education material will be distributed Assigns each student in the group a part of the presentation 	1 hr
<p>5. Each group presents its plans to the rest of the class. A short discussion follows each presentation.</p>	1 hr

Teaching Plan 11

Assessing Postnatal Women and Newborns; Clinical Practice

- OBJECTIVES**
1. Interview postnatal women about their deliveries and the condition of their newborn.
 2. Perform physical examinations of postnatal women.
 3. Perform physical examinations of newborns.
 4. Recognize and record physical signs and symptoms of problems of postnatal women.
 5. Recognize and record physical signs of problems of the newborn.
 6. Give health talks and distribute educational material.

METHOD Supervised clinical practice

MATERIALS Skill checklist for medical history and physical examination, evaluation records, Diagnostic and Patient Care Guides, Formulary

PREPARATION Arrange for student supervision during a half day of clinical practice in a postnatal clinic.

TIME: 3 hrs

LEARNING ACTIVITIES

1. Students interview postnatal women, examine women and newborns, and practice providing patient care.
2. Students practice giving health talks and distributing health education material.

Teaching Plan 12

Assessing Postnatal Women and Newborns; Skill Development

- OBJECTIVES**
1. Interview and examine postnatal women about their deliveries and the condition of their newborns
 2. Recognize and record signs and symptoms of problems of postnatal women.
 3. Recognize and record the signs of problems of the newborn.
 4. Give health talks and distribute educational material

METHOD Supervised clinical practice

MATERIALS Skill checklist for medical history and physical examination, evaluation records, Diagnostic and Patient Care Guides, Formulary

PREPARATION Arrange for student supervision during five days of skill development in a postnatal clinic.

TIME: 5 days

LEARNING ACTIVITIES

1. Students interview postnatal women, examine women and newborns, and practice providing patient care.
2. Students practice giving health messages and distributing health education material
3. The activities will be coordinated with skill development for other maternal and child health modules

Teaching Plan 13

Providing Care for Postnatal Women and Newborns; Clinical Rotation

- OBJECTIVES**
1. Diagnose all of the diseases of postnatal women and newborns described in the module
 2. Record information about medical history, physical examination, and patient care
 3. Provide patient care for postnatal and newborn problems
 4. Advise women about the home care and prevention of postnatal and newborn problems

METHOD Supervised clinical practice for one week

MATERIALS Skill checklists, evaluation records, Diagnostic and Patient Care Guides

PREPARATION See Unit 11 of the Student Text for entry level skills and knowledge. After all the modules are taught, the students will have one month of clinical experience in health centers and hospitals where they can develop their skills in the care of postnatal women and newborns. This activity will occur along with other experiences. You will be placing only three to four students in postnatal clinics during any one week. Arrange for supervision during these experiences.

TIME: 1 week

LEARNING ACTIVITIES

1. Students obtain medical histories and perform physical examinations of postnatal women and newborns.



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2. Students diagnose common and other problems of postnatal women and newborns.
 3. Students present health talks and distribute health education material.
 4. All students are evaluated at least twice on all the above activities.

Teaching Plan 14

Helping a Community Prevent Problems and Care for Postnatal Women and Newborns; Community Phase

- OBJECTIVES**
1. Provide clinical services to postnatal women and newborns.
 2. Identify postnatal and newborn problems and plan a program to prevent them from occurring and spreading.
 3. Advise the community about its role in preventing postnatal and newborn problems.
 4. Identify other members of the health team who can assist in prevention of postnatal and newborn problems.
- METHODS** Practice providing care, assessing the community, and training community health workers
- MATERIALS** Log book reference materials
- PREPARATION** This activity is part of a three-month community experience.

TIME: 3 months

LEARNING ACTIVITIES

1. Students provide clinical services for postnatal women and newborns.
2. Students assess the occurrence of problems of postnatal women and newborns.

3. Plan activities that will help the community reduce the occurrences of postnatal problems
4. Begin training a community health worker to care for postnatal women and newborns
5. Evaluate student performance in the community.

142