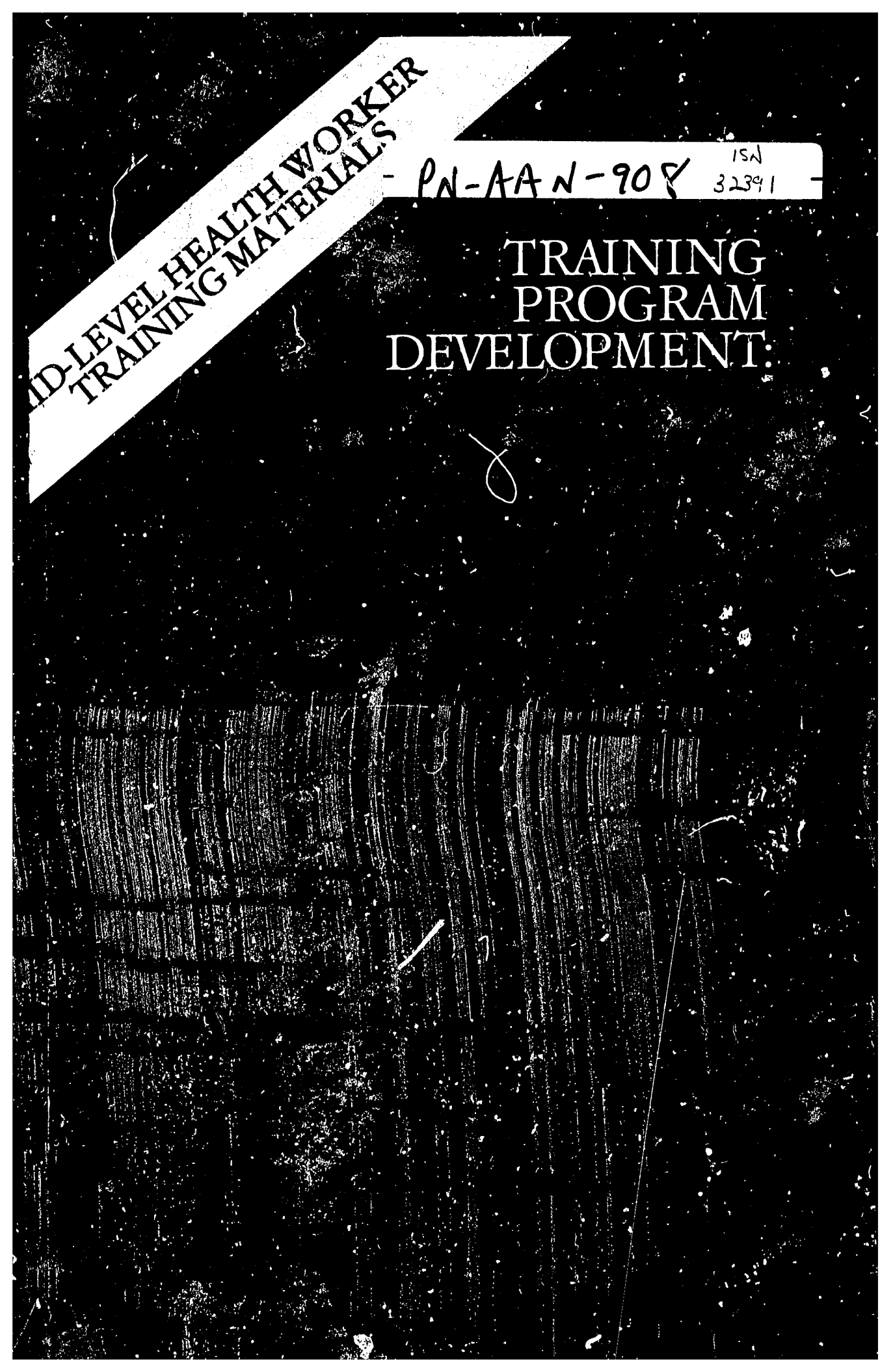
MID-LEVEL HEALTH WORKER TRAINING MATERIALS

TRAINING PROGRAM DEVELOPMENT:



TRAINING EVALUATION MANUAL

UNIVERSITY OF HAWAII JOHN A. BURNS SCHOOL OF MEDICINE

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The MEDEX Primary Health Care Series

TRAINING EVALUATION MANUAL

Health Manpower Development Staff
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TABLE OF CONTENTS

INTRODUCTION

The mid-level health worker training program depends on evaluations of students' knowledge and skills. These evaluations will allow you to determine students' strengths and weaknesses. Evaluations will also help you to plan classroom work and activities, and to follow students' progress, recommending remedial work when necessary or advancing to new knowledge and skills. As an instructor or member of the training staff, you will use review questions and checklists from the student texts for the evaluations, and you will record evaluation scores in logs found in this Training Evaluation Manual.

Evaluations occur before, during, and after classroom activities. Pretests during the first week of training evaluate what students already know about the material you will teach during the first five months of the fifteen-month training program. A second pretest in the fifth month of training evaluates what students already know about material that you will teach in the final part of the training program. By studying the results of these pretests, you will be able to focus your classwork on subjects in which students need the most training.

Further evaluations occur during the fifteen-month training program. Students use skill checklists to evaluate their own performance or other students' performance of health care procedures. You will use the same checklists when evaluating the students. Students will therefore know the basis of your evaluation, and you will be able to make your evaluations consistent.

Posttests, compiled from review questions, evaluate students' knowledge of the material in each module. You will be giving students posttests each time you complete classwork for a module. Students must score at least 80% on a posttest to advance to the next subject. If students score less than 80% on a posttest, you will have to schedule time to help them review the material they do not know.

Pretests, checklists, and posttests are the three main types of evaluation you will use. Other evaluations will be based on student reports and activities.

If you have read any of the introductions to the student texts, you may already have noticed that the evaluations are divided into three levels. Each level generally corresponds to the three stages of mastering a new skill. First, students learn textbook material and background information. Next, they practice a skill based on the material and information

they have learned. Then finally, they combine their knowledge and skills to provide a complete service.

Level I evaluations generally measure students' knowledge and occur during classroom time. Level II evaluations measure students' abilities to perform a new skill, and they generally occur during practice in a clinic, hospital ward, or health center. Level III evaluations generally are based on students' abilities to combine knowledge and skills and perform the duties of a mid-level health worker during their community and health center experience.

You can find when and where evaluations occur for each module by referring to the Training and Evaluation Schedules at the end of this section. You can also find requirements for each evaluation level by referring to the chart, Where to Find Evaluation Requirements for Each Module, which follows the Training and Evaluation Schedules.

HOW TO USE THE TRAINING AND EVALUATION SCHEDULES

The prototype training and evaluation schedules in this section show you:

- When and where to teach each module
- When and where to evaluate students on Levels I, II, and III requirements for each module
- When to give pretests and posttests

These training and evaluation schedules will change when you adapt the modules and materials to suit your program's specific needs. Even so, your schedules should include specific times for evaluation.

Look at the Training and Evaluation Schedule for Community Health Modules. The Community Health modules are:

- Identifying the Preventive Health Needs of the Community
- Meeting the Preventive Health Needs of the Community
- Training and Supporting Community Health Workers

The module names are abbreviated in the schedule because of the limited space. They are followed by a Roman numeral—I, II, or III—showing the evaluation level requirements for that time and for that module.

The ▨ shading on the schedule represents time spent in the classroom. Times for a pretest and posttest are indicated during classroom times. The title of the module being taught and the evaluation level for that period are printed over the shading.

The ▨ shading indicates times spent in a community or health center.

Because the Community Health modules require no training in a clinic, hospital ward, or health center, the first schedule shows no ▨ shading. This shading occurs when the general clinical modules, the basic clinical knowledge and skills modules, and the maternal and child health modules are taught. See schedules 3 and 4.

The chart that follows the schedules, Where to Find Evaluation Requirements for Each Module, presents information about the evaluation requirements for each level of evaluation in each module. Looking at this chart, you can see where in the Training Evaluation Manual the evaluation requirements for a particular module may be found. For example, the Level I evaluation requirements for Identifying the Preventive Health Needs of the Community are listed in the Posttest section and in the Community Phase Log.

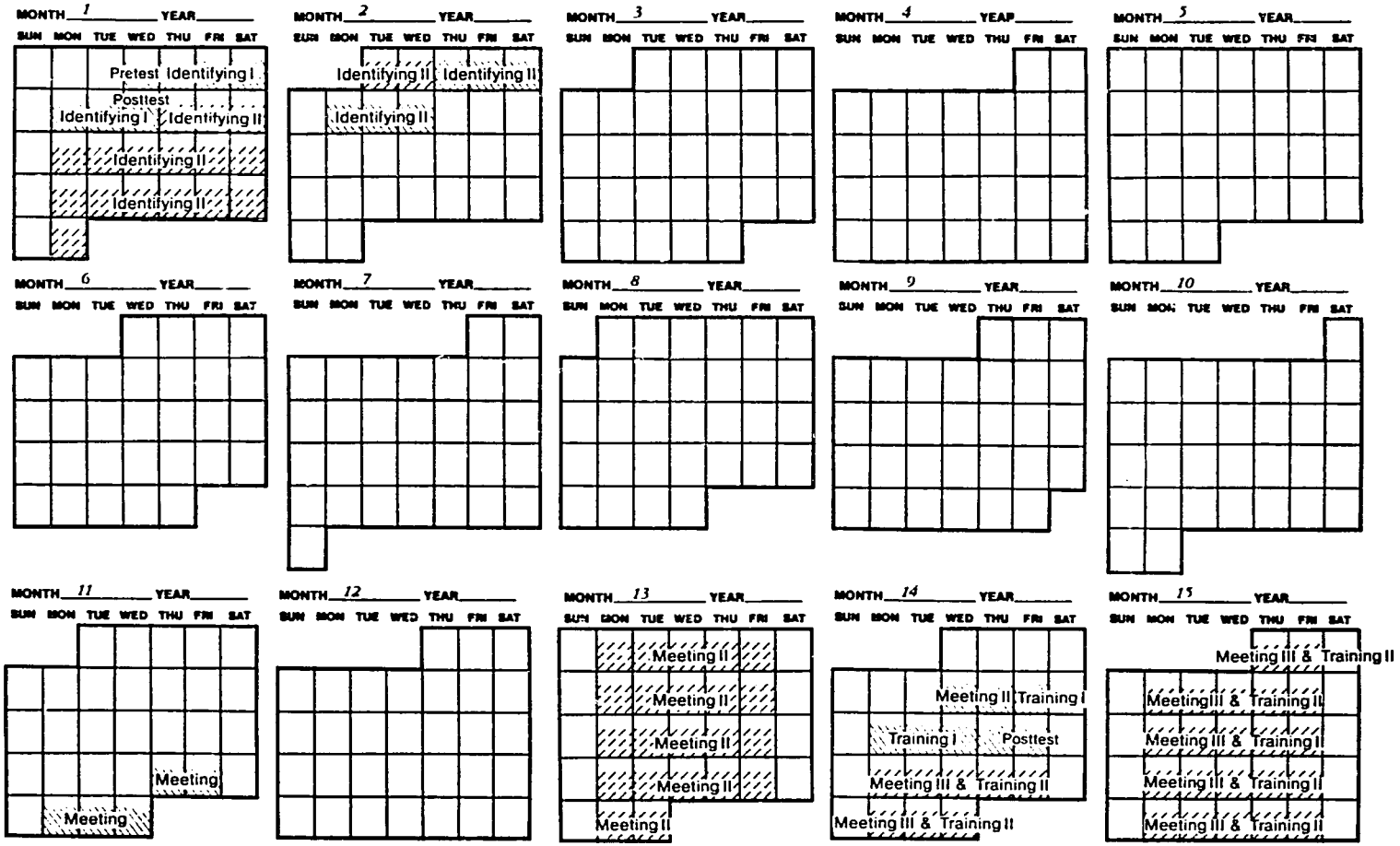
TRAINING AND EVALUATION SCHEDULE 1

Community Health Modules

COMMUNITY HEALTH MODULES

Identifying the Preventive Health Needs of the Community (Identifying)
Meeting the Preventive Health Needs of the Community (Meeting)
Training and supporting Community Health Workers (Training)

Evaluation Level I (I)
Level II (II)
Level III (III)



Key to Shadings

- Classroom time
- Clinic, hospital ward, or health center practice
- Community and health center experience

TRAINING AND EVALUATION SCHEDULE 2

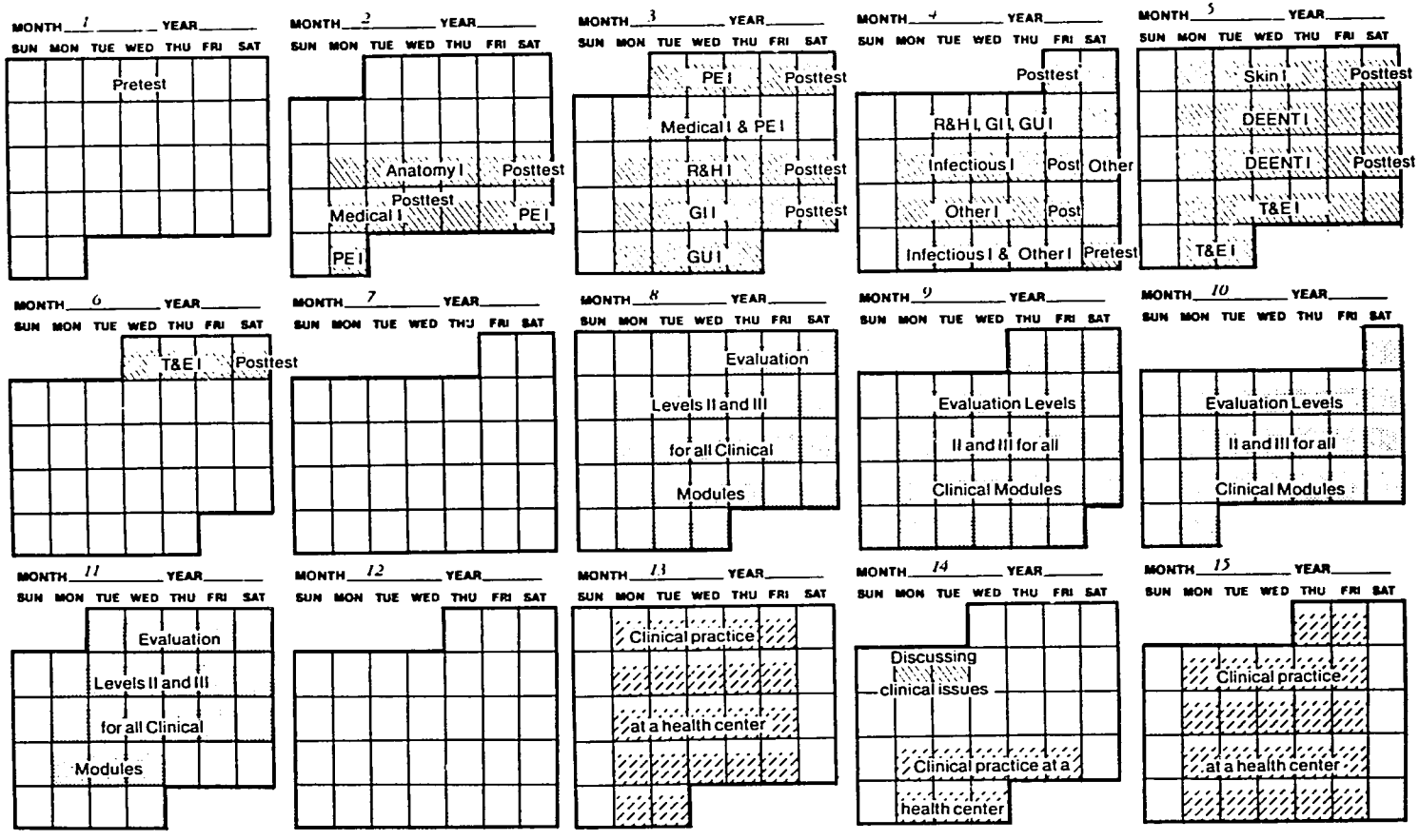
Clinical Modules

BASIC CLINICAL KNOWLEDGE AND SKILLS

Anatomy and Physiology (Anatomy)
Medical History (Medical)
Physical Examination (PE)

GENERAL CLINICAL

Respiratory and Heart (R&H)
Gastrointestinal (GI)
Genitourinary (GU)
Skin
Dental, Eyes, Ears, Nose, and Throat (DEENT)
Infectious Diseases (Infectious)
Other Common Problems (Other)
Trauma and Emergency (T&E)



Evaluation Level I (I)
Level II (II)
Level III (III)

Key to Shadings

- Classroom time
- Clinic, hospital ward, or health center practice
- Community and health center experience

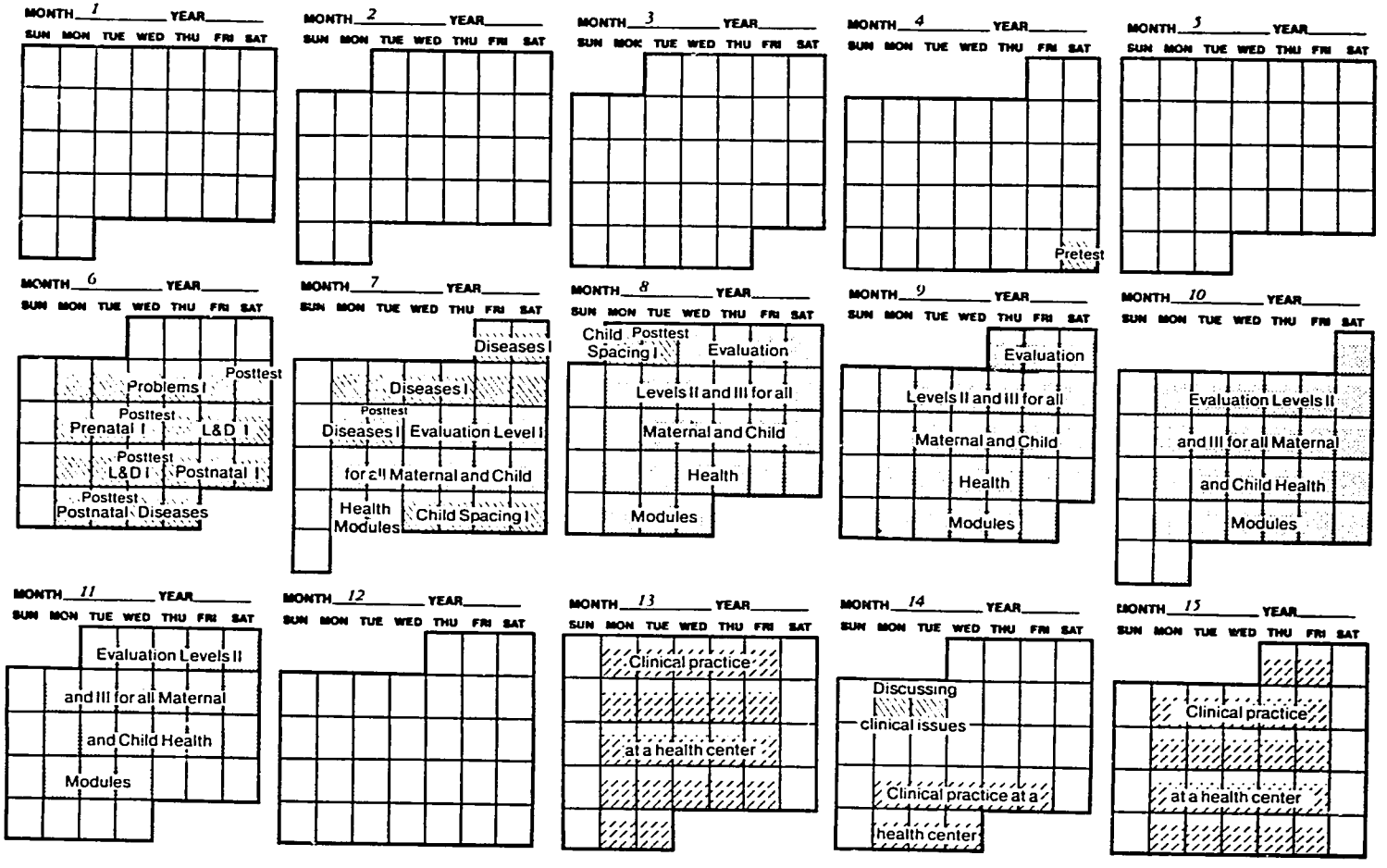
TRAINING AND EVALUATION SCHEDULE 3

Maternal and Child Health Modules

MATERNAL AND CHILD HEALTH

Prenatal Care (Prenatal)
Labor and Delivery (L&D)
Postnatal Care (Postnatal)

Diseases of Infants and Children (Diseases)
Problems of Women (Problems)
Child Spacing



Evaluation Level I (I)
Level II (I)
Level III (III)

Key to Shadings

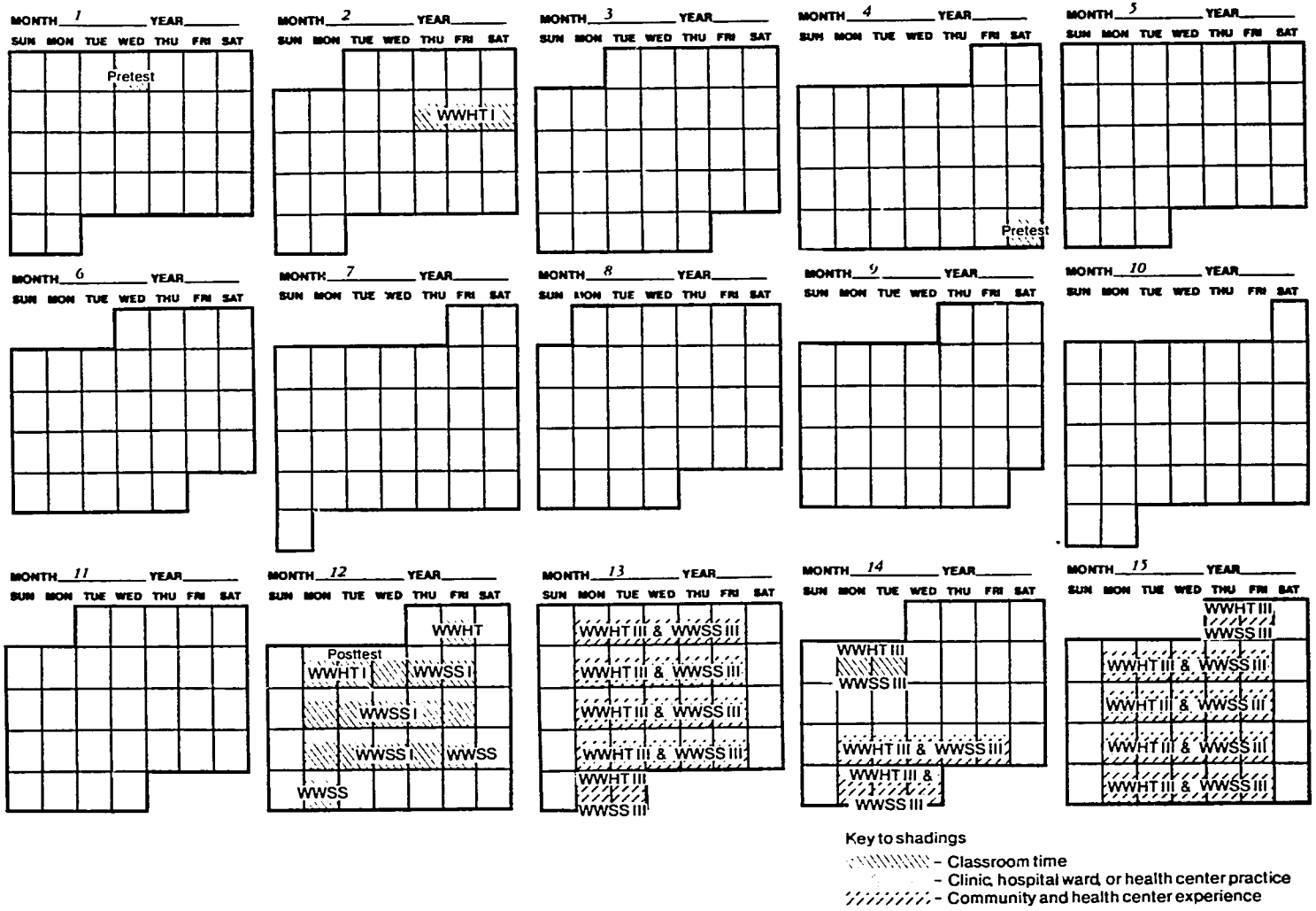
- Classroom time
- Clinic, hospital ward, or health center practice
- Community and health center experience

TRAINING AND EVALUATION SCHEDULE 4

Health Center Management

HEALTH CENTER MANAGEMENT
Working with the Health Team (WWHT)
Working with Support Systems (WWSS)

Evaluation Level I (I)
Level II (II)
Level III (III)



Key to shadings
- Classroom time
- Clinic, hospital ward, or health center practice
- Community and health center experience

WHERE TO FIND EVALUATION REQUIREMENTS FOR EACH MODULE

MODULE	LEVEL I	LEVEL II	LEVEL III
COMMUNITY HEALTH			
IDENTIFYING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY	Posttests Prerequisites for the Community Phase section of the Community Phase Log	Prerequisites for the Community Phase section of the Community Phase Log, Level II	Meeting the Preventive Health Needs of the Community module
MEETING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY	Posttests Level I and Level II Performance Requirements section of the Community Phase Log	Level I and Level II Performance Requirements section of the Community Phase Log	Level III Performance Requirements section of the Community Phase Log
TRAINING AND SUPPORTING COMMUNITY HEALTH WORKERS	Posttests Level I and Level II Performance Requirements section of the Community Phase Log	None	Level III Performance Requirements section of the Community Phase Log
BASIC CLINICAL KNOWLEDGE AND SKILLS			
ANATOMY AND PHYSIOLOGY	Posttests	None	None
MEDICAL HISTORY	Posttests Basic Skills Log	None	None
PHYSICAL EXAMINATION	Posttests Basic Skills Log	None	None
GENERAL CLINICAL			
RESPIRATORY AND HEART	Posttests Basic Skills Log	Diagnostic and Patient Care Log	
GASTROINTESTINAL			
GENITOURINARY			
INFECTIOUS DISEASES			

MODULE	LEVEL I	LEVEL II	LEVEL III
OTHER COMMON PROBLEMS			
SKIN			
DEENT			
TRAUMA AND EMERGENCY			
PROBLEMS OF WOMEN	Posttests Basic Skills Log	Diagnostic and Patient Care Log	
PRENATAL CARE			
LABOR AND DELIVERY			
POSTNATAL CARE			
DISEASES OF INFANTS AND CHILDREN			
CHILD SPACING			

HEALTH CENTER MANAGEMENT

WORKING WITH THE HEALTH TEAM	Posttests Basic Skills Log	None	Level III Performance Requirements section of the Community Phase Log
WORKING WITH SUPPORT SYSTEMS	Posttests Level I and Level II Performance Requirements section of the Community Phase Log	Level I and Level II Performance Requirements section of the Community Phase Log	Level III Performance Requirements section of the Community Phase Log

USING THE TRAINING EVALUATION MANUAL

The Training Evaluation Manual has two sections. Section 1 contains logs for recording evaluations of student performance. Section 2 contains pretest questions and answers and posttest questions and answers for each module. Once adapted, these logs, pretests, and posttests will give you a way to systematically evaluate students' progress and to record that information for your use and for the students' benefit.

Section 1 of this Training Evaluation Manual contains the:

- Basic Skills Log
- Diagnostic and Patient Care Log
- Community Phase Log
- Certification Log for Mid-Level Health Workers

Section 2 of this Training Evaluation Manual contains:

- Pretest questions and answers for the first month of training and for the fifth month of training
- Posttest questions and answers for each module
- A Log for Recording Posttest Scores

To use this manual, first compile the Basic Skills Log, the Diagnostic and Patient Care Log, the Community Phase Log, and the Log for Recording Posttest Scores. The compiled logs make a Student Log. Give this Student Log to each of the students. It will give them their performance requirements and will serve to identify for the student and instructor the student's strong and weak areas.

The Student Log may be of any size, but it should be compact, so a student can carry it with him. Also, each student should periodically meet with his instructor or supervisor to review his Student Log. The student and his instructor or supervisor should discuss what has been accomplished and what remains to be accomplished. Also discuss any plans for remedial training or practice.

After discussions with students about their progress, the instructor or supervisor may keep the Student Log for a short time to record the student's completed performance requirement information in the Certification Log for Mid-Level Health Workers. In this way, record keeping becomes a cumulative process rather than a major task at the end of training.

Section 1

Skill Assessment

Basic Skills Log

The Basic Skills Log contains all the Level I performance requirements for successful completion of the basic clinical, general clinical, and maternal and child health modules. The log has five parts:

Assessment Reference Guides
Assessment Skill Checklists
Special Assessment Procedures
Physical Signs of Abnormal Conditions
Methods of Sharing Health Messages

Assessment Reference Guides

The Assessment Reference Guides provide students a handy reference for assessing children and adults. The guides are taken from the Medical History and Physical Examination modules. They are the:

Practice Guide for Taking an Adult Medical History
Practice Guide for Performing an Adult Physical Examination
Practice Guide for Taking a Child Medical History
Practice Guide for Performing a Child Physical Examination

Students may use these Assessment Reference Guides whenever they work with patients or in role-plays. However, you should use the Assessment Skill Checklists when evaluating students' performances of assessment procedures.

Assessment Skill Checklists

The assessment skill checklists included in this Basic Skills Log are taken from the Medical History and Physical Examination modules. The Assessment Skill Checklists are:

Taking and Recording an Adult Medical History
Performing and Recording an Adult Physical Examination
Taking and Recording a Child Medical History
Performing and Recording a Child Physical Examination

These checklists use the same rating scale as the checklists in the modules. Rate students on each step in the checklists. Students must receive at least a rating of 3, or Satisfactory, on each step in the checklists before successfully completing their assessment skill requirements.

Special Assessment Procedures

Diagnosing some common problems or conditions requires special assessment procedures. Each of the special assessment procedures has a corresponding skill checklist in the student texts. The special assessment procedures are listed in the Basic Skills Log beneath the texts from which they were taken. Use the skill checklists from the

texts when evaluating the students' performances in each of these procedures.

As an instructor or member of the training staff, you must decide how many times students should successfully complete each skill before you certify their ability. That number will vary. On the basis of pretests, you may determine that students should do some procedures more often than others. Or, students may have opportunities to do some procedures more often than others. Write the number of times you determine that students should perform each procedure in the column next to that procedure on the Special Assessment Procedures list. Use the column under the heading, "Number of Successful Evaluations Required."

Each time a student receives at least a 3, or Satisfactory, evaluation on his performance of a special assessment procedure, he receives credit. The instructor or supervisor who evaluates his successful performance initials a column under Successful Evaluations. Three columns provide space for three successful evaluations, which should meet most requirements.

When a student successfully completes a procedure the required number of times, you should date and initial the columns under Certification. Also record the students' certifications in the Certification Log for Mid-Level Health Workers.

Physical Signs of Abnormal Conditions

The physical signs of abnormal conditions listed in the Basic Skills Log come from the general clinical and maternal and child health modules. The signs are listed by module. Adapt this list to reflect any revisions of the curriculum. Also determine how many times students should successfully identify each physical sign of an abnormal condition. Write that number in the column under the heading, "Number of Successful Evaluations Required."

When a student successfully completes identification of a physical sign of an abnormal condition the required number of times, date and initial the columns under Certification. Also, record the certification in the Certification Log for Mid-Level Health Workers.

Methods of Sharing Health Messages

The methods of sharing health messages listed in the Basic Skills Log come from the general clinical modules. They are listed by module. Adapt this list to reflect any revisions of the curriculum. Also, deter-

mine how many times students should successfully perform each method of sharing health messages. Write that number in the column under the heading, "Number of Successful Evaluations Required."

When a student successfully completes performance of a method of sharing health messages the required number of times, date and initial the columns under Certification. Also, record the certification in the Certification Log for Mid-Level Health Workers.

ASSESSMENT REFERENCE GUIDES

Practice Guide for Taking an Adult Medical History

This practice guide will help you when you interview an adult to take a medical history. The guide lists the sequence of steps for taking an adult medical history. It also outlines the information that you have learned to ask about. Your instructor will give you a copy of this guide to use when you interview other students in your class and patients in the hospital ward or outpatient clinic. Refer to the practice guide to remind you of the information to include in an adult medical history.

PATIENT IDENTIFICATION INFORMATION	DATE OF VISIT, NAME, ADDRESS, SEX, DATE OF BIRTH, AGE, MARITAL STATUS
PRESENTING COMPLAINT	REASON FOR THE PATIENT'S VISIT HOW LONG HE HAS HAD THE PROBLEM
HISTORY OF THE PRESENT PROBLEM	ONSET, DURATION, LOCATION, FREQUENCY, DESCRIPTION OF SYMPTOM THINGS THAT MAKE THE SYMPTOM BETTER OR WORSE ASSOCIATED SYMPTOMS, HISTORY OF SIMILAR SYMPTOMS, CONTACTS

REVIEW OF SYSTEMS

GENERAL: Fever, chills, fatigue, weight loss, weight gain, loss of appetite, sensitivity to heat or cold, sweating, dizziness, unusual thirst, unusual hunger

HEAD AND SINUSES: Injury, headache, sinus problem

EYES: Pain, discharge, blurred vision, blindness, difficulty seeing at night

EARS: Pain, discharge, hearing problem

NOSE: Injury, bleeding, blockage

MOUTH: Tooth pain, missing teeth, problem with lips or gums

THROAT: Pain, swelling, blockage, difficulty swallowing, change in voice

RESPIRATORY: Cough, coughing up sputum, chest pain, wheezing, shortness of breath, difficulty breathing, fever, weight loss, loss of appetite

HEART: Chest pain, edema, shortness of breath, high blood pressure

PAST MEDICAL HISTORY

DRUG ALLERGIES: Allergy to any drug

IMMUNIZATIONS: Immunizations and dates given

CHILDHOOD ILLNESSES: Measles, mumps, whooping cough, polio, rheumatic heart disease, tuberculosis, kwashiorkor, marasmus

ADULT ILLNESSES: High blood pressure, diabetes, heart disease, tuberculosis, filariasis, malaria, cancer
Other illnesses

OPERATIONS: Procedures involving cutting into the body or removing tissue

ACCIDENTS: Serious accidents

MENSTRUAL AND OBSTETRICAL HISTORY:
Last menstrual period, menstrual periods regular, number of days, pain
Contraceptive method

GASTROINTESTINAL: Nausea, vomiting, blood in vomit, diarrhea, constipation, blood or mucus in stool, heartburn, abdominal pain, pain or itching around the rectum, worms, fever, chills, weight loss

GENITOURINARY: Pain on urination, frequent urination, increased urination, having to urinate frequently at night, trouble starting and stopping the flow of urine, blood in urine, swelling of face and legs, colicky pain in loin or flank, radiating flank pain, fever, chills

MALE GENITAL: Discharge from the penis, pain or swelling in the scrotum, pain in the lower abdomen, sores

FEMALE GENITAL: Last menstrual period, pain, discharge from the vagina, unexpected bleeding, sores

MUSCULOSKELETAL: Joint pain, joint swelling, joint redness, limited joint movement, joint deformity, muscle weakness, fracture

NERVOUS SYSTEM: Headache, convulsion, fainting, paralysis of an arm or leg, loss of consciousness, loss of speech, loss of memory, loss of sensation

SKIN: Sores, sores that do not heal, color change, injury, itching, texture change, loss of sensation

MENTAL HEALTH: Nervousness, irritability, loss of memory, depression, trouble sleeping, problems with daily life, abnormal fears

---

Number of pregnancies, live children, abortions, stillbirths, miscarriages

Complications

FAMILY HISTORY:

Health of family members

History of family members with diabetes, cancer, high blood pressure, heart disease, tuberculosis

SOCIAL HISTORY:

Education - years of school

Housing - house and surroundings, latrine, water, garbage, animals

Travel - travel outside home area

Occupation - type of work, location of work

Personal habits - drinking, smoking

Practice Guide for Performing an Adult Physical Examination

This practice guide will help you when you perform an adult physical examination. The guide lists the sequence of steps for performing an adult physical examination. Your instructor will give you a copy of this guide to use when you examine other students in your class and patients in the hospital ward or outpatient clinic. Refer to the practice guide to remind you of the steps for doing an adult physical examination.

VITAL SIGNS: Blood pressure, pulse, respirations, temperature, weight, height

URINE: Color, amount, sugar, protein

GENERAL APPEARANCE: Inspect - state of health, state of nutrition, behavior, mental state, speech, ability to walk

SKIN: Inspect - color, lesions, edema, moisture, hair pattern, evidence of injury

Palpate - moisture, temperature, texture, tenderness

LYMPH GLANDS: Inspect and palpate - in front of the ears, behind the ears, front of the neck, back of the neck, under the lower jaw, above the clavicles, under the arms, at the groin

HEAD: Inspect - hair, face

Palpate - skull, scalp, hair

Percuss - sinuses

EYES: Test vision

Inspect - whole eye, eyelids, eye movements, conjunctivae, sclerae, corneas, pupils, lenses

EARS: Test hearing

Inspect - outside of the ears, outside of the ear canals, mastoid areas

Palpate - outside of the ears, outside of the ear canals, mastoid areas

NOSE: Inspect - outside of the nose, nostrils

MOUTH AND THROAT: Inspect - lips, mucous membranes, gums, teeth, throat

Palpate - gums, teeth, cheeks

Smell - breath

NECK: Inspect - position of the head and neck, deformities, ability to move the neck, thyroid gland

Palpate - spine, muscles, thyroid gland

RESPIRATORY SYSTEM: Inspect - rate and rhythm of breathing, ease of breathing, cyanosis, shape of the chest, chest expansion, intercostal spaces, nostrils, wounds, cough, sputum

Palpate - back and front chest walls, chest expansion

Percuss - front and back chest for changes in percussion sounds

Auscultate - back and front chest for absent or decreased breath sounds, inspiration compared to expiration, abnormal breath sounds

HEART: Inspect - neck veins

Auscultate - mitral, tricuspid, pulmonic, and aortic areas for rate, rhythm, murmurs

BREASTS: Inspect - breasts and nipples for size, shape, color, dimpling, discharge, cracks

Palpate - breasts, nipples, and lymph glands for lumps, swelling, tenderness

ABDOMEN: Inspect - shape, scars, blood vessels

Auscultate - abdominal sounds

Palpate - four quadrants for masses, tenderness, rebound tenderness

Palpate - liver, spleen, kidneys, bladder for enlargement and tenderness

Percuss - shifting dullness, loin tenderness

Inspect - anus

MALE GENITALS: Inspect - penis, scrotum, groin

Palpate - scrotum, groin, prostate gland

ARMS AND LEGS: Inspect and palpate - arms, hands, legs, ankles, feet, and back for edema

MUSCULOSKELETAL SYSTEM: Inspect - muscles, joints, bones, spine

Palpate - muscles, joints, bones

NERVOUS SYSTEM: Check - muscle strength, sensation, enlarged nerves, nerve tenderness, irritation of the membranes that cover the brain and spinal cord

FEMALE GENITALS: Inspect - labia, urethra, vaginal opening

Inspect with vaginal speculum - cervix, vagina

Palpate - uterus, adnexal areas

Practice Guide for Taking a Child Medical History

This practice guide will help you when you interview a child and his parent to take a medical history of a child. The guide lists the sequence of steps for taking a child medical history. It also outlines the information that you have learned to ask about. Your instructor will give you a copy of this guide to use when you interview children and their parents. Refer to the practice guide to remind you of the information to include in a child medical history.

PATIENT IDENTIFICATION INFORMATION	DATE OF VISIT, NAME, ADDRESS, SEX, DATE OF BIRTH, AGE
PRESENTING COMPLAINT	REASON FOR THE PATIENT'S VISIT HOW LONG HE HAS HAD THE PROBLEM
HISTORY OF THE PRESENT PROBLEM	ONSET, DURATION, LOCATION, FREQUENCY, DESCRIPTION OF SYMPTOM THINGS THAT MAKE THE SYMPTOM BETTER OR WORSE ASSOCIATED SYMPTOMS, HISTORY OF SIMILAR SYMPTOMS, CONTACTS

REVIEW OF SYSTEMS

GENERAL: Fever, chills, fatigue, weight loss, weight gain, loss of appetite, sensitivity to heat or cold, sweating, dizziness, unusual thirst, unusual hunger

HEAD AND SINUSES: Injury, headache, sinus problem

EYES: Pain, discharge, blurred vision, blindness, difficulty seeing at night

EARS: Pain, discharge, hearing problem

NOSE: Injury, bleeding, blockage

MOUTH: Tooth pain, missing teeth, problem with lips or gums

THROAT: Pain, swelling, blockage, difficulty swallowing, change in voice

RESPIRATORY: Cough, coughing up sputum, chest pain, wheezing, shortness of breath, difficulty breathing, fever, weight loss, loss of appetite

HEART: Chest pain, edema, shortness of breath

GASTROINTESTINAL: Nausea, vomiting, blood in vomit, diarrhea, constipation, blood or mucus in stool, heartburn, abdominal pain, pain or itching around the rectum, worms, fever, chills, weight loss

GENITOURINARY: Pain on urination, frequent urination, increased urination, having to urinate frequently at night, trouble starting and stopping the flow of urine, blood in urine, swelling of face and legs, colicky pain in loin or flank, radiating flank pain, fever, chills

MUSCULOSKELETAL: Joint pain, joint swelling, joint redness, limited joint movement, joint deformity, muscle weakness, fracture

NERVOUS SYSTEM: Headache, convulsion, fainting, paralysis of an arm or leg, loss of consciousness, loss of speech, loss of memory, loss of sensation

SKIN: Sores, sores that do not heal, color change, injury, itching, texture change, loss of sensation

MENTAL HEALTH: Nervousness, irritability, loss of memory, depression, trouble sleeping, problems with daily life, abnormal fears

PAST MEDICAL HISTORY

DRUG ALLERGIES: Allergy to any drug

IMMUNIZATIONS: Any immunizations and dates given

CHILDHOOD ILLNESSES: Measles, mumps, whooping cough, polio, rheumatic heart disease, tuberculosis, kwashiorkor, marasmus

OPERATIONS: Any procedure involving cutting into the body or removing tissue

ACCIDENTS: Any serious accidents

DEVELOPMENT:

AGE RANGE IN WHICH SKILLS SHOULD BE ATTAINED	SOCIAL SKILLS	PHYSICAL SKILLS	LANGUAGE SKILLS
Birth to first few minutes of life		Moves arms and legs	Cries
6 weeks to 2 months	Smiles in response to mother's smile	Can lift head when on belly	Listens to sounds
3 to 5 months	Smiles on own	Good head control Rolls over Plays with hands Grasps objects	Laughs and squeals Follows object with eyes
6 to 8 months	Feeds self biscuit Shy with strangers	Sits without support Stands with support	Makes babbling sounds Turns toward voice
8 to 11 months	Copies mother clapping hands	Crawls Pulls self to stand	Imitates sounds Says one word of one syllable

12 to 14 months	Drinks from a cup	Stands alone Walks holding on Grasps small object with thumb and forefinger Bangs two objects together	Says "mama" or "dada" to the correct person
18 to 20 months	Imitates mother doing house work	Walks alone Walks up stairs Walks backwards	Says two to three words other than "mama" and "dada"
24 to 30 months	Uses spoon Washes and dries hands Removes clothing	Jumps in place Kicks and throws ball	Follows simple directions Points to body parts named Can say about twenty-five words
3 to 3½ years	Dresses self with help Separates from mother easily	Climbs Stands on one foot Plays actively	Knows and can say name Talks well in sentences Asks many questions
4 to 4½ years	Buttons clothes	Hops on one foot	Can explain what he wants when he is cold, tired, or hungry Gives both names
5 to 5½ years	Dresses without help	Catches a bounced ball	Understands what "on," "under," "in," "over," and "behind" mean

DIET:	Breast-feeding Foods eaten, quantities eaten How often child eats, why child eats a food
FAMILY HISTORY:	Health of family members History of family members with diabetes, cancer, high blood pressure, heart disease, tuberculosis
SOCIAL HISTORY:	Education - years of school Housing - house and surroundings, latrine, water, garbage, animals

Practice Guide for Performing a Child Physical Examination

This practice guide will help you when you perform a child physical examination. The guide lists the sequence of steps for doing a child physical examination. Your instructor will give you a copy of this guide to use when you examine children. Refer to the practice guide to remind you of the steps for doing a child physical examination.

GENERAL APPEARANCE: Inspect – state of health, state of nutrition, behavior, mental state

DEVELOPMENT: Check – social, physical, and language skills

SKIN: Inspect – color, lesions, edema, moisture, evidence of injury

Palpate for – moisture, texture, temperature, tenderness

LYMPH GLANDS: Inspect and palpate – in front of the ears, behind the ears, front of the neck, back of the neck, under the lower jaw, above the clavicles, under the arms

HEAD: Inspect – face

Palpate – skull and fontanelles, scalp

EYES: Test vision

Inspect – eyelids, conjunctivae, sclerae, corneas, pupils, lenses

EARS: Test hearing

Inspect and palpate – outside of the ears, outside of the ear canals, mastoid areas

NOSE: Inspect – outside of the nose, nostrils

HEART: Auscultate – mitral, tricuspid, pulmonic, and aortic areas for rate, rhythm, murmurs

RESPIRATORY SYSTEM: Inspect – rate and rhythm of breathing, ease of breathing, cyanosis, shape of the chest, chest expansion, intercostal spaces, nostrils, wounds, cough, sputum

Palpate – chest expansion, back and front chest walls

Percuss – front and back chest for changes in percussion sounds

Auscultate – back and front chest for absent or decreased breath sounds, inspiration compared to expiration, abnormal breath sounds

ABDOMEN: Inspect – shape, scars, abdominal breathing

Auscultate – abdominal sounds

Palpate – four quadrants for masses, tenderness, rebound tenderness

Palpate – liver, spleen, kidneys, bladder for enlargement and tenderness

Percuss – only when fluid is suspected in the abdomen

NECK: Inspect – position of the head and neck, deformities, ability to move the neck, thyroid gland

Palpate – thyroid gland

MUSCULOSKELETAL AND NERVOUS SYSTEMS: Inspect – muscles, joints, bones, spine

Palpate – joints

Check – muscle strength; sensation only if necessary

ARMS AND LEGS: Inspect and palpate for edema

MALE GENITALS: Inspect and palpate – penis, scrotum

FEMALE GENITALS: Inspect for discharge and irritation

MOUTH AND THROAT: Inspect – lips, mucous membranes, gums, teeth, throat

Palpate – gums, teeth, cheeks

VITAL SIGNS: Pulse, respirations, temperature, weight, height, arm circumference

ASSESSMENT SKILL CHECKLISTS

Taking and Recording an Adult Medical History

Student: _____

Instructor: _____

Date: _____

This checklist has two purposes:

1) Students should use it as a guide for checking their own skills or the skills of other students.
2) Supervisors should use it when they evaluate how well students take and record an adult medical history.

After observing a student, enter a rating in the appropriate column.

Rating: 1 = Inadequate
2 = Needs improvement
3 = Satisfactory
4 = Above average
5 = Excellent

When taking and recording an adult medical history:	YES	NO	RATING	COMMENTS
1. Practice these skills throughout the interview: a. Establish a good relationship with the patient				
b. Use non-verbal techniques to gather information				
c. Use recommended techniques for conducting an interview				
d. Support the patient				
2. Greet the patient and introduce yourself				
3. Make the patient feel at ease				
4. Take and record the patient identification information				
5. Obtain the presenting complaint				
6. Take the history of the present problem. Ask these questions: a. "When did the symptom start?"				
b. "How long have you had the symptom?"				
c. "Where is the symptom?"				
d. "How often does the symptom occur?"				

	YES	NO	RATING	COMMENTS
e. "How severe is the symptom?"				
f. "When does the symptom occur?"				
g. "What makes the symptom better or worse?"				
h. "Do you have any associated symptoms?"				
i. "Have you ever had the symptom before?"				
j. "Have you come in contact with anyone else who has the same symptoms?"				
7. Review the appropriate systems				
8. Take the past medical history. Include:				
a. Drug allergies				
b. Immunizations				
c. Childhood illnesses				
d. Adult illnesses				
e. Operations				
f. Accidents				
g. Menstrual and obstetrical history, if appropriate				
h. Family history				
i. Social history				
9. Review your medical history notes with the patient. Check for accuracy				
10. Record the adult medical history on the medical history form. Record the presenting complaint. State the reason for the patient's visit, in his own words. State how long the patient has had his problem				
11. Record the history of the present problem. Develop a clear picture of the patient's problem:				

	YES	NO	RATING	COMMENTS
a. Note appropriate information about the onset, duration, location, and frequency of the symptom				
b. Describe how severe the symptom is and when it occurs				
c. Describe anything that makes the symptom better or worse				
d. List any associated symptoms				
e. Give details of any history of similar symptoms or patient contacts				
f. Write the history in the sequence that the symptoms occurred				
g. Make the history brief and clear				
12. Record the past medical history according to the recommended categories. Give appropriate details for each category, including dates				

Performing and Recording an Adult Physical Examination

Student: _____

Instructor: _____

Date: _____

This checklist has two purposes:

1) Students should use it as a guide for checking their own skills or other students' skills.
2) Supervisors should use it when they evaluate how well students perform and record an adult physical examination.

After observing a student, enter a rating in the appropriate column.

Rating: 1 = Inadequate
2 = Needs improvement
3 = Satisfactory
4 = Above average
5 = Excellent

When performing and recording an adult physical examination:	YES	NO	RATING	COMMENTS
1. Arrange all of the equipment on a table within reach				
2. Prepare the patient for the examination:				
a. Make the patient comfortable. Arrange for a private area to perform the examination				
b. Explain the purpose of the examination				
c. Ask the patient to remove his clothing. Provide a drape				
d. Warm the equipment				
e. Give clear instructions				
3. Take these vital signs: Blood pressure Pulse Respirations Temperature Weight Height				
4. Test the urine				
5. Examine the patient's general appearance. Inspect:				

	YES	NO	RATING	COMMENTS
State of health State of nutrition Behavior Mental state Speech Ability to walk				
6. Examine the skin a. Inspect for: Color Lesions Edema Moisture Hair pattern Evidence of injury				
b. Palpate for: Moisture Temperature Texture Tenderness				
7. Inspect and palpate these lymph glands: In front of the ears Behind the ears Front of the neck Back of the neck Under the lower jaw Above the clavicles Under the arms At the groin				
8. Examine the head a. Inspect: Hair Face				
b. Palpate: Skull Scalp Hair				
c. Percuss: Sinuses				
9. Examine the eyes a. Test vision				
b. Inspect: Whole eye Eyelids Eye movements				

	YES	NO	RATING	COMMENTS
Conjunctivae Sclerae Corneas Pupils Lenses				
10. Examine the ears a. Test hearing				
b. Inspect and palpate: Outside of the ears Outside of the ear canals Mastoid areas				
11. Examine the nose Inspect: Outside of the nose Nostrils				
12. Examine the mouth and throat a. Inspect: Lips Mucous membranes Gums Teeth Throat				
b. Palpate: Gums Teeth Cheeks				
c. Smell the breath				
13. Examine the neck a. Inspect: Position of the head and neck Deformities Ability to move the neck Thyroid gland				
b. Palpate: Spine and muscles Thyroid gland				
14. Examine the respiratory system a. Inspect: Rate and rhythm of breathing				

	YES	NO	RATING	COMMENTS
Ease of breathing Cyanosis Shape of the chest Chest expansion Intercostal spaces Nostrils Wounds Cough Sputum				
b. Palpate: Back and front chest walls Chest expansion				
c. Percuss: Front chest Back chest				
d. Auscultate: Back chest Front chest				
15. Examine the heart				
a. Inspect neck veins				
b. Auscultate: Mitral area Tricuspid area Pulmonic area Aortic area				
16. Examine the female's breasts				
a. Inspect for: Size Shape Color Dimpling Discharge Cracks				
b. Palpate: Breasts Nipples Lymph glands				
17. Examine the abdomen				
a. Inspect for: Shape Scars Blood vessels				
b. Auscultate all four areas				
c. Palpate all four areas for masses and tenderness				

	YES	NO	RATING	COMMENTS
d. Palpate: Liver Spleen Kidneys Bladder				
e. Percuss all four areas				
f. Inspect the anus				
18. Examine the male patient's genitals a. Inspect: Penis Scrotum Groin				
b. Palpate: Scrotum Groin Prostate gland				
19. Examine the arms and legs Inspect and palpate for edema: Arms and hands Legs and ankles Feet Back				
20. Examine the musculoskeletal system a. Inspect: Muscles Joints Bones Spine				
b. Palpate: Muscules Joints Bones				
21. Examine the nervous system Check: Muscle strength Sensation Enlarged nerves Nerve tenderness Irritation of the membranes that cover the brain and spinal cord				

	YES	NO	RATING	COMMENTS
22. Examine the female patient's genitals a. Inspect: Labia Urethra Vaginal opening				
b. Inspect with vaginal speculum: Cervix Vagina				
c. Palpate: Uterus Adnexal areas				
23. Allow the patient to dress				
24. Tell the patient the findings of the physical examination				
25. Answer the patient's questions				
26. Record the physical examination. Develop a clear picture of the patient's condition: a. Write the findings in the appropriate sequence				
b. Record all of the necessary information				
c. Make notes brief and clear				

Taking and Recording a Child Medical History

Student: _____

Instructor: _____

Date: _____

This checklist has two purposes:

1) Students should use it as a guide for checking their own skills or the skills of other students.
2) Supervisors should use it when they evaluate how well students take and record a child medical history.

After observing a student, enter a rating in the appropriate column.

Rating: 1 = Inadequate
2 = Needs improvement
3 = Satisfactory
4 = Above average
5 = Excellent

When taking and recording a child medical history:	YES	NO	RATING	COMMENTS
1. Practice these skills throughout the interview: a. Establish a good relationship with the child and his parent				
b. Use non-verbal techniques to gather information				
c. Use recommended techniques for conducting an interview				
d. Support the child and his parent				
2. Greet the child and the parent. Introduce yourself				
3. Make the child and his parent feel at ease				
4. Take and record the patient identification information				
5. Obtain the presenting complaint				
6. Take the history of the present illness. Ask these questions: a. "When did the symptom start?"				
b. "How long have you had the symptom?"				

	YES	NO	RATING	COMMENTS
c. "Where is the symptom?"				
d. "How often does the symptom occur?"				
e. "How severe is the symptom?"				
f. "When does the symptom occur?"				
g. "What makes the symptom better or worse?"				
h. "Do you have any associated symptoms?"				
i. "Have you ever had the symptom before?"				
j. "Have you come in contact with anyone who has the same symptoms?"				
7. Review the appropriate systems				
8. Take the past medical history. Include:				
a. Drug allergies				
b. Immunizations				
c. Childhood illnesses				
d. Operations				
e. Accidents				
f. Development				
g. Diet				
h. Family history				
i. Social history				
9. Review your medical history notes with the child or his parent. Check for accuracy				
10. Record the child medical history on the medical history form				

Performing and Recording a Child Physical Examination

Student: _____

Instructor: _____

Date: _____

This checklist has two purposes:

1) Students should use it as a guide for checking their own skills or other students' skills.
2) Supervisors should use it when they evaluate how well students perform and record a child physical examination.

After observing a student, enter a rating in the appropriate column.

Rating: 1 = Inadequate
2 = Needs improvement
3 = Satisfactory
4 = Above average
5 = Excellent

When performing and recording a child physical examination:	YES	NO	RATING	COMMENTS
1. Arrange all of the equipment on a table within reach				
2. Prepare the child for the examination				
3. Examine the general appearance. Include: State of health State of nutrition Behavior Mental state				
4. Check development skills. Include: Social skills Physical skills Language skills				
5. Examine the skin a. Inspect for: Color Lesions Edema Moisture Evidence of injury				
b. Palpate for: Moisture Texture Temperature Tenderness				

	YES	NO	RATING	COMMENTS
6. Inspect and palpate these lymph glands: In front of the ears Behind the ears Front of the neck Back of the neck Under the lower jaw Above the clavicles Under the arms				
7. Examine the head a. Inspect the face				
b. Palpate: Skull and fontanelles Scalp				
8. Examine the eyes a. Test vision				
b. Inspect: Eyelids Conjunctivae Sclerae Corneas Pupils Lenses				
9. Examine the ears a. Test hearing				
b. Inspect and palpate: Outside of the ears Outside of the ear canals Mastoid areas				
10. Examine the nose Inspect: Outside of the nose Nostrils				
11. Examine the heart Auscultate: Mitral area Tricuspid area Pulmonic area Aortic area				
12. Examine the respiratory system a. Inspect: Rate and rhythm of breathing Ease of breathing				

	YES	NO	RATING	COMMENTS
Cyanosis Shape of the chest Chest expansion Intercostal spaces Nostrils Wounds Cough Sputum				
b. Palpate: Chest expansion Back and front chest walls				
c. Percuss: Front chest Back chest				
d. Auscultate: Back chest Front chest				
13. Examine the abdomen a. Inspect: Shape Scars Abdominal breathing				
b. Auscultate all four areas				
c. Palpate all four areas				
d. Palpate: Liver Spleen Kidneys Bladder				
e. Percuss only when fluid is suspected				
14. Examine the neck. Inspect: Position of the head and neck Deformities Ability to move the neck Thyroid gland				
15. Examine the musculoskeletal and nervous systems. a. Inspect: Muscles Joints Bones Spine				
b. Palpate the joints				

	YES	NO	RATING	COMMENTS
c. Check muscle strength d. Check sensation only if necessary				
16. Examine the arms and legs. Inspect and palpate for edema				
17. Examine the male genitals Inspect and palpate: Penis Scrotum				
18. Examine the female genitals. Inspect for discharge and irritation				
19. Examine the mouth and throat. a. Inspect: Lips Mucous membranes Gums Teeth Throat				
b. Palpate: Gums Teeth Cheeks Palate				
20. Take these vital signs: Pulse Respirations Temperature Weight Height Arm circumference				
21. Allow the child to dress				
22. Explain the findings of the physical examination to the parent				
23. Answer the parent's questions				
24. Record the findings of the physical examination. Develop a clear picture of the child's condition:				

	YES	NO	RATING	COMMENTS
a. Write the findings in the appropriate sequence				
b. Record all the necessary information				
c. Make descriptions brief and clear				

SPECIAL ASSESSMENT PROCEDURES

Student: _____

Instructor: _____

Use this form to record successful evaluations of these special assessment procedures. A successful evaluation is one in which a student receives at least 3, or Satisfactory, on every step. Use skill checklists from the student texts as a basis for evaluations. When a student receives the required number of successful evaluations for each special assessment procedure, an instructor or supervisor may certify him in that procedure.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
PHYSICAL EXAMINATION						
Assessing a pregnant woman						
Assessing a woman in labor						
Determining a newborn's APGAR score						
Assessing a newborn						
Assessing a postnatal woman						
SKIN						
Assessing patients with skin problems						
DENTAL, EYES, EARS, NOSE, AND THROAT						
Assessing dental and mouth problems						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Assessing ear, nose, sinus, and throat problems						
Assessing patients with eye problems						
PROBLEMS OF WOMEN						
Examining a woman's breasts						
Performing a pelvic examination						

PHYSICAL SIGNS OF ABNORMAL CONDITIONS

Student: _____
Instructor: _____

Use this form to record a student's successful identification of the physical signs of abnormal conditions. When a student successfully identifies each physical sign the required number of times, an instructor or supervisor may certify him.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
RESPIRATORY AND HEART						
Increased breathing rate						
Flaring nostrils						
Intercostal retractions						
Cyanosis						
Increased pulse rate or weak pulse						
Fever						
Loss of weight						
Cough						
Clear, white, yellow, green, or bloody sputum						
Prolonged expiration						
Uneven expansion of chest						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Flat percussion note						
Absent or reduced breath sounds						
Abnormally high blood pressure of 140/90 and above						
Abnormally low blood pressure of 90/60 and below						
Heart murmur						
Irregular heart beat						
Crushing, squeezing, radiating, chest pain						
Enlarged neck veins						
Shortness of breath						
Cool, damp, and pale skin						
Rales						
Rhonchi						
Wheezing						
Bronchial breath sounds						
Difficulty breathing						
Barrel chest						
Pitting edema of ankles and lower back						
GASTROINTESTINAL						
Abdominal swelling						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Guarding, tenderness in the abdomen						
Rebound tenderness						
Ascites						
Enlarged and tender liver, spleen						
Jaundice						
Dehydration						
Anemia						
High pitched percussion note						
Increased or decreased bowel sounds						
Enlarged anal vessels						
Anal fissures						
GENITOURINARY						
Blood in the urine						
Protein in the urine						
Swelling of the face and legs						
Urethral discharge						
Fever and chills						
High blood pressure						
Enlarged and tender bladder						
Pleural effusion						
Ascites						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Pitting edema of the arms and legs						
Enlarged prostate gland						
Soft, tender prostate associated with urethral discharge						
Vaginal discharge						
Generalized body rash						
Lesions on the external genitals						
Palpation and percussion of the loin for kidney pain						
INFECTIOUS DISEASES						
High, constant fever						
Up and down pattern of fever						
Step ladder pattern of fever						
Low pulse rate and high fever						
Convulsions						
Neck stiffness						
Leg response when neck is bent						
Tight or bulging anterior fontanelle						
Rigid smile						
Throat spasms						
Bright red throat with gray membrane covering the tonsils and pharynx						

Unusually large, swollen lymph glands on both sides of the neck

Enlarged and tender spleen

Light colored skin patch with loss of sensation

Loss of sensation in the hands and feet

Enlarged and tender nerves

Flat, red rash on the abdomen

Very red face

Bright red, inflamed conjunctivae

Jaundice

Abdominal swelling and tenderness

SKIN

Macule

Papule

Vesicle

Ulcer

Burrow

Pustule

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Dental, Eyes, Ears, Nose and Throat

- Inflammation of the conjunctivae over the sclerae
- Inflammation around the iris
- Inflammation of the conjunctivae inside the upper eyelids
- Dry eyes
- Bitot's spots
- Foreign body
- Irregularly shaped pupils
- Dilated pupils
- Constricted pupils
- Color of the teeth, gums, and mucous membranes
- Cavities of the teeth
- Color, size, shape, and location of lesions in the mouth
- Bleeding of gums at the base of the teeth
- Color of mucous membranes inside the nose
- Swelling of mucous membranes inside the nose
- Severe pain in sinus above the eye or over the cheek when the sinus is tapped

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Inflamed and swollen tonsils with exudate						
Back of throat inflamed						
Swollen epiglottis						
Foreign body in the ear, nose, back of throat, or on the tonsil						
Swollen and painful lymph glands below the ear, jaw, or in front of the neck						
Swelling of gums, cheek, or jaw						
Loose teeth						
Pain or discomfort when palpating the teeth or gums						
Pain when tapping a tooth						
Tender or hard mass inside the mouth						
Tender and enlarged lymph glands in the neck						
Foul odor from the mouth						
Loss of hearing						
Color and smell of discharge from ear						
Pain when ear is pulled						
Color and consistency of discharge from the nose						

Other Common Problems

- Limited movement of a joint
- Joint inflammation with redness, swelling, tenderness, or warmth
- Rough sensation when a joint is moved
- Joint deformity
- Positive straight leg raising test
- Leg muscle weakness
- Loss of sensation in one leg
- Tenderness over the sciatic nerve
- Muscle spasms and tenderness
- Fever
- Weight loss
- Enlarged smooth or nodular thyroid gland
- Puffy face with a dull, uninterested expression
- Slow, slurred speech with a low pitched voice
- Slow body movements
- Thick, dry skin
- Coarse, brittle hair

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Bulging, staring eyes						
Fine tremors of the hands						
Increased resting pulse rate						
Moist skin						
Fine, silky hair						
Hoarseness						
Loss of consciousness						
Paralysis of one side of the face						
Paralysis of an arm or leg on one side						
Difficulty speaking						
Hard lump or mass anywhere in the body						
Pale or white conjunctivae						
Pale or white mucous membranes of the mouth						
Pale or white nail beds						
Obesity						
Unusual behavior						
Abnormal emotional state						
Abnormal mental state						
Sudden loss of speech						
Sudden loss of vision						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Sudden loss of hearing						
Sudden paralysis or loss of sensation in an arm or leg						
Enlarged and tender liver						
TRAUMA AND EMERGENCY						
Gagging						
Absence of respiratory effort						
Cyanosis						
Anxiety and restlessness						
Cold and clammy skin						
Pallor						
Rapid and weak pulse						
Low blood pressure						
Rapid and shallow breathing						
Decrease in urine output						
Large, red welts on the skin						
Wheezing						
Decreased consciousness						
Dilated, pinpoint, or unequally sized pupils and the abnormal reaction of pupils to light						
Neck stiffness in an unconscious patient						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Tenting of the skin in an unconscious patient						
Bulging fontanelles in an unconscious patient						
Convulsions in an unconscious patient						
Black-and-blue skin around a bite						
Drooping eyelids and slurred speech						
Bleeding from the gums and mouth						
Burns around the mouth						
Sweating and drooling						
Slow and shallow breathing						
Unusual odor on a patient's breath						
Spurting bright red blood						
Dark red blood						
Limited movement of a joint distal to a wound or bite						
Loss of sensation distal to a wound or bite						
Jagged cut						
Clean cut						
Puncture						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Deformity of a limb or joint						
Black-and-blue skin						
Reddened skin						
Oozing blisters						
White or charred skin						
Loss of vision						
Depression in the skull						
Watery discharge or blood from the nose or ears						
Paralysis of arms or legs						
Absent or decreased breath sounds						
Frothy bubbles from a chest wound						
Collapse of the chest on breathing in						
Expansion of the chest on breathing out						
Rebound tenderness						
Muscle guarding						
Absence of bowel sounds						
PRENATAL CARE						
Enlarged, slightly tender breasts						
Slightly enlarged uterus						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Soft, bluish purple vaginal walls						
LABOR AND DELIVERY						
Early rupture of the membranes						
Urine in the bladder						
Premature labor						
Retained placenta						
Incomplete fetal rotation						
Prolonged labor						
Fetal distress						
Maternal distress						
Small or abnormally shaped pelvis						
Face-up presentation						
Face presentation						
Breech presentation						
Transverse presentation						
Multiple pregnancy						
Prolapse of the cord						
Rupture of the uterus						
Preeclampsia or eclampsia						
Bleeding						
Postpartum bleeding						

Postnatal Care

- Painful swollen breasts
- Lack of breast milk
- Enlarged anal veins
- 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
- Low abdominal pain
- Spongy uterus
- Mother with a dead baby
- Scaly, oily crusts on the scalp
- Red, irritated skin beneath the diaper
- Clear discharge from the nose
- Jaundice
- Swelling of the scalp

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Swelling with hard edges and soft center on the scalp						
Inability to move one side of 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						
DISEASES OF INFANTS AND CHILDREN						
Poor growth						
Flaking skin						
Edema						
Decreased subcutaneous fat and muscle mass						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Dry lips and mouth						
Dry and tenting skin						
Sunken eyes						
Sunken fontanelles						
Rigid posture						
Fits or convulsions						
Redness or foul odor around an umbilical stump						
Jaundice						
Red, pussy eyes in newborns						
White or gray patches on the tongue and mucous membranes of mouth						
White spots on the lining of the cheeks						
Stridor						
Trouble breathing						
Intercostal retractions						
Whooping cough						
Measles rash						
Enlarged parotid gland						
Chicken pox rash						
Weakness of arms or legs						

Swelling and tenderness in joints

Heart murmur

Enlarged and tender finger and toe joints

Enlarged liver

Enlarged spleen

Tenderness, redness, swelling, and heat over bone

PROBLEMS OF WOMEN

Fever

Tenderness in the lower abdomen with guarding

Rebound tenderness

Foul smelling discharge from the vagina

White, yellow, or yellow-green discharge from the vagina

Pussy discharge from the vagina

Frothy discharge from the vagina

Tenderness when the uterus is moved

Inflammation of the external genitals

Inflammation of the walls of the vagina

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Inflammation of the cervix						
Tender mass in the areas on either side of the uterus						
Mass in the uterus						
Breast lump						
Breast lump attached to the skin or the wall of the chest						
Discharge from the nipple						
Abnormal shape or color of the nipple						
Enlarged lymph glands in the underarms						
Smooth and pale walls of the vagina						
Anemia						
Bleeding from the vagina						
Infection of a wound						

METHODS OF SHARING HEALTH MESSAGES

Student: _____

Instructor: _____

Use this form to record successful evaluations of the methods of sharing health messages. A successful evaluation is one in which a student receives at least 3, or Satisfactory, on every step. Use skill checklists from the student texts as a basis for evaluations. When a student receives the required number of successful evaluations for each method of sharing health messages, an instructor or supervisor may certify him in that procedure.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
RESPIRATORY AND HEART						
Health messages for the patient						
Health messages and storytelling						
GASTROINTESTINAL						
Using simple visual aids to share health messages						
GENITOURINARY						
Sharing health messages about the prevention and care of diseases spread by sexual contact						
SKIN						
Presenting health messages to groups						

INFECTIOUS DISEASES

Developing and presenting health messages about leprosy

OTHER COMMON PROBLEMS

Supporting the person with a chronic illness

POSTNATAL

Choosing and distributing health education material and giving health talks

DISEASES OF INFANTS AND CHILDREN

Using a demonstration to share health messages

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Diagnostic and Patient Care Log

Use the Diagnostic and Patient Care Log to record student performance in diagnosing diseases, providing patient care, and sharing patient advice. Also use it to record student competence in performing specific patient care procedures.

The first performance record in this log lists problems and diseases. The list is used to record student performance in managing disease problems. It incorporates a rating scale that is different than that used in the skill checklists. For example, the scale includes the following:

1 = Diagnosis incorrect
2 = Diagnosis correct, treatment incorrect
3 = Diagnosis and treatment correct but no patient advice given
4 = Diagnosis, treatment, and patient advice correct

A rating of 4 is acceptable performance.

When the student encounters a problem or disease during his clinical practice, the instructor rates him according to this scale. This rating is then entered on the Managing Problems and Diseases record. When the student has received a 4 rating the required number of times for a particular disease, he is considered certified in managing that disease. The instructor dates and initials the column next to that disease.

The next record lists patient care procedures. Each of these procedures has a corresponding skill checklist in the clinical modules. The instructor uses the skill checklist to evaluate the student's performance of the procedure. He then enters the student's successful evaluations on this patient care record. When the student receives at least the required number of successful evaluations prescribed by his instructor, he is certified in that particular procedure. The instructor then enters the certification date and his initials next to that procedure.

This log contains all of the Level II and Level III performance evaluation requirements for the basic clinical, general clinical, and maternal and child health modules. Students should complete these requirements before entering the community phase of training.

MANAGING PROBLEMS AND DISEASES

Student: _____

Instructor: _____

Use this form to record all ratings of a student's ability to manage problems and diseases. A rating of 4, "Diagnosis, treatment, and patient advice correct," is a successful performance. When a student receives the required number of successful ratings for each problem or disease, an instructor or supervisor may certify him.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
RESPIRATORY AND HEART						
Pneumonia						
Acute bronchitis						
Chronic bronchitis and emphysema						
Bronchial asthma						
Pleural effusion						
Tuberculosis						
Congestive heart failure						
Rheumatic heart disease						
Angina pectoris						
Myocardial infarction						
Hypertension						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
GASTROINTESTINAL						
Amebiasis						
Giardiasis						
Peptic ulcer						
Gastroenteritis						
Roundworms						
Pinworms						
Tapeworms						
Hookworms						
Viral hepatitis						
Cirrhosis						
Acute abdomen						
Acute appendicitis						
Intestinal block						
Hemorrhoids						
Anal fissures						
GENITOURINARY						
Urinary tract infections						
Stones in the urinary tract						
Nephritis						
Nephrotic syndrome						
Enlarged prostate gland						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Prostatitis						
Scrotal swelling						
Gonorrhea						
Syphilis						
SKIN						
Impetigo						
Scabies						
Lice						
Ringworm						
Tinea versicolor						
Cellulitis						
Boils and abscesses						
Tropical ulcers						
Herpes simplex						
Eczema						
Onchocerciasis						
Contact dermatitis						
Skin reactions to drugs						
DENTAL, EYES, EARS, NOSE, AND THROAT						
Sty						
Conjunctivitis						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Trachoma						
Cataracts						
Vitamin A deficiency						
Foreign body in the eye						
Cuts and ulcers in the cornea						
Eye emergencies						
Canker sores						
Gingivitis						
Acute ulcerative gingivitis						
Tooth decay						
Dental abscess						
Acute upper respiratory infection						
Acute otitis media						
Chronic otitis media						
Mastoiditis						
External otitis						
Wax in the ears						
Acute sinusitis						
Acute bacterial tonsillitis						
Foreign body in ears, nose, and throat						
Nosebleeds						

Infectious Diseases

- Typhoid fever
- Tetanus in children and adults
- Rabies
- Malaria
- Louse-borne typhus
- Meningitis
- Diphtheria
- Leprosy

Other Common Problems

- Low back pain caused by muscle strain or sprain of the sacroiliac joint
- Low back pain caused by disk disease
- Osteoarthritis
- Rheumatoid arthritis
- Septic arthritis
- Simple goiter
- Hypothyroidism
- Hyperthyroidism
- Headache
- Stroke

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Grand mal epilepsy						
Petit mal epilepsy						
Anemia						
Cancer						
Diabetes mellitus						
Acute confusion						
Anxiety						
Depression						
Acute alcohol intoxication						
Chronic alchoholism						
TRAUMA AND EMERGENCY						
Shock						
Unconsciousness						
Blocked airway						
Acute respiratory failure						
Snake bite						
Poisoning						
Bleeding						
Lacerations						
Fractures						
Sprains						
Dislocations						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
First degree burns						
Second degree burns						
Third degree burns						
Trauma to the eye						
Trauma to the head						
Trauma to the spinal column						
Trauma to the chest						
Trauma to the abdomen						
PRENATAL CARE						
Morning sickness						
Heartburn						
Constipation and hemorrhoids						
Vaginitis						
Pain or burning on urination						
Anemia						
Chronic cough						
Swollen, twisted veins						
Backache						
Shortness of breath						
Severe anemia in pregnancy						
Diabetes in pregnancy						
Heart disease in pregnancy						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Ectopic pregnancy						
Septic abortion						
Preeclampsia and eclampsia in pregnancy						
Fetal death						
Bleeding early in pregnancy						
Bleeding late in pregnancy						
Malaria in pregnancy						
Sickle cell disease in pregnancy						
LABOR AND DELIVERY						
Fetal distress						
Maternal distress						
Urine in the bladder during labor						
Premature labor						
Incomplete fetal rotation						
Small or abnormally shaped pelvis						
Early rupture of the bag of waters						
Retained placenta						
Prolonged labor						
Breathing problems of a newborn						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Face-up presentation						
Face presentation						
Breech presentation						
Transverse presentation						
Multiple pregnancy						
Prolapse of the cord						
Rupture of the uterus						
Preeclampsia or eclampsia during labor						
Bleeding during labor						
Postpartum bleeding						
Emergencies in a newborn						
POSTNATAL CARE						
Swollen breasts						
Lack of breast milk						
Hemorrhoids						
Cracks on nipples						
Breast abscess						
Puerperal sepsis						
Unreparied perineal tears						
Mother with a dead baby						
Cradle cap						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Diaper rash						
Colds						
Simple jaundice in the newborn						
Simple swelling of the scalp and bleeding into the scalp in the newborn						
Fractures in the newborn						
Diarrhea in the newborn						
Fever in the newborn						
Low birth weight						
Abnormal jaundice in the newborn						
A newborn without a mother						
PROBLEMS OF WOMEN						
Pelvic inflammatory disease						
Non-specific vaginitis						
Trichomonal vaginitis						
Monilial vaginitis						
Cancer of the uterus or cervix						
Fibroid tumor in the uterus						
Tumor of the ovary						
Breast lumps						
Menstrual cramps						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Side effects of contraceptives						
Menopause						
Atrophic vaginitis						
DISEASES OF INFANTS AND CHILDREN						
Tetanus of the newborn						
Septicemia in the newborn						
Infected umbilical cord						
Bleeding umbilical cord						
Gonococcal conjunctivitis of the newborn						
Thrush in the newborn						
Malnutrition						
Diarrhea and dehydration						
Croup						
Whooping cough						
Measles						
Mumps						
Chicken pox						
Poliomyelitis						
Rheumatic fever						
Sickle cell anemia						
Osteomyelitis						

PATIENT CARE PROCEDURES

Student: _____

Instructor: _____

Use this form to record successful evaluations of patient care procedures. A successful evaluation is one in which a student receives at least 3, or Satisfactory, on every step. Use skill checklists from the student texts as a basis for evaluations. When a student receives the required number of successful evaluations for each patient care procedure, an instructor or supervisor may certify him in that procedure.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
RESPIRATORY AND HEART						
Collection of sputum from a suspected tuberculosis patient						
GASTROINTESTINAL						
Passing a nasogastric tube						
GENITOURINARY						
Testing urine for protein						
Catheterizing the bladder of a male						
SKIN						
Using soaks to treat skin lesions						
Opening and draining boils and abscesses						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
DENTAL, EYES, EARS, NOSE, AND THROAT						
Cleaning a patient's eyelids						
Application of eye ointment or eye drops						
Locating and removing a foreign body from the eye						
Scaling teeth						
Local dental anesthesia						
Temporary filling						
Dental extraction						
Cleaning pus from a draining ear						
Removing a foreign body from an ear						
Removing a foreign body from a child's nose						
Removing a foreign body from the throat						
Controlling nosebleeds						
Removing wax from an ear canal						
INFECTIOUS DISEASES						
Preparing blood smears for diagnosis of malaria						

Other Common Problems

Teaching a patient how to give himself an insulin injection

Trauma and Emergency

Starting an intravenous infusion in a peripheral vein

Removing a foreign body from a person's throat with your fingers

Using back blows to clear a person's blocked airway

Using manual thrusts to clear an adult's blocked airway

Performing mouth-to-mouth respiration

Applying a pressure dressing

Using a tourniquet to control bleeding

Cleaning lacerations

Giving a local anesthetic

Removing dead tissue from a wound

Suturing superficial lacerations using a simple, interrupted stitch

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Applying a triangular bandage to hold dressings to a shoulder, hip, or groin						
Applying a triangular bandage to hold dressings to an elbow or knee						
Applying a triangular bandage to hold dressings to a hand, foot, or stump						
Splinting a fractured upper arm						
Splinting a fractured forearm or wrist						
Splinting a fractured shoulder blade						
Splinting a fractured collar bone						
Splinting a fractured upper leg						
Splinting a fractured lower leg						
Splinting a fractured knee cap						
Splinting a fractured ankle or foot						
Using a triangular bandage to make an arm sling						
Restoring a dislocated shoulder						
Bandaging a sprained joint						

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
Applying a triangular bandage to the scalp and head						
Applying a triangular bandage to the chest or back						
Placing a patient with a possible fracture of the spinal column on a blanket						
Placing a patient on a stretcher using a blanket and the help of six people						
Placing a patient on a stretcher with the help of four people, but without using a blanket						
LABOR AND DELIVERY						
Assisting a delivery in a home						
Assisting a delivery in a health center						
Performing and repairing an episiotomy						
Cutting an umbilical cord						
Repairing perineal lacerations						
Manually removing a placenta						
Assisting delivery in a multiple pregnancy						
Assisting delivery in a breech presentation						

Diseases of Infants and Children

- Preparation and use of oral rehydration fluid
- Scalp vein intravenous rehydration
- Peripheral vein intravenous rehydration
- Teaching mothers how to express breast milk
- Feeding a baby by nasogastric tube

Child Spacing

- Finding the correct size diaphragm for a woman
- Teaching a woman to use a diaphragm
- Inserting an intrauterine device(IUD)
- Removing an intrauterine device(IUD)

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Community Phase Log

The Community Phase Log lists requirements that students must successfully fulfill before starting the community phase of their training. The log also lists all the Level I, II, and III performance requirements for successful completion of the community health and health center management modules.

The community health modules are Identifying the Preventive Health Needs of the Community, Meeting the Preventive Health Needs of the Community, and Training and Supporting Community Health Workers. The health center management modules are Working with the Health Team and Working with Support Systems.

The community phase requirements are listed in three records:

Prerequisites for the Community Phase
Level I and Level II Performance Requirements for the Community Phase
Level III Performance Requirements for the Community Phase

Prerequisites for the Community Phase

Students must learn certain skills before starting the community phase of their training. These skills will enable them to carry out activities to meet their community health requirements. The community health module Identifying the Preventive Health Needs of the Community describes and explains these prerequisite requirements.

Identifying the Preventive Health Needs of the Community is the first module used in the prototype training program. See the Training and Evaluation Schedules. After one week in a classroom, working on Level I requirements, students visit a community to fulfill Level II prerequisite requirements. These requirements are listed by level in the Prerequisites for the Community Phase.

Use the Prerequisites for the Community Phase to record successful performances of each of the requirements listed. A successful performance is one which an instructor or supervisor has evaluated and rated at least a 3, or Satisfactory. When a student receives the required number of satisfactory ratings for each prerequisite, an instructor or supervisor may certify him in that activity.

Level I and Level II Performance Requirements

The second record in this Log contains all of the Level I and II performance requirements from the community health, health center management, and community health

worker training modules. These requirements should be completed during the community phase of the students' training. During the community phase of this prototype training schedule, instructors teach Meeting the Preventive Health Needs of the Community, Working with Support Systems, Working with the Health Team, and Training and Supporting Community Health Workers. Students should complete the Level I and Level II performance requirements for these modules during the community phase.

When a student completes each of the requirements listed in this record, his instructor rates his performance. When the student receives at least a satisfactory rating on a requirement, the required number of times, he is considered certified in that requirement. The instructor then enters the certification date or date of completion and his initials on this performance record.

Level III Performance Requirements

The final performance record in this log is the Level III Performance Requirements for the Community Phase. These performance requirements are listed by modules. When a student completes a performance requirement, the instructor rates his performance. When a student receives a satisfactory rating on a requirement the required number of times, he is considered certified in that requirement. The instructor then enters the date of certification and his initials.

PREREQUISITES FOR THE COMMUNITY PHASE

Student: _____

Instructor: _____

Use this form to record successful completion of the prerequisites for the community phase. A successful evaluation is one which an instructor or supervisor has evaluated and rated at least a 3, or Satisfactory. When a student receives the required number of Satisfactory ratings for each prerequisite, an instructor or supervisor may certify him in that activity.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
IDENTIFYING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY: LEVEL I						
Talk to a person to gather information						
Make and use a simple map						
Use environmental health checklists to identify environmental health problems						
Identify locally available foods and prepare a typical meal						
Prepare a checklist of questions to identify high risk pregnant women, mothers, and newborns						

- Use the arm measurement technique to determine the nutrition status of infants and children
- Use a growth chart to assess the growth of infants and children

Identifying the Preventive Health Needs of the Community: Level II

- Make a map of the general area around a community
- Make a detailed map of a community
- Conduct a household survey of at least twenty-five households
- Use the environmental health checklists to identify environmental health problems in the community
- Talk to community leaders, health and development workers, and school workers in a community to find out their ideas about the community's health needs
- Prepare and present a report of your survey findings

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

LEVEL I AND LEVEL II PERFORMANCE REQUIREMENTS FOR THE COMMUNITY PHASE

Student: _____

Instructor: _____

Use this form to record successful completion of the Level I and Level II performance requirements for the community phase. A successful performance is one which an instructor or supervisor has evaluated and rated at least a 3, or Satisfactory. When a student receives the required number of Satisfactory ratings for each activity, a supervisor may certify him in that activity.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
MEETING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY: LEVEL I						
Develop a plan which outlines how you are going to approach the community to which you have been assigned						
WORKING WITH SUPPORT SYSTEMS: LEVEL I						
Operate health center facilities and equipment correctly						
Do the preventive maintenance jobs listed in Section 3.2 of the Operations manual						

- Do the repair jobs listed in Section 3.6 of the Operations manual
- Operate a bicycle and motorcycle
- Do the maintenance and repair procedures for bicycles and motorcycles listed in Sections 4.7 and 4.8 of the Operations manual

Training and Supporting Community Health Workers: Level I

- Demonstrate how to discuss primary health care in a community meeting
- Describe the role of community health workers in a meeting with community leaders
- List selection criteria for community health workers
- Meet with community leaders to discuss the community's current health status and possible community health activities

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Meeting the Preventive Health Needs of the Community: Level II

- Initiate and take part in a community meeting to discuss the community's health needs and possible community health activities to meet these needs
- Help community members choose priorities among community health activities based on their needs, resources, and willingness to do something about their needs
- Work with community members to plan one priority health activity
- Develop plans to carry out two health message activities based on the community's needs
- Develop a plan to carry out one community health activity on your own or with the help of one or two others
- Write a report of all the activities that you carry out

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

LEVEL III PERFORMANCE REQUIREMENTS FOR THE COMMUNITY PHASE

Student: _____

Instructor: _____

Use this form to record successful completion of the Level III performance requirements for the community phase. A succesful performance is one which an instructor or supervisor has evaluated and rated at least a 3, or Satisfactory. When a student receives the required number of Satisfactory ratings for each activity, an instructor or supervisor may certify him in that activity.

	NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
		EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS
MEETING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY						
Begin carrying out one priority health activity with the community						
Carry out and evaluate two health message activities in the community						
Carry out and evaluate one community health activity on your own or with the help of one or two others						

- Prepare a written report of the activities that you carry out. Include problems and accomplishments
- Write a brief summary of the things you learned about planning and carrying out community health activities

WORKING WITH THE HEALTH TEAM

- Work as a member of a district health team and a health center team
- Plan, carry out, and evaluate work
- Work with a team in solving problems
- Make work plans for a health center
- Assign responsibility to team members
- Make work schedules for a health team
- Evaluate team work and the primary health care program
- Supervise a health team

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Working with Support Systems

- Inventory, order, receive, and inspect drugs, medical supplies, and general supplies from the ministry of health
- Obtain drugs, medical supplies, and general supplies from outside the ministry of health if the ministry of health system breaks down
- Store and protect drugs, medical supplies, and general supplies
- Inventory the facilities and equipment at the health center and write out maintenance schedules if none exist
- Organize the community to do the necessary repairs of health center facilities and equipment
- Survey transportation and communication resources in the community
- Write out a transportation schedule and emergency transportation plan for the health center if none exist

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

- Use the available communication resources to take care of health center activities
- Recruit, select, orient, and evaluate locally hired personnel for the health center
- Schedule staff leave, take any necessary disciplinary action, handle employee grievances, and handle all other personnel matters
- Submit a needs request for the annual budget
- Enlist community support to supplement the health center budget
- Use the payroll system
- Collect, record, store, and transfer money from health center operations and handle all other financial matters
- Arrange adequate protection for the health center
- Organize and maintain health center records
- Do at least one evaluation of the management systems of the health center using a checklist developed in class

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Draft Handing-Over Notes for your supervisor at the end of your three month experience

Training and Supporting Community Health Workers

- Identify health needs for training community health workers based on the needs of the community
- Discuss with community members the role of community health workers in primary health care
- Help the community select a community health worker
- Organize the training of community health workers
- Train community health workers in promotive, preventive, and curative skills
- Support community health workers in their work

NUMBER OF SUCCESSFUL EVALUATIONS REQUIRED	SUCCESSFUL EVALUATIONS			CERTIFICATION	
	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	EVALUATOR'S INITIALS	DATE	INITIALS

Certification Log for Mid-Level Health Workers

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Use this Certification Log for Mid-Level Health Workers as a permanent record of a student's demonstrated competence. The log lists the signs of abnormal conditions, problems and diseases, procedures, and skills covered in the training program.

The log is divided into clinical, community health, and health center management sections. The clinical section lists assessment procedures, physical signs of abnormal conditions, methods for sharing health messages, problems and diseases, and patient care procedures. The community health section lists all of the community health practices. The health center management section lists all of the health center management responsibilities.

When a student has demonstrated his competence in any of the training program requirements, he is then certified in it. His instructor or supervisor dates and intials the certification column in the student's log. Periodically then, the student's instructor or a member of the training staff should update the Certification Log. Routinely check each student's log. Note any problems the student seems to be having, and enter any new certifications into this Certification Log. Keep the Certification Log on file as a permanent record of the student's achievements. A student may increase his certifications through continuing education. Record continuing education certifications along with certifications from this training program.

This log certifies that _____ has successfully demonstrated competence and earned certification in these clinical, health center management, and community health skills, where dated.

CLINICAL

Assessment Skills

	DATE OF CERTIFICATION	COMMENTS
Medical History and Physical Examination		
Taking and recording an adult medical history		
Performing and recording an adult physical examination		
Taking and recording a child medical history		
Performing and recording a child physical examination		

Special Assessment Procedures

	DATE OF CERTIFICATION	COMMENTS
Physical Examination		
Assessing a pregnant woman		
Assessing a woman in labor		
Determining a newborn's APGAR score		
Assessing a newborn		
Assessing a postnatal woman		
Skin		
Assessing patients with skin problems		

	DATE OF CERTIFICATION	COMMENTS
Dental, Eyes, Ears, Nose, and Throat		
Assessing dental and mouth problems		
Assessing ear, nose, sinus, and throat problems		
Assessing patients with eye problems		
Problems of Women		
Examining a woman's breasts		
Performing a pelvic examination		

Physical Signs of Abnormal Conditions

This mid-level health worker has demonstrated competence in recognizing and identifying the following physical signs of abnormal conditions, where dated.

	DATE OF CERTIFICATION	COMMENTS
Respiratory and Heart		
Increased breathing rate		
Flaring nostrils		
Intercostal retractions		
Cyanosis		
Increased pulse rate or weak pulse		
Fever		
Loss of weight		
Cough		
Clear, white, yellow, green, or bloody sputum		
Prolonged expiration		
Uneven expansion of chest		
Flat percussion note		
Absent or reduced breath sounds		
Abnormally high blood pressure of 140/90 and above		
Abnormally low blood pressure of 90/60 and below		
Heart murmur		
Irregular heart beat		
Crushing, squeezing, radiating chest pain		
Enlarged neck veins		
Shortness of breath		
Cool, damp, and pale skin		
Rales		
Rhonchi		
Wheezing		
Bronchial breath sounds		
Difficulty breathing		
Barrel chest		
Pitting edema of ankles and lower back		

	DATE OF CERTIFICATION	COMMENTS
Gastrointestinal		
Abdominal swelling		
Guarding, tenderness in the abdomen		
Rebound tenderness		
Ascites		
Enlarged and tender liver, spleen		
Jaundice		
Dehydration		
Anemia		
High pitched percussion note		
Increased or decreased bowel sounds		
Enlarged anal vessels		
Anal fissures		
Genitourinary		
Blood in the urine		
Protein in the urine		
Swelling of the face and legs		
Urethral discharge		
Fever and chills		
High blood pressure		
Enlarged and tender bladder		
Pleural effusion		
Ascites		
Pitting edema of the arms and legs		
Enlarged prostate gland		
Soft, tender prostate associated with urethral discharge		
Vaginal discharge		
Generalized body rash		
Lesions on the external genitals		
Palpation and percussion of the loin for kidney pain		
Skin		
Macule		
Papule		
Vesicle		

	DATE OF CERTIFICATION	COMMENTS
Ulcer		
Burrow		
Pustule		
Dental, Eyes, Ears, Nose, and Throat		
Inflammation of the conjunctivae over the sclerae		
Inflammation around the iris		
Inflammation of the conjunctivae inside the upper eyelids		
Dry eyes		
Bitot's spots		
Foreign body		
Irregularly shaped pupils		
Dilated pupils		
Constricted pupils		
Color of the teeth, gums, and mucous membranes		
Cavities of the teeth		
Color, size, shape, and location of lesions in the mouth		
Bleeding of gums at the base of the teeth		
Swelling of gums, cheek, or jaw		
Loose teeth		
Pain or discomfort when palpating the teeth or gums		
Pain when tapping a tooth		
Tender or hard mass inside the mouth		
Tender and enlarged lymph glands in the neck		
Foul odor from the mouth		
Loss of hearing		
Color and smell of discharge from ear		
Pain when ear is pulled		
Color and consistency of discharge from the nose		
Color of mucous membranes inside the nose		
Swelling of mucous membranes inside the nose		

	DATE OF CERTIFICATION	COMMENTS
Severe pain in sinus above the eye or over the cheek when the sinus is tapped		
Inflamed and swollen tonsils with exudate		
Back of throat inflamed		
Swollen epiglottis		
Foreign body in the ear, nose, back of throat, or on the tonsil		
Swollen and painful lymph glands below the ear, jaw, or in front of the neck		
Infectious Diseases		
High, constant fever		
Up and down pattern of fever		
Step ladder pattern of fever		
Low pulse rate and high fever		
Convulsions		
Neck stiffness		
Leg response when neck is bent		
Tight or bulging anterior fontanelle		
Rigid smile		
Throat spasms		
Bright red throat with gray membrane covering the tonsils and pharynx		
Unusually large, swollen lymph glands on both sides of the neck		
Enlarged and tender spleen		
Light colored skin patch with loss of sensation		
Loss of sensation in the hands and feet		
Enlarged and tender nerves		
Flat, red rash on the abdomen		
Very red face		
Bright red, inflamed conjunctivae		
Jaundice		
Abdominal swelling and tenderness		
Other Common Problems		
Limited movement of a joint		
Joint inflammation with redness, swelling, tenderness, or warmth		

	DATE OF CERTIFICATION	COMMENTS
Rough sensation when a joint is moved		
Joint deformity		
Positive straight leg raising test		
Leg muscle weakness		
Loss of sensation in one leg		
Tenderness over the sciatic nerve		
Muscle spasms and tenderness		
Fever		
Weight loss		
Enlarged smooth or nodular thyroid gland		
Puffy face with a dull, uninterested expression		
Slow, slurred speech with a low pitched voice		
Slow body movements		
Thick, dry skin		
Coarse, brittle hair		
Bulging, staring eyes		
Fine tremors of the hands		
Increased resting pulse rate		
Moist skin		
Fine, silky hair		
Hoarseness		
Loss of consciousness		
Paralysis of one side of the face		
Paralysis of an arm or leg on one side		
Difficulty speaking		
Hard lump or mass anywhere in the body		
Pale or white conjunctivae		
Pale or white mucous membranes of the mouth		
Pale or white nail beds		
Obesity		
Unusual behavior		
Abnormal emotional state		

	DATE OF CERTIFICATION	COMMENTS
Abnormal mental state		
Sudden loss of speech		
Sudden loss of vision		
Sudden loss of hearing		
Sudden paralysis or loss of sensation in an arm or leg		
Enlarged and tender liver		
Trauma and Emergency		
Gagging		
Absence of respiratory effort		
Cyanosis		
Anxiety and restlessness		
Cold and clammy skin		
Pallor		
Rapid and weak pulse		
Low blood pressure		
Rapid and shallow breathing		
Decrease in urine output		
Large, red welts on the skin		
Wheezing		
Decreased consciousness		
Dilated, pinpoint, or unequally sized pupils and the abnormal reaction of pupils to light		
Neck stiffness in an unconscious patient		
Tenting of the skin in an unconscious patient		
Bulging fontanelles in an unconscious patient		
Convulsions in an unconscious patient		
Black-and-blue skin around a bite		
Drooping eyelids and slurred speech		
Bleeding from the gums and mouth		
Burns around the mouth		
Sweating and drooling		
Slow and shallow breathing		

	DATE OF CERTIFICATION	COMMENTS
Unusual odor on a patient's breath		
Spurting bright red blood		
Dark red blood		
Limited movement of a joint distal to a wound or bite		
Loss of sensation distal to a wound or bite		
Jagged cut		
Clean cut		
Puncture		
Deformity of a limb or joint		
Black-and-blue skin		
Reddened skin		
Oozing blisters		
White or charred skin		
Loss of vision		
Depression in the skull		
Watery discharge or blood from the nose or ears		
Paralysis of arms or legs		
Absent or decreased breath sounds		
Frothy bubbles from a chest wound		
Collapse of the chest on breathing in		
Expansion of the chest on breathing out		
Rebound tenderness		
Muscle guarding		
Absence of bowel sounds		
Prenatal Care		
Enlarged, slightly tender breasts		
Slightly enlarged uterus		
Soft, bluish cervix		
Bluish purple vaginal walls		
Labor and Delivery		
Early rupture of the membranes		
Urine in the bladder		

	DATE OF CERTIFICATION	COMMENTS
Premature labor		
Retained placenta		
Incomplete fetal rotation		
Prolonged labor		
Fetal distress		
Maternal distress		
Small or abnormally shaped pelvis		
Face-up presentation		
Face presentation		
Breech presentation		
Transverse presentation		
Multiple pregnancy		
Prolapse of the cord		
Rupture of the uterus		
Preeclampsia or eclampsia		
Bleeding		
Postpartum bleeding		
Postnatal Care		
Painful swollen breasts		
Lack of breast milk		
Enlarged anal veins		
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		
Low abdominal pain		
Spongy uterus		
Mother with a dead baby		
Scaly, oily crusts on the scalp		

	DATE OF CERTIFICATION	COMMENTS
Red, irritated skin beneath the diaper		
Clear discharge from the nose		
Jaundice		
Swelling of the scalp		
Swelling with hard edges and soft center on the scalp		
Inability to move one side of 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		
Diseases of Infants and Children		
Poor growth rate		
Flaking skin		
Edema		
Decreased subcutaneous fat and muscle mass		
Dry lips and mouth		
Dry and tenting skin		
Sunken eyes		
Sunken fontanelle		
Rigid posture		
Fits or convulsions		
Redness or foul odor around an umbilical stump		
Jaundice		
Red, pussy eyes in newborns		

	DATE OF CERTIFICATION	COMMENTS
White or gray patches on the tongue and mucous membranes of the mouth		
White spots on the lining of the cheeks		
Stridor		
Trouble breathing		
Intercostal retractions		
Whooping cough		
Measles rash		
Enlarged parotid gland		
Chicken pox rash		
Weakness of arms or legs		
Swelling and tenderness in joints		
Heart murmur		
Enlarged and tender finger and toe joints		
Enlarged liver		
Enlarged spleen		
Tenderness, redness, swelling, and heat over bone		
Problems of Women		
Fever		
Tenderness in the lower abdomen with guarding		
Rebound tenderness		
Foul smelling discharge from the vagina		
White, yellow, or yellow-green discharge from the vagina		
Pussy discharge from the vagina		
Frothy discharge from the vagina		
Tenderness when the uterus is moved		
Inflammation of the external genitals		
Inflammation of the walls of the vagina		
Inflammation of the cervix		
Tender mass in the areas on either side of the uterus		
Mass in the uterus		

	DATE OF CERTIFICATION	COMMENTS
Breast lumps		
Breast lump attached to the skin or the wall of the chest		
Discharge from the nipple		
Abnormal shape or color of the nipple		
Enlarged lymph glands in the underarms		
Smooth and pale walls of the vagina		
Anemia		
Bleeding from the vagina		
Infection of a wound		

Methods of Sharing Health Messages

This mid-level health worker has demonstrated competence in using the following methods of sharing health messages, where dated.

	DATE OF CERTIFICATION	COMMENTS
Respiratory and Heart		
Health messages for the patient		
Health messages and storytelling		
Gastrointestinal		
Using simple visual aids to share health messages		
Genitourinary		
Sharing health messages about the prevention and care of diseases spread by sexual contact		
Skin		
Presenting health messages to groups		
Infectious Diseases		
Developing and presenting health messages about leprosy		
Other Common Problems		
Supporting the person with a chronic illness		
Postnatal		
Choosing and distributing health education material and giving health talks		
Diseases of Infants and Children		
Using a demonstration to share health messages		

Managing Problems and Diseases

This mid-level health worker has demonstrated competence in managing the following problems and diseases, where dated.

	DATE OF CERTIFICATION	COMMENTS
Respiratory and Heart		
Pneumonia		
Acute bronchitis		
Chronic bronchitis and emphysema		
Bronchial asthma		
Pleural effusion		
Tuberculosis		
Congestive heart failure		
Rheumatic heart disease		
Angina pectoris		
Myocardial infarction		
Hypertension		
Gastrointestinal		
Amebiasis		
Giardiasis		
Peptic ulcer		
Gastroenteritis		
Roundworms		
Pinworms		
Tapeworms		
Hookworms		
Viral hepatitis		
Cirrhosis		
Acute abdomen		
Acute appendicitis		
Intestinal block		
Hemorrhoids		
Anal fissures		

	DATE OF CERTIFICATION	COMMENTS
Genitourinary		
Urinary tract infections		
Stones in the urinary tract		
Nephritis		
Nephrotic syndrome		
Enlarged prostate gland		
Prostatitis		
Scrotal swelling		
Gonorrhea		
Syphilis		
Skin		
Impetigo		
Scabies		
Lice		
Ringworm		
Tinea versicolor		
Cellulitis		
Boils and abscesses		
Tropical ulcers		
Herpes simplex		
Eczema		
Onchocerciasis		
Contact dermatitis		
Skin reactions to drugs		
Dental, Eyes, Ears, Nose, and Throat		
Sty		
Conjunctivitis		
Trachoma		
Cataracts		
Vitamin A deficiency		
Foreign body in the eye		
Cuts and ulcers in the cornea		
Eye emergencies		

	DATE OF CERTIFICATION	COMMENTS
Canker sores		
Gingivitis		
Acute ulcerative gingivitis		
Tooth decay		
Dental abscess		
Acute upper respiratory infection		
Acute otitis media		
Chronic otitis media		
Mastoiditis		
External otitis		
Wax in the ears		
Acute sinusitis		
Acute bacterial tonsillitis		
Foreign body in ears, nose, and throat		
Nosebleeds		
Infectious Diseases		
Typhoid fever		
Tetanus in children and adults		
Rabies		
Malaria		
Louse-borne typhus		
Meningitis		
Diphtheria		
Leprosy		
Other Common Problems		
Low back pain caused by muscle strain or sprain of the sacroiliac joint		
Low back pain caused by disk disease		
Osteoarthritis		
Rheumatoid arthritis		
Septic arthritis		
Simple goiter		
Hypothyroidism		

	DATE OF CERTIFICATION	COMMENTS
Hyperthyroidism		
Headache		
Stroke		
Grand mal epilepsy		
Petit mal epilepsy		
Anemia		
Cancer		
Diabetes mellitus		
Acute confusion		
Anxiety		
Depression		
Acute alcohol intoxication		
Chronic alcoholism		
Trauma and Emergency		
Shock		
Unconsciousness		
Blocked airway		
Acute respiratory failure		
Snake bite		
Poisoning		
Bleeding		
Lacerations		
Fractures		
Sprains		
Dislocations		
Burns		
Trauma to the eye		
Trauma to the head		
Trauma to the spinal column		
Trauma to the chest		
Trauma to the abdomen		
Problems of Women		
Pelvic inflammatory disease		
Non-specific vaginitis		
Trichomonal vaginitis		

	DATE OF CERTIFICATION	COMMENTS
Monilial vaginitis		
Cancer of the uterus or cervix		
Fibroid tumor in the uterus		
Tumor of the ovary		
Breast lumps		
Menstrual cramps		
Side effects of contraceptives		
Menopause		
Atrophic vaginitis		
Prenatal Care		
Morning sickness		
Heartburn		
Constipation and hemorrhoids		
Vaginitis		
Pain or burning on urination		
Anemia		
Chronic cough		
Swollen, twisted veins		
Backache		
Shortness of breath		
Severe anemia in pregnancy		
Diabetes in pregnancy		
Heart disease in pregnancy		
Ectopic pregnancy		
Septic abortion		
Preeclampsia and eclampsia in pregnancy		
Fetal death		
Bleeding early in pregnancy		
Bleeding late in pregnancy		
Malaria in pregnancy		
Sickle cell disease in pregnancy		
Labor and Delivery		
Fetal distress		
Maternal distress		

	DATE OF CERTIFICATION	COMMENTS
Urine in the bladder during labor		
Premature labor		
Incomplete fetal rotation		
Small or abnormally shaped pelvis		
Early rupture of the bag of waters		
Retained placenta		
Prolonged labor		
Breathing problems of a newborn		
Face-up presentation		
Face presentation		
Breech presentation		
Transverse presentation		
Multiple pregnancy		
Prolapse of the cord		
Rupture of the uterus		
Preeclampsia or eclampsia during labor		
Bleeding during labor		
Postpartum bleeding		
Emergencies in a newborn		
Postnatal care		
Swollen breasts		
Lack of breast milk		
Hemorrhoids		
Cracks on nipples		
Breast abscess		
Puerperal sepsis		
Unrepaired perineal tears		
Mother with a dead baby		
Cradle cap		
Diaper rash		
Colds		
Simple jaundice in the newborn		
Simple swelling of the scalp and bleeding into the scalp in the newborn		

	DATE OF CERTIFICATION	COMMENTS
Fractures in the newborn		
Diarrhea in the newborn		
Fever in the newborn		
Low birth weight		
Abnormal jaundice in the newborn		
A newborn without a mother		
Diseases of Infants and Children		
Tetanus of the newborn		
Septicemia in the newborn		
Infected umbilical cord		
Bleeding umbilical cord		
Gonococcal conjunctivitis of the newborn		
Thrush in the newborn		
Malnutrition		
Diarrhea and dehydration		
Croup		
Whooping cough		
Measles		
Mumps		
Chicken pox		
Poliomyelitis		
Rheumatic fever		
Sickle cell anemia		
Osteomyelitis		

Patient Care Procedures

This mid-level health worker has demonstrated competence in the following patient care procedures, where dated.

	DATE OF CERTIFICATION	COMMENTS
Respiratory and Heart		
Collection of sputum from a suspected tuberculosis patient		
Gastrointestinal		
Passing a nasogastric tube		
Genitourinary		
Testing urine for protein		
Catheterization of the bladder of a male		
Skin		
Using soaks to treat skin lesions		
Opening and draining boils and abscesses		
Dental, Eyes, Ears, Nose, and Throat		
Cleaning a patient's eyelids		
Application of eye ointment or eye drops		
Locating and removing a foreign body from the eye		
Scaling teeth		
Local dental anesthesia		
Temporary filling		
Dental extraction		
Cleaning pus from a draining ear		
Removing a foreign body from an ear		
Removing a foreign body from a child's nose		
Removing a foreign body from the throat		
Controlling nosebleeds		
Removing wax from an ear canal		
Infectious Diseases		
Preparing blood smears for diagnosis of malaria		

	DATE OF CERTIFICATION	COMMENTS
Other Common Problems		
Teaching a patient how to give himself an insulin injection		
Trauma and Emergency		
Starting an intravenous infusion in a peripheral vein		
Removing a foreign body from a person's throat with your fingers		
Using back blows to clear a person's blocked airway		
Using manual thrusts to clear an adult's blocked airway		
Performing mouth-to-mouth respiration		
Applying a pressure dressing		
Using a tourniquet to control bleeding		
Cleaning lacerations		
Giving a local anesthetic		
Removing dead tissue from a wound		
Suturing superficial lacerations using a simple, interrupted stitch		
Applying a triangular bandage to hold dressings to a shoulder, hip, or groin		
Applying a triangular bandage to hold dressings to an elbow or knee		
Applying a triangular bandage to hold dressings to a hand, foot, or stump		
Splinting a fractured upper arm		
Splinting a fractured forearm or wrist		
Splinting a fractured shoulder blade		
Splinting a fractured collar bone		
Splinting a fractured upper leg		
Splinting a fractured lower leg		
Splinting a fractured knee cap		
Splinting a fractured ankle or foot		
Using a triangular bandage to make an arm sling		
Restoring a dislocated shoulder		
Bandaging a sprained joint		
Applying a triangular bandage to the scalp and head		

	DATE OF CERTIFICATION	COMMENTS
Applying a triangular bandage to the chest or back		
Placing a patient with a possible fracture of the spinal column on a blanket		
Placing a patient on a stretcher using a blanket and the help of six people		
Placing a patient on a stretcher with the help of four people, but without using a blanket		
Labor and Delivery		
Assisting a delivery in a home		
Assisting a delivery in a health center		
Performing and repairing an episiotomy		
Cutting an umbilical cord		
Repairing perineal lacerations		
Manually removing a placenta		
Assisting delivery in a multiple pregnancy		
Assisting delivery in a breech presentation		
Diseases of Infants and Children		
Preparation and use of oral rehydration fluid		
Scalp vein intravenous rehydration		
Peripheral vein intravenous rehydration		
Teaching mothers how to express breast milk		
Feeding a baby by nasogastric tube		
Child Spacing		
Finding the correct size diaphragm for a woman		
Teaching a woman to use a diaphragm		
Inserting an intrauterine device (IUD)		
Removing an intrauterine device (IUD)		

COMMUNITY HEALTH AND HEALTH CENTER MANAGEMENT

This mid-level health worker has demonstrated competence in performing the following community health and health center management related practices, where dated.

	DATE OF CERTIFICATION	COMMENTS
Prerequisites for the Community Phase		
Talk to a person to gather information		
Make and use a simple map		
Use environmental health checklists to identify environmental health problems		
Identify locally available foods and prepare a typical meal		
Prepare a checklist of questions to identify high risk pregnant women, mothers, and newborns		
Use the arm measurement technique to determine the nutrition status of infants and children		
Use a growth chart to assess the growth of infants and children		
Make a map of the general area around a community		
Make a detailed map of a community		
Conduct a household survey of at least twenty-five households		
Use the environmental health checklists to identify environmental health problems in the community		
Talk to community leaders, health and development workers, and school workers in a community to find out their ideas about the community's health needs		
Prepare and present a report of your survey findings		
Level I and Level II Performance Requirements for the Community Phase		
Develop a plan which outlines how you are going to approach the community to which you have been assigned		

	DATE OF CERTIFICATION	COMMENTS
Operate health center facilities and equipment correctly		
Do the preventive maintanence jobs listed in Section 3.2 of the Operations manual		
Do the repair jobs listed in Section 3.6 of the Operations manual		
Operate a bicycle and motorcycle		
Do the maintenance and repair procedures for bicycles and motorcycles listed in Sections 4.7 and 4.8 of the Operations manual		
Demonstrate how to discuss primary health care in a community meeting		
Describe the role of community health workers in a meeting with community leaders		
List selection criteria for community health workers		
Meet with community leaders to discuss the community's current health status and possible community health activities		
Initiate and take part in a community meeting to discuss the community's health needs and possible community health activities to meet these needs		
Help community members choose priorities among community health activities based on their needs, resources, and willingness to do something about their needs		
Work with community members to plan one priority health activity		
Develop plans to carry out two health message activites based on the community's needs		
Develop a plan to carry out one community health activity on your own or with the help of one or two others		
Write a report of all the activities that you carry out		
Level III Performance Requirements for the Community Phase		
Begin carrying out one priority health activity with the community		
Carry out and evaluate two health message activities in the community		

	DATE OF CERTIFICATION	COMMENTS
Carry out and evaluate one community health activity on your own or with the help of one or two others		
Prepare a written report of the activities that you carry out. Include problems and accomplishments		
Write a brief summary of the things you learned about planning and carrying out community health activities		
Work as a member of a district health team and a health center team		
Plan, carry out, and evaluate work		
Work with a team in solving problems		
Make work plans for a health center		
Assign responsibility to team members		
Make work schedules for a health team		
Evaluate team work and the primary health care program		
Supervise a health team		
Inventory, order, receive, and inspect drugs, medical supplies, and general supplies from the ministry of health		
Obtain drugs, medical supplies, and general supplies from outside the ministry of health if the ministry of health system breaks down		
Store and protect drugs, medical supplies, and general supplies		
Inventory the facilities and equipment at the health center and write out maintenance schedules if none exist		
Organize the community to do the necessary repairs of health center facilities and equipment		
Survey transportation and communication resources in the community		
Write out a transportation schedule and emergency transportation plan for the health center if none exist		
Use the available communication resources to take care of health center activities		
Recruit, select, orient, and evaluate locally hired personnel for the health center		

	DATE OF CERTIFICATION	COMMENTS
Schedule staff leave, take any necessary disciplinary action, handle employee grievances, and handle all other personnel matters		
Submit a needs request for the annual budget		
Enlist community support to supplement the health center budget		
Use the payroll system		
Collect, record, store, and transfer money from health center operations and handle all other financial matters		
Arrange adequate protection for the health center		
Organize and maintain health center records		
Do at least one evaluation of the management systems of the health center using a checklist developed in class		
Draft Handing-Over Notes for your supervisor at the end of your three month experience		
Identify health needs for training community health workers based on the needs of the community		
Discuss with community members the role of community health workers in primary health care		
Help the community select a community health worker		
Organize the training of community health workers		
Train community health workers in promotive, preventive, and curative skills		
Support community health workers in their work		

Section 2

Knowledge Assessment

This section of the Training Evaluation Manual contains the pretest and posttest questions and answers for each mid-level health worker training module.

The prototype training schedule includes two days for pretests. The first pretest occurs during the first week of training. Students answer pretest questions from Working with the Health Team, Identifying the Preventive Health Needs of the Community, all the basic clinical knowledge and skills modules, and all the general clinical modules. The second pretest occurs during the last week of the fourth month of training. Students answer pretest questions for all the maternal and child health modules, for Meeting the Preventive Health Needs of the Community, for Working with Support Systems, and for Training and Supporting Community Health Workers.

Use this pretest schedule or whatever pretest schedule best fits into your training schedule. Most importantly, use the pretests to define each student's strengths and weaknesses in a particular subject. With this information, you can adjust your training schedule by adding, deleting, or changing the learning activities and experiences.

Students should take posttests for each module immediately after completing classroom training for that module.

Pretests and Posttests

Pretests I

Identifying the Preventive Health Needs of the Community

1. Describe a healthy community. List some characteristics of a healthy community.

   A community is healthy when the community members work together well. A healthy community can do the things it wants to do. A healthy community has plenty of good food, good weather, land to cultivate, clean water, and good health habits. A healthy community has someone to care for sick people, community members who care for each other and work together, adequate housing and clothing, education, and common cultural traditions and beliefs.

2. People and communities are healthy or sick for many reasons. However, the causes of health and disease generally fall into four areas. Name these four areas.

   a. *Causes related to the individual*
   b. *Causes related to other living things*
   c. *Causes related to the environment*
   d. *Causes related to culture*

3. Why is it important to look at the whole picture when you are trying to identify causes of health and disease in a community?

   Health and disease are not the result of a single factor. Rather, several different factors usually work together to cause health or disease. Looking at the whole picture means looking carefully at all the possible causes of health or disease in a community. This is important because in order to prevent disease, you must identify its causes.

4. Getting to know the community means understanding the community's needs. What else does it mean?

   It also means finding out which needs community members feel are most important, whether they are willing to work to take care of these needs, and whether resources are available to meet the needs.

5. Describe some of the sources of information you should use to get to know the community.

   Talking to people in their homes can provide information about health needs in homes, how people feel about these needs, and their health beliefs and habits.

Informal social groups may be a useful resource for developing community health activities. Information from teachers and other people who work in schools will help you understand the health needs of children. Information from traditional health practitioners and other community health workers can give you an idea of the kinds of health activities that have been successful and those that have not. Information from development workers can help ensure the most efficient use of scarce resources.

6. What three areas should you focus on to learn about a community's health needs?

   a *Environment*

   b *Nutrition*

   c *Health of mothers and children*

7. List the five parts of the environment that can cause disease.

   a *A lack of water*

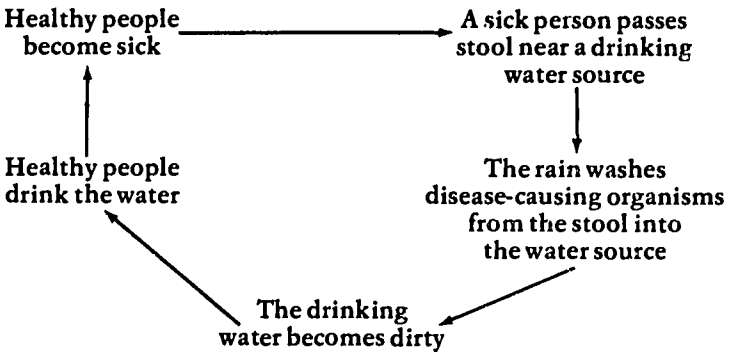
   b *Dirty water*

   c *Garbage and trash*

   d *Human and animal wastes*

   e *Insects and rodents*

8. Draw a cycle of events that shows how dirty water can cause disease.



9. TRUE(T) or FALSE(F)

   F Surface water is water from a spring or well.

   T Finding out about the environment also means identifying possible resources for environmental health activities and finding out about how people in the community feel about their environment.

10. What is good nutrition?

    Good nutrition means eating the right foods in the right amounts at the right times.

11. Breast milk has several advantages over other kinds of food for infants. List at least three.

    a. *Breast milk has body-building, energy, and protective nutrients in the right amounts for a growing infant.*
    b. *Breast milk is clean.*
    c. *Breast milk costs less than other types of milk.*
    d. *Breast milk contains antibodies that help protect the infant from infection and disease.*

12. What three things does nutrition in a community depend on?

    a. *Locally available foods*
    b. *Family food economics and distribution*
    c. *Traditional customs related to food*

13. What five questions should you ask to find out about beliefs and practices related to pregnancy and childbirth?

    a. *Do women take part in special practices or receive special treatments during pregnancy?*
    b. *What do pregnant women eat or not eat? Why?*
    c. *Where do they go for advice?*
    d. *What do pregnant women know about problems or dangerous conditions during pregnancy?*
    e. *Who usually assists deliveries in the community? What do they do?*

14. Name at least three factors that would make a pregnant woman at risk.

    a. *Under age sixteen*
    b. *Over age thirty-five*
    c. *A history of more than five pregnancies*
    d. *A long-lasting illness*

15. Which four basic nutrition messages can you use as a starting point in determining the reasons for inadequate food intake?

    a. *Feed an infant breast milk for the first six months and continue breast-feeding for at least two years.*

    b. *Add soft, mixed foods at four to six months at least four to six times a day.*

    c. *Use a clean cup and spoon for feeding if breast-feeding is not possible. Use a bottle only in emergencies.*

    d. *Continue to feed an ill child.*

16. Explain how diarrhea affects a child's growth and development. Explain how to care for a child with diarrhea.

    A child with diarrhea loses nutrients and fluids from his body. Therefore, he does not have what he needs to grow. Some families withhold food from a child with diarrhea. This worsens his condition. The child needs oral rehydration therapy and continued feeding to replace the nutrients and fluids that he has lost.

17. At what ages should you give a child each of these vaccines?

    DPT: *Three months, five months, seven months, eighteen months*

    DT: *When the child enters primary school*

    Oral polio vaccine: *Three months, five months, seven months, eighteen months, when the child enters primary school (5 - 6 years)*

    Measles vaccine: *Nine months*

    BCG: *Birth*

18. What is your role in helping a community choose priority health activities?

    Your role is to present your opinions and advice based on your training and experience. You should listen and not force people to go your way. You should look out for the interests of the entire community. Your role is to observe, listen, and then express your views.

19. After the priorities are chosen, the next step is to decide how to carry out these activities. What else should be part of getting ready for action at this time?

    A plan for determining if the activities are successful is another part of getting ready for action.

20. What is two-way communication?

    Two-way communication means that both you and the person or persons with whom you are talking have something to give and something to take from the discussion.

You do not do all the talking. You listen to find out what others already know. Then you discuss any new information. You encourage others to ask questions and make comments.

21. What is one of the most effective ways of sharing health messages? Why?

Being an example to people in the community is an effective way of sharing health messages. If you do what you tell other people to do, they have more faith in what you say. They are then more likely to practice healthy habits themselves.

Working with the Health Team

1. Describe a health team in your own words.

   A health team is a group of people who work together to promote better health in a community.

2. Why is a team used to deliver primary health care services?

   Primary health care services require too much work and too many skills for one person. Only a team has the time and the skills to provide all the services needed.

3. Name the four levels of the national primary health care system.

   Level 4: *Central*
   Level 3: *District*
   Level 2: *Health center*
   Level 1: *Community*

4. TRUE (T) or FALSE (F)

   _T_ A specialty hospital normally admits only referred patients.

   _T_ A mid-level health worker usually does not refer patients to specialty hospitals.

   _F_ The specialty hospitals are the most important health facilities in the country.

   _F_ Communities play an important role in the support of specialty hospitals.

5. Match the health team members with their job responsibilities.

TEAM MEMBER	JOB RESPONSIBILITY
a. Community health worker	_g_ Advises communities how to build latrines
b. Mid-level health worker	_a_ Provides preventive health care and simple patient care at the community level
c. Community health committee	_d_ Sets nursing care standards in a district

d. District nursing officer	_b_ Provides support for community health workers
e. Guard	_c_ Provides support and daily supervision for the community health worker
f. District hospital administrator	_b_ Supervises mid-level health workers in a district
g. District health inspector	_f_ Runs the district hospital
h. Supervisory mid-level health worker	_e_ Maintains the health center grounds

6. TRUE (T) or FALSE (F)

   _F_ Some mid-level health workers do not need to be managers.

   _T_ Every person has some management skill.

   _F_ Management skills will make a mid-level health worker's job more difficult during the first year.

   _T_ Management skills improve with practice.

7. TRUE (T) or FALSE (F)

   _T_ Mid-level health workers with a positive attitude are likely to be considerate of patients.

   _F_ A positive attitude is not an essential part of successful management.

   _F_ Once a mid-level health worker develops a positive attitude, it never wavers.

   _T_ A mid-level health worker's positive attitude influences team members in a positive way.

   _F_ A mid-level health worker with a positive attitude is usually uncertain about the value or success of his work.

8. A team leader must have authority to lead a health team. Name the two types of authority and how a leader gets them.

   a. *Formal authority is given to a leader.*

   b. *Earned authority is earned by doing a job well.*

9. List five leadership skills needed by mid-level health workers.

   a. *Communicating with team members*

   b. *Motivating and supporting team members*

   c. *Disciplining team members*

   d. *Training team members*

   e. *Resolving conflicts among team members*

10. You have noticed that your health center team seems to be working without the interest it used to have. How could you motivate team members? Describe five ways.

a. *Set a good example.*
b. *Reward good work and help correct poor work.*
c. *Make people feel they are doing an important job.*
d. *Make people feel they are taking part in team decisions.*
e. *Give people new knowledge, skills, and responsibilities.*

11. Evaluation is:

Assessing how a person or a program works

Anatomy and Physiology

1. Anatomy is the study of the *structure* of the body. Physiology is the study of the *functions* of the body.

2. List the four basic levels of organization within the body.

   a. *Cells*
   b. *Tissues*
   c. *Organs*
   d. *Organ systems*

3. List eight organ systems.

   a. *Skeletal and muscle systems*
   b. *Respiratory system*
   c. *Circulatory system*
   d. *Digestive system*
   e. *Reproductive system*
   f. *Urinary system*
   g. *Nervous system*
   h. *Hormone system*

4. Match the terms in column A with the definitions in column B. Write the letter of your answer in the space provided.

A	B
f Anterior	a. Back
a Posterior	b. Outside
d Lateral	c. Away from the center
g Medial	d. Toward the side
c Distal	e. Inside
b Proximal	f. Front
b External	g. Toward the middle
e Internal	h. Toward the center

5. Diseases upset the stable environment within the body. What is the goal of health care in this regard?

   The goal of health care is to keep the internal environment stable and to reestablish it when it is upset.

6. Name the four parts of the blood.

   a. *Red blood cells*
   b. *White blood cells*
   c. *Platelets*
   d. *Plasma*

7. ___*Iron*___ is important in the formation of hemoglobin.

8. What is the function of the white blood cells?

   Help protect the body against disease-causing organisms

9. Name the five functions of the skeletal system.

   a. *Support*
   b. *Movement*
   c. *Protection of organs*
   d. *Storage of minerals*
   e. *Cell production*

10. Discuss how you can use the fontanelles to detect disease in an infant.

    Meningitis or bleeding into the brain increases the pressure in the skull. Increased pressure in the skull makes the fontanelles bulge out. Dehydration causes the fontanelles to sink in.

11. A ___*joint*___ is the place where two bones join together.

12. Describe the function of the skeletal muscles.

    Skeletal muscles control the movement of the arms, legs, spine, and head.

13. In order for a muscle to move well, two conditions must be met. Describe these two conditions.

    a. *The muscle must be attached at both ends to a bone.*
    b. *The nerves must be working well.*

14. When a person breathes in air, the air passes through many structures. List the structures that the air passes through. Start with the nose and end with the red blood cells.

    Nose→throat→larynx→trachea→bronchi→bronchioles→alveoli→capillaries→red blood cells

15. TRUE(T) or FALSE(F)

    ___*T*___ The heart is a pump.

    ___*T*___ The heart is located between the lungs and behind the breast bone.

    ___*F*___ The lower chambers of the heart are called the atria.

_T_ Capillaries connect arteries and veins.

_F_ The pressure inside the capillaries is very high.

_F_ Blood spurts out when a vein is cut.

16. Describe the flow of blood from the left side of the heart to the right side of the heart.

Blood comes from the lungs in the pulmonary veins to the left atrium and then is pushed into the left ventricle. The blood is forced from the left ventricle into the arteries. The arteries carry the blood to the capillaries in all the body tissues. From the capillaries the blood goes to the veins and then to the right side of the heart.

17. What causes the heart sounds?

The closing of the four valves between the chambers of the heart cause the heart sounds.

18. The blood pressure is the force of the heart's contractions. It is usually measured in the arteries. Answer these questions about the blood pressure.

a. What is the systolic pressure?

Systolic pressure is the pressure in the arteries when the ventricles contract and pump blood out of the heart.

b. What is the diastolic pressure?

Diastolic pressure is the pressure in the arteries when the ventricles relax.

c. Normal blood pressure is 120/80.

Which number is the systolic pressure? _120_

Which number is the diastolic pressure? _80_

19. Name four factors that affect the blood pressure.

a. Heart rate
b. Volume of blood
c. Volume of the circulatory system
d. Salt

20. Name the three main functions of the digestive system.

a. Digestion
b. Absorption
c. Elimination

21. Briefly describe the functions of these structures or organs in the digestive system.

a. Mouth: *In the mouth, food is broken down into smaller pieces and mixed with fluids. Chemicals are added that begin digestion by changing foods into simpler forms.*

b. Stomach: *The stomach churns and mixes food. The stomach secretes acids and other chemical substances that help digest food.*

c. Small intestine: *Most of the digestion and absorption of food takes place in the small intestine.*

d. Liver: *The liver changes nutrients into chemical substances that the body cells need to live and grow. The liver also removes harmful waste products from the blood.*

e. Large intestine: *The large intestine collects waste products and moves them toward the anus to be eliminated from the body.*

22. Name the two functions of the urinary system.

a. The urinary system removes waste products that are released into the blood by the cells of the body.

b. The urinary system regulates the amount of water and minerals that are carried in the blood.

23. Describe the production and transport of urine.

The fluid in the blood passes through the capillaries of the kidneys and collects in small sacs. Connected to each sac is a tiny kidney tube, or tubule. Waste products from the blood remain in the kidney tubules. The waste materials, called urine, pass from the kidney tubules to the ureters and into the bladder. The urine fills up the bladder. A person empties his bladder through the urethra.

24. Match the terms in column A with the descriptions in column B. Write the letter of your answer in the space provided.

A	B
_b_ Testes	a. Produces mucus that mixes with milky fluid from the prostate gland and sperm from the testes
_c_ Scrotum	b. Produce sperm
_f_ Vas deferens	c. Sac of skin that hangs below and behind the penis
_g_ Prostate gland	d. Formed inside the prostate gland by the tube from the seminal vesicles and the vas deferens
_a_ Seminal vesicles	e. Part of the urinary system and the reproductive system
_d_ Ejaculatory tube	
_e_ Urethra	

f. Coiled tube that runs up from the testes, into the pelvis, and over the bladder to enter the prostate gland

g. Produces a milky substance that is part of semen

25. The joining of an ovum and a sperm cell in a fallopian tube is called *fertilization*.

26. What is the menstrual cycle?

The period from the start of menstruation in one month until the start of menstruation the next month

27. Name the two functions of the nervous system.

a. *The nervous system sends messages to and receives messages from all parts of the body.*

b. *The nervous system coordinates all of the body's activities.*

28. What protects the spinal cord?

The vertebrae and the fluid that surrounds the spinal cord and the brain protect the spinal cord.

29. Name at least one function for each of these parts of the eye.

Eyelid: *Protects the eye from injury*

Blinking of the eyelids spreads tears

Tear glands: *Produce tears that keep the eyes moist and clean*

Retina: *Responds to light and allows you to see*

Changes light into sight messages

Conjunctiva: *Produces mucus that allows the eyelid to slide smoothly over the eye*

Pupil: *Changes size to control the amount of light that enters the eye*

Lens: *Adjusts automatically to light to allow you to see objects at different distances*

Optic nerve: *Carries sight messages from the retina to the brain*

30. The eye collects light from objects in the environment. This enables you to see. Chart the structures that light passes through from the environment to the brain.

Environment → cornea → pupil → lens → retina → optic nerve → brain

31. What is the function of the ears?

The ears receive sound messages and send them to the brain.

32. The ears collect sound waves and send them to the brain so that you can hear. What is the path of the sound waves from the environment to the brain?

Environment→outer ear→ear canal→eardrum→middle ear→nerves→brain

33. What are the two functions of the nose?

a. *The nose is the organ of smell.*
b. *The nose cleans, warms, and moistens the air that is breathed.*

34. The adult has *thirty-two* teeth.

35. The skin is made up of two layers. Name these two layers. Name at least one structure contained in each layer.

a. *Epidermis: Dead cells, fingernails, toenails*
b. *Dermis: Hair, oil glands, sweat glands, blood vessels, nerves*

36. Name the four main functions of the skin.

a. *Protection*
b. *Response to sensation*
c. *Regulation of body temperature*
d. *Excretion*

37. Describe the function of the hormone system.

The body uses the hormone system as one means of communication. One part of the body uses hormones to send messages to another part.

38. Name one function of the thyroid gland.

The thyroid gland regulates the activities of the cells of the body.

Medical History

1. Why do you take a medical history?

   You take a medical history to obtain information that will help you understand a patient's health problem.

2. Should you make a diagnosis by doing a physical examination and not a medical history? Why?

   No, you should not make a diagnosis by doing a physical examination and not a medical history. You combine the information from the medical history and the physical examination to make a diagnosis.

3. List seven items that make up the patient identification information.

   a Date of visit
   b Name
   c Address
   d Sex
   e Date of birth
   f Age
   g Marital status

4. What is the difference between a symptom and sign?

   A symptom is something that the patient tells you about. A sign is something that you detect or observe.

5. Write the presenting complaint of a patient who tells you:

   "I have had a cough for two months. Just recently, I have been very tired and have not wanted to eat."

   "Cough for two months with fatigue and loss of appetite"

6. A patient complains of "pain in the chest for one week." Name three body systems that you should be sure to review.

   a Respiratory
   b Heart
   c Gastrointestinal

7. What symptoms should you ask about when you review the gastrointestinal system?

   a *Nausea*
   b *Vomiting*
   c *Blood in vomit*
   d *Diarrhea*
   e *Constipation*
   f *Blood or mucus in stool*
   g *Heartburn*
   h *Abdominal pain*
   i *Pain or itching around the rectum*
   j *Worms*
   k *Fever*
   l *Chills*
   m *Weight loss*

8. List at least four findings in a medical history that would make you suspect that a patient has a problem of the nervous system.

   a *Headache*
   b *Convulsion*
   c *Fainting*
   d *Paralysis of an arm or leg*
   e *Loss of consciousness*
   f *Loss of speech*
   g *Loss of memory*
   h *Loss of sensation*

9. You are taking the past medical history of a male patient. What must you be sure to ask about?

   a *Drug allergies*
   b *Immunizations*
   c *Childhood illnesses*
   d *Adult illnesses*
   e *Operations*
   f *Accidents*
   g *Family history*
   h *Social history*

10. A patient tells you that he is allergic to penicillin. What should you do with this information?

    a *Do not give penicillin to the patient.*
    b *Tell the patient not to take penicillin from anyone else.*
    c *Write on the patient's record in large letters that he is allergic to penicillin.*

11. List at least six childhood illnesses that you should ask a patient about.

    a *Measles*
    b *Mumps*
    c *Whooping cough*
    d *Polio*
    e *Rheumatic heart disease*
    f *Tuberculosis*
    g *Kwashiorkor*
    h *Marasmus*

12. Why should you ask if a patient has had any operations?

    a. *This information may help you make a diagnosis.*

    b. *You might be able to see a pattern in his present illness by knowing about past operations.*

13. How does the medical history of a child differ from the medical history of an adult?

    a. *Added to the past medical history are questions about development and diet.*

    b. *Removed are questions concerning adult illness, menstrual and obstetrical history, occupation, and personal habits.*

14. List five questions to ask when you take the history of a child's diet.

    a. *Is the child still breast-feeding?*

    b. *What foods does the child eat?*

    c. *How much food does the child eat?*

    d. *How often does the child eat each day?*

    e. *Why does the child eat the foods that he does?*

Physical Examination

1. List the five methods of examination that you should use when you do a physical examination. Briefly describe each.

   a. *Inspect:* *Look carefully for signs*
   b. *Palpate:* *Touch or feel with your hands*
   c. *Percuss:* *Tap certain parts of the body to make a sound*
   d. *Auscultate:* *Listen with a stethoscope*
   e. *Smell:* *Notice odors given off from different areas of the body*

2. Complete these sentences:

   a. When measuring the blood pressure, the figure at which you hear the first beat of the pulse is the *systolic* blood pressure. The figure at which you can no longer hear the pulse is the *diastolic* blood pressure.

   b. When an adult is resting, his blood pressure should be between *90/60* and *140/90* .

3. Write the normal temperatures for each area:

   Mouth *37° C*
   Rectum *37.5° C*
   Armpit *36° C*

4. List the aspects of a patient's general appearance that you can observe during a physical examination.

   a. *State of health*
   b. *State of nutrition*
   c. *Behavior*
   d. *Mental state*
   e. *Speech*
   f. *Ability to walk*

6. What should you note when you palpate a patient's skin?

   a *Moisture*
   b *Temperature*
   c *Texture*
   d *Tenderness*

7. Explain what the figures 6/6 mean.

   The first number corresponds to the distance that the patient stood from the E chart. The second number corresponds to the last row that the patient saw.

8. Name the three areas that you should inspect when you examine the ears.

   a *Outside of the ears*
   b *Outside the ear canals*
   c *Mastoid areas*

9. List the methods that you should use when you examine the mouth and throat.

   a *Inspect*
   b *Palpate*
   c *Smell the breath*

10. List at least eight things that you should check for when you inspect the respiratory system.

    a *Rate and rhythm of breathing*
    b *Ease of breathing*
    c *Cyanosis*
    d *Shape of the chest*
    e *Chest expansion*
    f *Intercostal spaces*
    g *Nostrils*
    h *Wounds*
    i *Cough*
    j *Sputum*

11. Describe why you percuss the chest.

    You percuss the chest to find if the lungs are filled with air, fluid, or pus.

12. List six things that you should note when you inspect a woman's breasts.

    a *Size*
    b *Shape*
    c *Color*
    d *Dimpling*
    e *Discharge*
    f *Cracks*

13. Describe where the following organs are located in the abdomen.

    Liver: *right upper quadrant*
    Spleen: *left upper quadrant*
    Bladder: *middle of the lower abdomen, even with the pubic bone*

14. List three parts of the male genitals that you should feel when you palpate the scrotum.

    a *Skin of the scrotum*
    b *Testes*
    c *Spermatic cord*

15. What are you looking for when you examine the arms and legs?

    Edema

16. List five areas where you should check for nerve enlargement.

    a *Neck*
    b *Elbow*
    c *Wrists*
    d *Knees*
    e *Ankles*

17. Name five parts of the female genitals that you should inspect.

    a *Labia*
    b *Urethra*
    c *Vaginal opening*
    d *Vagina*
    e *Cervix*

18. List at least two abnormal signs that you might find in each of these areas when you examine a five-year-old child.

    General appearance:

    State of health

    Listless, sad, drooping appearance
    Child shows obvious signs of distress
    Uncontrollable crying and writhing

    State of nutrition

    Extreme thinness
    Obesity

Behavior

Unusual behavior
Strange movements
Shaking or rocking

Mental state

Child is sluggish
Child does not respond when you speak to him

Skin:

Color change, lesions, edema, tenderness, texture change, dehydration or sweating, hot and dry skin surface, cool and damp skin surface

Eyes:

Inability to see; red, swollen, puffy, or drooping eyelids; tearing or discharge; red, inflamed conjunctivae; pale conjunctivae; dryness or gray spots; cuts or ulcers; red or yellow sclerae; white spots on the cornea; irregularly shaped pupils; pupils that differ in size; pupils that do not react to light; white cloudy lenses

Respiratory system:

Change in rate or rhythm of breathing, difficulty breathing, noisy breathing, cyanosis, barrel chest, uneven chest expansion, intercostal retractions, flaring nostrils, chest wound, cough, sputum, lumps or depressions along the ribs, grating sensation along the ribs, chest tenderness, flat percussion note, prolonged inspiration, abnormal breath sounds

Heart:

Decreased heart sounds, heart sounds cannot be heard, unclear first or second heart sounds, irregular or missed beats, murmurs

Abdomen:

Irregular abdominal shape; abdominal breathing after age three; scars on the abdomen; absent, increased, or decreased abdominal sounds; abdominal mass or tenderness; enlarged liver, spleen, kidneys, or bladder; shifting dullness

Respiratory and Heart

1. Explain what causes wheezing.

   Wheezing occurs when bronchial mucus fills the alveoli in the lungs. When these alveoli are full of mucus, they trap air. The person can breathe in without difficulty, but he must force the air out of his lungs. This causes the wheezing sound.

2. How should you begin your physical examination of a patient with a chest problem?

   Always begin your physical examination by noting the general appearance of the patient. Obtain his vital signs. Then examine his chest.

3. Briefly describe how to palpate a patient's chest.

   Stand or sit in front of the patient. Place your hands on the patient's chest. Your thumbs should be on the lowest ribs in the front. Tell the patient to take a deep breath. As he breathes in, watch his chest expand. Also feel it expand. The two sides of the chest should expand at the same rate and the same amount. If there is a problem on one side or the other, the affected side will expand less than the normal side. Feel the patient's chest for tenderness and pain.

4. TRUE (T) or FALSE (F)

   _T_ Pneumonia may occur alone or as a complication of other diseases such as measles.

   _F_ Pneumonia is not contagious.

   _T_ Pneumonia is much more severe in children than it usually is in adults.

5. The two most common causes of pleural effusion are _tuberculosis_ and _congestive heart failure_.

6. A mother brings her five-year-old child to the clinic. The child is having a mild asthmatic attack. What two immediate things would you do in the clinic to treat the child?

   a. *Administer epinephrine 1:1000 subcutaneously*

Count and record the pulse rate. Give .1 ml epinephrine. Recheck the patient in twenty minutes. If the patient is still wheezing, repeat the same dose of epinephrine again. Recheck the child after twenty minutes. Do not give more epinephrine if the child's pulse is over 140 beats per minute.

b. *Give theophylline by mouth.*

Theophylline will reverse the muscle spasm in the walls of the bronchioles. It may be given every six hours by mouth.

7. How are the bacteria which cause tuberculosis spread from one person to another?

The bacteria are spread by coughing, sneezing, and close contact.

8. You have diagnosed tuberculosis in a nine-year-old boy who weighs 30 kg. Blood tests tell you the boy is also severely anemic. How will you manage this patient?

Refer him to a hospital for initial treatment.

9. Describe briefly what causes angina.

Angina is sudden pain in the chest caused by an insufficient amount of oxygen-supplied blood to the heart muscle. This is usually due to damaged arteries which cannot carry as much blood as they need to.

10. What health messages would you include in talking to a patient with congestive heart failure and his family?

a. *Congestive heart failure can be controlled by medications, but cannot be cured.*

b. *The patient must continue to take his medications for the rest of his life.*

c. *If the patient stops his medications, the symptoms of congestive heart failure will return.*

d. *The patient must avoid salt, whether it is added to food during cooking or at the table.*

e. *The patient may be more comfortable at night with his head and chest raised higher than his feet. Fluid tends to collect in the lungs at night, and this may cause shortness of breath.*

f. *The patient needs extra rest during the day.*

11. Describe some of the major differences between the pain of angina pectoris and the pain of a myocardial infarction.

A person suffering from angina pectoris will experience a sudden onset of pain, which may radiate into his shoulders, jaws, or down the left arm. The pain is continuous and constant for up to two minutes. It may be relieved by rest or nitroglycerin. The pain of a myocardial infarction, or heart attack, lasts longer than

that for angina. It may last for ten minutes to several hours. In addition, the pain is much worse than angina pain. Patients often feel they cannot breathe. The pain of a myocardial infarction is not relieved by nitroglycerin or rest.

12. Explain what is meant by a hypertensive crisis.

Some patients develop very high blood pressure. Their symptoms are severe headache, vomiting, difficulty with their vision, convulsions, and unconsciousness. This is called a hypertensive crisis. It is a medical emergency.

13. Discuss the initial management of a patient whose blood pressure is continually elevated to 170/115.

Patient education — *Encourage the patient to reduce his weight and his use of salt. Explain that you will check his blood pressure weekly for the next four weeks.*

Drug therapy — *Immediately begin the patient on hydrochlorothiazide, giving him one tablet daily. If his blood pressure remains elevated after four weeks, increase the dosage of hydrochlorothiazide to two tablets per day. If this does not control the pressure after another month, refer the patient to a doctor.*

14. Describe three kinds of health messages that you can include in your talk with a patient.

a. *You can explain to a patient what is happening inside his body as a result of his health problem.*

b. *You can explain to a patient how health habits are related to health problems.*

c. *You can share information about a specific preventive measure or home care procedure.*

15. What two things should you keep in mind when preparing a story to share health messages?

a. *Who you want to share your health information with*

b. *Why you want to share this information*

Gastrointestinal

1. Disease can disturb the normal activity of the gastrointestinal tract. When this happens, certain signs and symptoms appear. Briefly describe five symptoms and signs associated with abdominal problems.

   a. *Inflammation of the intestines — Gastrointestinal diseases can irritate the stomach and intestines and cause pain. When the intestines are irritated or inflamed, the contents rapidly pass through.*

   b. *Inflammation of the peritoneum — The lining of the abdominal cavity is a thin membrane called the peritoneum. When the peritoneum becomes inflamed, it causes pain. Inflammation of the peritoneum is most often caused by a ruptured appendix or a peptic ulcer.*

   c. *Swelling of the abdomen — The abdomen can swell for several reasons. Organs such as the liver, spleen, or bladder may become enlarged. The large intestine may have a large amount of stool in it. Liver disease may fill the abdomen with fluid. The intestines may become blocked. Poor nutrition may weaken abdominal muscles. Worms may swell the intestinal tract. The poor muscle tone and worm-enlarged intestines will enlarge the abdomen.*

   d. *Jaundice — The skin and the sclerae become yellow when they absorb yellow pigment. The liver normally cleans the body of this pigment, but when the liver is not functioning properly, the yellow pigment is not removed from the blood and is deposited in the skin and sclerae.*

   e. *Diarrhea, vomiting, and dehydration — When the intestines are irritated, the patient will develop nausea, vomiting, and diarrhea. When the irritation is in the upper intestines, the major symptoms are nausea and vomiting. When the irritation is lower in the intestines, the patient suffers more with diarrhea. Vomiting and diarrhea cause dehydration.*

2. Describe some of the differences between mild and severe abdominal pain.

   The patient with mild abdominal pain can usually talk calmly, laugh, and take a deep breath. The patient usually has a normal pulse rate and only slight pain on palpation. However, a patient with severe abdominal pain may be very anxious, very distressed, and unable to talk. Laughing and deep breathing are impossible because of the pain. In addition, the patient usually has severe pain when his abdomen is touched.

3. Explain why patients with gastrointestinal problems may vomit greenish or black material.

When infection irritates a person's stomach or intestines, he will vomit. He may vomit green material. The material contains bile from the liver. The bile enters the intestines from the liver through the bile duct. A problem such as a peptic ulcer causes internal bleeding. When blood remains in the stomach, the stomach acid turns the blood black. The patient will vomit black material.

4. What is the difference between "tenderness to palpation" and "rebound tenderness"?

   Pain from a push on the abdomen is tenderness to palpation. But pain which occurs when you gently push in on the abdomen, then suddenly release the pressure by withdrawing your hand, is rebound tenderness.

5. TRUE (T) or FALSE (F)

   _T_ A patient with amebiasis may complain of severe diarrhea with blood and mucus in his stools.

   _T_ A possible complication of amebiasis is a liver abscess.

   _F_ Niclosamide is the drug of choice in treating amebiasis.

6. What is the most common presenting complaint of a patient with a peptic ulcer?

   Most commonly the patient complains of mild abdominal pain, gnawing, aching, or a burning sensation in the upper part of his abdomen, below the breast bone.

7. Describe how to prevent roundworm infection.

   Stool must be disposed of in a sanitary way by use of a pit latrine. Drinking water must be protected from contamination by human stool. Drinking water should be chlorinated or boiled whenever possible. The practice of good personal and food hygiene habits should be discussed with the patient and the family.

8. Explain how you would treat a young child who has severe anemia because of a hookworm infection and signs of a roundworm infection.

   Give the child a course of ferrous sulfate at least two weeks before treating the hookworm and roundworm. Then the roundworm and hookworm infections may be eliminated at the same time by using pyrantel pamoate. You could also give the child oral iron for two weeks. Then treat the roundworm with piperazine for two days and then treat the hookworm infection with tetrachlorethylene.

9. Describe two health messages that you would include in a presentation to mothers about how gastrointestinal diseases like amebiasis and giardiasis spread.

   a. *People with the disease who do not use latrines pass the disease in their stools. The disease may then be washed into water that people drink.*

b. *People who have the disease and do not wash their hands after passing a stool may infect food which they handle or prepare.*

10. How can people prevent viral hepatitis?

    a. *Boil or chlorinate the drinking water to destroy the hepatitis virus which is spread through stool.*

    b. *Tell the family of a patient with hepatitis to separate the eating utensils of the sick person from those of the other family members and to put his stool a safe distance from gardens and sources of water.*

11. Acute appendicitis may cause an infection of the abdominal lining. Explain how this happens.

    This happens when the inflamed appendix swells and ruptures. The contents of the intestines spill into the abdominal cavity and inflame the peritoneum.

12. Why does the abdominal pain which accompanies an intestinal block come in waves or spasms?

    Muscular movements of the intestines cause the waves of pain as the intestine tries to overcome the block.

13. Which of the following are part of the clinical picture of a patient with an acute abdomen:

    _x_ Severe abdominal pain

    _x_ A pulse of more than ninety beats per minute

    _x_ Pale, cool, and damp skin

14. What is an anal fissure?

    ____ An anal muscle spasm

    _x_ A crack in the anal mucous membrane

    ____ Inflammation of the anal muscles

15. What are the best ways to care for an anal fissure?

    Sit in a tub of warm water for up to thirty minutes three times a day. Soaking will relieve spasms in the anal muscle. Soaking will also promote healing of the patient's fissure and decrease congestion in the area. One or two tablespoons of mineral oil taken twice a day will help soften the stool. Surgery may be required if the problem continues.

Genitourinary

1. Patients with nephrotic syndrome have protein in their urine. This protein is normally found in the blood. Lack of protein in the blood causes another sign of nephrotic syndrome. Name this sign and describe how it occurs.

   A loss of protein from the blood can cause edema, or swelling. When the level of blood protein falls very low, water leaks out of the capillaries and into the body tissues. People who have a kidney problem that causes large amounts of protein to be passed into the urine will have swelling. This swelling is most noticeable in the face, arms, and legs.

2. Why does a bladder infection cause pain during urination?

   When a bladder is infected, the muscular walls of the urethra will also be infected. When the urethra is inflamed and irritated by infection, the patient will have burning pain during urination.

3. The location of a genitourinary tract pain can help you identify the cause of the problem. Fill in the location of pain caused by each genitourinary problem.

PROBLEM	LOCATION OF PAIN
a. Kidney infection	*a. Loin pain*
b. Bladder infection	*b. Lower abdomen, tenderness and pain during urination*
c. Stone in the ureter	*c. Colicky pain that can radiate to the lower abdomen and groin*

4. List the common symptoms of urinary tract infections.

   The patient will usually complain of a burning pain while passing urine, frequent urination, and the need to pass urine as soon as he feels the urge.

5. What physical examination procedure will give you important information about the severity of a patient's urinary tract problem? What examination procedure would you use and what information would you obtain?

a. Procedure: *Palpation and percussion of the kidney*

b. Physical finding: *Tenderness or pain*

6. Urinary tract stones can block urine flow. What problems can blocked urine flow create?

   When the urine accumulates above the blockage, it causes stretching of the ureters and kidney. The kidneys can be destroyed by this process.

7. Describe what care you would give a patient with urinary tract stones.

   Encourage the patient to drink three to four liters of water per day. Treat the patient's pain. Refer the patient to a hospital if the pain cannot be controlled with medication.

8. Nephritis is a serious inflammation of the kidneys. Nephritis can occur following a bacterial infection. Give two examples of bacterial infections associated with nephritis.

   Skin infections and bacterial tonsillitis

9. A person of any age can suffer from nephritis. At what age is nephritis most common?

   Nephritis is most common in children below the age of puberty.

10. Generalized body swelling is a major sign of nephrotic syndrome. Swelling occurs when body fluid normally contained in the circulatory system moves into the body tissues. Explain the role of the kidneys in this process.

    The kidneys are damaged. Large amounts of protein pass into the urine. The amount of protein in the blood falls very low. Water leaks out of the blood vessels and into the tissues throughout the body.

11. Describe the physical examination findings that are common in a person with nephrotic syndrome.

Temperature:	*Normal*
Urine:	*Protein +++ with no blood*
Blood pressure:	*Normal*
General appearance:	*The patient complains of swelling around his eyes, arms, and legs. Pitting edema will be evident in the arms and legs.*
Chest examination:	*Possibility of pleural effusion*
Abdominal examination:	*Possibility of free fluid in the abdomen*

12. A seventy-year-old man arrives at the clinic complaining about his inability to control his urine. He says he dribbles urine onto his clothing. He complains of always feeling that his bladder is full. The bladder is palpable at 2 cm above the pubic bones after urination. What is the likely diagnosis?

    Enlarged prostate

13. Catheterization is a simple procedure for emptying the bladder of urine. When you catheterize a patient, you must avoid damaging the tissues or causing shock. What three rules should you follow to avoid injuring your patient?

    a. *Never remove more than 1,000 cc of urine at one time.*

    b. *Do not try to force the catheter pass a blockage.*

    c. *Do not push the catheter more than 2.5 cm into the bladder.*

14. Describe the presenting complaint of a man with prostatitis.

    A man with prostatitis will have pain in his penis and at the base of his penis. He will have a dull, achy feeling in the muscles of this area.

15. Describe the physical examination procedure and the findings that will help you diagnose prostatitis.

    a. *Rectal examination to palpate the prostate*

    b. *The prostate will be soft and very tender. If you press on the prostate, you will cause a discharge from the penis.*

16. Describe the usual complaint of a male patient with gonorrhea.

    A man with gonorrhea will complain of burning pain on urination and a white or yellow discharge from the penis.

17. Explain why many women who have gonorrhea do not seek treatment.

    Women with gonorrhea often have no symptoms that would alert them to seek treatment.

18. What is the drug of choice, recommended dosage, and course of treatment for gonorrhea and syphilis?

Gonorrhea:	*Drug:*	*Procaine penicillin*
	Dosage:	*A dose of 4.8 million units IM divided into two injections*
Syphilis:	*Drug:*	*Benzathine penicillin*
	Dosage:	*A dose of 2.4 million units IM*

19. Syphilis is not often diagnosed in its early stages because patients ignore or do not notice chancres. Another sign of the disease might bring the patient to your clinic for treatment after the chancre has healed.

    a. Describe this late sign of syphilis.

    A generalized body rash that often includes the palms of the hands and soles of the feet.

    b. Why is this sign of syphilis often missed?

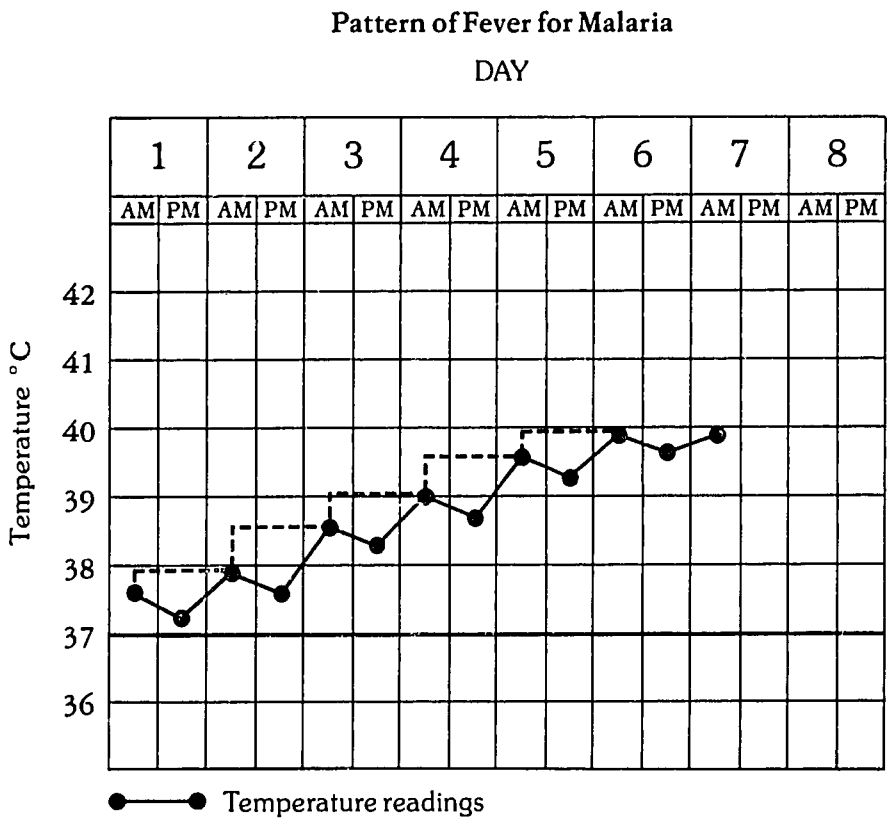
    The rash can look like the rash of almost any skin disease.

20. Describe two health messages you could share with a patient who presents with symptoms of a disease spread by sexual contact.

    Tell the patient that his recent sexual contacts must also be treated. Tell him that even though his contacts may not appear to have symptoms, they could still have the disease. Also tell the patient that he can help prevent the spread of diseases spread by sexual contact by using a condom during sexual intercourse.

Infectious Diseases

1. The pattern of fever can be different with different infectious diseases. Study the graph below. Answer the questions following the graph.



a. What is the pattern of this fever?

A step ladder pattern of fever

b. What common infectious disease has this pattern of fever?

Typhoid fever

2. Fever is a common cause of convulsions in infants. If an infant's temperature rises above *39°* C, he may have a convulsion.

3. Leprosy is an infectious disease which attacks the nerves. What are three important signs of leprosy?

a. *Light-colored skin patches with loss of sensation*

b. *Loss of sensation in the hands and feet*

c. *Enlarged and tender nerves*

4. Why is it important to find out a patient's immunization history?

   Immunizations can help prevent certain infectious diseases such as diphtheria, tetanus, or tuberculosis which can cause meningitis. A patient who has not been immunized may be suffering from one of these diseases.

5. A mother brings in a sick newborn. What would you ask about the mother's labor and delivery?

   Did she have any difficulty during her labor and delivery? Did her membranes rupture more than twelve hours before the infant was born?

6. TRUE (T) or FALSE (F)

   _T_ Typhoid fever is a bacterial infection of the intestines that affects the entire body.

   _T_ Typhoid fever bacteria are spread through drinking water which has been contaminated by the stool of an infected person.

   _T_ An infected person can also spread typhoid fever bacteria to other people by handling the food that others will eat.

   _F_ Usually during the first week a person is infected with typhoid, he has a very high fever.

   _F_ A person with typhoid fever has a pulse rate that increases eighteen beats per minute for each 1° C increase in temperature.

7. What antibiotic would you give a suspected typhoid fever patient before transferring him to the hospital?

   Chloramphenicol

8. TRUE (T) or FALSE (F)

   _T_ Tetanus is caused by bacteria which are found in the soil and in animal dung.

9. What is the most important step a person can take to be protected against tetanus?

   DPT immunizations for children

10. If a patient has tetanus, you would notice that making noises near the patient, touching him, or moving him would cause what reaction?

    Sudden muscle spasms or convulsions

11. What early presenting complaint would make you suspect rabies?

    The earliest complaint will be that the patient was bitten by a dog or other animal known to carry rabies.

12. All forms of malaria are spread by infected *mosquitoes* .

13. What three steps can help prevent and control malaria?

    a. *Killing mosquitoes and destroying their breeding areas. Spray with an approved insecticide. Drain or fill standing water breeding areas. Trim weeds and grass near houses and the edges of the community.*

    b. *Taking oral chloroquine phosphate weekly for self-protection*

    c. *Early diagnosis and care of malaria patients*

14. What physical examination finding would make you strongly suspect meningitis in an infant?

    A tight or bulging anterior fontanelle

15. TRUE (T) or FALSE (F)

    F Diphtheria is not easily spread from person to person.

    T Children are protected against diphtheria after they have received the four-shot DPT immunization series.

16. List two early presenting complaints of people with leprosy.

    a. *A light-colored skin patch*

    b. *A painless injury to the hand, finger, foot, or toe*

Other Common Problems

1. Name the four signs of joint inflammation.
   a. *Redness*
   b. *Swelling*
   c. *Tenderness*
   d. *Warmth*

2. What are the signs that a spinal disk is pressing on a nerve?
   a. *Positive straight leg raising test*
   b. *Tenderness over the sciatic nerve*
   c. *Muscle spasms and tenderness*

3. A patient complains of low back pain. She also has pain which shoots down her right leg to her foot. What does this type of pain tell you?

   Shooting pain down a leg is a sign that a damaged disk is pressing on a spinal nerve.

4. Review the signs and symptoms listed below. Check (*x*) the name of the problem that each sign or symptom is commonly associated with. Remember, some signs and symptoms can be associated with more than one problem.

	OSTEO-ARTHRITIS	RHEUMATOID ARTHRITIS	SEPTIC ARTHRITIS
a. Chronic pain in a large weight-bearing joint of an older patient who has done heavy work all his life. The pain has been present for years	*x*		
b. Pain in the distal joints of the fingers	*x*	*x*	
c. Pain in the distal joints of the fingers in a patient with a history of fever, fatigue, and loss of appetite and weight		*x*	

	OSTEO-ARTHRITIS	RHEUMATOID ARTHRITIS	SEPTIC ARTHRITIS
d. Severe, throbbing pain in the left knee of a male with symptoms of gonorrhea, such as pain and burning on urination and a white discharge from his penis			*x*
e. Weight loss, fever, fatigue, and joint pain. Several painful joints are stiff in the morning, become less stiff during the day, and then become stiff again in the evening		*x*	
f. A red and swollen left knee, which is warm and tender when touched, and which cannot be moved easily			*x*
g. Fever with swelling and redness of the fingers in both hands. The fingers are warm and tender when touched		*x*	
h. A stiff elbow with limited movement. A rough sensation when the elbow is moved, but no signs of joint inflammation such as redness and warmth. The joint is swollen and surrounded with fluid	*x*		

5. Except for a simple goiter, the signs and symptoms of thyroid problems are caused by the production of either too much or too little thyroid hormone. Review the signs listed below. Check (*x*) the appropriate column to indicate if each is a sign that the thyroid gland is producing too much or too little thyroid hormone.

	THYROID GLAND IS PRODUCING TOO MUCH THYROID HORMONE	THYROID GLAND IS PRODUCING TOO LITTLE THYROID HORMONE
a. A puffy face with a dull, uninterested expression		*x*
b. Slow, slurred speech with a low pitched voice		*x*
c. Slow body movements		*x*

	THYROID GLAND IS PRODUCING TOO MUCH THYROID HORMONE	THYROID GLAND IS PRODUCING TOO LITTLE THYROID HORMONE
d. Bulging, staring eyes	*x*	
e. Coarse, brittle hair		*x*
f. Fine, silky hair	*x*	
g. Thick, dry skin		*x*
h. Moist skin	*x*	
i. Fine tremors of the hands	*x*	
j. Increased resting pulse rate	*x*	
k. Weight loss in a patient with a good appetite	*x*	

6. A lack of ___*iodine*___ is a common cause of a simple goiter.

7. A forty-four-year-old woman complains of feeling tired and sleepy. She is too weak to do her daily work and wants only to sleep. She has been very constipated. Her menstrual periods are regular, but for the last four months they have lasted longer, and bleeding has been heavier than usual. Her last menstrual period was two weeks ago.

   The patient's vital signs are normal. Her face is puffy, and she seems disinterested in her surroundings. She moves very slowly. Her speech is slightly slurred. The patient reports that her hair breaks off easily. Her thyroid gland is slightly enlarged and is smooth when palpated. Her skin is dry, but no thickening can be detected. Further examination of her neck, chest, heart, arms, and legs reveals nothing abnormal.

   a. What is your diagnosis?

      Hypothyroidism

   b. What patient care would you provide for this patient?

      Refer the patient to the hospital.

8. A patient has difficulty speaking after suddenly losing consciousness.

   a. What other signs would you look for?

      Paralysis of one side of the face, or paralysis of one or both of the legs or arms on one side of the body

   b. What caused these signs?

      Brain damage caused by a stroke

9. What are the signs of a lack of hemoglobin or of red cells in the blood?

   Pale or white conjunctivae, mucous membranes of the mouth, and nail beds

10. Sugar in the urine is a sign of *diabetes* .

11. How can strokes be prevented?

Detecting and treating patients with high blood pressure can help to prevent strokes

12. TRUE(T) or FALSE(F)

T A patient with grand mal epilepsy may have to take phenytoin sodium for the rest of his life.

13. What medicine can prevent anemia in pregnant women, lactating women, or women with heavy menstrual periods?

Iron

14. Adult patients often have few symptoms of diabetes until they develop a severe bacterial infection. What symptoms of diabetes are then seen?

a Increased thirst

b Increased urination

c Increased appetite

15. TRUE(T) or FALSE(F)

T A patient with a mental health problem can suddenly lose the ability to speak, see, or hear.

T A patient with a mental health problem can develop paralysis of an arm or leg. He can also lose sensation in an arm or leg.

T A patient with an alcohol abuse problem may suffer from chronic weight loss and malnutrition.

16. What daily life situations may affect a person's mental health?

a Family problems

b Work problems

c Financial problems

17. TRUE(T) or FALSE(F)

T You cannot help a patient with chronic alcoholism unless he admits he has a problem and is willing to be helped.

T Acute confusion can follow a high fever caused by typhoid fever, pneumonia, meningitis, or malaria.

18. One way of supporting a person with a chronic illness is to share information with him and his family. What should this information include?

    This information should include an explanation of the illness and its effect on the body. It should include the role of medications in the control or cure of the illness and any necessary diet and exercise habit changes. The information should explain how to recognize signs that the ill person is getting better, staying the same, or getting worse. It should teach the ill person how he can live as comfortably as possible despite his illness.

19. Summarize what a person with a chronic illness needs.

    a. *Medications and other treatment*

    b. *Information about how he can care for himself in order to control or cure his illness*

    c. *Regular support and care from the health worker, his family, and his community*

Skin

1. During a physical examination of the skin, you are expected to identify and record abnormal findings. Next to each category below, give an example of an abnormal finding, and explain the meaning of that finding.

	ABNORMALITY	MEANING
a. Temperature	*heat associated with lesions*	*inflammation*
b. Color	*redness* *loss of color*	*inflammation* *fungus infections and leprosy*
c. Texture	*roughness*	*chronic skin problem*
d. Moisture	*wet lesion*	*sign of severe irritation or infection*
e. Sensation	*pain* *loss of sensation*	*inflammation/infection* *leprosy*

2. If one person in a family has scabies, what advice and instructions would you give to the family?

   Treat the entire family. Thoroughly wash all clothes and bedding.

3. Why would you examine a patient's whole family if the patient has lice?

   Lice are spread by personal contact.

4. How would you treat a patient with lice?

   a. *The patient should bathe before applying benzyl benzoate lotion to the affected area. Then he should not bathe again for twenty-four hours. Benzyl benzoate should be applied again, and the patient should not bathe for another twenty-four hours. Repeat in one week if needed.*

   b. *Clothing should be boiled or exposed to strong sunlight.*

   c. *All family members should be examined and treated if affected.*

5. What is the treatment of tinea versicolor?

   a *Selenium sulfide lotion 2.5% should be applied to the skin and lathered. After fifteen minutes, the patient should wash it off. Instruct the patient to reapply the lotion daily for four days and then twice a week for two months.*

   b *If infection reoccurs, sodium thiosulfate can be used.*

6. If a patient keeps getting boils, what disease might he have?

   Diabetes

7. Describe how you would treat this patient.

   The patient has had an ulcer on his leg for ten days. It is 4 cm across. The skin around the ulcer is inflamed. The ulcer smells bad. Pus drains from it. The patient complains of pain around the ulcer.

   Elevate the leg. Apply warm, salt water soaks. Teach the patient how to apply soaks at home. The ulcer should be soaked for twenty minutes four times a day. Swab the ulcer with hydrogen peroxide each time it has been soaked. Cover the ulcer with clean gauze. Give penicillin and streptomycin. Advise the patient to eat more body-building foods. Explain that the patient and his family must get treatment as soon as they cut or injure themselves.

8. How do the lesions of herpes simplex start and develop?

   Episodes of herpes simplex sores develop after a fever, dietary upset, or minor physical or emotional disturbance.

9. How would you treat an adult with eczema if the lesions are dry?

   Use a lubricating ointment 1% applied daily to the affected area to reduce inflammation.

10. What would you advise community leaders to do if there is much onchocerciasis in your village?

    Encourage leaders to cooperate with special black fly prevention programs.

11. What treatment would you give a patient who had dermatitis, if the lesions were red and wet?

    Cold wet compresses for twenty minutes, three to four times a day, until the skin is dry.

Dental, Eyes, Ears, Nose, and Throat

1. List the three most common symptoms of an eye problem.
   a. *Trouble seeing (blurry vision or loss of vision)*
   b. *Eye pain*
   c. *Red eye*

2. During your physical examination of a patient's eyes, you will identify and record abnormal findings. Samples of abnormal findings are given here. Next to each abnormal finding, explain what eye problem might have caused it.

FINDING	SIGN OF
a. Mild inflammation of conjunctiva of one eye, equal over inside of lids and sclera. The surface of the cornea is irregular	*Corneal laceration or ulcer, or foreign body*
b. Inflammation mainly of the conjunctiva inside the upper eyelid of one or both eyes	*Acute trachoma*
c. Inflammation around the iris of one eye	*Eye emergency*
d. Inflammation of the entire conjunctiva seen usually in both eyes	*Acute conjunctivitis*
e. Eyes look dry or there are plaques of gray material, Bitot's spots, on the sclera	*Vitamin A deficiency*
f. One pupil is larger than the other when exposed to the same amount of light	*Eye emergency*
g. One pupil remains smaller than the other and may be irregular when exposed to dim light	*Eye emergency*

3. Where on the eye should eyedrops or ointment be applied?

   On the conjunctiva covering the inside of the lower eyelid near the lid margin

4. Write in the information that would help you to make the diagnosis of a sty.

   Presenting complaint: *Pain on the eyelid*

Patient history: *May have had a sty before*

Physical examination: *A tender, red lump on the margin of the eyelid*

5. What is a complication of severe conjunctivitis?

   Corneal ulcer, or scarring of the cornea

6. What is the best way to prevent vitamin A deficiency in children?

   Feed them foods which contain vitamin A

7. A young man has come in with a urethral discharge and you suspect that he has gonorrhea. This is the first time you have seen this patient. He tells you that he has had this problem before. While telling the patient that his wife will have to come in for treatment, you find out that his wife just had a baby two days ago. The baby was delivered at home.

   a. What problem do you suspect the baby may have?

      Gonorrheal conjunctivitis

   b. What could happen to the baby if this problem goes untreated?

      Severe conjunctivitis can cause corneal ulceration. Scarring of the cornea can cause blindness.

   c. What medicine can be put into the eyes of newborns to prevent this problem?

      Put 1% silver nitrate or 1% tetracycline eye ointment into the child's eyes.

8. What causes canker sores? Choose the correct answer.

   _x_ No cause has been proven

   ____ Drinking fluids

   ____ Many different foods

9. What is the most common cause of gingivitis? Check (*x*) the correct answer.

   ____ Viral infection

   ____ Poor diet

   _x_ Poor mouth hygiene

10. What is the major complication of gingivitis? Choose one answer.

    ____ Dental decay

    _x_ Loss of teeth

    ____ Dental abscess

11. What is the main cause of tooth decay?

Poor dental hygiene

12. Explain how a dental abscess forms.

Tooth decay eats into a tooth, reaching the nerve. The decay kills the nerve. Infection spreads through the nerve to the root. This deep infection of the tooth is an abscess.

13. List two ways to check whether a tooth is anesthetized.

a. *Press a sharp instrument into the gum on all sides of the tooth.*

b. *Tap the tooth.*

14. List five things you should tell a patient after removing his tooth.

a. *How to control bleeding by biting down on cotton gauze over the socket*

b. *Not to rinse out his mouth until the next day, and then to rinse the mouth with warm water after eating*

c. *Chew food on the opposite side of the mouth for the next three to five days*

d. *Come back to the clinic after two days if the pain grows worse*

e. *Come back to the clinic if bleeding does not stop in several hours (Give the patient a certain time, such as sunset or meal time.)*

15. The prevention of chronic otitis media is the correct and early treatment of *acute otitis media* .

16. Match the following symptoms and physical signs with the problems:

B Exudate on tonsils
A Runny nose and dry cough
A Headache
A Redness of throat (alone)
B High fever
A Mild fever
A Red eyes

A- Upper respiratory infection
B- Acute bacterial tonsillitis

17. A mother brings her ten-year-old son to you. She reports that a few days ago the boy had a runny nose and cough. Now he is hot. The boy says swallowing, eating, and drinking hurt his throat. You find:

Weight: 50 kg

Temperature: 38.8° C

Swollen and tender lymph glands in the boy's neck. His tonsils are red, swollen, and are spotted with a white exudate.

What is your diagnosis? How would you treat this patient?

Acute bacterial tonsillitis

Tell the boy to rest in bed. Encourage him to drink more fluids than he normally would. He should gargle with warm, salt water four times a day. Give him one 300 mg aspiring tablet every three to four hours for pain. He should take one 125 mg oral penicillin V tablet four times a day for ten days.

Trauma and Emergency

1. TRUE(T) or FALSE(F)

   _F_ Shock cannot develop without loss of fluid from the body.

   _T_ The narrowing of blood vessels in shock makes skin cold and clammy.

   _F_ Shock does not reduce a person's output of urine.

   _T_ Anxiety and restlessness are early signs of shock.

2. Match the diagnostic signs in the first column with the problems listed in the second column.

   _D_ Convulsions

   _D_ Drooling and sweating

   _D_ Slow and shallow breathing

   _A_ Gagging

   _C_ Drooping eyelids

   _A or B_ Cyanosis

   _B_ Absence of respiratory effort

   _C_ Black-and-blue skin around a bite

   _D_ Pinpoint pupils

   _C_ Bleeding from gums and mouth

   _D_ Unusual odor on a patient's breath

   _D_ Burns around the mouth

   A. Blocked airway
   B. Acute respiratory failure
   C. Snake bite
   D. Poisoning

3. Match the causes of shock with the type of shock that occurs.

   _C_ Drug reaction

   _B_ Septic abortion

   _A_ Severe diarrhea

   A. Shock from decreased blood volume
   B. Septic shock

C. Anaphylactic shock
D. Shock from heart failure

_C_ Insect sting
_A_ Laceration and bleeding
_A_ Internal injury with bleeding
_B_ Severe urinary tract infection

4. List six steps you should take before you treat a patient for shock.

a. Clear the patient's airway.
b. Start mouth-to-mouth respiration if the patient is not breathing.
c. Stop any severe bleeding.
d. Prevent movement of any large bone or spinal fracture.
e. Keep the patient warm.
f. Raise the prone patient's feet and legs about twelve inches above his head.

5. Arrange these steps for assessing an unconscious patient in the correct order.

j. Look for signs of bleeding
k. Examine the airway and breathing
l. Observe the respiration
c. Examine the pulse
g. Obtain relevant history
h. Examine the skin
a. Examine the pupils
f. Determine the level of consciousness
b. Check for major trauma to other parts of the body
i. Examine the neck
d. Look for paralysis or weakness
e. Record your findings

6. List five causes of acute respiratory failure.

a. Drowning
b. Poisoning
c. Electric shock
d. Trauma to head and shock
e. Lack of oxygen in the air

7. Match the items in the first column with those in the second column. Place the letter of your answer in the space provided.

A. Induce vomiting
B. Do not induce vomiting

_B_ Lye
_B_ Paraffin
_B_ Paint thinner
_A_ Insecticide

_B_ Kerosene

_B_ Lethargy or coma

_A_ Poisonous plants

_A_ Aspirin poisoning

8. A woman arrives at your clinic in a very drowsy condition. She responds to strong shaking. Her relative tells you that she found an empty bottle of sleeping pills on the table near the woman's bed. How will you manage the patient?

   a. *Maintain a clear airway.*

   b. *Flush out her stomach.*

   c. *Start treatment for shock.*

   d. *Refer her to a hospital.*

9. A child has accidentally swallowed some lye. His lips and mouth are burned. He has severe pain in his upper abdominal area. How will you manage the patient?

   a. *Do not induce vomiting.*

   b. *Do not flush out the stomach.*

   c. *Give the patient milk.*

   d. *Refer him to the hospital after starting treatment for shock.*

10. Describe the effect of a third degree burn on the skin. What is a possible complication?

    A third degree burn will destroy the whole thickness of the skin, exposing fat, and leaving white edges around the burn. Damage to underlying tissues, dehydration, and shock are possible complications.

11. Under what conditions would you apply a tourniquet?

    When bleeding from a major artery cannot be controlled by direct pressure or by a pressure bandage and when the patient has suffered an amputation.

12. A five-year-old child cut himself with a sharp knife. The laceration is 1 cm long. The bleeding is controlled. The child cannot move the middle finger of his hand. You note slight swelling with tenderness. The child does not feel a pinprick on his finger. The laceration is eighteen hours old. How will you care for the child?

    a. Wound care

       Clean the wound. Remove dead tissue, if necessary. Apply a sterile dressing. Do not suture the wound or close it with adhesive tape.

b. Tetanus prevention

Find out whether the child has had a tetanus toxoid immunization. If the child has not received an immunization, give him tetanus toxoid. Give a .5 cc injection each month for two months.

c. Antibiotics

Give the child 600,000 units of penicillin IM. Follow by giving him 250 mg penicillin V tablets four times a day for ten days. Give the child erythromycin if he is allergic to penicillin.

d. Referral

Transfer the child to a hospital as soon as possible.

13. List the degrees of a burn and briefly describe them.

First degree	*Red skin*
Second degree	*Red skin with blistering*
Third degree	*All layers of the skin destroyed, white or charred skin, and exposed fat*

14. What would you do for a patient who reports to you that he spilled some detergent into his right eye?

Wash the eye with clean water for five to ten minutes. Cover both eyes with a clean dressing. Give aspirin for the pain. Transfer the patient rapidly to a hospital.

15. How will teaching school children about how to prevent accidents affect others?

Education of the school children will make the children aware of dangerous situations. It will also help them to know what to do when an accident happens so that prompt attention is given. The children will learn the health messages and then prepare and take them home to share with their parents and families. In this way, the health message developed in the school can be shared with the community.

Pretests I

Problems of Women

1. A discharge from the vagina is a common sign of a problem of the reproductive system. What information about a vaginal discharge should you note and record when taking a medical history and performing a physical examination?

   Describe the appearance and location of the discharge. Also describe any odor from the discharge.

2. What information should you record if you discover a breast lump during an examination?

   a. *Location of the lump*
   b. *Tenderness*
   c. *Whether the lump is attached to the skin or the wall of the chest*
   d. *Whether the lump changes the position of the nipple*
   e. *Whether the lump is inflamed*

3. Pelvic inflammatory disease is an infection of the vagina, cervix, uterus, and fallopian tubes. Explain the usual cause and course of this infection.

   Pelvic inflammatory disease is often caused by gonococcal bacteria that enter through the vagina and spread to the rest of the genital area. The infection can also spread to the abdominal cavity.

4. Describe the care you would give a woman who has pelvic inflammatory disease.

   a. Drug treatment for the infection:

      Give a total of 4.8 million units procaine penicillin by injecting 2.4 million units procaine penicillin IM in each hip. Give 1 g probenecid by mouth. Give 500 mg ampicillin by mouth every six hours for ten days.

   b. Treatment for severe vomiting:

      Withhold fluids by mouth. Give 1,000 cc of 5% dextrose in water and 1,000 cc of 5% normal saline intravenously every twenty-four hours.

   c. Home care:

      Advise the patient to rest in bed in a semi-seated position. This helps drainage.

5. Describe the discharge found with each type of vaginitis.

TYPE OF VAGINITIS	DISCHARGE
a *Non-specific vaginitis*	*A yellow or white, often pussy discharge*
b *Trichomonal vaginitis*	*Yellow-green, frothy discharge with a strong unpleasant odor*
c *Monilial vaginitis*	*Thick, white discharge which often attaches to surfaces in small patches*

6. Monilial vaginitis occurs with greater frequency among women who have another more serious disease. You should check for this disease in women who develop monilial vaginitis. What is this disease?

   Diabetes

7. A woman who is twenty-six years old complains of a discharge from her vagina. She says she delivered a normal baby six months ago. The physical examination reveals:

   Her temperature is 38.5° C
   She has lower abdominal tenderness
   She has a pussy and foul-smelling discharge from her vagina
   Movement of the cervix causes pain

   What is the likely diagnosis?

   Pelvic inflammatory disease

8. Cancer of the cervix occurs among women of all ages. Cancer of the uterus occurs more commonly in a certain age group of women. What age group of women is most likely to develop cancer of the uterus?

   Old women

9. Cancer of the uterus or cervix does not often cause external signs. A pelvic examination is a good way to identify the abnormal signs of cancer in these organs. List four signs of cancer of the cervix or uterus you might find in a pelvic examination.

   a *Cervical erosion*
   b *Enlarged uterus*
   c *Discharge with a trace of blood*
   d *A mass in the areas on either side of the uterus*

10. Fibroid tumors of the uterus are the most common tumors of the female genital organs. List the medical history and physical examination findings that will help you diagnose fibroid tumors of the uterus.

A woman with a small fibroid tumor will have no symptoms or complaints. A large tumor feels heavy in the woman's pelvis. The pressure of a large fibroid tumor may cause an increase in urination or constipation. Fibroid tumors may cause heavy menstrual bleeding and menstrual cramps. A smooth, firm, round fibroid tumor can be felt in palpating the uterus.

11. Describe the medical history and physical examination findings of a tumor of the ovary.

Usually a woman has no symptoms of a tumor in her ovaries. On pelvic examination, a smooth, movable, non-tender mass is present in the area on either side of the uterus.

12. Briefly describe three ways in which a woman may examine her breasts.

A woman may examine her breasts during a bath, in front of a mirror, or lying down on a bed or couch. When she is taking a bath or lying down, she should use the flat of her fingers to gently feel her breasts for any lumps or swelling. She should raise one arm over her head and use the opposite hand to feel her breast. A woman in front of a mirror should look closely at her breasts with her arms at her sides, then with her arms raised, and finally with her hands on her hips. She should look at the shape of her breasts and note any swelling or other changes. A woman should also squeeze the nipple of each breast gently between her thumb and index finger to detect any discharge.

13. How often and when should a woman examine her breasts?

A woman should examine her breasts at least once every month about a week after her menstrual period.

14. What care would you give a woman who complains of menstrual cramps?

Give her 600 mg aspirin for the pain. She should take the aspirin when the pain begins. She may take the aspirin every four hours if necessary. Rest may be helpful if the pain is very severe. Mild pressure from a pillow over the lower abdomen may also help. Advise the woman that physical activity decreases cramping and that she should continue her normal activities if possible.

15. Menopause is the end of a woman's reproductive period. Women notice changes in the menstrual period during menopause. List two types of changes commonly reported among women between the ages of forty-five and fifty-five.

a. Menstruation becomes scanty and irregular.

b. Heavy bleeding occurs during menstruation.

16. Describe how you would care for a fifty-year-old woman who complains of heavy bleeding during her irregular menstrual periods. The woman has no signs of anemia or other illness.

Explain that menopause is usually accompanied by changes in menstrual periods. This is a normal process and is not an indication of serious illness. She should continue following her normal patterns of activity. Good food, fresh air, exercise, and enough sleep are important.

17. A fifty-six-year-old woman complains of a pink and watery discharge. She is not bleeding and has no fever. What is the most likely diagnosis of her problem?

Atrophic vaginitis

Prenatal Care

1. 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
e 4 - 8 weeks	a. The woman may have shortness of breath and swollen ankles
c 38 - 40 weeks	b. Fetal parts and movements may be felt
f 16 - 20 weeks	c. The fetus' head settles into the woman's pelvis
a 32 - 36 weeks	d. The woman has increased urination. Her vagina is bluish purple in color
d 8 - 13 weeks	e. The woman may experience nausea in the mornings or evenings
b 22 - 30 weeks	f. Fetal heart sounds may be heard

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

   Approximately 3200 grams

3. 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.

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 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.

6. 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.

7. 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.

8. A woman having her first baby will want to know what labor is like and when she should call her traditional birth attendant to 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.

9. 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*

10. 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.

11. 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.

12. 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.

13. 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

Labor and Delivery

1. 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.

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

   To find any new problems or any problems that may have been missed in the prenatal visits. This is a very important examination for the woman who has not been to a prenatal clinic because all the possible problems that should have been handled prenatally must be diagnosed and a decision must be made about how to handle them.

3. 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.

4. 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.

5. 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.

6. 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.

7. 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.*

8. 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.

9. 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.

10. What patient care is recommended for fetal distress?

Referral to a hospital is recommended.

11. 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.

12. 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.

13. 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*

14. 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.

15. TRUE(T) or FALSE(F)

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

16. 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

17. 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.

18. 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

Postnatal Care

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. 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.

3. 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.*

4. 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.

5. 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.*

6. 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.

7. 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, the mother should take him to a health worker for assessment.

8. List 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. 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

10. Describe what causes swollen breasts.

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

11. 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

12. What is puerperal sepsis?

Puerperal sepsis is a postnatal infection of the reproductive system.

13. 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.

14. 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.

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

Assure the mother that the swelling will fade away.

16. Why is diarrhea dangerous in a newborn?

Because a newborn can become easily dehydrated

17. List six possible causes of low birth weight.

a. Smoking by mother

b. Poor nutrition of mother

c. Multiple pregnancies

d. Anemia

e. Malaria

f. Eclampsia

18. 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.*

19. List 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.*

Diseases of Infants and Children

1. What is the best way to tell whether a child is suffering the effects of mild malnutrition?

   Use a growth chart to record weights.

2. The basic treatment for malnutrition is providing food. What should be done for a four-month-old infant who suffers mild malnutrition and has been drinking diluted formula from a bottle?

   a. *Give the infant cereal or legume porridge three times a day.*

   b. *Stop giving the infant milk from a bottle. All food and milk should be given with a cup and spoon which are washed and rinsed before and after each feeding.*

   c. *Weigh the infant every month until he reaches normal weight.*

   d. *Continue to feed the infant during any illness.*

3. What should you do for a two-year-old child with severe malnutrition who is conscious and able to take food by mouth? Describe your feeding program, your instructions to the child's mother, and your follow-up schedule.

   a. *The most important treatment is giving the child food. The child may have lost his appetite. He may have to be coaxed to eat. He must eat ten to twelve times a day.*

   b. *The mother should continue to breast-feed the child if she can.*

   c. *Give the child at least six feedings of a mixed grain and legume porridge each day for one week. Add extra feedings of vegetables, fruit, eggs, and milk.*

   d. *Weigh the child every day. A child with marasmus should gradually gain weight. A child with kwashiorkor will first lose fluids, causing an initial weight loss. Then he will begin to gain weight.*

   e. *If a child with marasmus loses weight or develops a respiratory infection, refer him to a hospital. If a child with kwashiorkor gains weight during the first three to four days of treatment or develops a respiratory infection, refer him to a hospital. Marasmus and kwashiorkor are diseases with high mortality rates.*

   f. *If the child has Bitot's spots, treat him with 5,000 units of Vitamin A daily for three weeks.*

   After the first week:

   a. *Make sure the parents understand that a lack of food causes this disease.*

b. Keep giving the mixed grain and legume porridge.

c. Start the child on a variety of soft foods, including fruits, vegetables, beans, fish, eggs, and meat.

d. Teach parents the six basic health messages on preventing malnutrition.

e. See the child weekly in the regular child care clinic or at a special nutrition clinic. If you are following several malnourished children in the same community, start a special nutrition education clinic. This clinic will allow you to teach several families about better foods at the same time.

f. Use a growth chart. Make an extra effort to follow high-risk children as closely as possible.

4. To help prevent malnutrition, conduct maternal and child health clinics. In these clinics, you can teach parents the six basic health messages on preventing malnutrition. The first message is "Breast-feed children until they are two to three years old. Do not use bottles." Explain the importance of this message.

   Breast milk is the best nutrition for a baby. Using a bottle leads to overdiluted formulas and inadequate food intake. Dirty water and dirty bottles cause diarrhea and poor absorption of the food.

5. A mother brings a child with diarrhea to your clinic. The child is thirsty but has no other signs of dehydration. How do you manage this problem?

   Teach the mother to make oral rehydration fluid and have her demonstrate how to prepare it. Give the child some of the solution. Wait until he urinates before you send the mother and child home. Have the mother repeat how much fluid she is to give the child. If she breast-feeds her child, she should give him as much fluid as the baby will take between breast-feedings. If she does not breast-feed her child, she should give him fluid every three hours through the day and night.

6. What ingredients in what amounts are needed to make oral rehydration fluid?

INGREDIENTS	AMOUNT
Clean, boiled water	*1,000 ml*
Pinch of salt	*1 two-finger pinch*
Bicarbonate of soda	*1 two-finger pinch*
Sugar	*2 fistfuls*

7. What are the six basic health messages on preventing malnutrition?

   a. Breast-feed children until they are two to three years old. Do not use bottles.

   b. Add new foods such as super porridge made with grains and legumes to the child's diet at five to six months.

   c. Give a variety of fruits, vegetables, eggs, beans, and meat to children more than six months old.

   d. Feed children at least four meals a day.

e *Continue to feed sick children.*

f. *Give pregnant and lactating women extra vegetables and protein-rich foods.*

8. When a moderately dehydrated child is vomiting severely or is severely dehydrated and cannot swallow, intravenous rehydration is necessary. What two techniques could you use?

a *Peripheral vein technique*

b *Scalp vein technique*

9. How would you describe the usual clinical picture of a newborn with septicemia? What is the general appearance of the infant? In what condition would you find the umbilical stump?

The infant with septicemia:

Does not suck well
Vomits
Has an unstable temperature, fever, or temperature below normal
Has difficulty breathing, or breathes irregularly
Is jittery or has convulsions
Cries a lot or is very irritable
Seems weak and floppy
Usually has redness and a foul odor around the umbilical stump

10. How can septicemia in a newborn be prevented?

a *Prevent infection of the umbilical stump.*

b *Care for the umbilical stump during the first week of life by exposing it to air and painting it with gentian violet or 70% alcohol twice a day.*

c *Follow up infants who are at increased risk of infection.*

11. Why should you not use antibiotics to treat thrush unless absolutely necessary?

Antibiotics tend to kill not only problem bacteria but many normal bacteria. Thrush is an infection caused by a fungus. When normal bacteria are killed, the fungus becomes a problem.

12. Explain how thrush can lead to malnutrition and dehydration.

The painful lesions will interfere with the infant's feeding, leading to inadequate fluid and food intake.

13. Why is malnutrition a complication of whooping cough? What instructions would you give a parent about feeding a child with whooping cough?

Young children become very weak from coughing and vomiting. If they are not fed often, they will become weaker and malnourished. Tell parents to feed the child small amounts of food more frequently than usual.

14. Describe what signs and symptoms you might see in a child during the first several days of measles.

    Day 1: *Signs of a bad cold with a high fever, runny nose, red eyes, and generalized tiredness*

    Day 2: *Small, white spots surrounded by red circles occur on the inside of the cheeks*

    Day 3: *A reddish rash occurs on the face and quickly spreads to cover the entire body*

    Day 7: *The fever and rash begin to fade, followed by peeling skin*

15. Another disease in children which is caused by a virus is chicken pox. What are the differences between the clinical pictures for chicken pox and measles?

    a *Rash of chicken pox immediately begins on the chest and abdomen. Rash of measles usually begins on the face and head about the third day.*

    b *The chicken pox rash progresses from small, red macules to vesicles, with clear fluid in them, to lesions with scabs. All three stages may be present at the same time.*

    The measles rash begins in the mouth on the inside of the cheeks as small, white spots with red circles around them.

    c *Chicken pox may involve a mild headache, loss of appetite and some fever.*

    Measles begins as a bad cold. The child has a runny nose, red eyes, and fever, and feels ill.

16. A ten-year-old child enters the clinic with pain in her right wrist and left elbow. You find the joints slightly swollen and red. She also has a fever of 39° C. What advice would you give her parents?

    Tell the patient's parents to take the child to a doctor. The pain, swelling in her elbow and wrist, and fever indicate the beginning of a serious disease. A doctor should make the diagnosis.

17. Explain the difference between the signs of osteomyelitis and other problems of infants and children, such as polio, rheumatic fever, and sickle cell anemia.

    Osteomyelitis usually involves only one bone or joint. In rheumatic fever, the involved joint changes from one day to the next. In a sickle cell crisis, many joints are involved. Polio involves the muscles.

    A child with osteomyelitis is very ill. He may vomit or be unwilling to eat. A child

with rheumatic fever may also have a long-lasting, high fever. The child may have been sick for several weeks before you see him. In sickle cell disease, the child often has other symptoms, such as abdominal pain. In polio, the child will have fever, stiff neck, and sudden weakness of the arm or leg.

Sickle cell disease and rheumatic fever can recur. Osteomyelitis usually does not.

18. What should you consider before selecting an educational method for a community health presentation?

   a. *A topic that is related to a specific need or problem in the community*
   b. *What it is you want to communicate about the topic you have chosen*
   c. *Who the information would help*
   d. *Some basic health messages related to your topic*
   e. *Your method of organizing the material*
   f. *An educational method that would involve the people to whom the information is directed*

Child Spacing

1. Why should a mother allow two years or three years between children?

   This time will allow the child or children who are born a chance to get the nourishment and care that is necessary for them to grow up strong. It will also give the mother's body a chance to get strong again before she has another child.

2. Explain the process of fertilization.

   Fertilization is the process of the joining of the male sperm cell and the female ovum. The sperm, after it is released into the vagina during sexual intercourse, swim up the uterus and into the fallopian tubes. If a sperm cell meets an egg cell and joins with it, this is called fertilization or conception. The fertilized egg then travels down into the uterus where it attaches itself and begins to grow.

3. A woman comes to you and says that she has not been able to have a second child. In talking with her, you find out that she and her husband have intercourse about once a week when the husband comes home from working in the capital city. From what you know about the reproductive process, what might be the reason for this woman's problem?

   She may not be having intercourse when she is most fertile, during ovulation.

4. One day while you are taking a medical history and performing a physical examination of a woman who came to the clinic, you ask her if she is using a child spacing method. She tells you yes, that she is using lemon juice and hot water right after intercourse. What would you say to the woman?

   Tell her that you are pleased that she is taking some child spacing responsibility. You also could tell her that there are methods being used now that are more effective than the method she is using. Ask if she would like to learn more about these methods.

5. What would you advise a community health worker to do when listening to people who come to him for child spacing advice?

   Take time to listen to the patient. Try not to be doing something else when listening to the patient. Do not write while listening to him. If he is talking too fast or having trouble talking, tell him to relax and start again. Try not to sit behind a desk when listening to a patient. Be sure to ask the patient about anything you do not understand. Try to make the patient comfortable. Show him that you are concerned about his problem. Do not interrupt the patient when he is talking.

6. Explain the mucus ovulation method of child spacing.

Mucus ovulation is a method of telling when a woman ovulates by checking the mucus in her vagina. The mucus changes consistency during different times of the woman's cycle. Immediately after menstruation, there will be no mucus. When mucus appears, it will be tacky and look whitish or cloudy. When the woman ovulates, the mucus is clear and stretchy. The woman should avoid unprotected intercourse from the first sign of mucus, when it is whitish and tacky, through the fourth day after the mucus becomes clear and stretchy. The woman can have unprotected intercourse beginning the fourth day after the mucus becomes clear and stretchy until the mucus appears again after her next menstrual period.

7. A woman has written down twelve menstrual cycles in a row. She found that the shortest cycle was 23 days, and the longest cycle was 32 days. When should she avoid unprotected intercourse during her next cycle?

   Shortest cycle: 23 days
   Longest cycle: 32 days

   Calculation of first fertile day: 23 - 18 = 5
   Calculation of last fertile day: 32 - 11 = 21

   The woman should avoid unprotected intercourse from Day 5 up to and including Day 21 during her next cycle.

8. A man wants to know how to use a condom. What would you tell him?

   Show the man a condom. Tell him, "This is a rubber covering that fits over the erect penis. Before you have intercourse, place the condom over the tip of your penis and roll it down over the penis. Leave a small space at the top of the condom where the sperm will collect. When you remove your penis from the vagina after intercourse, hold the condom in place on your penis. This will prevent any sperm from being spilled into the vagina. Do not use petroleum jellies, such as Vaseline, as a lubricant. The jelly will cause the condom to weaken and tear."

9. TRUE(T) or FALSE(F)

   _T_ Condoms are free of medical side effects.

   _T_ A diaphragm must be carefully fitted to the individual woman by a trained person.

10. Describe at least three disadvantages of using an IUD.

    a. *Sometimes the IUD causes a heavier menstrual flow and spotting of blood.*
    b. *Some women's bodies will not allow the IUD to stay in place in the uterus.*
    c. *Insertion of the IUD can be painful.*

11. Briefly explain how oral contraceptives prevent conception.

    Oral contraceptives are based on a woman's body chemistry and the effect this chemistry has on ovulation. Normally, a woman's body produces the hormones

estrogen and progesterone. These hormones have an effect on various parts of the body, including a woman's ovaries. When the estrogen level is low in a woman's body, as it is during menstruation, an egg begins to develop and is later released at ovulation. However, when the estrogen level is high in the woman's body, as it is during pregnancy, eggs are not produced or released. Oral contraceptives add to the amount of estrogen and progesterone that already exist in the woman's body. This makes the level of estrogen high, which in turn inhibits the production and release of eggs from the ovaries. If there are no eggs to be fertilized, conception cannot occur.

12. Put a check in front of the instructions that should be given to a woman who is beginning the pill.

    _x_ Take one pill every day

    ____ Take one pill every other day

    ____ If you miss one day, do not worry. It will not matter

    _x_ You may expect some nausea when you first take the pill, but the nausea will gradually disappear

13. In doing a physical examination on a woman you find that she has abnormally high blood pressure. What would you recommend to her with respect to a child spacing method?

    Recommend that she not use oral contraceptives.

14. A couple comes to you and says that they would like to have another child but they cannot seem to do so. How would you approach this situation?

    The first steps are to take a medical history and perform a physical examination for both the man and the woman. Listen to what they have to say. Show them that you are concerned about their problem. Explain to them that there is only a certain time during a woman's cycle when conception may occur. Make sure that they understand how their bodies function in the reproductive process. Ask them how often they have intercourse and whether the woman has a regular menstrual cycle. You can encourage the woman to keep a record of her menstrual cycles, and show her that the most likely time for her to conceive is approximately fourteen days before her next period is due.

    You may also explain that during intercourse, it is helpful if the man's penis is deep in the woman's vagina when he ejaculates. This will ensure that the sperm are released near the cervical opening. You may mention that relaxing and not being overly concerned about their problem may help. If the woman has been using oral contraceptives or an IUD, explain that it usually takes some time for fertility to return after stopping these methods.

    Explain to the couple that their inability to have children may be due to physical reasons. The man may not be producing enough sperm, or sperm that are not normal. The woman may not be producing eggs, or eggs that are not normal. The woman or the man may not have normal reproductive organs. All of these factors can make a man or woman sterile. If a child is still not conceived after several months of counseling, refer the couple to a doctor for tests for any physical abnormalities.

Meeting the Preventive Health Needs of the Community

1. As you discuss possible community health activities, it is helpful to think in terms of three levels of people in a community. Name these three levels.

   a *Individuals*

   b *Households and families*

   c *The community as a whole*

2. Explain the advantages of combining health activities with other development activities.

   Combining health activities with other activities demonstrates that health is a necessary part of all development efforts. Combining activities also makes the best use of limited resources.

3. What is the difference between the purpose of a community health activity and its objectives?

   The purpose is a general statement of why the activity should take place. An objective is a more precise statement of what the activity should accomplish. An objective is described in terms of how much of a problem is to be reduced or prevented or how many people will be affected. An objective also specifies a time period.

4. Why is it important for you, the community, and your plans to be flexible?

   Flexibility is important in planning community health activities because you never know the future. You plan in order to solve problems in an organized way, but you cannot be sure that everything will go according to your plans. You must be flexible so that you can change your plans if necessary to accomplish your objectives.

5. Asking certain questions can help you monitor the progress of community health activities. List at least five of these questions.

   a *Does the activity fit the objectives?*

   b *What was accomplished today? Which objectives were reached?*

   c *Are the materials, supplies, equipment, and facilities adequate for the activity?*

   d *How do the people working on the activity feel about it? What are their needs?*

e. *How do other community members feel about the activity?*

f. *What problems need to be overcome? What could be improved?*

g. *What still needs to be done? Will the current plan meet these needs?*

6. Why is it important to avoid being the sole organizer and doer of community health activities?

   If you are, the community will learn only to depend on your skills. You need to work with community members so that they learn these skills also. Only then will the community be able to solve its own problems, take care of itself, and stay healthy.

7. List the five questions that you should use as a guide when you evaluate community health activities.

   a. *Is the activity relevant?*

   b. *Is the activity making progress?*

   c. *Is the activity efficient?*

   d. *Is the activity effective?*

   e. *What is the impact of the activity?*

8. Evaluation is most useful when community members take part. Why is this?

   Then the findings reflect their feelings and values. An understanding of these feelings and values will help you and the community determine how to improve community health activities.

9. Describe what it means to take corrective action with respect to community health activities.

   Taking corrective action usually means changing a community health activity so that it better meets the needs of community members. You may need to change the schedule for an activity or change the materials, equipment, or personnel. Or, you may have to change the objectives of the activity altogether.

10. What is a community health worker?

    A community health worker is a member of a community who is selected to provide basic health services and to promote good health, prevent common health problems, and care for some common health problems. He is the mid-level health worker's link with the health of a community. He knows his community well so is able to identify important health needs and to gather support for activities to meet these needs. He can also help keep community health activities going.

11. List at least four things that a community health worker can be trained to do.

a. *Encourage clean collection, storage, and use of water*
b. *Demonstrate how to prepare and use oral rehydration solution for children with diarrhea*
c. *Encourage adequate nutrition for children and pregnant women*
d. *Encourage breast-feeding*
e. *Care for persons with minor injuries*
f. *Identify, care for, and prevent scabies*
g. *Share ideas about how tuberculosis spreads from person to person*

Working with Support Systems

1. List the order in which you must do the following steps by numbering them one through five.

   _1_ Write authorized stock levels on the order form.

   _4_ Inspect the drug shipment when it is delivered.

   _3_ Submit the order form to the supervisor.

   _2_ Inventory drugs and calculate quantity to order.

   _5_ Sign the issue voucher for drugs received.

2. List, step by step, the procedures to follow when an order of vaccines is delivered to a health center.

   a. *Unpack the order immediately.*

   b. *Check measles and polio vaccines. Make sure they are frozen. Store them in the freezer.*

   c. *Check DPT, BCG, and tetanus toxoid vaccines. Store them in the refrigerator.*

3. Why should you use a special inventory card for narcotic drugs?

   Narcotics are powerful, habit-forming drugs that need special control and protection.

4. List four problems caused by ordering too many supplies.

   a. *Not enough storage space for supplies*

   b. *Difficulty controlling excess supplies*

   c. *Deterioration of supplies due to long storage time*

   d. *Shortages at other health centers*

5. When purchasing supplies from local shops, what is the main advantage and the main disadvantage of using a local purchase order?

   Advantage: *The mid-level health worker does not risk his money or the community's money.*

   Disadvantage: *The mid-level health worker must wait for the local purchase order to be issued, which means a delay in getting the needed supplies.*

6. TRUE(T) or FALSE(F)

   _F_ The government is obligated to reimburse you for money you spend to purchase supplies for your health center.

7. Decide whether the items listed below are facilities, equipment, or supplies. Mark your answer with an "*x*"

ITEM	FACILITY	EQUIPMENT	SUPPLIES
Refrigerator	___	*x*	___
Pencil	___	___	*x*
Well	*x*	___	___
Flashlight batteries	___	___	*x*
Examination table	___	*x*	___
Soap	___	___	*x*
Chairs	___	*x*	___
Latrine	*x*	___	___

8. What is the purpose of doing an inventory of facilities and equipment?

   An inventory helps the mid-level health worker keep track of facilities and equipment. Therefore, it reduces the risk of loss, damage, and theft.

9. What is preventive maintenance and why is it important?

   Preventive maintenance is doing small tasks on a regular basis to keep facilities and equipment in good condition. Preventive maintenance is important because it helps to keep facilities and equipment available for use by the health team and by patients.

10. Who normally does most repairs at a health center?

    ___ Government repairman

    ___ Handyman in the community

    _x_ Mid-level health worker and other health team members

11. Vehicles from the ministry of health sometimes do not arrive as scheduled. Sometimes they break down. This may create problems for those who depend on them for transportation. How may you minimize dependence on ministry of health vehicles?

    Ministry of health vehicles should be considered a secondary means of transport. Dependence on such transportation may be minimized if there is more reliance on primary sources of transportation such as walking, bicycles, or motorcycles.

12. A man who lives near the health center suffers a heart attack. He is in need of hospital care. No vehicles are available to transport him. What would you do? How might you avoid this situation?

Seek transportation from the patient's family, friends, community, the military, police, or other government agency. If no transportation is available, send a message to the district hospital or other source to send a vehicle. This situation may be avoided if the mid-level health worker works with the community to develop an emergency transportation plan.

13. List five communication resources found at health centers.

    a. *Post office*
    b. *Messengers*
    c. *Telephone*
    d. *Two-way radio*
    e. *Telegraph*

14. What are the steps involved in a health team member taking leave for the death of his brother?

    Step 1: *Employee fills out Application for Leave form and submits two copies to the mid-level health worker.*

    Step 2: *Mid-level health worker reviews application, approves or discusses changes with employee if request conflicts with program activities or overlaps with leaves of other employees. Mid-level health worker submits one signed copy to the personnel department and puts the other in the employee's personnel file.*

    Step 3: *Personnel officer checks request against employee's records, approves or disapproves request. If personnel officer disapproves, reasons must be clearly stated. Information is entered in employee's permanent record and the signed form returned to the mid-level health worker.*

    Step 4: *Mid-level health worker notes action taken, notifies the employee, and keeps the signed form in the employee's personnel file.*

15. Listed below are six approaches which a mid-level health worker might take in planning and scheduling leave for the health team. For each approach, check whether you think it is a good approach or a poor one, and be prepared to discuss your views in class.

	In my view, this approach is	
	GOOD	POOR
The mid-level health worker should:		
a. Avoid having two members of the team on leave at the same time	*x*	
b. Prepare the Annual Leave Roster alone, without interference, and then show it to the staff		*x*

	In my view, this approach is	
	GOOD	POOR
c. Encourage employees to take at least one week of their leave at a time to get a meaningful rest away from work	x	
d. Generally agree to the times requested by the employees without regard to program activities		x
e. Encourage employees to put off their leave and hold it over to the next year so they can have longer vacations		x
f. Review employee records before discussing leave with the staff. Make sure of the number of days they are entitled to and note their past years' preference for leave times	x	

16. TRUE(T) or FALSE(F)

_F_ An employee's performance should be evaluated only once each year.

17. TRUE(T) or FALSE(F)

_T_ Performance evaluation is an effort shared by the mid-level health worker and the employee.

18. How can the mid-level health worker follow up after the annual performance evaluation?

The mid-level health worker can work on the specific tasks agreed to in the plan for improving the employee's performance; hold review meetings with the employee on the dates agreed to; and provide support, leadership, and motivation on a daily basis.

19. Taking disciplinary action with an employee normally involves five steps or levels. Select the five from the following list and number them in order from 1 to 5.

___ Send a memo to personnel department

___ Give the employee a leave of absence without pay

_5_ Recommend a dismissal or transfer

___ Meet with the health center staff to discuss the employee's problem

_2_ Hold a warning interview

_4_ Suspend the employee for one or two days

_1_ Give the employee a friendly, verbal warning

____ Consult with the employee's co-workers, patients, family, and friends to try to find out what the problem is

__3__ Give the employee a formal, written warning

20. Check the correct answer. All payments are made by the:

____ District and regional ministry of health finance officers

____ District and regional medical officers of health

__x__ Treasury

____ Regional and central hospitals

21. Name and explain the two major parts of the annual budget estimates.

a. *Recurrent expenditures: the continuing costs of the ministry of health such as salaries, travel, drugs, and supplies*

b. *Capital expenditures: costs of buildings and equipment which normally last for more than one year*

22. What form is used to apply for collection of travel and subsistence expenses?

Payment Voucher for Travel and Subsistence Expenses

23. Briefly describe the procedure for processing this form and collecting the money due you.

Get your supervisor's approval in advance. Fill out the form in triplicate. Attach receipts for all expenses claimed. Submit the original and one copy to your supervisor. Keep one copy for your personal records.

24. You will use three types of health information records:

a. Patient-held cards

b. Health center cards

c. Report forms

Write beside each health record listed below the letter that corresponds to its type of health information.

__a__ Under-Five Card

__b__ Diary of Health Activities

__b__ Patient Register

__a__ Patient Card

__c__ Notification of Birth

__b__ Labor Chart

__c__ Monthly Patient Report

__a__ Maternity Card

__b__ Follow-up Book

__c__ Notification of Death

25. The ministry of health depends on __*mid-level health workers*__ to provide information about health conditions in rural areas of the country.

26. TRUE(T) or FALSE(F)

__T__ Patient-held cards are good for people who move from place to place.

__F__ Mid-level health workers use patient-held cards to compile monthly reports.

__F__ Patient-held cards encourage people to take an interest in their health.

__F__ Patient-held cards can be kept at the health center overnight if the patient is returning the next day for follow-up treatment.

27. TRUE(T) or FALSE(F)

__F__ When a mid-level health worker visits a home to treat a patient, he takes along the Patient Register to record the necessary information.

28. Fill in the blank spaces. The mid-level health worker should normally spend __*six*__ half days per week in the health center and __*four*__ half days per week in the community.

29. Briefly describe the procedure you will follow to make the health center secure and to close it for the weekend.

Inspect the health center to make sure it is clean and orderly. Make sure that all equipment and supplies, drugs and narcotics, records and foodstuffs are properly stored and locked up. Inspect the latrine and well. Check all doors, windows, and gates to make sure they are locked. Give the guard any special instructions.

Training and Supporting Community Health Workers

1. List at least five ways the community can help you deliver primary health care services.

   a. *Plan and assess health activities in the community and the health center*

   b. *Provide supplies, labor, and leadership to carry out community health activities*

   c. *Take part in activities to promote good health*

   d. *Plan programs to improve health*

   e. *Help arrange referral of ill persons to the health center or the hospital*

   f. *Train, support, and guide community health workers*

   g. *Arrange training for other health care providers in the community*

2. How can community health workers help you provide primary health care services in the community?

   Community health workers know their communities. They are familiar with the health practices in the community. They can help you understand the primary health care needs of the community and the most appropriate ways to meet those needs. They provide services in the community to promote good health, prevent common health problems, and care for some common health problems. They can also:

   Identify resources of the community to meet health needs

   Share health information with community members

   Coordinate health activities in the community

   Refer persons with health problems to the health center

   Motivate people to take part in community health activities

   Become role models for members of the community

3. List at least three promotive and at least three preventive services that community health workers can provide. Then write what health problems these services can prevent.

PROMOTIVE SERVICES	HEALTH PROBLEMS PREVENTED
Encourage clean collection, storage, and use of water	*Diarrhea* *Gastroenteritis*
Encourage adequate prenatal nutrition	*Low birth weight infants* *Undernourished mothers*
Share information about prenatal care	*Pregnancy problems*

PREVENTIVE SERVICES	HEALTH PROBLEMS PREVENTED
Identify and refer women with problems during pregnancy	*Complications during pregnancy and delivery*
Demonstrate how to prepare and use a special mixture for preventing dehydration	*Dehydration* *Death from dehydration*
Share information and discuss how tuberculosis spreads	*Tuberculosis spreading within the family and the community*

4. Briefly describe the process of selecting a person to become a community health worker.

   The process has three steps. First, discuss the role of community health workers with the community leaders. Find out if the leaders are interested in taking part in selecting, training, and supporting a community health worker. Then help them choose the criteria they will use to select a community health worker.

   Second, help to plan and hold a community meeting to discuss the role of community health workers and the support the community should provide.

   Third, help select community health worker candidates. The community members suggest two or three names, based on their selection criteria. The final selection can be made by a voice vote or a consensus decision.

5. How does the workbook format help you to train community health workers?

   A workbook allows the trainer and the community health workers to share ideas. Each learns from the other. A workbook allows the learning to take place through an exchange of ideas among all the participants. Both the trainer and the community health workers contribute their experience and knowledge in the learning process.

6. Describe how you can use the workbooks to train non-literate community health workers.

   You can use the workbooks to discuss health with non-literate community health workers as easily as with literate community health workers. You can use the drawings in the workbooks for discussions and to explain important concepts. You can use the drawings to help non-literate community health workers remember what they have learned. You can ask the questions in the workbooks and discuss the answers. You can record the answers of non-literate community health workers yourself. You can also use learning methods such as demonstrations, stories, and role-plays to train non-literate community health workers.

7. List the names of at least four community learning materials.

   a. *Health in the Community*
   b. *Health Problems in the Community*
   c. *Caring for Your Child*

d. *Caring for Your Sick Child*
e. *Water and Health*
f. *Clean Home and Clean Community*
g. *Cycle of Health Cards*
h. *The Lady Who Built a Tower*
i. *The Story of Grandmother Mamosa*

8. Why should you involve community leaders in assessing community health workers?

Community health workers' performance depends on the support they get from community leaders and members. The community will support community health workers if they do what the community expects them to do. When community leaders are involved in assessing community health workers, they help to set the community health workers' goals to meet the needs of the community. Then you can train community health workers to do what the community expects them to do.

9. List three factors that can help you decide the continuing education needs of community health workers.

a. *What community health workers have already learned*
b. *The needs of the community*
c. *The performance of community health workers*

Posttests

Identifying the Preventive Health Needs of the Community

1. Describe a healthy community. List some characteristics of a healthy community.

   A community is healthy when the community members work together well. A healthy community can do the things it wants to do. A healthy community has plenty of good food, good weather, land to cultivate, clean water, and good health habits. A healthy community has someone to care for sick people, community members who care for each other and work together, adequate housing and clothing, education, and common cultural traditions and beliefs.

2. People and communities are healthy or sick for many reasons. However, the causes of health and disease generally fall into four areas. Name these four areas.

   a. *Causes related to the individual*
   b. *Causes related to other living things*
   c. *Causes related to the environment*
   d. *Causes related to culture*

3. Why is it important to look at the whole picture when you are trying to identify causes of health and disease in a community?

   Health and disease are not the result of a single factor. Rather, several different factors usually work together to cause health or disease. Looking at the whole picture means looking carefully at all the possible causes of health or disease in a community. This is important because in order to prevent disease, you must identify its causes.

4. Getting to know the community means understanding the community's needs. What else does it mean?

   It also means finding out which needs community members feel are most important, whether they are willing to work to take care of these needs, and whether resources are available to meet the needs.

5. Describe some of the sources of information you should use to get to know the community.

   Talking to people in their homes can provide information about health needs in homes, how people feel about these needs, and their health beliefs and habits. Informal social groups may be a useful resource for developing community health

activities. Information from teachers and other people who work in schools will help you understand the health needs of children. Information from traditional health practitioners and other community health workers can give you an idea of the kinds of health activities that have been successful and those that have not. Information from development workers can help ensure the most efficient use of scarce resources.

6. When you actually begin talking to another person, you should keep in mind a number of things to improve communication. List at least eight of these things.

   a. Begin with a friendly chat. Do not ask questions immediately. Encourage the person to talk about something that interests him.

   b. Show respect for the other person.

   c. Show enthusiasm for the idea of working together for community health.

   d. Be honest. Show that you care about the community's health.

   e. Use words that the other person understands. Avoid medical language.

   f. Praise any healthy habits that the person or his family is practicing.

   g. Avoid questions that can be answered only "yes" or "no."

   h. Smile.

   i. Listen. Let others do most of the talking. Do not interrupt.

   j. Be accurate. If you do not have the correct information, be honest and say that you do not know.

   k. Give others credit for their ideas.

   l. Make your notes brief. Do not write for too long or look down at your forms or papers too often.

   m. At the end of your conversation, summarize the information you have obtained. Allow the person to correct any errors.

   n. Leave the person as a friend or someone you will see again. Thank the person, and assure him of the value of the talk.

   o. Record your notes of the conversation right away before you forget any important information.

7. You are attending a community meeting organized to choose priorities among community health activities. At previous community meetings, you have noticed that a few people do all of the talking. Equal participation is important at this meeting. What can you do to encourage equal participation?

   Encourage those who usually do not talk to comment on ideas that are raised. Ask for their opinions about priorities. Point out the good and bad ideas raised and ask people to comment on them.

8. Describe the advantages of working through respected people in the community.

Respected people in the community talk to people in the community often. Therefore, they know the community's needs. They can also introduce you to people in the community and give needed support to your work. They can influence people to take part in community health activities and thereby help increase both your information sources and the resources to carry out your activities.

9. Explain what a sample is.

Sometimes it is not possible to talk to all of the people in a community. However, it is possible to choose and talk to a selected number of community members. This is called choosing a sample. You choose a sample to get accurate information about the community without actually talking to every community member.

10. Circle the letter of your answer. A representation of all or part of a particular location is called:

a. A sample
b. A form
(c) A map
d. A symbol

11. Describe the advantages of using a map.

A map can help you get to know a community and carry out your activities. A map can show you what is being done in the community and where.

12. What three areas should you focus on to learn about a community's health needs?

a. Environment
b. Nutrition
c. Health of mothers and children

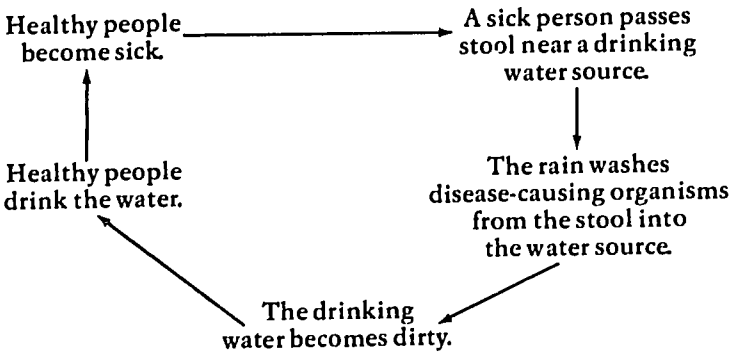
13. List the five parts of the environment that can cause disease.

a. A lack of water
b. Dirty water
c. Garbage and trash
d. Human and animal wastes
e. Insects and rodents

14. Explain how a lack of water can cause disease.

Suppose a person is sick with diarrhea. This person passes stool, but does not wash his hands afterwards because his family does not have enough water. The sick person's hands are now dirty with disease-causing organisms. The sick person touches food, dishes, and other things. These things become dirty also. A healthy person uses the dishes or eats the food. He soon becomes sick with diarrhea also.

15. Draw a cycle of events that shows how dirty water can cause disease.



16. Describe how garbage can cause disease.

Disease-causing organisms grow easily in garbage. Children can get the organisms on their hands when they play near garbage. If they do not wash their hands, the organisms can get inside their bodies or on articles in the house.

17. What is one way to prevent mosquitoes from spreading disease?

Mosquitoes breed in water. One way to prevent mosquitoes from spreading disease is to drain pools or containers of standing water.

18. TRUE (T) or FALSE (F)

_F_ Surface water is water from a spring or well.

_T_ Finding out about the environment also means identifying possible resources for environmental health activities and finding out about how people in the community feel about their environment.

19. What is good nutrition?

Good nutrition means eating the right foods in the right amounts at the right times.

20. How does a person become malnourished?

A person becomes malnourished when he does not eat enough food or when he eats food that does not have all the nutrients he needs.

21. Give two examples of mixed meals.

Each example given by the students should include body building, energy, and protective foods. For example, bread or cereal made with whole grains, soup made with lentils, and fruit or spinach is a mixed meal.

22. Breast milk has several advantages over other kinds of food for infants. List at least three.

a. *Breast milk has body building, energy, and protective nutrients in the right amounts for a growing infant.*
b. *Breast milk is clean.*
c. *Breast milk costs less than other types of milk.*
d. *Breast milk contains antibodies that help protect the infant from infection and disease.*

23. Describe the food needs of pregnant and breast-feeding women.

Pregnant and breast-feeding women need more food than other people. They should eat three mixed meals each day. Their meals should include plenty of body-building foods and foods that are rich in iron.

24. What three things does nutrition in a community depend on?

a. *Locally available foods*
b. *Family food economics and distribution*
c. *Traditional customs related to food*

25. What five questions should you ask to find out about beliefs and practices related to pregnancy and childbirth?

a. *Do women take part in special practices or receive special treatments during pregnancy?*
b. *What do pregnant women eat or not eat? Why?*
c. *Where do they go for advice?*
d. *What do pregnant women know about problems or dangerous conditions during pregnancy?*
e. *Who usually assists deliveries in the community? What do they do?*

26. Name at least three factors that would make a pregnant woman at risk.

a. *Under age sixteen*
b. *Over age thirty-five*
c. *A history of more than five pregnancies*
d. *A long-lasting illness*

27. Why is it important to ask mothers of newborns about their labor and delivery?

A complication of labor or delivery may explain a present health problem of the mother or her newborn.

28. What is child spacing?

Child spacing means spacing the birth of children at least two or three years apart.

Then the woman regains her full strength and each child has the full benefit of his mother's breast milk and care.

29. How will your knowledge of people's attitudes and practices about child spacing help you in your work?

This knowledge will help you get to know the community better. It will also put you in a better position to help families have the number of healthy children they want.

30. Why do you use a growth chart?

You use a growth chart to compare a child's weight with the weights of other children the same age.

31. Describe two ways to estimate a child's age.

a. *Ask the mother if she knows of other children in the community who were born at the same time as her child. Use these birth dates to estimate the unknown birth date.*

b. *Estimate a child's age based on developmental characteristics.*

c. *Use a local events calendar. Associate the birth of the child with local events that happened around the same time.*

32. Which four basic nutrition messages can you use as a starting point in determining the reasons for inadequate food intake?

a. *Feed an infant breast milk for the first six months and continue breast-feeding for at least two years.*

b. *Add soft, mixed foods at four to six months at least four to six times a day.*

c. *Use a clean cup and spoon for feeding if breast-feeding is not possible. Use a bottle only in emergencies.*

d. *Continue to feed an ill child.*

33. A young woman has just given birth. She has stopped breast-feeding her ten-month-old infant. The ten-month-old is showing signs of under-nutrition. What would you recommend?

If the mother cannot breast-feed the ten-month-old infant at all, she should feed him a mixed diet of soft foods at least four to six times a day. Super porridge is the best mixed food for this infant. The infant also needs milk. Tell the mother to feed him boiled milk with a clean cup and spoon.

34. Explain how diarrhea affects a child's growth and development. Explain how to care for a child with diarrhea.

A child with diarrhea loses nutrients and fluids from his body. Therefore, he does not have what he needs to grow. Some families withhold food from a child with diarrhea. This worsens his condition. The child needs oral rehydration therapy and continued feeding to replace the nutrients and fluids that he has lost.

35. Explain natural immunity to a disease.

The body of a sick person produces substances that fight disease-causing organisms in the person's blood. These substances are called antibodies. Antibodies remain in the body to fight these disease-causing organisms again, if necessary. A person develops antibodies in different ways. Natural immunity occurs when a person develops antibodies because of exposure to a disease. A child can also develop natural immunity through his mother. A pregnant woman passes many of her own antibodies to the child growing inside her. At birth, the newborn has natural immunity to many diseases. Breast milk also provides the newborn with natural immunity.

36. At what ages should you give a child each of these vaccines?

DPT:	*Three months, five months, seven months, eighteen months*
DT:	*When the child enters primary school*
Oral polio vaccine:	*Three months, five months, seven months, eighteen months, when the child enters primary school (5 – 6 years)*
Measles vaccine:	*Nine months*
BCG:	*Birth*

37. You have a picture of a community's health needs, resources, and willingness to work to meet their needs. What is the next step in planning activities to help a community stay healthy?

The next step is to identify the health activities that will help you and the community meet their health needs. You and the community members should also list the resources needed for each of the activities.

38. What is your role in helping a community choose priority health activities?

Your role is to present your opinions and advice based on your training and experience. You should listen and not force people to go your way. You should look out for the interests of the entire community. Your role is to observe, listen, and then express your views.

39. After the priorities are chosen, the next step is to decide how to carry out these activities. What else should be part of getting ready for action at this time?

A plan for determining if the activities are successful is another part of getting ready for action.

40. What is two-way communication?

Two-way communication means that both you and the person or persons with whom you are talking have something to give and something to take from the discussion. You do not do all the talking. You listen to find out what others already know. Then you discuss any new information. You encourage others to ask questions and make comments.

41. Match the methods of sharing health messages in column A with the descriptions in column B. Write the letter of your answer in the space provided.

A	B
_c_ School lesson plans	a. People learn from the experiences and questions of others
_g_ Discussions with patients	b. Usually an example of one-way communication
_e_ Stories	c. May use songs, drama, or puppets
_h_ Visual aids	d. May be important during outbreaks of disease
_f_ Demonstrations	e. Enjoyable way to pass on health information
_a_ Group discussions	f. People learn by doing
_b_ Lectures or presentations	g. Use in your daily work
_d_ Community meetings	h. Pictures, photographs, and drawings

42. What is one of the most effective ways of sharing health messages? Why?

Being an example to people in the community is an effective way of sharing health messages. If you do what you tell other people to do, they have more faith in what you say. They are then more likely to practice healthy habits themselves.

Anatomy and Physiology

1. Anatomy is the study of the *structure* of the body. Physiology is the study of the *functions* of the body.

2. List the four basic levels of organization within the body.

   a. *Cells*
   b. *Tissues*
   c. *Organs*
   d. *Organ systems*

3. List eight organ systems.

   a. *Skeletal and muscle systems*
   b. *Respiratory system*
   c. *Circulatory system*
   d. *Digestive system*
   e. *Reproductive system*
   f. *Urinary system*
   g. *Nervous system*
   h. *Hormone system*

4. Match the terms in column A with the definitions in column B. Write the letter of your answer in the space provided.

A	B
f Anterior	a. Back
a Posterior	b. Outside
d Lateral	c. Away from the center
g Medial	d. Toward the side
c Distal	e. Inside
h Proximal	f. Front
b External	g. Toward the middle
e Internal	h. Toward the center

5. Diseases upset the stable environment within the body. What is the goal of health care in this regard?

   The goal of health care is to keep the internal environment stable and to reestablish it when it is upset.

6. Name the four parts of the blood.
   a *Red blood cells*
   b *White blood cells*
   c *Platelets*
   d *Plasma*

7. __*Iron*__ is important in the formation of hemoglobin.

8. Name four parts of the plasma.
   a *Water*
   b *Plasma proteins*
   c *Nutrients*
   d *Waste materials*

9. List at least two functions of plasma.
   a *Help fight infections*
   b *Keep water in the blood vessels*
   c *Help clot the blood*

10. What is the function of the white blood cells?
    Help protect the body against disease-causing organisms

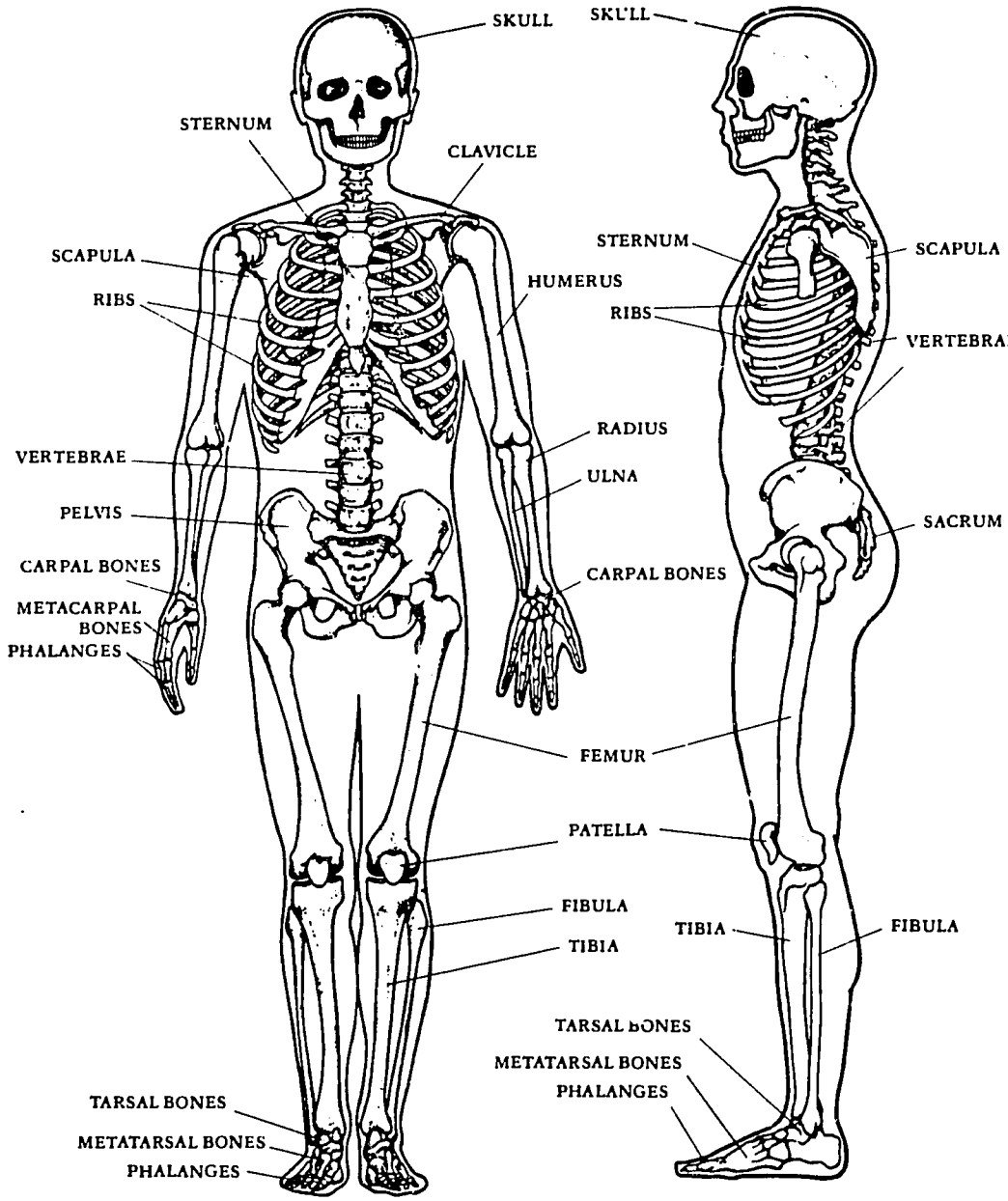
11. The spleen is located __*in the left, upper abdomen under the lower ribs*__.

12. Name the five functions of the skeletal system.
    a *Support*
    b *Movement*
    c *Protection of organs*
    d *Storage of minerals*
    e *Cell production*

13. Discuss how you can use the fontanelles to detect disease in an infant.
    Meningitis or bleeding into the brain increases the pressure in the skull. Increased pressure in the skull makes the fontanelles bulge out. Dehydration causes the fontanelles to sink in.

14. A __*joint*__ is the place where two bones join together.

15. Label the bones on the diagram below.



16. Partly moveable joints have limited movement. Name at least three partly moveable joints.

a Joint between the pelvic bones

b Joints between the vertebrae

c Joints between the ribs and the spinal column

d Joints between the ribs and the breast bone

17. TRUE(T) or FALSE(F)

_F_ Moveable joints are stronger than immoveable joints.

_T_ The more a joint is able to move, the greater the chance of injury or damage.

_F_ Joints that are not moveable have the greatest range of movement.

_T_ Moveable joints are at greater risk of injury or damage than joints that are not moveable.

18. Describe the function of the skeletal muscles.

Skeletal muscles control the movement of the arms, legs, spine, and head.

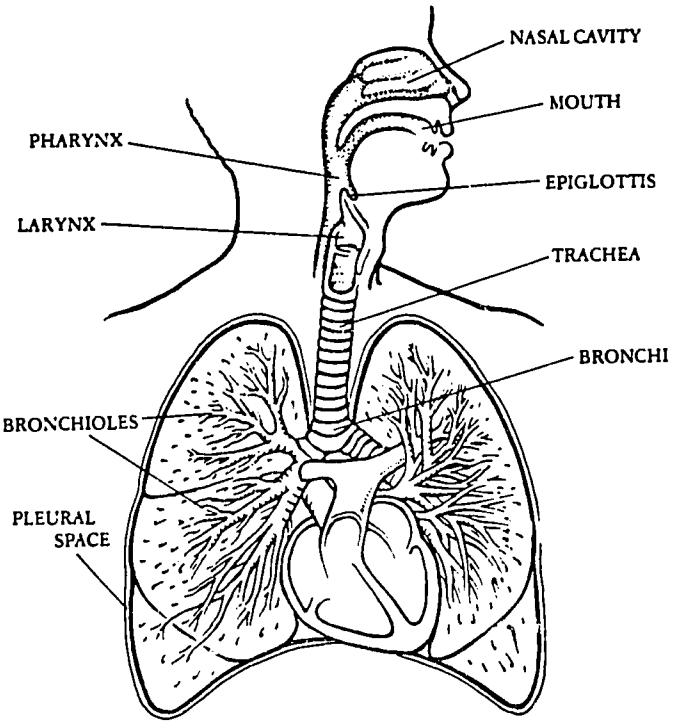
19. _Nerves_ in each bundle of muscles direct the muscle to move.

20. In order for a muscle to move well, two conditions must be met. Describe these two conditions.

a. The muscle must be attached at both ends to a bone.

b. The nerves must be working well.

21. Label the structures of the respiratory system on the diagram.



22. When a person breathes in air, the air passes through many structures. List the structures that the air passes through. Start with the nose and end with the red blood cells.

Nose→throat→larynx→trachea→bronchi→bronchioles→alveoli→capillaries→red blood cells

23. The diaphragm and the muscles between the ribs cause the lungs to expand and to shrink. Answer these questions about the diaphragm and the muscles between the ribs.

    a. What is the diaphragm? Where is it located?

    The diaphragm is a thick muscle that is located below the lungs.

    b. What causes the lungs to expand?

    The diaphragm pulling down causes the lungs to expand.

    c. What happens to the ribs when the muscles between the ribs contract?

    They pull up.

    d. What do the lungs do when the chest grows larger?

    The lungs expand, causing air to be pulled in.

    e. How does the diaphragm force air out of the lungs?

    It lifts up.

    f. How do the muscles between the ribs help force air out of the lungs?

    They relax.

24. TRUE (T) or FALSE (F)

    _T_ The heart is a pump.

    _T_ The heart is located between the lungs and behind the breast bone.

    _F_ The lower chambers of the heart are called the atria.

    _T_ Capillaries connect arteries and veins.

    _F_ The pressure inside the capillaries is very high.

    _F_ Blood spurts out when a vein is cut.

25. Describe the flow of blood from the left side of the heart to the right side of the heart.

    Blood comes from the lungs in the pulmonary veins to the left atrium and then is pushed into the left ventricle. The blood is forced from the left ventricle into the arteries. The arteries carry the blood to the capillaries in all the body tissues. From the capillaries the blood goes to the veins and then to the right side of the heart.

26. Describe the flow of blood from the right side of the heart to the left side of the heart.

    From the right atrium, the blood goes to the right ventricle. The right ventricle pushes blood into the pulmonary artery. The pulmonary artery carries the blood to the capillaries of the lungs. The pulmonary veins bring the blood back from the lungs to the left atrium.

27. What causes the heart sounds?

    The closing of the four valves between the chambers of the heart cause the heart sounds.

28. The blood pressure is the force of the heart's contractions. It is usually measured in the arteries. Answer these questions about the blood pressure.

    a. What is the systolic pressure?

    Systolic pressure is the pressure in the arteries when the ventricles contract and pump blood out of the heart.

    b. What is the diastolic pressure?

    Diastolic pressure is the pressure in the arteries when the ventricles relax.

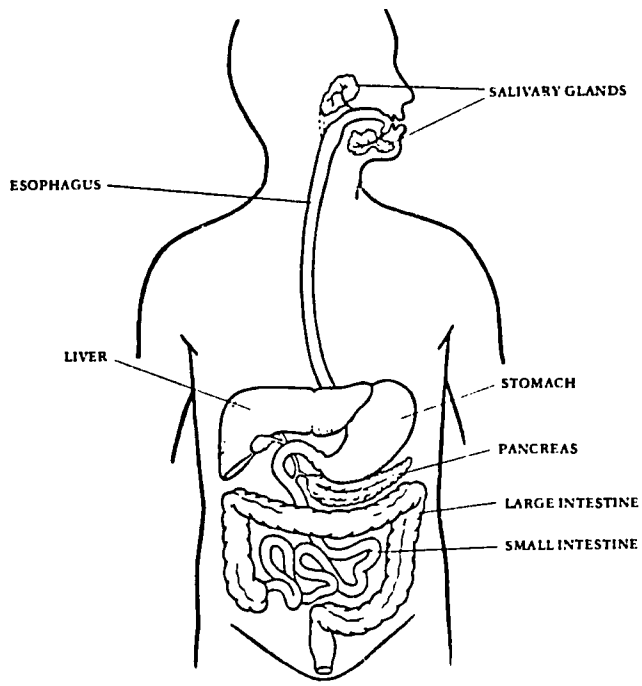
    c. Normal blood pressure is 120/80.

    Which number is the systolic pressure? *120*
    Which number is the diastolic pressure? *80*

29. Name the three main functions of the digestive system.

    a Digestion
    b Absorption
    c Elimination

30. Label the parts of the digestive system on the diagram.



31. Briefly describe the functions of these structures or organs in the digestive system.

    a. Mouth: *In the mouth, food is broken down into smaller pieces and mixed with fluids. Chemicals are added that begin digestion by changing foods into simpler forms.*

    b. Stomach: *The stomach churns and mixes food. The stomach secretes acids and other chemical substances that help digest food.*

    c. Small intestine: *Most of the digestion and absorption of food takes place in the small intestine.*

    d. Liver: *The liver changes nutrients into chemical substances that the body cells need to live and grow. The liver also removes harmful waste products from the blood.*

    e. Large intestine: *The large intestine collects waste products and moves them toward the anus to be eliminated from the body.*

32. Name the two functions of the urinary system.

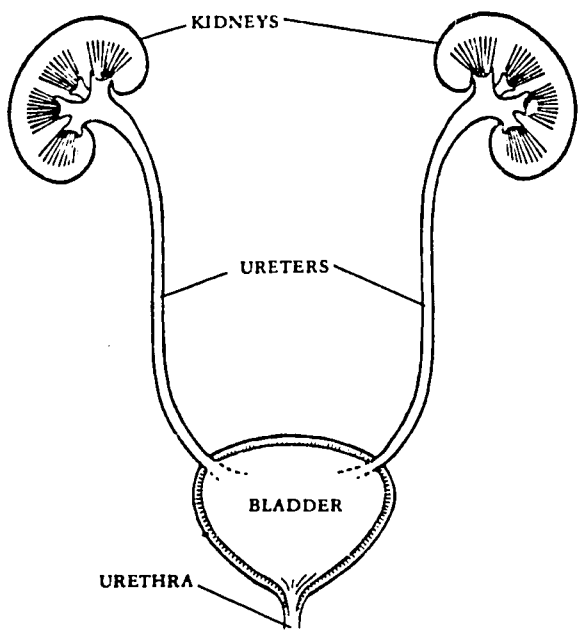
    a. *The urinary system removes waste products that are released into the blood by the cells of the body.*

    b. *The urinary system regulates the amount of water and minerals that are carried in the blood.*

33. Name the four parts of the urinary system.

    a. *Kidney*
    b. *Ureters*
    c. *Bladder*
    d. *Urethra*

34. Label the diagram of the urinary system.



35. Describe the production and transport of urine.

The fluid in the blood passes through the capillaries of the kidneys and collects in small sacs. Connected to each sac is a tiny kidney tube, or tubule. Waste products from the blood remain in the kidney tubules. The waste materials, called urine, pass from the kidney tubules to the ureters and into the bladder. The urine fills up the bladder. A person empties his bladder through the urethra.

36. Match the terms in column A with the descriptions in column B. Write the letter of your answer in the space provided.

A	B
_b_ Testes	a. Produces mucus that mixes with milky fluid from the prostate gland and sperm from the testes
_c_ Scrotum	b. Produce sperm
_f_ Vas deferens	c. Sac of skin that hangs below and behind the penis
_g_ Prostate gland	d. Formed inside the prostate gland by the tube from the seminal vesicles and the vas deferens
_a_ Seminal vesicles	e. Part of the urinary system and the reproductive system
_d_ Ejaculatory tube	f. Coiled tube that runs up from the testes, into the pelvis, and over the bladder to enter the prostate gland
_e_ Urethra	g. Produces a milky substance that is part of semen

37. The uterus is located in the pelvis above and behind the bladder. Answer these questions about the uterus.

a. What is the lower end of the uterus called?

Cervix

b. What is the normal size of the uterus?

Size of a woman's fist

c. The uterus is lined with mucous membranes that change according to the _*menstrual cycle*_.

d. The muscles of the uterus allow the uterus to _*expand*_ during pregnancy and to _*contract*_ during delivery.

38. The joining of an ovum and a sperm cell in a fallopian tube is called _*fertilization*_.

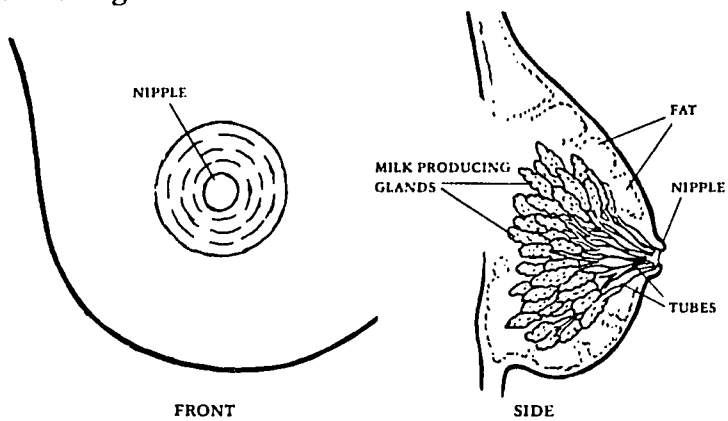
39. What happens to the lining of the uterus if fertilization does not occur?

Menstruation occurs and the lining is shed.

40. What is the menstrual cycle?

The period from the start of menstruation in one month until the start of menstruation the next month

41. Label the diagram of a breast.



42. Name the two functions of the nervous system.

a. *The nervous system sends messages to and receives messages from all parts of the body.*

b. *The nervous system coordinates all of the body's activities.*

43. The brain is divided into *three* parts. Each part controls different activities within the body. Describe the function of each part of the brain.

One part controls activities such as walking, talking and writing. The second part maintains balance and body coordination. The third part controls automatic regulation of the body systems.

44. What protects the spinal cord?

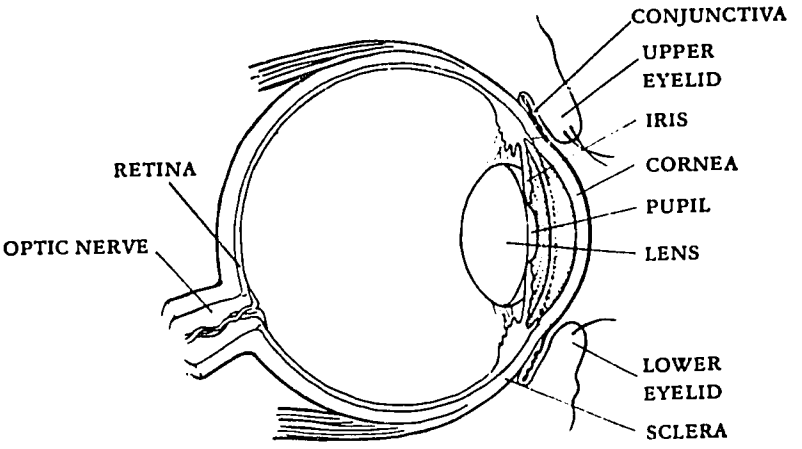
The vertebrae and the fluid that surrounds the spinal cord and the brain protect the spinal cord.

45. Name two types of nerves. Give at least one function of each type of nerve.

a. *Sensory nerves — Carry messages to the brain from the skin and organs. Some respond to pain, some to touch, and some to vibration.*

b. *Motor nerves — Carry messages from the brain to the muscles and organs of the body. Messages from the motor nerves cause the muscles to contract. Motor nerves help maintain muscle tone.*

46. Label the diagram of the eye.



47. Name at least one function for each of these parts of the eye.

Eyelid:	*Protects the eye from injury*
	Blinking of the eyelids spreads tears
Tear glands:	*Produce tears that keep the eyes moist and clean*
Retina:	*Responds to light and allows you to see*
	Changes light into sight messages
Conjunctiva:	*Produces mucus that allows the eyelid to slide smoothly over the eye*
Pupil:	*Changes size to control the amount of light that enters the eye*
Lens:	*Adjusts automatically to light to allow you to see objects at different distances*
	Focuses light
Optic nerve:	*Carries sight messages from the retina to the brain*

48. What is the function of the ears?

The ears receive sound messages and send them to the brain.

49. The ears collect sound waves and send them to the brain so that you can hear. What is the path of the sound waves from the environment to the brain?

Environment → outer ear → ear canal → eardrum → middle ear → nerves → brain

50. What are the two functions of the nose?

a. The nose is the organ of smell.

b. The nose cleans, warms, and moistens the air that is breathed.

51. Name five structures of the mouth. Name one function of each structure.

    a. *Lips:* *Bring food into the mouth and shape the mouth for speaking*

    b. *Cheeks:* *Help in eating*

    c. *Tongue:* *Organ for taste. Moves food around during chewing. Pushes food into the throat for swallowing. Helps shape the mouth for speaking.*

    d. *Salivary glands:* *Produce fluid called saliva that moistens and softens food and helps keep the mouth moist*

    e. *Teeth:* *Chew food*

52. The adult has *thirty-two* teeth.

53. The skin is made up of two layers. Name these two layers. Name at least one structure contained in each layer.

    a. *Epidermis:* *Dead cells, fingernails, toenails*

    b. *Dermis:* *Hair, oil glands, sweat glands, blood vessels, nerves*

54. Name one function of each of the following structures:

    Oil glands: *Help keep the skin soft and moist*

    Sweat glands: *Help regulate the temperature of the body by secreting fluid called sweat*

    Blood vessels: *Bring nutrients to the skin and help regulate body temperature*

    Nerves: *Carry messages about the environment to the spinal cord and the brain*

55. Name the four main functions of the skin.

    a. *Protection*

    b. *Response to sensation*

    c. *Regulation of body temperature*

    d. *Excretion*

56. Describe the function of the hormone system.

    The body uses the hormone system as one means of communication. One part of the body uses hormones to send messages to another part.

57. Name one function of the thyroid gland.

    The thyroid gland regulates the activities of the cells of the body.

58. Describe one function of insulin.

Insulin helps cells use sugar.

59. Name two hormones produced by the female reproductive system. Give one function of each hormone.

a Estrogen: *Responsible for development of female sex characteristics and regulation of menstrual cycles*

b Progesterone: *Responsible for helping to maintain pregnancy*

60. Name one hormone produced by the male reproductive system. Give two functions of the hormone.

Testosterone: *Responsible for the development of male sex characteristics and for the production and development of sperm*

Medical History

1. Why do you take a medical history?

   You take a medical history to obtain information that will help you understand a patient's health problem.

2. Should you make a diagnosis by doing a physical examination and not a medical history? Why?

   No, you should not make a diagnosis by doing a physical examination and not a medical history. You combine the information from the medical history and the physical examination to make a diagnosis.

3. List seven items that make up the patient identification information.

   a. *Date of visit*
   b. *Name*
   c. *Address*
   d. *Sex*
   e. *Date of birth*
   f. *Age*
   g. *Marital status*

4. When should you obtain the patient identification information?

   Obtain the patient identification information on a patient's first visit, before attending to his present problem. Check the patient identification information at each patient visit.

5. What is the difference between a symptom and a sign?

   A symptom is something that the patient tells you about. A sign is something that you detect or observe.

6. Write the presenting complaint of a patient who tells you:

   "I have had a cough for two months. Just recently, I have been very tired and have not wanted to eat."

   "Cough for two months with fatigue and loss of appetite"

7. A patient's presenting complaint is "pain in the throat and difficulty swallowing for three days." List at least six questions that you should ask about his present problem.

   a *"Did the pain start suddenly or gradually?"*

   b *"Does the pain come and go, or is it always present?"*

   c *"How severe is the throat pain?"*

   d *"When does the throat pain occur?"*

   e *"What makes the pain better or worse?"*

   f *"Do you have any other symptoms, such as a change in your voice, fatigue, or fever?"*

   g *"Have you ever had throat pain before?"*

   h *"Have you come in contact with anyone else who has the same symptoms?"*

8. A patient complains of a "cough for two months." List at least six questions that you should ask about his present problem.

   a *"Did the cough develop suddenly or gradually?"*

   b *"How often are you coughing?"*

   c *"How severe is the cough?"*

   d *"When does the cough occur?"*

   e *"What makes the cough better or worse?"*

   f *"Have you noticed any of these other symptoms:*

      Coughing up sputum
      Chest pain
      Wheezing
      Shortness of breath
      Difficulty breathing
      Fever
      Weight loss
      Loss of appetite?"

   g *"Have you ever had a cough like this before?"*

   h *"Does anyone else that you know have a cough?"*

9. A patient complains of "pain in the chest for one week." Name three body systems that you should be sure to review.

   a *Respiratory*

   b *Heart*

   c *Gastrointestinal*

10. A man complains of "pain in his lower belly for three days." Name the body systems that you should review.

a *Gastrointestinal*
b *Genitourinary*
c *Male genital*

11. What symptoms should you ask about when you review the gastrointestinal system?

a *Nausea*
b *Vomiting*
c *Blood in vomit*
d *Diarrhea*
e *Constipation*
f *Blood or mucus in stool*
g *Heartburn*
h *Abdominal pain*
i *Pain or itching around the rectum*
j *Worms*
k *Fever*
l *Chills*
m *Weight loss*

12. List at least five symptoms that you might find out about when you ask a patient about passing urine.

a *Pain on urination*
b *Frequent urination*
c *Increased urination*
d *Having to urinate frequently at night*
e *Trouble starting and stopping the flow of urine*
f *Blood in urine*
g *Swelling of face and legs*
h *Colicky pain in loin or flank*
i *Radiating flank pain*
j *Fever*
k *Chills*

13. List at least four findings in a medical history that would make you suspect that a patient has a problem of the nervous system.

a *Headache*
b *Convulsion*
c *Fainting*
d *Paralysis of an arm or leg*
e *Loss of consciousness*
f *Loss of speech*
g *Loss of memory*
h *Loss of sensation*

14. You are taking the past medical history of a male patient. What must you be sure to ask about?

    a. *Drug allergies*
    b. *Immunizations*
    c. *Childhood illnesses*
    d. *Adult illnesses*
    e. *Operations*
    f. *Accidents*
    g. *Family history*
    h. *Social history*

15. How is the past medical history of a female patient different from the past medical history of a male patient?

    For a female patient you take a menstrual and obstetrical history.

16. A patient tells you that he is allergic to penicillin. What should you do with this information?

    a. *Do not give penicillin to the patient.*
    b. *Tell the patient not to take penicillin from anyone else.*
    c. *Write on the patient's record in large letters that he is allergic to penicillin.*

17. List at least six childhood illnesses that you should ask a patient about.

    a. *Measles*
    b. *Mumps*
    c. *Whooping cough*
    d. *Polio*
    e. *Rheumatic heart disease*
    f. *Tuberculosis*
    g. *Kwashiorkor*
    h. *Marasmus*

18. List at least six adult illnesses that you should ask a patient about.

    a. *High blood pressure*
    b. *Diabetes*
    c. *Heart disease*
    d. *Tuberculosis*
    e. *Filariasis*
    f. *Malaria*
    g. *Cancer*

19. Why should you ask if a patient has had any operations?

    a. *This information may help you make a diagnosis.*

    b. *You might be able to see a pattern in his present illness by knowing about past operations.*

20. Why should you ask if a patient has had any accidents?

    The information might help to explain any deformities, scars, or limited movement in parts of the patient's body.

21. What should you ask a woman patient about her menstrual periods?

    a. *"When was your last menstrual period?"*

    b. *"Are your menstrual periods regular or irregular?"*

    c. *"How many days does your menstrual period usually last?"*

    d. *"Do you usually have pain with your menstrual periods?"*

22. How does the medical history of a child differ from the medical history of an adult?

    a. *Added to the past medical history are questions about development and diet.*

    b. *Removed are questions concerning adult illnesses, menstrual and obstetrical history, occupation, and personal habits.*

23. You are taking the past medical history of a two-and-one-half-year-old child. List at least six areas you should ask about.

    a. *Drug allergies*

    b. *Immunizations*

    c. *Childhood illnesses*

    d. *Operations*

    e. *Accidents*

    f. *Development*

    g. *Diet*

    h. *Family history*

    i. *Social history*

24. List five questions to ask when you take the history of a child's diet.

    a. *"Is the child still breast-feeding?"*

    b. *"What foods does the child eat?"*

    c. *"How much food does the child eat?"*

    d. *"How often does the child eat each day?"*

    e. *"Why does the child eat the foods that he does?"*

Physical Examination

1. Why do you perform a physical examination?

   You perform a physical examination to find signs of disease.

2. When do you perform a physical examination?

   You perform a physical examination after you finish taking the medical history.

3. TRUE (T) or FALSE (F)

   _T_ Signs can be normal or abnormal.

   _F_ Signs are something that the patient describes to you.

   _F_ Normal signs are not as important as abnormal signs.

   _T_ A change in the body or in its normal functions causes signs of an abnormal condition.

4. List the five methods of examination that you should use when you do a physical examination. Briefly describe each.

   a. *Inspect:* *Look carefully for signs*
   b. *Palpate:* *Touch or feel with your hands*
   c. *Percuss:* *Tap certain parts of the body to make a sound*
   d. *Auscultate:* *Listen with a stethoscope*
   e. *Smell:* *Notice odors given off from different areas of the body*

5. List at least three ways to prepare a patient for a physical examination.

   a. *Make the patient as comfortable as possible.*
   b. *Explain the purpose of the examination.*
   c. *Ask the patient to remove his clothing. Provide a drape.*
   d. *Warm the stethoscope and speculums before using them on the patient.*
   e. *Give clear instructions to the patient before you perform a procedure.*

6. Check (*x*) the findings in the following list that you think are normal.

   ____ An adult with a pulse rate of 44 beats per minute

_x_ An adult with a pulse rate of 88 beats per minute

_x_ An adult with 22 respirations per minute right after he ran into the health center

____ An adult with 28 respirations per minute after he had been sitting for a long while

____ An adult with a blood pressure of 150/96

_x_ An adult with a blood pressure of 120/70

7. Complete these sentences:

   a. When measuring the blood pressure, the figure at which you hear the first beat of the pulse is the _systolic_ blood pressure. The figure at which you can no longer hear the pulse is the _diastolic_ blood pressure.

   b. When an adult is resting, his blood pressure should be between _90/60_ and _140/90_ .

8. Write the normal temperatures for each area:

   Mouth _37°C_
   Rectum _37.5°C_
   Armpit _36°C_

9. List the aspects of a patient's general appearance that you can observe during a physical examination.

   a. State of health
   b. State of nutrition
   c. Behavior
   d. Mental state
   e. Speech
   f. Ability to walk

10. What should you look for when you inspect a patient's skin?

   a. Color
   b. Lesions
   c. Edema
   d. Moisture
   e. Hair pattern
   f. Evidence of injury

11. What should you note when you palpate a patient's skin?

    a Moisture
    b Temperature
    c Texture
    d Tenderness

12. Check (*x*) the findings in the following list that you think are abnormal.

    ____ Vision of 6/9
    _x_ Vision of 6/30
    _x_ Bulging of the right eye
    _x_ A man who cannot follow a pencil with his eyes
    ____ Clear, moist conjunctivae
    _x_ Yellow sclera
    _x_ Right pupil larger than the left
    ____ Both pupils reacting the same to light
    _x_ Redness around the right pupil

13. Explain what the figures 6/6 mean.

    The first number corresponds to the distance that the patient stood from the E chart. The second number corresponds to the last row that the patient saw.

14. Name the three areas that you should inspect when you examine the ears.

    a Outside of the ears
    b Outside the ear canals
    c Mastoid areas

15. List the methods that you should use when you examine the mouth and throat.

    a Inspect
    b Palpate
    c Smell the breath

16. Check (*x*) the findings in the following list that you think are abnormal.

    _x_ A man whose head tilts to the right
    _x_ A woman who has a swelling over the thyroid area
    ____ A man who can move his head in any direction

_x_ A woman who has a large lump on the spine of her neck

_x_ A man who has tight neck muscles

____ A woman whose thyroid gland you cannot feel

17. List at least eight things that you should check for when you inspect the respiratory system.

a Rate and rhythm of breathing
b Ease of breathing
c Cyanosis
d Shape of the chest
e Chest expansion
f Intercostal spaces
g Nostrils
h Wounds
i Cough
j Sputum

18. Describe what you should observe when you check these parts of the respiratory system.

a. Rate and rhythm of breathing: *Observe how fast and how deeply the patient breathes. Note the relationship of inspiration to expiration.*

b. Shape of the chest: *Note the distance from the front of the chest to the back, compared to the distance from side to side.*

c. Chest expansion: *Notice if the patient's chest moves in and out as he breathes.*

d. Intercostal spaces: *Look at the spaces between the ribs and just above the breast bone. Notice if the spaces retract when the patient breathes.*

19. Describe why you percuss the chest.

You percuss the chest to find if the lungs are filled with air, fluid, or pus.

20. Name two organs that might cause a dull sound when you percuss the chest.

a Heart
b Liver

21. What are you listening to when you auscultate the lungs?

The sound of air passing through different parts of the lungs

22. List six things that you should note when you inspect a woman's breasts.

    a Size
    b Shape
    c Color
    d Dimpling
    e Discharge
    f Cracks

23. Why do you auscultate the abdomen before you palpate or percuss?

    The abdominal sounds sometimes diminish after palpation.

24. List three things that you should check for when you inspect the abdomen.

    a Shape
    b Scars
    c Blood vessels

25. A patient complains of pain in the right upper quadrant. Where should you start to palpate his abdomen?

    Palpate an area opposite the pain. Palpate the painful area last.

26. Describe where the following organs are located in the abdomen.

    Liver: *right upper quadrant*
    Spleen: *left upper quadrant*
    Bladder: *middle of the lower abdomen, even with the pubic bone*

27. List three areas of the male genitals that you should inspect.

    a Penis
    b Scrotum
    c Groin

28. List three parts of the male genitals that you should feel when you palpate the scrotum.

    a Skin of the scrotum
    b Testes
    c Spermatic cord

29. What are you looking for when you examine the arms and legs?

    Edema

30. List the parts of the body that you should examine as part of the musculoskeletal system.

All of the body, but especially the:

a Neck
b Shoulders
c Arms
d Hips
e Knees
f Legs
g Ankles
h Feet
i Spine

31. List five areas where you should check for nerve enlargement.

a Neck
b Elbow
c Wrists
d Knees
e Ankles

32. Name five parts of the female genitals that you should inspect.

a Labia
b Urethra
c Vaginal opening
d Vagina
e Cervix

33. Name two areas of the female genitals that you should palpate.

a Uterus
b Adnexal areas

34. Describe how to prepare a child for a physical examination.

a Choose a private area in which to examine the child. Provide a place for the child to sit and lie down. Let the young child sit on his parent's lap.
b Ask the patient to assist during the examination as much as possible.
c Explain to the parent and the child the purpose of the examination. Describe what you will be doing.

35. Describe how to test the vision of a twelve-month-old child.

Hold a bright, shiny object in front of the child. Notice if the child looks at it and reaches for it.

Respiratory and Heart

1. Explain what causes wheezing.

   Wheezing occurs when bronchial mucus fills the alveoli in the lungs. When these alveoli are full of mucus, they trap air. The person can breathe in without difficulty, but he must force the air out of his lungs. This causes the wheezing sound.

2. How should you begin your physical examination of a patient with a chest problem?

   Always begin your physical examination by noting the general appearance of the patient. Take his vital signs. Then examine his chest.

3. Briefly describe how to palpate a patient's chest.

   Stand or sit in front of the patient. Place your hands on the patient's chest. Your thumbs should be on the lowest ribs in the front. Tell the patient to take a deep breath. As he breathes in, watch his chest expand. Also feel it expand. The two sides of the chest should expand at the same rate and the same amount. If there is a problem on one side or the other, the affected side will expand less than the normal side. Feel the patient's chest for tenderness and pain.

4. While percussing the chest of a patient, you notice a flat sound in the lungs. What could this be a sign of?

   This could be a sign of fluid or other secretions such as pus in the chest.

5. Write the letter of the words in Column A next to their correct meaning in column B.

A	B
a. Trachea	_i_ The voice box
b. Intercostal retractions	_e_ The flap of skin at the base of the tongue
c. Wheezing	_h_ Two large tubes which branch off from the trachea into the lungs
d. Alveoli	_k_ Small tubes which branch off from the bronchi
e. Epiglottis	_a_ The windpipe
	_f_ A rattle sound from the chest caused by air rushing across mucus

f. Rhonchi

g. Rales

h. Bronchi

i. Larynx

j. Cyanosis

k. Bronchioles

l. Bronchial breath sounds

_l_ A chest sound which may be heard just to the right of the sternum over the right bronchial tube

_c_ This sound occurs when a person has trouble getting air out of his lungs

_d_ Tiny air sacs in the lungs

_g_ Sounds which result from mucus in the alveoli

_b_ The sucking in of the spaces between a person's ribs

_j_ A sign that oxygen is not getting into a person's blood

6. TRUE(T) or FALSE(F)

_T_ Pneumonia may occur alone or as a complication of other diseases such as measles.

_F_ Pneumonia is not contagious.

_T_ Pneumonia is much more severe in children than it usually is in adults.

7. A mother brings to your clinic her three-year-old child who you diagnosed three days ago as having measles. Now from the child's symptoms and signs, you diagnose pneumonia.

   a. What care would you provide for the child?

   Antibiotics

   Start procaine penicillin, 300,000 units IM every twelve hours for the first twenty-four hours. Then, if there is noticeable improvement, the child can be switched to oral penicillin V. If the infection is severe, the child should take 250 mg penicillin V every six hours for the next nine days. If the infection is moderate, the dosage should be 125 mg penicillin V every six hours for the next nine days.

   Expectorant

   If the mother of the child requests something for her child's cough, one teaspoon of glyceryl guaiacolate can be given to the child every four hours.

   Oral rehydration solution

   Show the mother how to make and use oral rehydration solutions. Feed some of the solution to the child with a clean cup and spoon. Make sure this is done in front of the mother.

b. What would you tell the mother about caring for her child at home?

Sick children need fluids. Show the mother how to make and use oral rehydration solution at home.

Sick infants and young children should continue on breast milk. Older children require a balanced diet of:

Super porridge
Mashed, cooked vegetables and fruits for young children
Whole, clean vegetables and fruits for older children

Show the mother how to administer the glyceryl guaiacolate expectorant, if mother has asked for cough medicine.

Tell the mother how to administer the penicillin, how much penicillin to give, when to give it, and for how long.

Also tell the mother to bring her child back to the clinic in two days if the child is not getting better, or anytime she has any questions.

8. You have diagnosed a sixty-five-year-old patient as having acute bronchitis. During your history taking, you noted that she has had a previous history of lung disease. The choice of drug for this patient is procaine penicillin. However, the patient reports that she developed a rash the last time she was given penicillin. You suspect that she is allergic to penicillin. Use your Formulary when answering the following questions.

a. What antibiotic would you give to the patient?

Erythromycin

b. How would you administer this antibiotic?

Give adults 250 mg orally, every six hours for ten days.

9. You have just diagnosed chronic bronchitis in a forty-five-year-old man who smokes one pack of cigarettes a day. What is the most important care you can provide this patient?

Help him to stop smoking.

10. The two most common causes of pleural effusion are *tuberculosis* and *congestive heart failure*.

11. A mother brings her five-year-old child to the clinic. The child is having a mild asthmatic attack. What two immediate things would you do in the clinic to treat the child?

a. *Administer epinephrine 1:1000 subcutaneously*

Count and record the pulse rate. Give .1 ml epinephrine. Recheck the patient in twenty minutes. If the patient is still wheezing, repeat the same dose of epinephrine again. Recheck the child after twenty minutes. Do not give more epinephrine if the child's pulse is over 140 beats per minute.

b. Give theophylline by mouth

Theophylline will reverse the muscle spasm in the walls of the bronchioles. It may be given every six hours by mouth.

12. How are the bacteria which cause tuberculosis spread from one person to another?

The bacteria are spread by coughing, sneezing, and close contact.

13. What points might you include in educating the patient and his family about tuberculosis?

a. Treatment for tuberculosis lasts for years.

b. The medicine must be taken regularly.

c. The patient must come to the clinic if reactions to the medicine occur.

d. Follow up care is very important, so the health worker will be watching the patient's weight, his diet, the patient's symptoms, the taking of drugs and medicines, and any side effects of the drugs. The health worker will also be checking the family members for tuberculosis.

14. You have diagnosed tuberculosis in a nine-year-old boy who weighs 30 kg. Blood tests tell you the boy is also severely anemic. How will you manage this patient?

Refer him to a hospital for initial treatment.

15. Briefly explain the flow of blood through the heart and lungs.

Blood flows into the left auricle from the lungs. It passes into the left ventricle, and then is pumped out through the aorta and into all of the major arteries of the systemic circulation. There are two main circulatory systems: the systemic and pulmonary circulations.

The blood which has been used by the organs of the body returns to the heart through the superior and inferior vena cava. It empties into the right auricle. This is the beginning of the pulmonary circulation. The blood then passes on into the right ventricle. It is pumped out of the heart and into the pulmonary arteries. The pulmonary arteries carry the blood to the lungs. In the lungs, the blood gives up carbon dioxide and picks up oxygen. It then travels back to the heart through the pulmonary veins.

16. Describe briefly what causes angina.

Angina is sudden pain in the chest caused by an insufficient amount of oxygen-supplied blood to the heart muscle. This is usually due to damaged arteries which cannot carry as much blood as they need to.

17. When you examine the patient with a possible heart problem, you must focus on three major areas: *extremities* , *the neck* , and *the chest* .

18. What is the only way you can diagnose hypertension?

By taking the patient's blood pressure

19. The drug digitalis helps patients with congestive heart failure live a normal life. What else will help them live normally?

Eliminating salt from their diets and proper rest

20. What health messages would you include in talking to a patient with congestive heart failure and his family?

a. *Congestive heart failure can be controlled by medications, but cannot be cured.*

b. *The patient must continue to take his medications for the rest of his life.*

c. *If the patient stops his medications, the symptoms of congestive heart failure will return.*

d. *The patient must avoid salt, whether it is added to food during cooking or at the table.*

e. *The patient may be more comfortable at night with his head and chest raised higher than his feet. Fluid tends to collect in the lungs at night, and this may cause shortness of breath.*

f. *The patient needs extra rest during the day.*

21. Describe how you could determine if a patient taking digitalis is getting too little or too much of the drug.

If the patient is getting too little digitalis, he will have a pulse rate over ninety beats per minute and accumulate fluid in his body. If he is getting too much digitalis, he will feel nauseous, vomit, and have a headache, a heart rate below sixty beats per minute, and an irregular heartbeat.

22. TRUE (T) or FALSE (F)

T Although rheumatic fever is related to rheumatic heart disease many patients who present with rheumatic heart disease will have no history of rheumatic fever.

23. Describe some of the major differences between the pain of angina pectoris and the pain of a myocardial infarction.

A person suffering from angina pectoris will experience a sudden onset of pain, which may radiate into his shoulders, jaws, or down the left arm. The pain is continuous and constant for up to two minutes. It may be relieved by rest or nitroglycerin. The pain of a myocardial infarction, or heart attack, lasts longer than

that for angina. It may last for ten minutes to several hours. In addition, the pain is much worse than angina pain. Patients often feel they cannot breathe. The pain of a myocardial infarction is not relieved by nitroglycerin or rest.

24. When blood is cut off from a portion of a person's heart muscle, the person has a myocardial infarction, or heart attack. How would you care for a person who suffers a myocardial infarction?

    a. *Treat the patient as a medical emergency.*

    b. *Transport him to a hospital in a sitting position as soon as possible.*

    c. *If he is having severe pain, give him 100 mg pethidine IM. Repeat after three hours, as necessary for relief of pain.*

25. Explain what is meant by a hypertensive crisis.

    Some patients develop very high blood pressure. Their symptoms are severe headache, vomiting, difficulty with their vision, convulsions, and unconsciousness. This is called a hypertensive crisis. It is a medical emergency.

26. A patient complains of a headache. Your examination reveals that the patient weighs 95 kg and is 1.7 meters tall. You determine that he is mildly hypertensive. Discuss the major points in your management of this patient.

    The patient is overweight. Teach him that excess weight makes the problem of high blood pressure worse. Explain that his blood pressure will come down as he loses weight. Also, explain that salt in his diet increases blood pressure too. He should avoid all salty foods. Tell the patient to return to see you every week for three months so you can take his blood pressure and follow his progress.

27. Discuss the initial management of a patient whose blood pressure is continually elevated to 170/115.

    Patient education— *Encourage the patient to reduce his weight and his use of salt. Explain that you will check his blood pressure weekly for the next four weeks.*

    Drug therapy— *Immediately begin the patient on hydrochlorothiazide, giving him one tablet daily. If his blood pressure remains elevated after four weeks, increase the dosage of hydrochlorothiazide to two tablets per day. If this does not control the pressure after another month, refer the patient to a doctor.*

28. Explain why health messages should be an important part of your talk with patients.

    The health worker has an important role in helping people prevent and care for respiratory and heart problems. He can do this by sharing health messages with them. Simple health messages help people develop healthy living habits and prevent respiratory and heart problems. They also help people learn how to care for themselves when they are ill with a respiratory or heart problem.

The health worker has a perfect opportunity to share health messages with patients. He gets to know the patients, their problems, and how they feel about these problems. Also, patients trust the health worker. Therefore, the health worker who is knowledgeable and concerned about the health of his patients can help them stay healthy. He can add to the knowledge of his patients with his own knowledge.

Sharing health messages with patients can help patients develop responsibility for their health. Then the patient and health worker can work together to stay healthy.

29. Describe three kinds of health messages that you can include in your talk with a patient.

    a *You can explain to a patient what is happening inside his body as a result of his health problem.*

    b *You can explain to a patient how health habits are related to health problems.*

    c *You can share information about a specific preventive measure or home care procedure.*

30. What two things should you keep in mind when preparing a story to share health messages?

    a *Who you want to share your health information with*

    b *Why you want to share this information*

Gastrointestinal

1. Disease can disturb the normal activity of the gastrointestinal tract.
- When this happens, certain signs and symptoms appear. Briefly describe five symptoms and signs associated with abdominal problems.

   a. *Inflammation of the intestines– Gastrointestinal diseases can irritate the stomach and intestines and cause pain. When the intestines are irritated or inflamed, the contents rapidly pass through.*

   b. *Inflammation of the peritoneum– The lining of the abdominal cavity is a thin membrane called the peritoneum. When the peritoneum becomes inflamed, it causes pain. Inflammation of the peritoneum is most often caused by a ruptured appendix or a peptic ulcer.*

   c. *Swelling of the abdomen– The abdomen can swell for several reasons. Organs such as the liver, spleen, or bladder may become enlarged. The large intestine may have a large amount of stool in it. Liver disease may fill the abdomen with fluid. The intestines may become blocked. Poor nutrition may weaken abdominal muscles. Worms may swell the intestinal tract. The poor muscle tone and worm enlarged intestines will enlarge the abdomen.*

   d. *Jaundice– The skin and the sclerae become yellow when they absorb yellow pigment. The liver normally cleans the body of this pigment, but when the liver is not functioning properly, the yellow pigment is not removed from the blood and is deposited in the skin and sclerae.*

   e. *Diarrhea, vomiting, and dehydration– When the intestines are irritated, the patient will develop nausea, vomiting, and diarrhea. When the irritation is in the upper intestines, the major symptoms are nausea and vomiting. When the irritation is lower in the intestines, the patient suffers more with diarrhea. Vomiting and diarrhea cause dehydration.*

2. A patient complains of an abdominal pain that comes and goes. What is happening in the patient's body?

   When the stomach or intestines are irritated, the muscles in the walls of these organs begin to contract and relax faster and harder than normal. The patient feels sudden pain. As the muscles relax, the pain goes away. It returns when the muscles contract again. Pain which comes and goes is called colic, or colicky pain.

3. Describe some of the differences between mild and severe abdominal pain.

   The patient with mild abdominal pain can usually talk calmly, laugh, and take a deep breath. The patient usually has a normal pulse rate and only slight pain on

palpation. However, a patient with severe abdominal pain may be very anxious, very distressed, and unable to talk. Laughing and deep breathing are impossible because of the pain. In addition, the patient usually has severe pain when his abdomen is touched.

4. Explain why patients with gastrointestinal problems may vomit greenish or black material.

   When infection irritates a person's stomach or intestines, he will vomit. He may vomit green material. The material contains bile from the liver. The bile enters the intestines from the liver through the bile duct. A problem such as a peptic ulcer causes internal bleeding. When blood remains in the stomach, the stomach acid turns the blood black. The patient will vomit black material.

5. What is the difference between 'tenderness to palpation' and 'rebound tenderness?'

   Pain from a push on the abdomen is tenderness to palpation. But pain which occurs when you gently push in on the abdomen then suddenly release the pressure by withdrawing your hand is rebound tenderness.

6. TRUE(T) or FALSE(F)

   _T_ A patient with amebiasis may complain of severe diarrhea with blood and mucus in his stools.

   _T_ A possible complication of amebiasis is a liver abscess.

   _F_ Niclosamside is the drug of choice in treating amebiasis.

7. A family comes to the clinic complaining that they have all been sick and vomiting. Two of the family have slight diarrhea. None of them has a fever. What problem would you suspect? What care would you give them?

   Suspect food poisoning. Food poisoning often makes many people who ate the same food sick at the same time. Each family member should be encouraged to take small amounts of water, juice, or tea every fifteen minutes. If anyone shows signs of dehydration, treat him as outlined in the Patient Care Guides for dehydration.

8. What is the most common presenting complaint of a patient with a peptic ulcer?

   Most commonly the patient complains of mild abdominal pain, gnawing, aching, or a burning sensation in the upper part of his abdomen, below the breast bone.

9. If an ulcer has burned deeply into the wall of the stomach or small intestine, the ulcer will bleed. When this happens, a patient will often report that he has black, tar-like stools. Explain why his stools are black.

   The black stools are caused by digested blood.

10. Briefly describe the best ways to prevent a peptic ulcer.

Reduce stress and avoid foods which cause excess stomach acid.

11. Explain how roundworm infections spread.

Roundworms lay thousands of tiny eggs in the infected person. These eggs pass out of the body in the stool. Infected stool easily contaminates hands. If the contaminated hands are not washed before preparing food, the food then becomes contaminated with the eggs. Drinking water can also be contaminated by dirt containing roundworm eggs. If good personal hygiene, proper food preparation, and proper water treatment are not practiced, people eat the eggs and these hatch in the intestinal system. The cycle is repeated.

12. Describe how to prevent roundworm infection.

Stool must be disposed of in a sanitary way by use of a pit latrine. Drinking water must be protected from contamination by human stool. Drinking water should be chlorinated or boiled whenever possible. The practice of good personal and food hygiene habits should be discussed with the patient and the family.

13. Explain how hookworms infect humans.

The infected person passes hookworm eggs in his stool. If the eggs fall on warm, moist earth, they develop into immature worms. These immature worms remain in the soil until they are able to attach themselves to the feet of people who are walking across the ground without shoes. The immature worms burrow into the skin of the feet and enter the bloodstream. Eventually they reach the small intestines where they mature and attach themselves to the intestinal wall.

14. Explain how you would treat a young child who has severe anemia because of a hookworm infection and signs of a roundworm infection.

Give the child a course of ferrous sulfate at least two weeks before treating the hookworm and roundworm. Then the roundworm and hookworm infections may be eliminated at the same time by using pyrantel pamoate. You could also give the child oral iron for two weeks. Then treat the roundworm infection with piperazine for two days and then treat the hookworm infection with tetrachlorethylene.

15. How can people prevent tapeworm infections?

By thoroughly cooking beef, pork, or fish before eating.

16. What are flashcards?

Flashcards are a set of cards with drawings or pictures on them. They are used to tell a story, show how a disease is passed from one person to another, or show the steps in preventing a disease. They may be used to make the presentation of health messages stronger and clearer.

17. Describe two health messages that you would include in a presentation to mothers about how gastrointestinal diseases like amebiasis and giardiasis spread.

    a *People with the disease who do not use latrines pass the disease in their stools. The disease may then be washed into water that people drink.*

    b *People who have the disease and do not wash their hands after passing a stool may infect food which they handle or prepare.*

18. What health messages would you include in a presentation about hookworm?

    a *Hookworm is a small worm that may live part of its life in your belly.*

    b *A person who has hookworm infection passes the worm eggs in his stool.*

    c *The eggs which are passed grow into baby worms that then pass through bare feet to feed on a person's blood.*

    d *Hookworm infection can make a person very tired and weak. It causes anemia.*

    e *Wearing shoes and using latrines can help prevent hookworm infections.*

19. Which of these signs suggest viral hepatitis?

    _x_ Loss of appetite

    ____ Diarrhea

    _x_ Nausea and vomiting

    ____ Sevcre fever

    _x_ Jaundice

    _x_ Pain in the upper right quarter of the abdomen

20. How can people prevent viral hepatitis?

    a *Boil or chlorinate the drinking water to destroy the hepatitis virus which is spread through stool.*

    b *Tell the family of the patient with hepatitis to separate the eating utensils of the sick person from those of the other family members and to put his stool a safe distance from gardens and sources of water.*

21. What is cirrhosis?

    Cirrhosis is a chronic disease which destroys liver cells. Most often, it results from drinking large amounts of alcohol over a long period of time. Patients who drink a lot of alcohol do not eat properly. The liver cells are poisoned.

22. Acute appendicitis may cause an infection of the abdominal lining. Explain how this happens.

    This happens when the inflamed appendix swells and ruptures. The contents of the intestines spill into the abdominal cavity and inflame the peritoneum.

23. A burst appendix will inflame the abdominal lining. One of two things will then happen. Briefly describe these.

    a. *The body will seal off the infection and form an abscess.*

    b. *The inflammation will spread through the abdominal lining and cause peritonitis.*

24. A patient comes into the clinic with severe abdominal pain. After a history and physical examination you determine that the patient has a ruptured appendix. How would you manage this situation?

    First, prevent shock by starting an intravenous infusion of .9% normal saline in dextrose or Ringer's lactate solution. Place the patient in the shock position with his legs slightly raised above his abdomen. Keep the patient warm. Arrange for the immediate transfer of the patient to a hospital. Prevent the spread of infection; start the patient on antibiotics. Give penicillin and streptomycin to the patient intramuscularly. While the patient is being transferred to a hospital, keep the infusion running. Make the patient as comfortable as possible. If it will take more than four hours for the patient to reach the hospital, give him intramuscular pethidine.

25. Why does the abdominal pain which accompanies an intestinal block come in waves or spasms?

    Muscular movements of the intestines cause the waves of pain as the intestine tries to overcome the block.

26. Which of the following are part of the clinical picture of a patient with an acute abdomen:

    _x_ Severe abdominal pain

    _x_ A pulse of more than ninety beats per minute

    _x_ Pale, cool, and damp skin

27. No patient with an acute abdomen should ever be given a laxative, even if they complain of constipation. Why?

    A laxative makes the bowels become more active. This increased activity may cause complications such as perforation.

28. What are the most common presenting complaints of patients with hemorrhoids?

    The most common complaint of patients with hemorrhoids is pain in the anus. The patient may also report seeing bright red blood when he cleans himself after passing his stool. Some patients will complain of constipation.

29. What is an anal fissure?

____ An anal muscle spasm

_x_ A crack in the anal mucous membrane

____ Inflammation of the anal muscles

30. What are the best ways to care for an anal fissure?

Sit in a tub of warm water for up to thirty minutes three times a day. Soaking will relieve spasms in the anal muscle. Soaking will also promote healing of the patient's fissure and decrease congestion in the area. One or two tablespoons of mineral oil taken twice a day will help soften the stool. Surgery may be required if the problem continues.

Genitourinary

1. Patients with stones in their urinary tract will often complain of severe, colicky pain in the flank. Explain why stones cause this pain.

   Sharp urinary tract stones irritate the lining of the ureters, causing pain. The muscles of the ureters contract as they try to force the stones down the tract. This action increases the pain. Contraction and relaxation of muscles causes the colicky pain.

2. Blood in the urine is a common sign of urinary tract stones. Describe how stones cause bloody urine.

   Sharp urinary tract stones can scratch the lining of the urinary tract, causing bleeding. The blood becomes mixed with the urine. Sometimes the blood turns the urine red or brown.

3. Patients with nephrotic syndrome have protein in their urine. This protein is normally found in the blood. Lack of protein in the blood causes another sign of nephrotic syndrome. Name this sign and describe how it occurs.

   A loss of protein from the blood can cause edema, or swelling. When the level of blood protein falls very low, water leaks out of the capillaries and into the body tissues. People who have a kidney problem that causes large amounts of protein to be passed into the urine will have swelling. This swelling is most noticeable in the face, arms, and legs.

4. Why does a bladder infection cause pain during urination?

   When a bladder is infected, the muscular walls of the urethra will also be infected. When the urethra is inflamed and irritated by infection, the patient will have burning pain during urination.

5. The location of a genitourinary tract pain can help you identify the cause of the problem. Fill in the location of pain caused by each genitourinary problem.

PROBLEM	LOCATION OF PAIN
a. Kidney infection	*a. Loin pain*
b. Bladder infection	*b. Lower abdomen, tenderness and pain during urination*
c. Stone in the ureter	*c. Colicky pain that can radiate to the lower abdomen and groin*

6. The important steps in the physical examination procedure for patients with genitourinary problems are given below. After each major step, fill in at least one abnormal finding that could indicate a genitourinary problem.

EXAMINATION PROCEDURE	ABNORMAL FINDING
a. Check the general appearance	*a. Signs of recent weight loss*
b. Record the vital signs	*b. Increased blood pressure could indicate nephritis. Infections cause fever*
c. Inspect the skin	*c. Swelling of the face, arms, or legs*
d. Examine the abdomen	*d. Enlarged or tender bladder, enlarged and tender kidney*
e. Examine the genitals	*e. Sores on the genitals, urethral discharge*
f. Palpate the prostate gland	*f. Enlarged, tender prostate*

7. List the common symptoms of urinary tract infections.

   The patient will usually complain of a burning pain while passing urine, frequent urination, and the need to pass urine as soon as he feels the urge.

8. A woman complains of fever, painful urination, loin pain, and frequency of urination. You suspect an upper urinary tract infection. What care would you give this patient?

   Urge the patient to drink a lot of fluid. Treat the patient with sulfadimidine for ten days. Give her six 500 mg tablets, followed by two 500 mg tablets every six hours.

9. What physical examination procedure will give you important information about the severity of a patient's urinary tract problem? What

examination procedure would you use, and what information would you obtain?

a. Procedure: *Palpation and percussion of the kidney*

b. Physical finding: *Tenderness or pain*

10. A woman comes to the clinic complaining of a body rash that itches. You remember treating her for a urinary tract infection two days earlier. What is a likely cause of her itching skin rash? What care will you give this patient?

The likely cause of her rash is an allergic reaction to sulfadimidine. Take the woman off the drug. Start her on tetracycline.

11. Describe the onset, location, and type of pain associated with stones in the kidney or ureter.

Onset of pain: *Sudden*

Location of pain: *A stone in the kidney causes pain between the lower rib and the backbone. A stone in the ureter causes pain that radiates across the flank into the lower abdomen or groin.*

Type of pain: *Severe colicky pain*

12. Urinary tract stones can block urine flow. What problems can blocked urine flow create?

When the urine accumulates above the blockage, it causes stretching of the ureters and kidney. The kidneys can be destroyed by this process.

13. Describe what care you would give a patient with urinary tract stones.

Encourage the patient to drink three to four liters of water per day. Treat the patient's pain. Refer the patient to a hospital if the pain cannot be controlled with medication.

14. You diagnose a bladder infection in a three-year-old child. The child weighs 12 kg. Use your Patient Care Guides and Formulary to answer these questions.

a. What drug do you prescribe?

Sulfadimidine

b. What dosage and duration of treatment do you recommend?

Ten days' treatment: Give 1,000 mg at first and follow with 500 mg every six hours.

c. What instructions do you give the mother?

Give the child eight to ten glasses of water a day. Observe the child for signs of reaction to the drug. These signs include rash and fever. If signs of drug reaction occur, stop the drug and return to the clinic.

15. Nephritis is a serious inflammation of the kidneys. Nephritis can occur following a bacterial infection. Give two examples of bacterial infections associated with nephritis.

    Skin infections and bacterial tonsillitis

16. A person of any age can suffer from nephritis. At what age is nephritis most common?

    Nephritis is most common in children below the age of puberty.

17. The signs of nephritis are caused by an inflammation of the kidneys. Explain the link between an earlier skin infection and nephritis.

    Acute nephritis is an inflammation of the kidneys caused by an allergic reaction. The most frequent cause of the allergic reaction is a certain type of bacterial infection.

18. Generalized body swelling is a major sign of nephrotic syndrome. Swelling occurs when body fluid normally contained in the circulatory system moves into the body tissues. Explain the role of the kidneys in this process.

    The kidneys are damaged. Large amounts of protein pass into the urine. The amount of protein in the blood falls very low. Water leaks out of the blood vessels and into the tissues throughout the body.

19. Describe the physical examination findings that are common in a person with nephrotic syndrome.

Temperature:	*Normal*
Urine:	*Protein +++ with no blood*
Blood pressure:	*Normal*
General appearance:	*The patient complains of swelling around his eyes, arms, and legs. Pitting edema will be evident in the arms and legs.*
Chest examination:	*Possiblity of pleural effusion*
Abdominal examination:	*Possibility of free fluid in the abdomen*

20. A seventy-year-old man arrives at the clinic complaining about his inability to control his urine. He says he dribbles urine onto his clothing. He complains of always feeling that his bladder is full. The bladder is palpable at 2 cm above the pubic bones after urination. What is the likely diagnosis?

Enlarged prostate

21. What is your recommended treatment for a patient with an enlarged prostate who also has signs and symptoms of urinary tract infection?

Refer the patient to the hospital.

22. Catheterization is a simple procedure for emptying the bladder of urine. When you catheterize a patient, you must avoid damaging the tissues or causing shock. What three rules should you follow to avoid injuring your patient?

a. *Never remove more than 1,000 cc of urine at one time.*
b. *Do not try to force the catheter past a blockage.*
c. *Do not push the catheter more than 2.5 cm into the bladder.*

23. Describe the presenting complaint of a man with prostatitis.

A man with prostatitis will have pain in his penis and at the base of his penis. He will have a dull, achy feeling in the muscles of this area.

24. Describe the physical examination procedure and the findings that will help you diagnose prostatitis.

a. *Rectal examination to palpate the prostate*
b. *The prostate will be soft and very tender. If you press on the prostate, you will cause a discharge from the penis.*

25. How would you treat a patient with prostatitis?

Drug: *Tetracycline*

Dosage: Loading dose: *500 mg every six hours for two days*

Maintenance dose: *One 250 mg dose every six hours for twelve days*

26. How would you treat a patient with a scrotal swelling?

Refer all patients with scrotal swelling.

27. Explain why many women who have gonorrhea do not seek treatment.

Women with gonorrhea often have no symptoms that would alert them to seek treatment.

28. What is the drug of choice, recommended dosage, and course of treatment for gonorrhea and syphilis?

Gonorrhea: *Drug:* *Procaine penicillin*
Dosage: *A dose of 4.8 million units IM divided into two injections*

Syphilis: *Drug:* *Benzathine penicillin*
Dosage: *A dose of 2.4 million units IM*

29. What drug should be used to treat gonorrhea and syphilis if the patient is allergic to penicillin?

Tetracycline

30. What abnormal physical examination findings are most common in a man with gonorrhea?

A thick, yellow discharge from the urethra is most common.

31. Syphilis is not often diagnosed in its early stages because patients ignore or do not notice chancres. Another sign of the disease might bring the patient to your clinic for treatment after the chancre has healed.

a. Describe this late sign of syphilis.

A generalized body rash that often includes the palms of the hands and soles of the feet.

b. Why is this sign of syphilis often missed?

The rash can look like the rash of almost any skin disease.

32. Syphilis that is not treated in its early stages will often cause problems many years later. What is the treatment for syphilis in its late stages?

There is no treatment.

33. Explain why diseases spread by sexual contact are difficult to control.

Diseases spread by sexual contact are difficult to control for many reasons. Many people do not like to discuss their sexual activities. They will not go to a health center when they suspect they have such a disease. Other people may not know that they have a problem. A woman may not know she has a disease spread by sexual contact in its early stages because symptoms are not always noticeable.

Others may not be aware of the complications of diseases spread by sexual contact. They do not seek care even when they know they have a problem. Many people do not protect themselves from such diseases.

34. Describe two health messages you could share with a patient who presents with symptoms of a disease spread by sexual contact.

Tell the patient that his recent sexual contacts must also be treated. Tell him that even though his contacts may not appear to have symptoms, they could still have the disease. Also tell the patient that he can help prevent the spread of disease spread by sexual contact by using a condom during sexual intercourse.

35. List at least six important health messages related to diseases spread by sexual contact that you would share with the community.

a. People who have a disease spread by sexual contact may not know they have a disease, or they may not pay any attention to it.

b. Diseases spread by sexual contact that are left untreated can cause serious health problems. In men, this may be an infection of the testicles or prostate or it may be a heart or brain disease. In women, this may be an infection of the fallopian tubes or sterility.

c. Diseases spread by sexual contact are easy to diagnose and treat during their early stages. However, they are very difficult and expensive to treat in their later stages.

d. If you have pain, an itch, or secretion from your genitals, you may have a disease spread by sexual contact.

e. If you think you have a disease spread by sexual contact, you should see a health worker immediately.

f. Early diagnosis and treatment of a patient and his sexual contacts can stop diseases spread by sexual contact. Using a condom during sexual intercourse will also help prevent the spread of these diseases.

Infectious Diseases

1. Comparing a patient's pulse rate to the rate of increase in his temperature can sometimes help you diagnose his disease. Usually a patient's pulse rate increases eighteen beats per minute for each 1° C increase in temperature. Answer these questions about a patient's pulse rate and temperature.

   a. An adult patient has a normal pulse rate of seventy beats per minute. He now has a fever. His temperature is 40° C. What would you expect to be the increase in the patient's pulse rate per minute?

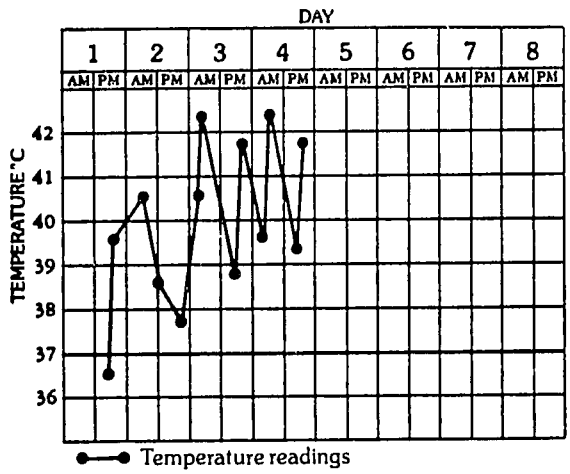
   40° C patient's temperature
   -37° C normal temperature
   3° C of fever

   18 pulse rate increase per 1° C
   x 3° C of fever
   54 increase in pulse rate per minute

   b. Suppose the patient had a temperature of 40° C and a pulse rate of only eighty-eight beats per minute. What does this mean? What infectious disease might this be associated with?

   The patient's pulse rate is thirty-six beats per minute slower than it should be for the 3° C increase in temperature. The patient may have typhoid fever.

2. The pattern of fever is an important sign. Study the graph below. Answer the questions following the graph.



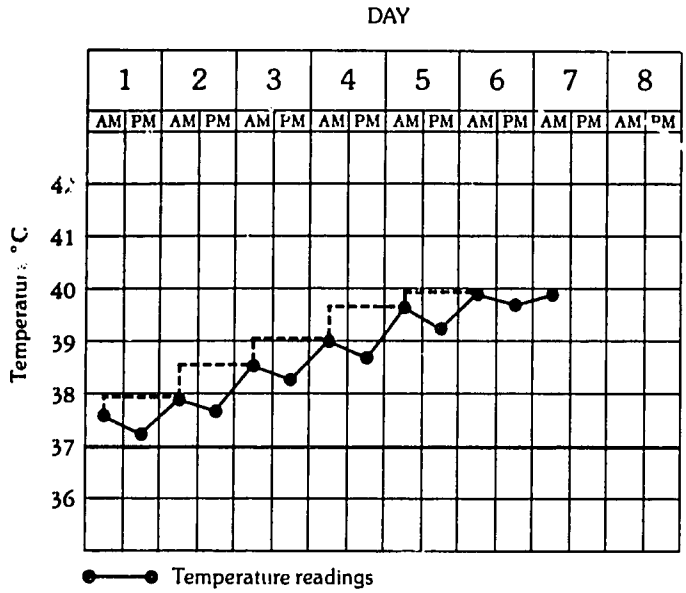
a. What is the pattern of this fever?

An up and down pattern of fever. The patient has high temperature peaks. Then his temperature drops before rising again sharply a few hours later.

b. What common infectious disease has this pattern of fever?

Malaria

3. The pattern of fever can be different with different infectious diseases. Study the graph below. Answer the questions following the graph.



a. What is the pattern of this fever?

A step ladder pattern of fever

b. What common infectious disease has this pattern of fever?

Typhoid fever

4. Fever is a common cause of convulsions in infants. If an infant's temperature rises above __39°__ C, he may have a convulsion.

5. Spasms of the throat muscles can be caused by an infectious disease which attacks the brain. What behaviors would make you suspect that the patient is having painful throat spasms?

A fear of water and an inability to swallow his own saliva

6. Leprosy is an infectious disease which attacks the nerves. What are three important signs of leprosy?

   a *Light-colored skin patches with loss of sensation*

   b *Loss of sensation in the hands and feet*

   c *Enlarged and tender nerves*

7. Why is it important to find out a patient's immunization history?

   Immunizations can help prevent certain infectious diseases such as diphtheria, tetanus, or tuberculosis, which can cause meningitis. A patient who has not been immunized may be suffering from one of these diseases.

8. A mother brings in a sick newborn. What would you ask about the mother's delivery?

   Did she have any difficulty during her labor and delivery? Did her membranes rupture more than twelve hours before the infant was born?

9. TRUE(T) or FALSE(F)

   _T_ Typhoid fever is a bacterial infection of the intestines that affects the entire body.

   _T_ Typhoid fever bacteria are spread through drinking water which has been contaminated by the stool of an infected person.

   _T_ An infected person can also spread typhoid fever bacteria to other people by handling the food that others will eat.

   _F_ Usually during the first week a person is infected with typhoid, he has a very high fever.

   _F_ A person with typhoid fever has a pulse rate that increases eighteen beats per minute for each 1° C increase in temperature.

10. What antibiotic would you give a suspected typhoid fever patient before transferring him to the hospital?

    Chloramphenicol

11. Use your Formulary to answer the next questions. Suppose your patient is a pregnant woman at term. You suspect that she has typhoid fever. Would you give her the drug that you recommended above?

    ____ Yes _x_ No

12. Explain your answer.

    Chloramphenicol can have toxic effects on an unborn child.

13. TRUE(T) or FALSE(F)

_T_ Tetanus is caused by bacteria which are found in the soil and in animal dung.

14. What is the most important step a person can take to be protected against tetanus?

DPT immunizations for children

15. If a patient has tetanus, you would notice that making noises near the patient, touching him, or moving him would cause what reaction?

Sudden muscle spasms or convulsions

16. A mother brings in her seven-year-old daughter with an infected wound. The daughter cannot remember when she hurt herself. She says it was a few days ago. With questioning, the little girl says she feels a funny tingling sensation around the wound. The child has no history of DPT immunization. Her vital signs are normal. The wound is on the outer part of the girl's right lower leg. The area around the wound is swollen, red, and warm. You note some muscle spasms around the wound. The little girl reports this has been happening for one day. The lymph glands in her right groin are swollen and painful. The rest of the physical examination is normal. Other than a secondary infection of the wound to the leg, what problem do you suspect?

Tetanus

17. What early presenting complaint would make you suspect rabies?

The earliest complaint will be that the patient was bitten by a dog or other animal known to carry rabies.

18. What is the first thing you would do for a patient with this presenting complaint:

Treat the bite. Clean the wound and remove any dead tissue. Do not suture the wound closed. Leave it open. Put a dry sterile dressing on the wound. Change the dressing daily.

19. All forms of malaria are spread by infected _mosquitoes_ .

20. You have diagnosed a twenty-three-year-old man as having malaria. He is not vomiting. He is slightly dehydrated. His temperature is 41.5° C. Use your Patient Care Guides to answer these questions.

a. What drug would you give this patient? What dosage would you give? How often should he take the drug?

Give the patient 1,000 mg (four tabs) of oral chloroquine phosphate immediately. Follow with 500 mg (two tabs) six hours later. Then give 500 mg (two tabs) once a day for the next two days.

b. How would you treat the patient's dehydration?

Encourage him to drink as much fluid as possible.

c. How would you bring down the patient's high fever?

Sponge his body with cool water until his temperature drops to 39° C.

d. What drug would you give to prevent the patient from getting another malaria attack? How often should he take the drug?

Give the patient 500 mg (two tabs) of oral chloroquine phosphate weekly.

21. What three steps can help prevent and control malaria?

a. Killing mosquitoes and destroying their breeding areas. Spray with an approved insecticide. Drain or fill standing water breeding areas. Trim weeds and grass near houses and the edges of the community.

b. Taking oral chloroquine phosphate weekly for self-protection

c. Early diagnosis and care of malaria patients

22. What three points would you make when explaining how to prevent louse-borne typhus?

a. Kill the lice with an approved insecticide or by bathing with gamma benzene hexachloride.

b. Immunize against typhus.

c. Practice good health habits.

23. A father brings in his fifteen-year-old son and tells you that two weeks ago the boy was bitten by a dog. The dog ran away. In the last couple of days the boy has become restless. He has had a fever, headache, and nausea. The boy is easily upset, which is not his normal behavior. The boy will not let you put a thermometer into his mouth. His temperature, taken in his arm pit, is 38.5° C. His respiration is a little labored but is within normal limits. His pulse is ninety-seven beats per minute. His blood pressure is within normal limits. He gets very upset when you ask him if he wants a drink of water. You notice some saliva in the corners of his mouth, and you suspect he is having throat spasms. What do you suspect the problem is?

Rabies

24. A forty-year-old woman had a bad flu one week ago. Now she has a severe headache, a high fever, and chills. She has noticed a rash on her abdomen. Her husband is also starting to have the flu. They have no

children. She has a temperature of 40° C and a rapid pulse of 124. Her blood pressure is 130/90. Her respirations are 30. She looks ill, with a red face and bright red conjunctivae. A flat, red rash on her abdomen has spread to her chest, back, and the inside of her arms. What do you suspect the problem is?

Typhus

25. How would you treat this patient and her husband?

Prepare the patient for referral. Start her on oral tetracycline and aspirin for the fever and headache. Examine her husband. If he has typhus, treat him in the same way.

26. TRUE(T) or FALSE(F)

_T_ Tuberculosis can cause meningitis.

_T_ Children can be immunized against tuberculosis with BCG.

_T_ The same bacteria and viruses which cause common ear, nose, and throat infections, and boils on the face, head, and neck can cause meningitis.

_F_ A mother with an infant with meningitis often reports that the child is irritable and unusually sleepy, but is sucking well.

27. What physical examination finding would make you strongly suspect meningitis in an infant?

A tight or bulging anterior fontanelle

28. Neck _stiffness_ is a sign of meningitis in children and adults. Another sign occurs when the neck is bent forward. The legs _bend_ and _draw up_ towards the _chest_ .

29. TRUE(T) or FALSE(F)

_F_ Diphtheria is not easily spread from person to person.

_T_ Children are protected against diphtheria after they have received the four-shot DPT immunization series.

30. List two early presenting complaints of people with leprosy.

a. *A light-colored skin patch*

b. *A painless injury to the hand, finger, foot, or toe*

31. Depending upon the type of leprosy a patient has, what are three physical examination signs of leprosy?

a. *A light-colored skin patch with loss of sensation when touched lightly*

b. *Loss of sensation in the hands and feet*

c. *Enlarged and tender nerves near the surface of the skin*

32. A mother brings her two-week-old infant to you with the complaint that he has a fever and had a convulsion. She reports that the baby first became irritable and then unusually sleepy. He has not been sucking well. You find out that the mother's membranes ruptured fifteen hours before the baby was born.

    The infant has a fever of 40° C. He seems unusually sleepy. The baby is suffering from malnutrition and dehydration. Because of the early signs of dehydration, you examined the anterior fontanelle to see if it was sunken. You found the skin over the fontanelle to be tight. What do you suspect the problem is, in addition to malnutrition and dehydration?

    Meningitis

33. A mother brings her four-year-old child to you with the complaint that the child has an upper respiratory infection, fever, and swollen neck. The child says her throat hurts a lot. You note from the patient's record that she has received only one DPT injection. That was three months after she was born. The child has received no other immunizations. The mother reports that her other three children are not sick. The patient has a 40.3° C fever. Her pulse rate is increased. The child is normal weight for her age. She looks very sick, and the lymph glands on both sides of her neck are swollen to an unusually large size. Her throat is very red. A gray membrane covers her tonsils.

    a. What do you suspect the child's problem to be?

    Diphtheria

    b. What are you going to do about the other three children in the family?

    Bring them in for examination. Find out their DPT immunization history. If they have not been immunized against diphtheria, start them on DPT immunization.

    c. How could this problem have been prevented?

    With the four-shot DPT immunization series

    d. Give the schedule for answer c above, using your Formulary as a reference.

    First DPT immunization at three months. This was done. Second DPT immunization at five months. This was not done. Third DPT immunization at seven months. This was not done. Fourth DPT immunization at eighteen months. This was not done.

34. A thirty-nine-year-old woman has some mild abdominal discomfort and diarrhea. You palpate her abdomen and notice a light-colored skin patch. She reports that this appeared a couple of weeks ago, but she thought it was just ringworm and did not have time to come to see you about it. Is there anything you would want to do concerning this light-colored skin patch on her abdomen?

Check the skin patch for loss of sensation to light touch.

Other Common Problems

1. Name the four signs of joint inflammation.
   a. *Redness*
   b. *Swelling*
   c. *Tenderness*
   d. *Warmth*

2. What are the signs that a spinal disk is pressing on a nerve?
   a. *Positive straight-leg raising test*
   b. *Tenderness over the sciatic nerve*
   c. *Muscle spasms and tenderness*

3. What is a positive straight leg-raising test?

   A straight-leg raising test is positive if the patient has difficulty raising his leg because of back pain or pain radiating down the back of his leg.

4. A patient complains of low back pain. She also has pain which shoots down her right leg to her foot. What does this type of pain tell you?

   Shooting pain down a leg is a sign that a damaged disk is pressing on a spinal nerve.

5. Review the signs and symptoms listed below. Check (*x*) the name of the problem that each sign or symptom is commonly associated with.

	MUSCLE STRAIN OR SPRAIN OF SACROILIAC JOINT	DISK DISEASE
a. Sudden onset of severe, sharp pain, which radiates down the leg to the foot and was not caused by heavy work		*x*
b. Pain in the lower back, which started when doing heavy work within the last twenty-four to forty-eight hours	*x*	

	MUSCLE STRAIN OR SPRAIN OF SACROILIAC JOINT	DISK DISEASE
c. Curvature of the lower spine		x
d. Tenderness over the sciatic nerve		x
e. Tenderness over the sacroiliac joint	x	
f. Positive straight-leg raising test		x
g. Negative straight-leg raising test	x	
h. Loss of muscle strength in the leg and foot on the affected side		x
i. Normal muscle strength in the legs and feet	x	
j. Loss of sensation in the leg and foot on the affected side		x
k. No loss of sensation in the legs or feet	x	

6. Review the signs and symptoms listed below. Check (x) the name of the problem that each sign or symptom is commonly associated with. Remember, some signs and symptoms can be associated with more than one problem.

	OSTEO-ARTHRITIS	RHEUMATOID ARTHRITIS	SEPTIC ARTHRITIS
a. Chronic pain in a large-weight-bearing joint of an older patient who has done heavy work all his life. The pain has been present for years	x		
b. Pain in the distal joints of the fingers	x	x	
c. Pain in the distal joints of the fingers in a patient with a history of fever, fatigue, and loss of appetite and weight		x	
d. Severe, throbbing pain in the left knee of a male with symptoms of gonorrhea, such as pain and burning on urination and a white discharge from his penis			x

	OSTEO-ARTHRITIS	RHEUMATOID ARTHRITIS	SEPTIC ARTHRITIS
e. Weight loss, fever, fatigue, and joint pain. Several painful joints are stiff in the morning, become less stiff during the day, and then become stiff again in the evening		*x*	
f. A red and swollen left knee, which is warm and tender when touched and which cannot be moved easily			*x*
g. Fever with swelling and redness of the fingers in both hands. The fingers are warm and tender when touched		*x*	
h. A stiff elbow with limited movement. A rough sensation when the elbow is moved, but no signs of joint inflammation such as redness and warmth. The joint is swollen and surrounded with fluid	*x*		

7. Except for a simple goiter, the signs and symptoms of thyroid problems are caused by the production of either too much or too little thyroid hormone. Rivew the signs listed below. Check (*x*) the appropriate column to indicate if each is a sign that the thyroid gland is producing too much or too little thyroid hormone.

	THYROID GLAND IS PRODUCING TOO MUCH THYROID HORMONE	THYROID GLAND IS PRODUCING TOO LITTLE THYROID HORMONE
a. A puffy face with a dull, uninterested expression		*x*
b. Slow, slurred speech with a low pitched voice		*x*
c. Slow body movements		*x*
d. Bulging, staring eyes	*x*	
e. Coarse, brittle hair		*x*
f. Fine, silky hair	*x*	
g. Thick, dry skin		*x*

	THYROID GLAND IS PRODUCING TOO MUCH THYROID HORMONE	THYROID GLAND IS PRODUCING TOO LITTLE THYROID HORMONE
h. Moist skin	x	
i. Fine tremors of the hands	x	
j. Increased resting pulse rate	x	
k. Weight loss in a patient with a good appetite	x	

8. During the physical examination it is important to notice the general appearance of a patient with a suspected thyroid problem. What will you notice in a patient who is producing too much or too little thyroid hormone concerning the following?

   a. The patient's movements:

   A patient with decreased thyroid hormone production moves slowly.

   b. The patient's face:

   A patient producing too little thyroid hormone has a puffy face with a dull expression.

   c. The patient's eyes:

   A patient with increased thyroid hormone production has bulging, staring eyes.

9. A lack of *iodine* is a common cause of a simple goiter.

10. A forty-four-year-old woman complains of feeling tired and sleepy. She is too weak to do her daily work and wants only to sleep. She has been very constipated. Her menstrual periods are regular, but for the last four months they have lasted longer and bleeding has been heavier than usual. Her last menstrual period was two weeks ago.

    The patient's vital signs are normal. Her face is puffy, and she seems disinterested in her surroundings. She moves very slowly. Her speech is slightly slurred. The patient reports that her hair breaks off easily. Her thyroid gland is slightly enlarged and is smooth when palpated. Her skin is dry, but no thickening can be detected. Further examination of her neck, chest, heart, arms, and legs reveals nothing abnormal.

    a. What is your diagnosis?

    Hypothyroidism

    b. What patient care would you provide for this patient?

    Refer the patient to the hospital.

11. A patient has difficulty speaking after suddenly losing consciousness.

a. What other signs would you look for?

Paralysis of one side of the face, or paralysis of one or both of the legs or arms on one side of the body

b. What caused these signs?

Brain damage caused by a stroke

12. What are the signs of a lack of hemoglobin or of red cells in the blood?

Pale or white conjunctivae, mucous membranes of the mouth, and nail beds

13. An overweight, or obese, patient will often have high blood pressure. What other sign would you look for in an overweight patient?

Sugar in the urine

14. A patient comes to you with a headache. List the questions you should ask the patient about his headache?

a. How long have you been having headaches?

b. Where does your head hurt?

c. What kind of pain is it?

d. How did the pain start?

e. How long does it last?

f. Does it keep you awake at night?

g. Do you have any fever or chills?

h. Have you had a recent upper respiratory infection or other illness?

i. Are you taking any drugs or medications?

j. Has anyone else in your family had headaches like the one you are having?

15. Match these symptoms of a headache with the possible cause of the headache.

SYMPTOMS	POSSIBLE CAUSE OF HEADACHE
_*f*_ Pain behind an eye	a. Sinus infection
_*e*_ Severe pain, which has come and gone over the last three months. The pain is located over the entire left side of the head. The pain is so severe that it causes the patient to vomit. His mother has the same problem.	b. Stroke
	c. Tension
_*b*_ A sudden, severe headache followed by a loss of consciousness	d. Dental problem

SYMPTOMS	POSSIBLE CAUSE OF HEADACHE
__c__ A headache which usually starts late in the day, after an argument with the patient's husband or children. The headache does not keep her from sleeping and is usually gone in the morning. The pain is located in the back of her head and in her neck	e. Migraine f. Eye emergency
__d__ A throbbing pain which seems to pass from the jaw up into the side of the head	
__a__ A severe pain over the right maxillary sinus	

16. A mother tells you that her teenaged daughter suddenly collapsed and lost consciousness. The mother thinks her daughter had a convulsion.

    a. You ask the daughter how she felt before she lost consciousness. She says, "My muscles started to twitch." What else might she say?

    She may report a change in her sight, hearing, or sense of taste or smell. Or she may report that nothing else happened.

    b. You ask the mother to describe her daughter's behavior while she was unconscious. What might the mother tell you?

    She may say that her daughter's arms and legs jerked in a regular rhythm. She may report that her daughter soiled herself or bit her tongue.

17. Sugar in the urine is a sign of __*diabetes*__ .

18. List the signs of facial muscle weakness which you might find in a nervous system examination.

    a. One eye which does not close completely

    b. Inability to wrinkle one side of the forehead

    c. Inability to pull back the corner of one side of the mouth to show the teeth

    d. One ballooned cheek that is easier to push in than the other

    e. Inability to stick out the tongue so it is in the middle of the mouth

19. How can strokes be prevented?

    Detecting and treating patients with high blood pressure can help to prevent strokes.

20. TRUE(T) or FALSE(F)

    __T__ A patient with grand mal epilepsy may have to take phenytoin sodium for the rest of his life.

21. You have diagnosed a patient with grand mal epilepsy.

    a. How would you start the patient on phenytoin sodium treatment? How would you adjust the dosage of this drug?

    Give the patient 100 mg of phenytoin sodium every night for one week.

    Increase the dosage of phenytoin sodium to 200 mg every night for another week.

    Continue to increase the dosage of phenytoin sodium until the patient stops having convulsions. This may require as much as 600 mg of phenytoin sodium per day.

22. What medicine can prevent anemia in pregnant women, lactating women, or women with heavy menstrual periods?

    Iron

23. Adult patients often have few symptoms of diabetes until they develop a severe bacterial infection. What symptoms of diabetes are then seen?

    a. Increased thirst

    b. Increased urination

    c. Increased appetite

24. Check (*x*) each problem which could be a complication of diabetes.

    ___ Asthma

    _x_ Pneumonia

    _x_ Urinary tract infection

    _x_ Vaginal infection

    ___ Loss of hearing

    _x_ Loss of vision

    _x_ Stroke

    _x_ Heart attack

    _x_ Frequent and severe skin abscesses

    ___ Eczema

    _x_ Frequent cellulitis

    _x_ Skin sores which do not heal

    _x_ Poor circulation causing a leg to become cold and painful

    _x_ Kidney failure

25. You may smell alcohol on the breath of a patient who is unconscious or difficult to arouse. Check (*x*) one of the two possible steps you would take when assessing this patient.

___ Assume the patient lost consciousness because of alcohol intoxication.

_x_ Rule out other causes of unconsciousness such as stroke, head injury, or diabetes before assuming the patient lost consciousness because of alcohol intoxication.

26. TRUE (T) or FALSE (F)

_T_ A patient with a mental health problem can suddenly lose the ability to speak, see, or hear.

_T_ A patient with a mental health problem can develop paralysis of an arm or leg. He can also lose sensation in an arm or leg.

_T_ A patient with an alcohol abuse problem may suffer from chronic weight loss and malnutrition.

27. A patient has some vague complaints. You have difficulty identifying any clues to the patient's problem. You suspect that the patient may be suffering from a mental health problem, but you are not sure. You do not find anything unusual when you examine the patient. What can you do to find out more about the patient's problem?

Ask the patient's permission to talk with a family member or friend about his problem.

28. TRUE (T) or FALSE (F)

_T_ An increase in a patient's pulse, blood pressure, and respiration can be caused by normal anxiety or by a severe form of anxiety, which is a mental health problem.

29. TRUE (T) or FALSE (F)

_T_ You cannot help a patient with chronic alcoholism unless he admits he has a problem and is willing to be helped.

_T_ Acute confusion can follow a high fever caused by typhoid fever, pneumonia, meningitis, or malaria.

30. A young man brings his wife to see you. She suddenly lost her ability to speak after her three-year-old child was killed in an accident two days ago. You note nothing during your interview of the husband to indicate that the woman has any medical reason for her problem. You cannot find anything physically wrong with the woman. What do you suspect her problem is?

Hysteria caused by the loss of her child

31. A patient who reports that he has been thinking about killing himself is suffering from a severe form of *depression* .

32. One way of supporting a person with a chronic illness is to share information with him and his family. What should this information include?

This information should include an explanation of the illness and its effect on the body. It should include the role of medications in the control or cure of the illness and any necessary diet and exercise habit changes. The information should explain how to recognize signs that the ill person is getting better, staying the same, or getting worse. It should teach the ill person how he can live as comfortably as possible despite his illness.

33. Describe some of the other ways that you can help the person with a chronic illness to learn about his illness and about ways to take care of himself.

a. *Stay in contact with the ill person and his family. Encourage and reinforce his good health habits.*

b. *Show your concern. Make home or work visits to the ill person and his family.*

c. *Ask a community member with a chronic illness to talk to a person with a similar problem. Together they can discuss how they feel and how they can best cope with their illnesses.*

d. *Encourage the support of the ill person's family and community. Work with family and community members to make them aware of the importance of support for the ill person.*

34. Summarize what a person with a chronic illness needs.

a. *Medications and other treatment*

b. *Information about how he can care for himself in order to control or cure his illness*

c. *Regular support and care from the health worker, his family, and his community*

Skin

1. Describe the following lesions.
   a. Ulcer — *A deep skin lesion that affects both the dermis and epidermis. Although it is often round, sometimes its shape is irregular*
   b. Papule — *A small lesion like a macule but raised above the surface of the skin*
   c. Vesicle — *A raised skin lesion with clear fluid inside*
   d. Macule — *A small (less than 1 cm), flat, usually round lesion that is different in color from the surrounding skin*
   e. Pustule — *A lesion similar to a vesicle, but with pus inside it*
   f. Burrow — *Small, slightly raised lines that are caused by creatures that tunnel under the skin*

2. During a physical examination of the skin, you are expected to identify and record abnormal findings. Next to each category below, give an example of an abnormal finding, and explain the meaning of that finding.

	ABNORMALITY	MEANING
a. Temperature	*heat associated with lesions*	*inflammation*
b. Color	*redness* *loss of color*	*inflammation* *fungus infections and leprosy*
c. Texture	*roughness*	*chronic skin problem*
d. Moisture	*wet lesion*	*sign of severe irritation or infection*
e. Sensation	*pain* *loss of sensation*	*inflammation/infection* *leprosy*

3. Impetigo starts with small vesicles. Describe what happens to the lesions if no treatment is given.

   They become encrusted and later ulcerate.

4. If one person in a family has scabies, what advice and instructions would you give to the family?

   Treat the entire family. Thoroughly wash all clothes and bedding.

5. Why do scabies lesions often become infected?

   When people scratch their skin to relieve the itching of scabies, they frequently introduce organisms that cause infection.

6. How would you treat a patient with lice?

   a. *The patient should bathe before applying benzyl benzoate lotion to the affected area. Then he should not bathe again for twenty-four hours. Benzyl benzoate should be applied again, and the patient should not bathe for another twenty-four hours. Repeat in one week if needed.*

   b. *Clothing should be boiled or exposed to strong sunlight.*

   c. *All family members should be examined and treated if affected.*

7. Describe the lesions of ringworm and the usual symptoms of this disease.

   Ringworm lesions are red and round. The edges are sharp. They are made of very small vesicles. As the lesion grows, the skin in the center flakes off and appears normal again. This is called central clearing. On the scalp, the lesions are often scaly. Where the skin is moist – in the groin, in the armpits, and under the breasts – the lesions become wet, very itchy, and red. The lesions are flat. Their edges are sharp. Sometimes you will see vesicles along the edges of the lesions. Sometimes you will see the vesicles further away from the lesions and separated from them by healthy skin.

8. What is the treatment of tinea versicolor?

   a. *Selenium sulfide lotion 2.5% should be applied to the skin and lathered. After fifteen minutes, the patient should wash it off. Instruct the patient to reapply the lotion daily for four days and then twice a week for two months.*

   b. *If the infection reoccurs, sodium thiosulfate can be used.*

9. What would make you decide to open a boil or abscess by cutting into it with a sterile knife?

   Seeing that it is soft and has a yellow head

10. If a patient keeps getting boils, what disease might he have?

    Diabetes

11. Check (x) which of these you would do to treat cellulitis.

    _x_ Give penicillin

    _x_ Apply warm soaks four times a day

    _x_ Refer the patient to a hospital if no improvement is seen after two days

____ Open the infected part by cutting into it

_x_ Give aspirin for pain and fever

12. Describe how you would treat this patient.

The patient has had an ulcer on his leg for ten days. It is 4 cm across. The skin around the ulcer is inflamed. The ulcer smells bad. Pus drains from it. The patient complains of pain around the ulcer.

Elevate the leg. Apply warm, salt water soak. Teach the patient how to apply soaks at home. The ulcer should be soaked for twenty minutes four times a day. Swab the ulcer with hydrogen peroxide each time it has been soaked. Cover the ulcer with clean gauze. Give penicillin and streptomycin. Advise the patient to eat more body-building foods. Explain that the patient and his family must get treatment as soon as they cut or injure themselves.

13. As well as soaking and dressing a tropical ulcer, what else must be done:

a. by the health worker?

Advise the patient to eat more body-building foods.

Explain the importance of seeking immediate treatment for cuts.

b. by the patient?

The patient must stay in bed.

Elevate his leg.

14. How do the lesions of herpes simplex start and develop?

Episodes of herpes simplex sores develop after a fever, dietary upset, or minor physical or emotional disturbance.

15. Check the descriptions that are true for eczema.

____ Infectious

_x_ Often starts in early childhood

____ Begins in old age

_x_ Not infectious

_x_ Occurs often in certain families

____ Children who have it often get asthma later

16. How would you treat an adult with eczema if the lesions are dry?

Use a lubricating ointment 1% hydrocortisone applied daily to the affected area to reduce inflammation.

17. How does the worm that causes onchocerciasis get into the human eye?

The black fly carries the worm into the eye.

18. What would you advise community leaders to do if there is much onchocerciasis in your village?

    Encourage leaders to cooperate with special black fly prevention programs.

19. What changes occur in lesions in the different stages of contact dermatitis?

    Begins with redness that becomes swollen with vesicles. Pustules may develop in more severe cases. Burning or itching is almost always present.

20. What treatment would you give a patient who had dermatitis, if the lesions were red and wet?

    Cold wet compresses twenty minutes three to four times a day, until the skin is dry.

21. What are the signs and symptoms of a skin reaction to drugs?

    The patient develops a rash which is often patchy, red and raised, and sudden in onset. Itching is usually present. In some cases marked swelling of the skin is present.

Dental, Eyes, Ears, Nose, and Throat

1. List the three most common symptoms of an eye problem.
   a. *Trouble seeing (blurry vision or loss of vision)*
   b. *Eye pain*
   c. *Red eye*

2. During your physical examination of a patient's eyes, you will identify and record abnormal findings. Samples of abnormal findings are given here. Next to each abnormal finding, explain what eye problem might have caused it.

FINDING	SIGN OF
a. Mild inflammation of conjunctiva of one eye, equal over inside of lids and sclera. The surface of the cornea is irregular.	*Corneal laceration or ulcer, or foreign body*
b. Inflammation mainly of the conjunctiva inside the upper eyelid of one or both eyes.	*Acute trachoma*
c. Inflammation around the iris of one eye.	*Eye emergency*
d. Inflammation of the entire conjunctiva seen usually in both eyes.	*Vitamin A deficiency*

3. Washing your hands with soap and water is always important when caring for a patient. If you are about to clean a patient's eyes, when should you wash your hands? Check (*x*) the correct answer.
   ____ Before starting to clean the eyes
   ____ After cleaning the eyes
   _*x*_ Both before and after cleaning the eyes

4. You have decided that a child has a bacterial conjunctivitis. You want to apply 1% tetracycline eye ointment. On your stock shelf you find two

boxes with tubes of 1% tetracycline eye ointment. The expiration date for the ointment in one box is September 1981. The expiration date for the ointment in the second box is June 1982. From which box would you select a tube of ointment if today's date was 10 August 1981? Why?

Ointment from the September 1981 box. Because drug supplies are limited, you can avoid waste by using drugs with the earliest expiration dates first.

5. Where on the eye should eye drops or ointment be applied?

   On the conjunctiva covering the inside of the lower eyelid near the lid margin

6. Write in the information that would help you to make the diagnosis of a sty.

   Presenting complaint: *Pain on the eyelid*

   Patient history: *May have had a sty before*

   Physical examination: *A tender, red lump on the margin of the eyelid*

7. What is a complication of severe conjunctivitis?

   Corneal ulcer, or scarring of the cornea

8. A trachoma infection easily spreads from person to person. List three examples of how trachoma spreads.

   a Flies

   b Towels and clothing used by people who have trachoma

   c Close contact with a person who has trachoma

9. Suppose you find that many people are coming to your health center with trachoma. These people live in the same community. What could you and members of your health team do to decrease the spread of trachoma in this community?

   Examine family members and school children for signs of trachoma. Educate family members, school children, and teachers concerning the spread of the problem. Encourage good personal hygiene and fly control.

10. A sixty-seven-year-old man comes to you complaining that "things look blurry." In response to your questions, he says his problem has been getting worse during the last six months. When he closes one eye at a time, the problem seems to be his right eye. He has not had any pain or redness in his right eye recently. He said that he did get something in his right eye about a month ago, but he washed it out himself. He thinks that maybe his mother had the same problem when she got old, but she didn't believe in doctors so she never went to see anyone about her problem.

His vital signs are normal. A general physical examination shows that he is healthy for his age. An eye chart test shows you he has minor problems seeing with his left eye, but has much more difficulty seeing with his right eye. You find nothing abnormal when examining the left eye. When you shine your flashlight on the lens of the right eye, the lens looks milky white. This is the only abnormal finding of the right eye.

a. What do you suspect the problem to be?

Cataract

b. How would you care for this patient?

Explain that surgery may help. Suggest that the patient see a doctor.

11. Describe the symptoms of vitamin A deficiency in a child.

a. Presenting complaint: *Any indication that the child is having difficulty seeing at night*

b. Patient history: *Recent illness or malnutrition*

c. Physical examination: *Early stages: dryness of the eyes, dull surface of conjunctivae*
Later stages: little plaques of gray material called Bitot's spots

12. What is the best way to prevent vitamin A deficiency in children?

Feed them foods which contain vitamin A.

13. A young man has come in with a urethral discharge, and you suspect that he has gonorrhea. This is the first time you have seen this patient. He tells you that he has had this problem before. While telling the patient that his wife will have to come in for treatment, you find out that his wife just had a baby two days ago. The baby was delivered at home.

a. What problem do you suspect the baby may have?

Gonorrheal conjunctivitis

b. What could happen to the baby if this problem goes untreated?

Severe conjunctivitis can cause corneal ulceration. Scarring of the cornea can cause blindness.

c. What medicine can be put into the eyes of newborns to prevent this problem?

Put 1% silver nitrate or 1% tetracycline eye ointment into the child's eyes.

14. What causes canker sores? Choose the correct answer.

_x_ No cause has been proven

____ Drinking fluids

____ Many different foods

15. What is the most common cause of gingivitis? Check (*x*) the correct answer.

____ Viral infection

____ Poor diet

_x_ Poor mouth hygiene

16. What is the major complication of gingivitis? Choose one answer.

____ Dental decay

_x_ Loss of teeth

____ Dental abscess

17. What is the main cause of tooth decay?

Poor dental hygiene

18. A complication of tooth decay is _abscess_ .

19. Explain how a dental abscess forms.

Tooth decay eats into a tooth, reaching the nerve. The decay kills the nerve. Infection spreads through the nerve to the root. This deep infection of the tooth is an abscess.

20. You scale teeth to remove tartar which accumulates below the gum. Why should you remove the tartar?

To prevent dental and gum problems

21. How can you prevent tartar from forming on your teeth?

Proper brushing of the teeth

22. When a patient needs a temporary filling of a lower front tooth, you should: (Check one answer.)

_x_ Give one injection of anesthetic on the cheek side of the gum.

____ Give no anesthetic.

____ Give two injections of anesthetic, one on the cheek side and one on the tongue side of the gum.

23. List two ways to check whether a tooth is anesthetized.

    a. *Press a sharp instrument into the gum on all sides of the tooth.*

    b. *Tap the tooth.*

24. You see a person who has had a toothache for three weeks. The tooth has a small brown spot on it. You tap the tooth, and the patient does not feel pain. The tooth is not loose. You cannot find any swelling around the tooth or face. What would you do for the patient?

    _x_ Put in a temporary filling.

    ____ Remove the tooth immediately; give aspirin for pain.

    ____ Start on aspirin and penicillin; put in a temporary filling.

25. List five things you should tell a patient after removing his tooth.

    a. *How to control bleeding by biting down on cotton gauze over the socket.*

    b. *Not to rinse out his mouth until the next day and then rinse the mouth with warm water after eating.*

    c. *Chew food on the opposite side of the mouth for the next three to five days.*

    d. *Come back to the clinic after two days if the pain grows worse.*

    e. *Come back to the clinic if bleeding does not stop in several hours. (Give the patient a certain time, such as sunset or meal time.)*

26. What is the one most common presenting complaint associated with acute otitis media?

    Ear pain

27. Acute otitis media is a complication of an _upper respiratory infection_ .

28. When would you refer a patient with acute otitis media to a hospital?

    If there is evidence of a hearing loss, or if the patient is not better after one week of treatment, or if the ear is draining and it continues to drain after one week of treatment.

29. You should ask a patient with otitis media how long his ear has been draining. Why is this information important?

    If an ear has been draining for two weeks or more, the diagnosis is chronic otitis media instead of acute otitis media.

30. The prevention of chronic otitis media is the correct and early treatment of _acute otitis media_ .

31. What is the primary physical finding when making the diagnosis of acute sinusitis?

Pain over the sinus when tapped

32. Match the following symptoms and physical signs with the problems:

A- Upper respiratory infection

B- Acute bacterial tonsillitis

_B_ Exudate on tonsils

_A_ Runny nose and dry cough

_A_ Headache

_A_ Redness of throat (alone)

_B_ High fever

_A_ Mild fever

_A_ Red eyes

33. A mother brings her ten-year-old-son to you. She reports that a few days ago the boy had a runny nose and cough. Now he is hot. The boy says swallowing, eating and drinking hurt his throat. You find:

Weight: 50 kg

Temperature: 38.8° C

Swollen and tender lymph glands in the boy's neck. His tonsils are red, swollen, and are spotted with a white exudate.

What is your diagnosis? How would you treat this patient?

Acute bacterial tonsillitis

Tell the boy to rest in bed. Encourage him to drink more fluids than he normally would. He should gargle with warm, salt water four times a day. Give him one 300 mg aspirin tablet every three to four hours for pain. He should take one 125 mg oral penicillin V tablet four times a day for ten days.

34. A mother brings you her three-year-old boy. She tells you the child has been complaining about his nose for several days. Because she was busy and the child did not have a fever, she did not worry about it. However, the child still complains about his nose. He says he can't breathe out of one side. Yesterday pus started draining out of the left nostril. You ask the child if he put anything is his nose. The mother scowls at her child and seeing her, the boy quickly says no. The child's temperature is normal. His eyes, ears, and throat are normal. He has no pain over his sinuses. The right nostril is clear. You cannot see inside the left nostril because of the pus. You find no swollen or painful lymph glands around the ear, under the jaw, or in the neck. What do you suspect is the child's problem? How would you care for this patient?

There is a foreign body in the child's left nostril.

Refer the patient to a doctor because the foreign body cannot be seen. Explain to the mother why the child needs to be referred.

35. If an adult patient comes to you with a complaint of nosebleeds, what should you always check as a possible cause?

You should check the patient's blood pressure to see if hypertension is causing the nosebleeds.

Trauma and Emergency

1. TRUE(T) or FALSE(F)

   _F_ Shock cannot develop without loss of fluid from the body.

   _T_ The narrowing of blood vessels in shock makes skin cold and clammy.

   _F_ Shock does not reduce a person's output of urine.

   _T_ Anxiety and restlessness are early signs of shock.

2. List three signs that indicate a person is having trouble breathing.

   a. *Gagging*
   b. *Absence of respiratory effort*
   c. *Cyanosis*

3. Match the diagnostic signs in the first column with the problems listed in the second column.

   _D_ Convulsions
   _D_ Drooling and sweating
   _D_ Slow and shallow breathing
   _A_ Gagging
   _C_ Drooping eyelids
   _A or B_ Cyanosis
   _B_ Absence of respiratory effort
   _C_ Black-and-blue skin around a bite
   _D_ Pinpoint pupils
   _C_ Bleeding from gums and mouth
   _D_ Unusual odor on a patient's breath
   _D_ Burns around the mouth

   A. Blocked airway
   B. Acute respiratory failure
   C. Snake bite
   D. Poisoning

4. Match the causes of shock with the type of shock that occurs.

_C_ Drug reaction	A. Shock from decreased blood volume
_B_ Septic abortion	B. Septic shock
_A_ Severe diarrhea	C. Anaphylactic shock
_C_ Insect sting	D. Shock from heart failure
_A_ Laceration and bleeding	
_A_ Internal injury with bleeding	
_B_ Severe urinary tract infection	

5. State the clinical signs of shock.
   a. Adult's pulse: *Greater than 90 beats per minute*
   b. Child's pulse: *Greater than 100 beats per minute*
   c. Adult's blood pressure: *Less than 90/60*
   d. Skin: *Pale, cold, and clammy*
   e. State of consciousness: *May not respond to hearing his name, to being shaken, or to pain*
   f. Urine output: *Diminished or absent*

6. List six steps you should take before you treat a patient for shock.
   a. Clear the patient's airway.
   b. Start mouth-to-mouth respiration if the patient is not breathing.
   c. Stop any severe bleeding.
   d. Prevent movement of any large bone or spinal fracture.
   e. Keep the patient warm.
   f. Raise the prone patient's feet and legs about twelve inches above his head.

7. Describe the emergency care of a patient in shock.
   a. Start an IV infusion with normal saline or Ringer's lactate.
   b. Monitor the patient's pulse and blood pressure at regular intervals.
   c. Transport the patient to the hospital as soon as possible.

8. Arrange these steps for assessing an unconscious patient in the correct order.

j. Look for signs of bleeding	*f. Determine the level of consciousness*
k. Examine the airway and breathing	*b. Check for major trauma to other parts of the body*
l. Observe the respiration	*i. Examine the neck*
c. Examine the pulse	*d. Look for paralysis or weakness*
g. Obtain relevant history	*e. Record your findings*
h. Examine the skin	
a. Examine the pupils	

9. Match each set of symptoms and signs with its possible cause.

SYMPTOMS	SIGNS	CAUSE
B Choking	The patient tries to breathe but his upper airway is blocked	A. Electrical shock
D Patient pulled from water	Clothes wet, upper airway has water in it	B. Foreign body blocking the airway
B Trauma to face and neck	The patient is making a respiratory effort but his upper airway is blocked	C. Acute infection of the upper respiratory system
C Child has a fever and increasing trouble breathing	A membrane blocks the upper airway	D. Near drowning
B Child inhaled a peanut or a raisin	The child is making a respiratory effort but his upper airway is blocked	E. Carbon monoxide poisoning
A Patient touched an electric wire	His upper and lower airways are clear. He is not breathing	
E Patient found in a closed room with a poorly burning fire	His upper and lower airways are clear. His lips and nail beds are blue	

10. List five causes of acute respiratory failure.

a. Drowning
b. Poisoning
c. Electric shock
d. Trauma to head and shock
e. Lack of oxygen in the air

11. Describe the effects of a snake bite near the wound and at distant parts of the body.

Effects near the wound: The snake bite causes severe pain and swelling near the bite. Bleeding discolors the skin.

Distant effects: The venom prevents clotting of the blood. Bleeding occurs at the gums and mouth. Blood may be seen in the urine. The patient may have trouble talking or swallowing. His eyelids will droop. He may have trouble breathing which may lead to respiratory failure and coma.

12. Match the items in the first column with those in the second column. Place the letter of your answer in the space provided.

_B_	Lye	A. Induce vomiting
_B_	Paraffin	B. Do not induce vomiting
_B_	Paint thinner	
_A_	Insecticide	
_B_	Kerosene	
_B_	Lethargy or coma	
_A_	Poisonous plants	
_A_	Aspirin poisoning	

13. A woman arrives at your clinic in a very drowsy condition. She responds to strong shaking. Her relative tells you that she found an empty bottle of sleeping pills on the table near the woman's bed. How will you manage the patient?

a. Maintain a clear airway.
b. Flush out her stomach.
c. Start treatment for shock.
d. Refer her to a hospital.

14. A child has accidentally swallowed some lye. His lips and mouth are burned. He has severe pain in his upper abdominal area. How will you manage the patient?

a. Do not induce vomiting.
b. Do not flush out the stomach.
c. Give the patient milk.
d. Refer him to the hospital after starting treatment for shock.

15. Describe the effect of a third degree burn on the skin. What is a possible complication?

A third degree burn will destroy the whole thickness of the skin, exposing fat, and leaving white edges around the burn. Damage to underlying tissues, dehydration, and shock are possible complications.

16. Under what conditions would you apply a tourniquet?

When bleeding from a major artery cannot be controlled by direct pressure or by a pressure bandage and when the patient has suffered an amputation.

17. How would you apply a pressure dressing?

First, quickly collect the necessary materials that you will need. Wash your hands with soap and water. Lay the patient down. Control the bleeding with direct pressure. Pack the wound tightly with gauze. Remove your fingers or hand very gradually. Continue with the packing until the gauze is higher than the surface of the skin. Place a sterile dressing over the gauze and firmly bandage it. Make sure that the pulse distal to the wound is present and that the skin is not blue and cold.

18. A five-year-old child cut himself with a sharp knife. The laceration is 1 cm long. The bleeding is controlled. The child cannot move the middle finger of his hand. You note slight swelling with tenderness. The child does not feel a pinprick on his finger. The laceration is eighteen hours old. How will you care for the child?

    a. Wound care

    Clean the wound. Remove dead tissue, if necessary. Apply a sterile dressing. Do not suture the wound or close it with adhesive tape.

    b. Tetanus prevention

    Find out whether the child has had a tetanus toxoid immunization. If the child has not received an immunization, give him tetanus toxoid. Give a .5 cc injection each month for two months.

    c. Antibiotics

    Give the child 600,000 unit penicillin IM. Follow by giving him 250 mg penicillin V tablets four times a day for ten days. Give the child erythromycin if he is allergic to penicillin.

    d. Referral

    Transfer the child to a hospital as soon as possible.

19. List the degrees of a burn and briefly describe them.

First degree	*Red skin*
Second degree	*Red skin with blistering*
Third degree	*All layers of the skin destroyed, white or charred skin, and exposed fat*

20. List three reasons you would refer a patient with burns to a hospital.

    a. *Refer an adult with second or third degree burns on more than ten percent of his body or a child with burns on more than five percent of his body.*

    b. *Refer any patient with third degree burns on his face, hands, feet, genitals, or across any joint.*

    c. *Refer any patient who has inhaled hot gas or smoke.*

21. A five-year-old child has been burned with boiling water on the front of his chest, his abdomen, and the front of his upper arm. He weighs 18 kg.

a. What percentage of his skin is burned?

Front chest = 9%

Front abdomen = 9%

Front upper arm = 2%

Total = 20% body burns

b. How will you treat the child for these second degree burns?

Fluids: *Begin IV fluids.*
18 × 20% = 360 cc + 250 cc in the first eight hours = 610 cc

Wound care: *Clean and protect from flies and dirt.*
Do not puncture blisters or dress the burn.

Analgesics: *Give as necessary by calculating the proper dosage.*
For severe pain you may give pethidine.

Antibiotics: *Give 400,000 cc procaine penicillin IM*

Tetanus prevention: *Assess immunization status and give tetanus toxoid if necessary*

Referral: *Transfer to a hospital immediately.*

22. A child who fell into an open fire has burned his buttocks, the back of his thighs, and his back to his neck. How will you know what degree of burn the child has suffered?

Examine the burn to find the degree of damage. A second degree burn will have blisters through two layers of skin. A third degree burn will look charred, and all layers of skin will be burned through.

23. What would you do for a patient who reports to you that he spilled some detergent into his right eye?

Wash the eye with clean water for five to ten minutes. Cover both eyes with a clean dressing. Give aspirin for the pain. Transfer the patient rapidly to a hospital.

24. TRUE(T) or FALSE(F)

_T_ A clear, watery fluid or blood-tinged fluid from the ear or nose is a sign of a fracture at the base of the skull.

_F_ Widely dilated pupils are not signs of serious brain damage.

_T_ A patient with a damaged spinal cord feels numb below the injury.

_F_ You may move a patient with a fractured neck or spinal column with no danger.

_T_ A crushed chest collapses on breathing in and expands on breathing out.

_F_ You should not cover a sucking chest wound immediately.

_F_ A blunt trauma to the abdomen is no cause for concern.

_F_ Only a penetrating wound of the abdomen can cause internal bleeding.

_F_ You should push protruding intestines and abdominal organs back into the abdominal cavity when you treat a patient with an abdominal injury.

_F_ You should treat a major trauma before clearing the patient's airway and controlling any bleeding.

25. List three ways you can recognize an injury to the spinal column.

a *Abnormal position of the neck or trunk*

b *Loss of muscle power in the limbs below the site of the wound*

c *Loss of sensation in parts of the body below the injury*

26. The following steps are used for transporting a patient with a fractured spine to the hospital. Number them in the order you would do them.

_6_ Lift the patient onto the stretcher, supporting his neck, the curve of his back, and his knees with pads.

_5_ Place the blanket under the patient.

_2_ Tie the feet and ankles together with a figure-of-eight bandage.

_4_ Find a wooden door, board, or stretcher you can use to carry the patient.

_3_ Tie his knees and thighs together with wide bandages.

_7_ Block his head with a pillow on either side so that the head will not move.

_1_ Hold the patient's shoulders and hips firmly while you place pads between his thighs, knees, and ankles.

_8_ Transport the patient as gently as possible to the hospital.

27. How will teaching school children about how to prevent accidents affect others?

Education of the school children will make the children aware of dangerous situations. It will also help them to know what to do when an accident happens so that prompt attention is given. The children will learn the health messages and then prepare and take them home to share with their parents and families. In this way, the health message developed in the school can be shared with the community.

Problems of Women

1. A discharge from the vagina is a common sign of a problem of the reproductive system. What information about a vaginal discharge should you note and record when taking a medical history and performing a physical examination?

   Describe the appearance and location of the discharge. Also describe any odor from the discharge.

2. A pelvic examination includes palpation of the areas on either side of the uterus. What abnormal signs should you look for during this part of the examination?

   Look for swellings or masses of the area on either side of the uterus, tenderness, and any differences in temperature.

3. What information should you record if you discover a breast lump during an examination?

   a. *Location of the lump*
   b. *Tenderness*
   c. *Whether the lump is attached to the skin or wall of the chest*
   d. *Whether the lump changes the position of the nipple*
   e. *Whether the lump is inflamed*

4. Pelvic inflammatory disease is an infection of the vagina, cervix, uterus, and fallopian tubes. Explain the usual cause and course of this infection.

   Pelvic inflammatory disease is often caused by gonococcal bacteria that enter through the vagina and spread to the rest of the genital area. The infection can also spread to the abdominal cavity.

5. Describe the care you would give a woman who has pelvic inflammatory disease.

   a. Drug treatment for the infection:

      Give a total of 4.8 million units procaine penicillin by injecting 2.4 million units procaine penicillin IM in each hip. Give 1 g probenecid by mouth. Give 500 mg ampicillin by mouth every six hours for ten days.

b. Treatment for severe vomiting:

Withhold fluids by mouth. Give 1,000 cc of 5% dextrose in water and 1,000 cc of 5% normal saline intravenously every twenty-four hours.

c. Home care:

Advise the patient to rest in bed in a semi-seated position. This helps drainage.

6. What are the indications for referral of a patient with pelvic inflammatory disease?

Refer a patient with pelvic inflammatory disease if she has an abscess. Also refer patients who have severe vomiting and no bowel sounds for twenty-four hours.

7. Vaginitis, an infection of the vagina's mucous membrane, is a common problem of women. List the three types of vaginitis infection and the cause of each infection.

TYPE OF VAGINITIS	CAUSE
a. *Non-specific vaginitis*	*Bacteria*
b. *Trichomonal vaginitis*	*Parasite– trichomonas vaginalis*
c. *Monilial vaginitis*	*Yeast*

8. Describe the discharge found with each type of vaginitis.

TYPE OF VAGINITIS	DISCHARGE
a. *Non-specific vaginitis*	*A yellow or white, often pussy discharge*
b. *Trichomonal vaginitis*	*Yellow-green, frothy discharge with a strong, unpleasant odor*
c. *Monilial vaginitis*	*Thick, white discharge which often attaches to surfaces in small patches*

9. Describe the drug treatment for each of the three types of vaginitis.

TYPE OF VAGINITIS	DRUG TREATMENT
a. *Non-specific vaginitis*	*Sulfa suppositories for seven days*
b. *Trichomonal vaginitis*	*2 g metronidazole tablets by mouth at one dose*
c. *Monilial vaginitis*	*Nystatin vaginal suppositories for ten days*

10. Monilial vaginitis occurs with greater frequency among women who have another more serious disease. You should check for this disease in women who develop monilial vaginitis. What is this disease?

Diabetes

11. When should you refer a woman with vaginitis?

Refer a woman to a doctor for further evaluation if her discharge and symptoms continue after two or three weeks, or if her discharge has stopped but her cervix is inflamed.

12. A woman who is twenty-six years old complains of a discharge from her vagina. She says she delivered a normal baby six months ago. The physical examination reveals:

    Her temperature is 38.5° C
    She has lower abdominal tenderness
    She has a pussy and foul-smelling discharge from her vagina
    Movement of the cervix causes pain

    What is the likely diagnosis?

    Pelvic inflammatory disease

13. Cancer of the cervix occurs among women of all ages. Cancer of the uterus occurs more commonly in a certain age group of women. What age group of women is most likely to develop cancer of the uterus?

    Old women

14. List three presenting complaints of women that should make you think of cancer of the uterus or cervix.

    a. *Bloody discharge*
    b. *Heaviness in the pelvis*
    c. *Irregular bleeding*

15. Cancer of the uterus or cervix does not often cause external signs. A pelvic examination is a good way to identify the abnormal signs of cancer in these organs. List four signs of cancer of the cervix or uterus you might find in a pelvic examination.

    a. *Cervical erosion*
    b. *Enlarged uterus*
    c. *Discharge with a trace of blood*
    d. *A mass in the areas on either side of the uterus*

16. Describe the medical history and physical examination findings of a tumor of the ovary.

    Usually a woman has no symptoms of a tumor in her ovaries. On pelvic examination, a smooth, movable non-tender mass is present in the areas on either side of the uterus.

17. You should refer women with breast lumps to a doctor. What physical examination findings will make you suspect a breast lump caused by cancer? Describe these findings.

a. *A cancerous lump may attach to the skin, causing a dimple.*
b. *A lump attached to a nipple will change the shape of the nipple on the affected breast.*
c. *A cancerous lump may be attached to the bony chest wall and not move.*
d. *Discharge from the nipple.*
e. *Enlarged lymph glands in the underarm area of the affected breast.*

18. Briefly describe three ways in which a woman may examine her breasts.

A woman may examine her breasts during a bath, in front of a mirror, or lying down on a bed or couch. When she is taking a bath or lying down, she should use the flat of her fingers to gently feel her breasts for any lumps or swelling. She should raise one arm over her head and use the opposite hand to feel her breast. A woman in front of a mirror should look closely at her breasts with her arms at her sides, then with her arms raised, and finally with her hands on her hips. She should look at the shape of her breasts and note any swelling or other changes. A woman should also squeeze the nipple of each breast gently between her thumb and index finger to detect any discharge.

19. What should a woman do if she finds a lump in her breasts or a discharge from her nipples?

If a woman should discover a lump, an unusual swelling in her breasts, or a discharge from her nipples, she should go to a health center as soon as possible.

20. How often and when should a woman examine her breasts?

A woman should examine her breasts at least once every month about a week after her menstrual period.

21. What care would you give a woman who complains of menstrual cramps?

Give her 600 mg aspirin for the pain. She should take the aspirin when the pain begins. She may take the aspirin every four hours if necessary. Rest may be helpful if the pain is very severe. Mild pressure from a pillow over the lower abdomen may also help. Advise the woman that physical activity decreases cramping and that she should continue her normal activities if possible.

22. Some women experience side effects of their contraceptive method. The most common side effects are listed below. Describe what care you would give a woman with each of these signs or symptoms.

a. Weight gain:

Advise the woman that this problem is usually due to fluid retention and will gradually decrease after three to six months.

b. Nausea and vomiting:

Some women have nausea for a few weeks when starting oral contraceptives. If severe vomiting occurs, the woman should see a doctor and change the dosage or type of oral contraceptive she uses.

c. Backache:

Women who take oral contraceptives or use an IUD and who have back pain should be reassured that the problem is temporary. Aspirin will relieve the pain.

d. Discharge from the vagina:

Vaginal discharge should be managed as vaginitis. If pelvic inflammatory disease is diagnosed, the IUD should be removed.

e. Bleeding:

Whenever bleeding occurs, perform a pelvic examination. If the bleeding is slight and if no serious findings are present, give the woman one month's supply of ferrous sulfate and folic acid. If the problem remains after a month or the bleeding is heavy, refer the woman to a doctor.

f. Infection of a wound:

Infections after a tubectomy are treated by removing the sutures and using saline soaks on the wound until it heals. Deep wound infections should be referred to a doctor.

23. Menopause is the end of a woman's reproductive period. Women notice changes in the menstrual period during menopause. List two types of changes commonly reported among women between the ages of forty-five and fifty-five.

a. Menstruation becomes scanty and irregular.

b. Heavy bleeding occurs during menstruation.

24. Describe how you would care for a fifty-year-old woman who complains of heavy bleeding during her irregular menstrual periods. The woman has no signs of anemia or other illness.

Explain that menopause is usually accompanied by changes in menstrual periods. This is a normal process and is not an indication of serious illness. She should continue following her normal patterns of activity. Good food, fresh air, exercise, and enough sleep are important.

25. Describe the presenting complaint and medical history of a patient with atrophic vaginitis.

A woman who is past menopause complains of burning pain on intercourse and a watery or pink vaginal discharge. She will usually report that the problem started some months ago and is growing worse.

26. How would you treat a woman with atrophic vaginitis?

Tell the woman to insert one.5 mg diethylstilbestrol vaginal suppository inside her vagina every third day for three weeks. She should stop for one week, then insert the suppositories again for three weeks, and continue this schedule for three months.

The woman shoud lie down for thirty minutes after inserting the suppository. She should avoid sexual intercourse until the pain and itching stop.

27. A fifty-six-year-old woman complains of a pink and watery discharge. She is not bleeding and has no fever. What is the most likely diagnosis of her problem?

Atrophic vaginitis

Prenatal Care

1. 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
e 4 - 8 weeks	a. The woman may have shortness of breath and swollen ankles.
c 38 - 40 weeks	b. Fetal parts and movements may be felt.
f 16 - 20 weeks	c. The fetus' head settles into the woman's pelvis.
a 32 - 36 weeks	d. The woman has increased urination. Her vagina is bluish purple in color.
d 8 - 13 weeks	e. The woman may experience nausea in the mornings or evenings.
b 22 - 30 weeks	f. Fetal heart sounds may be heard.

2. 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.

3. 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.

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. 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.*

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

   A soft, bluish cervix and bluish purple vaginal walls

7. 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.

8. TRUE (T) or FALSE (F)

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

9. 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.

10. 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. Your 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.

11. 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
_c_ Less than 152.5 cm tall	a. May be a sign of diabetes
_j_ Small or deformed pelvis	b. May cause infection of the uterus
_g_ Severe anemia	c. May cause a long, difficult labor
	d. Sign of a possible miscarriage

_i_ Blood pressure above 140/90

_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

e. Sign of heart disease

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

12. 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.

13. 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.

14. 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.

15. TRUE (T) or FALSE (F)

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

16. 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.

17. 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.

18. 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*

19. 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.

20. 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.

21. 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.

22. What is an ectopic pregnancy?

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

23. 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.

24. 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

25. TRUE (T) or FALSE (F)

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

26. 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.

27. How can you find out if the women 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.

Labor and Delivery

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

   To find any new problems or any problems that may have been missed in the prenatal visits. This is a very important examination for the woman who has not been to a prenatal clinic because all the possible problems that should have been handled prenatally must be diagnosed and a decision must be made about how to handle them.

3. 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.

4. 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.

5. 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.

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

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

7. Briefly describe what labor is.

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

8. What are the three stages of labor?

   The first stage begins with uterine contractions 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.

9. 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.

10. 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.*

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

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

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. 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 the newborn.

14. 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 can cause fetal distress. Certain drugs that are given to the mother may also cause fetal distress.

15. 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.

16. 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.

17. 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.

18. 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.*

19. 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.*

20. 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.*

21. 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.

22. 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.

23. Circle the letter of the correct answer. 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:

a. Face-up presentation

b. Breech presentation

(c) Transverse presentation

24. TRUE (T) or FALSE (F)

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

25. 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.

26. 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.

27. 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.

28. 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.

29. 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.

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

a. Laceration of the membranes

(b.) Early separation of the placenta from the uterus

c. Laceration of the cervix

31. TRUE (T) or FALSE (F)

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

32. 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.

33. 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

Postnatal Care

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. 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.

3. List 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?"*

4. 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.

5. 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.

6. List 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.

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. 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.

9. 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*

10. 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.

11. 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

      a. Palpate the bones of the arms, chest, and legs.

      b. Check for dislocated hips.

      c. Count the fingers and toes.

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

   Food, warmth, and sleep

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

   Tetanus

14. 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.

15. 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.

16. List 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

17. 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.

18. 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

19. Describe what causes swollen breasts.

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

20. 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.

21. 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.*

22. 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.

23. 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*

24. 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.*

25. What is puerperal sepsis?

Puerperal sepsis is a postnatal infection of the reproductive system.

26. 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.

27. 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.

28. 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?

a. Tell the mother to change the diaper soon after it gets dirty or wet.

b. Wash the diaper area with a soft, soapy cloth, and rinse with clean water.

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

d. Do not use creams or oils until the skin heals.

29. 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.

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

Pressure on the newborn's head during delivery.

31. Describe 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

32. Why is diarrhea dangerous in a newborn?

Because a newborn can easily become dehydrated

33. What is the treatment of diarrhea and dehydration of the newborn?
    a. *Continue breast-feeding and begin giving sips of oral rehydration solution.*
    b. *Transfer immediately to the hospital.*

34. What is the treatment of fever of a newborn?
    Refer the newborn to the hospital.

35. List six possible causes of low birth weight.
    a. *Smoking by mother*
    b. *Poor nutrition of mother*
    c. *Multiple pregnancies*
    d. *Anemia*
    e. *Malaria*
    f. *Eclampsia*

36. 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.*

37. Where would you look for jaundice of the newborn?
    Skin, sclerae, palms, and soles of feet

38. What are birth defects?
    Birth defects are abnormalities that develop as the fetus is growing in the uterus.

39. List 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.*

Diseases of Infants and Children

1. What is the best way to tell whether a child is suffering the effects of mild malnutrition?

   Use a growth chart to record weights.

2. A mother may bring her malnourished child to you because of a problem such as diarrhea, measles, or pneumonia. Explain why many children suffer from these problems when they are malnourished.

   Malnutrition breaks down a child's ability to fight infection.

3. Because treatments for marasmus and kwashiorkor are different, you must be able to tell which type of malnutrition a child suffers. In the chart below, fill in the description of each problem. Number 1 has been completed as an example.

	MARASMUS	KWASHIORKOR
General appearance	No fat on bones, unusually quiet	Miserable and crying
Muscles	*Very thin*	*Thin upper arms and upper legs; lower arms and legs swollen with edema*
Skin	*Very thin and wrinkled with tenting*	*Flaking skin, pitting edema of feet and ankles*
Face	*Looks wrinkled, like an old person's*	*Round puffy face*
Hair	*Coarse and easily falls out*	*Reddish, thin hair*

4. Name three factors which affect the nutrition of a child.

   a. *Lack of breast milk*

   b. *Not giving a child soft foods after five or six months of age*

   c. *Using a bottle instead of breast milk which leads to overdiluted formulas which do not contain enough energy and protein foods*

   d. *Using dirty water and dirty bottles which cause diarrhea and poor absorption of food*

   e. *Not giving the child a variety of foods so that a nutrient, such as protein, is left out of his diet*

5. The basic treatment for malnutrition is providing food. What should be done for a four-month-old infant who suffers mild malnutrition and has been drinking diluted formula from a bottle?

   a. *Give the infant cereal or legume porridge three times a day.*

   b. *Stop giving the infant milk from a bottle. All food and milk should be given with a cup and spoon which are washed and rinsed before and after each feeding.*

   c. *Weigh the infant every month until he reaches normal weight.*

   d. *Continue to feed the infant during any illness.*

6. What should you do for a two-year-old child with severe malnutrition who is conscious and able to take food by mouth? Describe your feeding program, your instructions to the child's mother, and your follow-up schedule.

   a. *The most important treatment is giving the child food. The child may have lost his appetite. He may have to be coaxed to eat. He must eat ten to twelve times a day.*

   b. *The mother should continue to breast-feed the child if she can.*

   c. *Give the child at least six feedings of a mixed grain and legume porridge each day for one week. Add extra feedings of vegetables, fruit, eggs, and milk.*

   d. *Weigh the child every day. A child with marasmus should gradully gain weight. A child with kwashiorkor will first lose fluids, causing an initial weight loss. Then he will begin to gain weight.*

   e. *If a child with marasmus loses weight or develops a respiratory infection, refer him to a hospital. If a child with kwashiorkor gains weight during the first three to four days of treatment or develops a respiratory infection, refer him to a hospital. Marasmus and kwashiorkor are serious diseases with high mortality rates.*

   f. *If the child has Bitot's spots, treat him with 5,000 units of Vitamin A daily for three weeks.*

   After the first week:

   a. *Make sure the parents understand that a lack of food causes this disease.*

   b. *Keep giving the mixed grain and legume porridge.*

c. *Start the child on a variety of soft foods, including fruits, vegetables, beans, fish, eggs, and meat.*

d. *Teach parents the six basic health messages on preventing malnutrition.*

e. *See the child weekly in the regular child care clinic or at a special nutrition clinic. If you are following several malnourished children in the same community, start a special nutrition education clinic. This clinic will allow you to teach several families about better foods at the same time.*

f. *Use a growth chart. Make an extra effort to follow high-risk children as closely as possible.*

7. To help prevent malnutrition, conduct maternal and child health clinics. In these clinics, you can teach parents the six basic health messages on preventing malnutrition. The first message is "Breast-feed children until they are two to three years old. Do not use bottles." Explain the importance of this message.

   Breast milk is the best nutrition for a baby. Using a bottle leads to overdiluted formulas and inadequate food intake. Dirty water and dirty bottles cause diarrhea and poor absorption of the food.

8. Malnourished children need nutritious food to grow strong again. What food can you teach a mother to make at home to help her baby grow strong?

   She can make super porridge from ground beans, corn, and wheat.

9. Explain the relationship between diarrhea and dehydration.

   Diarrhea causes dehydration because the body loses water with each bowel movement.

10. A mother brings a child with diarrhea to your clinic. The child is thirsty but has no other signs of dehydration. How do you manage this problem?

    Teach the mother to make oral rehydration fluid and have her demonstrate how to prepare it. Give the child some of the solution. Wait until he urinates before you send the mother and child home. Have the mother repeat how much fluid she is to give the child. If she breast-feeds her child, she should give him as much fluid as the baby will take between breast-feedings. If she does not breast-feed her child, she should give him fluid every three hours through the day and night.

11. What ingredients in what amounts are needed to make oral rehydration fluid?

INGREDIENTS	AMOUNT
Clean, boiled water	*1,000 ml*
Pinch of salt	*1 two-finger pinch*
Bicarbonate of soda	*1 two-finger pinch*
Sugar	*2 fistfuls*

12. What are the six basic health messages on preventing malnutrition?

    a *Breast-feed children until they are two to three years old. Do not use bottles.*

    b *Add new foods such as super porridge made with grains and legumes to the child's diet at five to six months.*

    c *Give a variety of fruits, vegetables, eggs, beans, and meat to children more than six months old.*

    d *Feed children at least four meals a day.*

    e *Continue to feed sick children.*

    f *Give pregnant and lactating women extra vegetables and protein-rich foods.*

13. Severely dehydrated patients are at great risk. They should be treated at a hospital. If a child with severe dehydration cannot reach a hospital, however, how would you treat him?

    a *Give IV 5% dextrose in Ringer's lactate. Determine the amount by multiplying the child's weight in kilograms by 20 ml.*

    b *Run this amount in quickly. Then slow the IV.*

    c *Calculate the amount of rehydration solution to give after the first amount. See Patient Care Guides. Reassess and keep the IV open by running it in very slowly.*

    d *As soon as the child can take oral fluids, remove the IV and give oral rehydration fluid.*

14. What points would you include in a discussion with parents about how to prevent diarrhea?

    a *Breast-feed your infant until he is two to three years old.*

    b *Never use a feeding bottle.*

    c *Boil all water given to children.*

    d *Wash your hands before eating and before feeding children.*

    e *Wash raw fruits and vegetables.*

    f *Use latrines and keep your house clean.*

    g *Follow the six basic health messages on preventing malnutrition.*

15. When a moderately dehydrated child is vomiting severely or is severely dehydrated and cannot swallow, intravenous rehydration is necessary. What two techniques could you use?

    a *Peripheral vein technique*

    b *Scalp vein technique*

16. When giving an IV, if no blood enters a syringe when you pull back on the plunger, what should you do?

    Reposition the needle.

17. What signs would tell you whether a newborn with tetanus has fits or convulsions? What starts the fits? What would you expect the newborn's physical appearance to be?

The child cannot suck; he becomes jittery; the muscles of the jaw are in spasm; the fits interfere with the child's breathing. The fits are set off by noise or handling of the infant. The infant's posture is rigid from muscle spasms, and he grimaces.

18. What two things can you do to prevent the development of tetanus in a newborn?

a. *Give the mother two injections of tetanus toxoid during the last trimester of pregnancy.*

b. *Provide sterile equipment at deliveries and circumcisions.*

19. Septicemia is an infection in the blood caused by bacteria. Name one way the bacteria that cause septicemia enter the bloodstream of a newborn.

Through unsterile care of the umbilicus; it may also enter the bloodstream if the mother's water bag breaks early, exposing the infant to bacteria.

20. How would you describe the usual clinical picture of a newborn with septicemia? What is the general apperance of the infant? In what condition would you find the umbilical stump?

The infant with septicemia:

Does not suck well

Vomits

Has an unstable temperature, fever, or temperature below normal

Has difficulty breathing, or breathes irregularly

Is jittery, or has convulsions

Cries a lot, or is very irritable

Seems weak and floppy

Usually has redness and a foul odor around the umbilical stump

21. How can septicemia in a newborn be prevented?

a. *Prevent infection of the umbilical stump.*

b. *Care for the umbilical stump during the first week of life by exposing it to air and painting it with gentian violet or 70% alcohol twice a day.*

c. *Follow up infants who are at increased risk of infection.*

22. What are the four major procedures for caring for gonococcal conjunctivitis in a newborn?

a. *Clean the eye with salt solution.*

b. After cleaning, put in penicillin eye drops or ointment.

c. Give penicillin intramuscularly every twelve hours for four days.

d. Follow the infant carefully for signs of corneal ulcers.

23. Why should you not use antibiotics to treat thrush unless absolutely necessary?

Antibiotics tend to kill not only problem bacteria but many normal bacteria. Thrush is an infection caused by a fungus. When normal bacteria are killed, the fungus becomes a problem.

24. Explain how thrush can lead to malnutrition and dehydration.

The painful lesions will interfere with the infant's feeding, leading to inadequate fluid and food intake.

25. Outline the immediate care you would give to an infant with tetanus before transferring him to a hospital.

a. Give him 200,000 units procaine penicillin IM.

b. Give him 15 mg phenobarbital IM.

26. What message would you give a mother to help prevent septicemia of her newborn?

Tell the mother to be sure the midwife or birth attendant cuts and ties the umbilical cord with clean hands and clean instruments.

27. What instructions should you give a mother to help her care for her child who has croup?

Instruct her to offer at least one glass of water or juice every three hours.

28. Whooping cough has two stages. The second stage is the whooping cough stage that can last for ten to twelve weeks.

a. How long will the first stage usually last?

About two weeks

b. What signs and symptoms occur during the first stage?

Runny nose, some cough, and low grade fever

29. Why is malnutrition a complication of whooping cough? What instructions would you give a parent about feeding a child with whooping cough?

Young children become very weak from coughing and vomiting. If they are not fed often, they will become weaker and malnourished. Tell parents to feed the child small amounts of food more frequently than usual.

30. Describe what signs and symptoms you might see in a child during the first several days of measles.

    Day 1: *Signs of a bad cold with a high fever, runny nose, red eyes, and generalized tiredness*

    Day 2: *Small, white spots surrounded by red circles occur on the inside of the cheeks*

    Day 3: *A reddish rash occurs on the face and quickly spreads to cover the entire body*

    Day 7: *The fever and rash begin to fade, followed by peeling skin*

31. What can be done to prevent measles?

    One injection of measles vaccine will protect a child from the disease.

32. Although serious complications of mumps are rare, what complication can occur in a child with mumps?

    Although serious complications are rare, a child with mumps can develop meningitis.

33. Another disease in children which is caused by a virus is chicken pox. What are the differences between the clinical pictures for chicken pox and measles?

    a. *Rash of chicken pox immediately begins on the chest and abdomen. Rash of measles usually begins on the face and head about the third day.*

    b. *The chicken pox rash progresses from small, red macules, to vesicles with clear fluid in them, to lesions with scabs. All three stages may be present at the same time.*

       The measles rash begins in the mouth on the inside of the cheeks as small, white spots with red circles around them.

    c. *Chicken pox may involve a mild headache, loss of appetite, and some fever.*

       Measles begins as a bad cold. The child has a runny nose, red eyes, fever, and feels ill.

34. A ten-year-old child enters the clinic with pain in her right wrist and left elbow. You find the joints slightly swollen and red. She also has a fever of 39° C. What advice would you give her parents?

    Tell the patient's parents to take the child to a doctor. The pain, swelling in her elbow and wrist, and her fever indicate the beginning of a serious disease. A doctor should make the diagnosis.

35. Explain the differences between the signs of osteomyelitis and other problems of infants and children such as polio, rheumatic fever, and sickle cell anemia.

Osteomyelitis usually involves only one bone or joint. In rheumatic fever, the involved joint changes from one day to the next. In a sickle cell crisis, many joints are involved. Polio involves the muscles.

A child with osteomyelitis is very ill. He may vomit or be unwilling to eat. A child with rheumatic fever may also have a long lasting, high fever. The child may have been sick for several weeks before you see him. In sickle cell disease, the child often has other symptoms, such as abdominal pain. In polio, the child will have fever, stiff neck, and sudden weakness of the arm or leg.

Sickle cell disease and rheumatic fever can recur. Osteomyelitis usually does not.

36. What should you consider before selecting an educational method for a community health presentation?

a. A topic that is related to a specific need or problem in the community

b. What it is you want to communicate about the topic you have chosen

c. Who the information would help

d. Some basic health messages related to your topic

e. Your method of organizing the material

f. An educational method that would involve the people to whom the information is directed

Child Spacing

1. Why should a mother allow two years or three years between children?

   This time will allow the child or children who are born a chance to get the nourishment and care that is necessary for them to grow up strong. It will also give the mother's body a chance to get strong again before she has another child.

2. Explain the process of fertilization.

   Fertilization is the process of the joining of the male sperm cell and the female ovum. The sperm, after it is released into the vagina during sexual intercourse, swim up the uterus and into the fallopian tubes. If a sperm cell meets an egg cell and joins with it, this is called fertilization or conception. The fertilized egg then travels down into the uterus where it attaches itself and begins to grow.

3. Describe the function of the following reproductive organs.

   a. Uterus - *supports the fetus as it grows inside the female body*

   b. Fallopian tube - *this is where conception occurs; the ovum leaves an ovary and travels through the fallopian tube to the uterus*

   c. Ovary - *produces egg cells, or ova; one egg cell is produced each month in one of the two ovaries*

   d. Vagina - *where sperm are deposited by the male during intercourse*

4. A woman comes to you and says that she has not been able to have a second child. In talking with her, you find out that she and her husband have intercourse about once a week when the husband comes home from working in the capital city. From what you know about the reproductive process, what might be the reason for this woman's problem?

   She may not be having intercourse when she is most fertile, during ovulation.

5. This unit discusses six basic communication skills that can help you in your counseling about child spacing. Briefly describe each of these skills.

   a. *Understand people's feelings, views, and behavior. Respect the way people feel about child spacing. What people believe and what they do are important parts of their lives and should not be criticized.*

   b. *Use local words and expressions. Speaking the local language and using words and expressions that local people use will help in communicating child spacing information.*

c *Express ideas clearly. Think about what to say before saying it. This way you are more likely to express what you want to say clearly.*

d *Listen closely and carefully to people. Listening is probably the most important skill of all. To understand people and find out what they know and feel, you must listen to what they have to say.*

e *Ask and answer questions. Counseling a person about child spacing should be like a conversation, not a one-way talk by the health worker. Ask questions, but encourage the other person to ask questions, too.*

f *Help people make decisions. This is actually the goal of counseling. Keep in mind that people must decide themselves what child spacing method they want to use. The health worker is there to provide information and support.*

6. One day while you are taking a medical history and performing a physical examination of a woman who came to the clinic, you ask her if she is using a child spacing method. She tells you yes, that she is using lemon juice and hot water right after intercourse. What would you say to the woman?

Tell her that you are pleased that she is taking some child spacing responsibility. You also could tell her that there are methods being used now that are more effective than the method she is using. Ask if she would like to learn more about these methods.

7. What would you advise a community health worker to do when listening to people who come to him for child spacing advice?

Take time to listen to the patient. Try not to be doing something else when listening to the patient. Do not write while listening to him. If he is talking too fast or having trouble talking, tell him to relax and start again. Try not to sit behind a desk when listening to a patient. Be sure to ask the patient about anything you do not understand. Try to make the patient comfortable. Show him that you are concerned about his problem. Do not interrupt the patient when he is talking.

8. Explain the mucus ovulation method of child spacing.

Mucus ovulation is a method of telling when a woman ovulates by checking the mucus in her vagina. The mucus changes consistency during different times of the woman's cycle. Immediately after menstruation, there will be no mucus. When mucus appears, it will be tacky and look whitish or cloudy. When the woman ovulates, the mucus is clear and stretchy. The woman should avoid unprotected intercourse from the first sign of mucus, when it is whitish and tacky, through the fourth day after the mucus becomes clear and stretchy. The woman can have unprotected intercourse beginning the fourth day after the mucus becomes clear and stretchy until the mucus appears again after her next menstrual period.

9. Why is it useful for a woman to write down the lengths of twelve menstrual cycles in a row before using the rhythm method of child spacing?

Most women do not have regular menstrual cycles of twenty-eight days. Therefore, ovulation occurs at different times during each menstrual cycle. By writing down twelve menstrual cycles in a row, the woman will know the earliest and latest

possible days of ovulation. From this information, she can predict when her next fertile days will be and can avoid unprotected intercourse during that time.

10. A woman has written down twelve menstrual cycles in a row. She found that the shortest cycle was 23 days, and the longest cycle was 32 days. When should she avoid unprotected intercourse during her next cycle?

    Shortest cycle: 23 days
    Longest cycle: 32 days

    Calculation of first fertile day: 23 - 18 = 5
    Calculation of last fertile day: 32 - 11 = 21

    The woman should avoid unprotected intercourse from Day 5 up to and including Day 21 during her next cycle.

11. How can understanding natural methods of child spacing help increase the effectiveness of other child spacing methods?

    Understanding natural contraception is understanding how the body works in reproduction. It helps a woman and man know when a woman is fertile. If a couple knows when the woman is fertile, they can use a child spacing method during this time. In short, understanding natural contraception is understanding fertility. It is helpful to understand fertility to know when it is necessary to be protected against the possibility of conception.

12. Imagine that you are explaining to a woman how spermicidal foams, creams, and jellies are placed in the vagina. What would you say?

    Spermicides come in foams, creams, and jellies. They are placed in a woman's vagina with the help of an applicator. Show the woman the applicator. The foam, cream, or jelly is first put into this applicator. Point to the plunger. This part of the applicator moves up as the foam, cream, or jelly is placed inside. Separate the lips of the vagina with one hand while placing the applicator in the vagina with the other. Make sure the applicator is as high as possible in the vagina. Push on the plunger to push the foam, cream, or jelly into the vagina.

13. A man wants to know how to use a condom. What would you tell him?

    Show the man a condom. Tell him, "This is a rubber covering that fits over the erect penis. Before you have intercourse, place the condom over the tip of your penis and roll it down over the penis. Leave a small space at the top of the condom where the sperm will collect. When you remove your penis from the vagina after intercourse, hold the condom in place on your penis. This will prevent any sperm from being spilled into the vagina. Do not use petroleum jellies, such as Vaseline, as a lubricant. The jelly will cause the condom to weaken and tear."

14. TRUE (T) or FALSE (F)

    _T_ Condoms are free of medical side effects.

    _T_ A diaphragm must be carefully fitted to the individual woman by a trained person.

15. Outline some of the important points you would include when counseling a woman about the use of a diaphragm.

The woman who wants to use a diaphragm must be fitted for the correct size. Advise the woman that she will be taught how to use the diaphragm and that she must demonstrate that she knows how to use the diaphragm before she leaves the clinic. Petroleum jellies, such as Vaseline, should never be used with the diaphragm. The jelly will cause the diaphragm to weaken and tear. Teach the woman how to care for the diaphragm by washing it with mild soap and water, rinsing it, and drying it carefully. Advise the woman to keep the diaphragm out of bright light and heat. Tell her to check the diaphragm for holes by holding it up to the light or filling it with water. See women who use diaphragms every year, in order to check how the diaphragm fits and to check the condition of the rubber. Advise the woman or couple that the woman will need a new size diaphragm if she gains or loses more than 5 kg or after pregnancy. Remind the woman or couple that a diaphragm should always be used with a spermicide.

16. Why is it important to take a medical history and perform a physical examination, including a pelvic examination, on a woman who intends to use an IUD?

Some child spacing methods can aggravate old health problems, make present health problems worse, and even cause new health problems in patients who are susceptible. Therefore, it is important for the health worker to have a thorough knowledge of the individual's health before helping her decide on a child spacing method. A history and physical exam can provide this knowledge.

17. Describe at least three disadvantages of using an IUD.

a. Sometimes the IUD causes a heavier menstrual flow and spotting of blood

b. Some women's bodies will not allow the IUD to stay in place in the uterus

c. Insertion of the IUD can be painful

18. A woman to whom you gave an IUD comes back to you and says she thinks she is pregnant. She does not want another child. Explain what you would do and what you would say to the woman.

The first things you would probably do are to take the woman's medical history and perform a physical examination. Do a pregnancy test, if possible. If the woman is pregnant, advise her that removing an IUD from a pregnant woman can cause an abortion. Explain, however, that this is not always the case. Help the woman make a decision about what she wants to do. It is unlikely that the IUD would harm the fetus if it were left in the pregnant woman's uterus. Be prepared to counsel the woman about abortion. Be prepared to refer her to the hospital if she is experiencing any problems.

19. Briefly explain how oral contraceptives prevent conception.

Oral contraceptives are based on a woman's body chemistry and the effect this

chemistry has on ovulation. Normally, a woman's body produces the hormones estrogen and progesterone. These hormones have an effect on various parts of the body, including a woman's ovaries. When the estrogen level is low in a woman's body, as it is during menstruation, an egg begins to develop and is later released at ovulation. However, when the estrogen level is high in the woman's body, as it is during pregnancy, eggs are not produced or released. Oral contraceptives add to the amount of estrogen and progesterone that already exist in the woman's body. This makes the level of estrogen high, which in turn inhibits the production and release of eggs from the ovaries. If there are no eggs to be fertilized, conception cannot occur.

20. Oral contraceptives are the most reliable method of contraception if used correctly. However, there are some side effects. Check those that may be associated with the use of oral contraceptives.

_x_ Blood clots
___ Gangrene
___ Pneumonia
_x_ High blood pressure
_x_ Changes in vision
___ Heart disease
_x_ Nausea and vomiting
___ Insomnia
_x_ Severe headaches
___ Peptic ulcer
_x_ Vaginal bleeding for more than a week
___ Papules
___ Breast cancer
___ Liver disease
_x_ Chest pain
___ Flaky skin
___ Bronchial breath sounds
___ Cancer of the uterus or cervix

21. Put a check in front of the instructions that should be given to a woman who is beginning the pill.

_x_ Take one pill every day
___ Take one pill every other day
___ If you miss one day, do not worry. It will not matter
_x_ You may expect some nausea when you first take the pill, but the nausea will gradually disappear

22. In doing a physical examination on a woman you find that she has abnormally high blood pressure. What would you recommend to her with respect to a child spacing method?

Recommend that she not use oral contraceptives.

23. What should a woman be advised to do after she has a tubectomy?

Advise a woman not to do any heavy work for a week or two after a tubectomy. Advise her not to have intercourse for two weeks, until the cut on her abdomen is

well healed. The woman may have intercourse after the cut has healed without using any contraceptive method.

24. There are certain physical reasons why men and women are not able to produce a child. However, there are also other reasons. Explain these other reasons.

A couple who is not able to conceive a child may not be having intercourse at the correct time, when the egg is released from the ovary and is traveling down the fallopian tube. A woman may only become pregnant during ovulation. This is a very short period in her cycle. If sperm are not released during this time, conception will not occur.

25. A couple comes to you and says that they would like to have another child but they cannot seem to do so. How would you approach this situation?

The first steps are to take a medical history and perform a physical examination for both the man and the woman. Listen to what they have to say. Show them that you are concerned about their problem. Explain to them that there is only a certain time during a woman's cycle when conception may occur. Make sure that they understand how their bodies function in the reproductive process. Ask them how often they have intercourse and whether the woman has a regular menstrual cycle. You can encourage the woman to keep a record of her menstrual cycles, and show her that the most likely time for her to conceive is approximately fourteen days before her next period is due.

You may also explain that during intercourse, it is helpful if the man's penis is deep in the woman's vagina when he ejaculates. This will ensure that the sperm are released near the cervical opening. You may mention that relaxing and not being overly concerned about their problem may help. If the woman has been using oral contraceptives or an IUD, explain that it usually takes some time for fertility to return after stopping these methods.

Explain to the couple that their inability to have children may be due to physical reasons. The man may not be producing enough sperm, or sperm that are not normal. The woman may not be producing eggs, or eggs that are not normal. The woman or the man may not have normal reproductive organs. All of these factors can make a man or woman sterile. If a child is still not conceived after several months of counseling, refer the couple to a doctor for tests for any physical abnormalities.

Meeting the Preventive Health Needs of the Community

1. As you discuss possible community health activities, it is helpful to think in terms of three levels of people in a community. Name these three levels.

   a *Individuals*

   b *Household and families*

   c *The community as a whole*

2. Explain the advantages of combining health activities with other development activities.

   Combining health activities with other activities demonstrates that health is a necessary part of all development efforts. Combining activities also makes the best use of limited resources.

3. What is the difference between the purpose of a community health activity and its objectives?

   The purpose is a general statement of why the activity should take place. An objective is a more precise statement of what the activity should accomplish. An objective is described in terms of how much of a problem is to be reduced or prevented or how many people will be affected. An objective also specifies a time period.

4. Why is it important for you, the community, and your plans to be flexible?

   Flexibility is important in planning community health activities because you never know the future. You plan in order to solve problems in an organized way, but you cannot be sure that everything will go according to your plans. You must be flexible so that you can change your plans if necessary to accomplish your objectives.

5. Carrying out community health activities has three parts. Name these parts.

   a *Starting the activity*

   b *Keeping the activity going*

   c *Watching the progress of the activity*

6. TRUE (T) or FALSE (F)

   _F_ It is important to stay with your original plans and not change them in any way.

7. Describe at least four things you should do to keep a community health activity going.
   a. *Make sure that the people working on the activity have all the supplies and equipment they need.*
   b. *Make sure that each person is doing what he is supposed to do.*
   c. *Make sure that those working on the activity communicate openly.*
   d. *Get information on a daily basis about resources, progress, and problems.*
   e. *Support the participants. Keep people aware of the purpose of the activity and how far they have come in reaching that purpose.*

8. Describe at least three ways to monitor a community health activity.
   a. *Observe the activity and make notes of your observations.*
   b. *Have the people who are working on the activity fill out a short questionnaire each day.*
   c. *Have supervisors report to you about what they have observed.*
   d. *Meet daily with those working on the activity to discuss their progress.*

9. Asking certain questions can help you monitor the progress of community health activities. List at least five of these questions.
   a. *Does the activity fit the objectives?*
   b. *What was accomplished today? Which objectives were reached?*
   c. *Are the materials, supplies, equipment, and facilities adequate for the activity?*
   d. *How do the people working on the activity feel about it? What are their needs?*
   e. *How do other community members feel about the activity?*
   f. *What problems need to be overcome? What could be improved?*
   g. *What still needs to be done? Will the current plan meet these needs?*

10. Name at least three roles of a mid-level health worker in helping community members take responsibility for planning and carrying out health activities.
    a. *Motivate people*
    b. *Initiate tasks*
    c. *Provide information*
    d. *Supervise*
    e. *Advise*

11. Why is it important to avoid being the sole organizer and doer of community health activities?

If you are, the community will learn only to depend on your skills. You need to work with community members so that they learn these skills also. Only then will the community be able to solve its own problems, take care of itself, and stay healthy.

12. Evaluation is an on-going process. Explain this statement.

This means that you are always evaluating. You plan to do something, you do it, and then, based on your experience, you decide whether you should do it again the same way or at all. Evaluation is a way of learning from experience and using what you learn to improve future activities. It is an essential part of planning.

13. List the five questions that you should use as a guide when you evaluate community health activities.

a. Is the activity relevant?

b. Is the activity making progress?

c. Is the activity efficient?

d. Is the activity effective?

e. What is the impact of the activity?

14. Briefly describe why you should look at the progress of a community health activity.

An activity is making progress if it is moving forward to fulfill its objectives. Looking at the progress of an activity tells you what has been accomplished. It also tells you where an activity has fallen short of its objectives.

15. When is a community health activity effective?

An activity is effective if it is reaching its objectives.

16. Evaluation is most useful when community members take part. Why is this?

Then the findings reflect their feelings and values. An understanding of these feelings and values will help you and the community determine how to improve community health activities.

17. What are you looking for when you analyze information about community health activities?

You are looking at the activity with respect to the objectives and deciding if it is:

Still relevant

Progressing

Using resources efficiently

Having a positive effect on the health of community members

Having any unplanned effects on the community

18. Describe what it means to take corrective action with respect to community health activities.

Taking corrective action usually means changing a community health activity so that it better meets the needs of community members. You may need to change the schedule for an activity or the materials, equipment, or personnel. Or, you may have to change the objectives of the activity altogether.

19. Explain one advantage of evaluating community health activities on a continual basis.

Community people will accept minor changes and small improvements on a continual basis more easily than abrupt, major changes in an activity's objectives.

20. Explain why you should conduct a brief community health survey before you plan and carry out any health activities during the community phase.

The first step in planning health activities is to identify the community's health needs. You identify needs by conducting a community health survey. The community you work in during the community phase may or may not be the same community in which you or another student in your class conducted a survey during your study of the Identifying the Preventive Health Needs of the Community module. If information from a survey is not available, you need to conduct a survey to identify needs. Since your time is limited during the community phase, you need only talk to community leaders, plan and take part in a community meeting, and talk to other health, development, and school workers to assess the community's present health status. This is a brief community health survey.

21. What is a community health worker?

A community health worker is a member of a community who is selected to provide basic health services and to promote good health, prevent common health problems, and care for some common health problems. He is the mid-level health worker's link with the health of a community. He knows his community well so is able to identify important health needs and to gather support for activities to meet these needs. He can also help keep community health activities going.

22. List at least four things that a community health worker can be trained to do.

a Encourage clean collection, storage, and use of water

b Demonstrate how to prepare and use oral rehydration solution for children with diarrhea

c Encourage adequate nutrition for children and pregnant women

d Encourage breast-feeding

e Care for persons with minor injuries

f. Identify, care for, and prevent scabies

g. Share ideas about how tuberculosis spreads from person to person

23. TRUE (T) or FALSE (F)

_T_ A community health worker is usually selected by members of the community and its leaders.

Working with the Health Team

1. A _team_ is a group of two or more people who work together for a common objective.

2. TRUE (T) or FALSE (F)

   _T_ A team has an objective.

   _F_ Only the leader of a good team knows the team's objectives.

   _F_ Each team member should concentrate on doing his job well and let the team leader worry about how his teammates are doing their jobs.

   _F_ The team leader is the most important member of a team.

   _T_ Teams have leaders because they need someone to coordinate the work of the team.

3. The key to success for any team is _team cooperation_ .

4. Describe a health team in your own words.

   A health team is a group of people who work together to promote better health in a community.

5. Name the four levels of the national primary health care system.

   Level 4: *Central*
   Level 3: *District*
   Level 2: *Health center*
   Level 1: *Community*

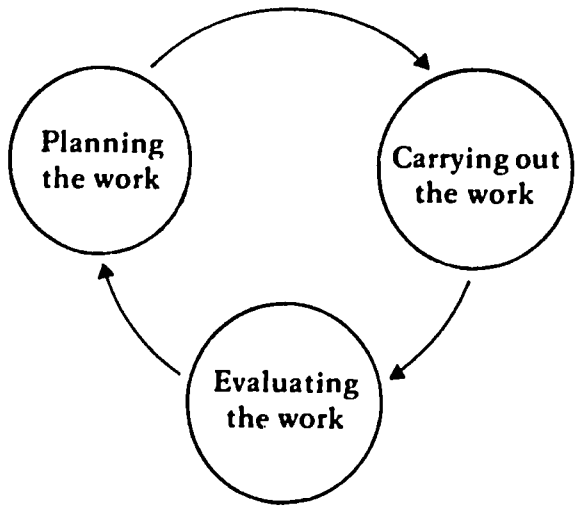
6. A visitor from abroad asks you to describe the national primary health care services provided in your country. What six primary health care services would you tell him your country provides?

   a Immunization
   b Communicable disease control
   c Environmental health
   d Maternal and child health
   e Health education
   f Patient care

7. Match the health team members with their job responsibilities.

TEAM MEMBER	JOB RESPONSIBILITY
a. Community health worker	_g_ Advises communities on how to build latrines
b. Mid-level health worker	_a_ Provides preventive health care and simple patient care at the community level
c. Community health committee	_d_ Sets nursing care standards in a district
d. District nursing officer	_b_ Provides support for community health workers
e. Guard	_c_ Provides support and daily supervision for the community health worker
f. District hospital administrator	_h_ Supervises mid-level health workers in a district
g. District health inspector	_f_ Runs the district hospital
h. Supervisory mid-level health worker	_e_ Maintains the health center grounds

8. The management process has three parts: planning, carrying out, and evaluating work. Draw a simple diagram of the management process showing how these three parts relate to each other.



9. TRUE(T) or FALSE(F)

   _F_ Some mid-level health workers do not need to be managers.

   _T_ Every person has some management skill.

   _F_ Management skills will make a mid-level health worker's job more difficult during the first year.

   _T_ Management skills improve with practice.

10. ___*Planning*___ is the foundation of good management.

11. Resources are the ___*people*___ and ___*materials*___ available to do a task.

12. Why is evaluation necessary?

    Evaluation gives you a way to improve your work and the work of the health team.

13. Evaluating work requires good judgement. Good judgement comes with ___*practice*___ and ___*experience*___ .

14. TRUE(T) or FALSE(F)

    _T_ Mid-level health workers with a positive attitude are likely to be considerate of patients.

    _F_ A positive attitude is not an essential part of successful management.

    _F_ Once a mid-level health worker develops a positive attitude, it never wavers.

    _T_ A mid-level health worker's positive attitude influences team members in a positive way.

    _F_ A mid-level health worker with a positive attitude is usually uncertain about the value or success of his work.

15. TRUE(T) or FALSE(F)

    _T_ A manager supervises people.

    _T_ A supervisor helps people do their work.

    _T_ A person can learn to be a leader in the same way he can learn other skills.

16. A team leader must have authority to lead a health team. Name the two types of authority and how a leader gets them.

    a. *Formal authority is given to a leader.*

    b. *Earned authority is earned by doing a job well.*

17. List five leadership skills needed by mid-level health workers.

    a. *Communicating with team members*
    b. *Motivating and supporting team members*
    c. *Disciplining team members*
    d. *Training team members*
    e. *Resolving conflicts among team members*

18. TRUE (T) or FALSE (F)

    When communicating with team members:

    F Ignore their moods and concentrate on explaining the message clearly.

    T Ask questions to make sure your message is being understood.

    F Explain clearly what needs to be done, but do not waste time explaining work assignments to team members.

    T Listen carefully to suggestions offered by team members.

    F Do not allow interruptions when you are speaking, because this causes confusion and wastes time.

19. Motivation is: *a desire to do a job* .

20. You have noticed that your health center team seems to be working without the interest it used to have. How could you motivate team members? Describe five ways.

    a. *Set a good example.*
    b. *Reward good work and help correct poor work.*
    c. *Make people feel they are doing an important job.*
    d. *Make people feel they are taking part in team decisions.*
    e. *Give people new knowledge, skills, and responsibilities.*

21. TRUE (T) or FALSE (F)

    T Training team members on an informal, daily basis is a supervisor's responsibility.

    F The best way for a supervisor to teach skills is to explain them very carefully to team members.

    F If a supervisor is good, he can teach his team new skills quickly.

22. The main reason that a supervisor wants to resolve conflicts among team members is to:

    Keep the team functioning well

23. Why does a mid-level health worker see problems in a community that the members of the community may not see?

Because of the mid-level health worker's training

24. Briefly explain each of the four steps in solving a problem.

Step 1: *Understand the problem. Collect all the facts so that you understand the problem and its causes.*

Step 2: *Identify solutions. Look at all the possible solutions to the problem. Consider the resources available to you.*

Step 3: *Select the best solution. The best solution is usually the one that solves the problem with the fewest resources in the shortest time.*

Step 4: *Take action. Take action to solve the problem. Follow-up to make sure the problem has been solved.*

25. TRUE (T) or FALSE (F)

_F_ Emergency problems can best be solved by a team.

_T_ Team members will take part in solving problems if the mid-level health worker respects their opinions.

_T_ Team problem solving requires good two-way communication.

_F_ Differences of opinion cause conflicts and should be avoided.

_T_ The results of team problem solving are better than the results of individual problem solving.

26. List two reasons why a mid-level health worker should involve the health team in problem solving.

a. *He needs the ideas and experience of team members to define the problem and identify solutions.*

b. *He needs the active support of team members to solve the problem. The best way to win a team's support is to involve members in problem solving.*

27. What is meant by assigning responsibility?

Assigning responsibility is giving responsibility for some job to another person.

28. Evaluation is:

Assessing how a person or a program works

29. Evaluation is a process that involves four basic steps. What are they?

a. *Gathering information*

b. *Analyzing information*

c. *Identifying improvements*

d. *Taking corrective action*

30. TRUE(T) or FALSE(F)

_T_ Mid-level health workers are responsible for evaluating the performance of health team members.

_F_ The purpose of evaluation is to frighten team members and make them work hard.

31. You will want to know whether the programs you develop are meeting the objectives you set. Write three ways you can find this information.

a. *Observing the program*

b. *Talking with people*

c. *Reviewing records, reports, and statistics*

Working with Support Systems

1. Explain why you should maintain an adequate stock of drugs and medical supplies at your health center.

   Effective primary health care services depend on having adequate drugs and medical supplies available. Otherwise the health team cannot work effectively. The quality of care worsens. In some cases the life of a patient may be endangered.

2. The *central pharmacy* is the primary source of drugs and medical supplies for all ministry of health facilities.

3. Who is responsible for setting authorized stock levels for drug and medical supply items at a health center?

   ___ District public health nurse

   ___ Pharmacist at the district hospital

   ___ Mid-level health worker in charge of the health center

   x Supervisor of the mid-level health worker

4. List the order in which you must do the following steps by numbering them one through five.

   1 Write authorized stock levels on the order form.

   4 Inspect the drug shipment when it is delivered.

   3 Submit the order form to the supervisor.

   2 Inventory drugs and calculate quantity to order.

   5 Sign the issue voucher for drugs received.

5. Problems that result if a health center frequently runs out of essential drugs and medical supplies are listed below. Place an "*x*" beside the problem that you think is the most serious.

   ___ Health team morale is low because team members cannot work effectively.

   x Quality of care is poor and patients suffer.

   ___ Community loses confidence in services at the health center.

6. Why should you use a special inventory card for narcotic drugs?

   Narcotics are powerful, habit-forming drugs that need special control and protection.

7. List the drugs that must be stored in the narcotic drug cabinet.

   Pethidine
   Morphine sulfate

8. Name the two sources of general supplies for your health center. Which is the more common source of supplies?

   a Government supply system
   b Local purchase
   The government supply system is the most common source of supplies.

9. List four problems caused by ordering too many supplies.

   a Not enough storage space for supplies
   b Difficulty controlling excess supplies
   c Deterioration of supplies due to long storage time
   d Shortages at other health centers

10. Who has final responsibility for all supplies at the health center?

    ____ The mid-level health worker's supervisor
    ____ The health team member using the supplies
    ____ The district supply officer at the supply depot
    _x_ The mid-level health worker

11. Why should you sign the receipt section of the order form and return it to the central stores?

    When he receives this receipt, the supervisor of the central stores knows that the mid-level health worker received the supplies that were sent to the health center. This system protects supplies from loss and theft.

12. When purchasing supplies from local shops, what is the main advantage and the main disadvantage of using a local purchase order?

    Advantage: *The mid-level health worker does not risk his money or the community's money.*

    Disadvantage: *The mid-level health worker must wait for the local purchase order to be issued, which means a delay in getting the needed supplies.*

13. What is the meaning of reimbursement?

To pay back someone an amount of money already spent. For example, the government sometimes pays back to the mid-level health worker the amount of money spent on supplies for the health center.

14. Decide whether the items listed below are facilities, equipment, or supplies. Mark your answer with an "*x*."

ITEM	FACILITY	EQUIPMENT	SUPPLIES
Refrigerator	___	*x*	___
Pencil	___	___	*x*
Well	*x*	___	___
Flashlight batteries	___	___	*x*
Examination table	___	*x*	___
Soap	___	___	*x*
Chairs	___	*x*	___
Latrine	*x*	___	___

15. What is the purpose of doing an inventory of facilities and equipment?

An inventory helps the mid-level health worker keep track of facilities and equipment. Therefore, it reduces the risk of loss, damage, and theft.

16. What is preventive maintenance and why is it important?

Preventive maintenance is doing small tasks on a regular basis to keep facilities and equipment in good condition. Preventive maintenance is important because it helps to keep facilities and equipment available for use by the health team and by patients.

17. List four examples of preventive maintenance.

Any example of preventive maintenance is to be accepted as a correct answer to this question.

18. Who normally does most repairs at a health center?

___ Goverment repairman

___ Handyman in the community

x Mid-level health worker and other health team members

19. The most reliable transportation for rural health centers is walking. Explain five advantages of walking compared to other types of transportation.

a *Health team members can meet people in the community.*

b *Team members may learn about the community and be able to share health information.*

c *Team members who walk do not depend on vehicles which may break down.*

d *Walking frees vehicles for long trips and for emergencies.*

e *Walking is good exercise for personal health.*

20. What is the most commonly used type of transportation at rural health centers?

___ Bicycle

_x_ Walking

___ Ministry of health land rover

___ Horse

___ Motorcycle

21. What vehicles are best suited for emergency referrals?

Seriously ill and emergency referral patients often will need to be transported while lying down, with an IV running, and with an attendant. For this type of referral, a car, truck, or jeep is best. If motorized vehicles are not available, an animal drawn cart or stretcher may be used.

22. What is the most important cause of vehicle breakdowns?

Improper use of vehicles. This includes poor driving and improper handling of vehicles.

23. What would you do if a member of your health team refused to ride the health center's motorcycle to visit outlying villages?

First, find out why he or she refused to ride the motorcycle. Then, explain that riding a motorcycle is part of the job and allows the team to extend coverage to outlying communities.

24. How often should you check a motorcycle's battery fluid level?

___ Daily

___ Weekly

_x_ Monthly

___ Every six months

25. A man who lives near the health center suffers a heart attack. He is in need of hospital care. No vehicles are available to transport him. What would you do? How might you avoid this situation?

Seek transportation from the patient's family, friends, community, the military, police, or other government agency. If no transportation is available, send a message

to the district hospital or other source to send a vehicle. This situation may be avoided if the mid-level health worker works with the community to develop an emergency transportation plan.

26. What would be your first step in developing a transportation schedule for the operation of a primary health care system?

The first step would be to list all of the health center's transportation needs. Then match these needs with the transportation resources available in the community. These may be determined from a survey. Decide what type of transportation will be used to meet each of the health center's transportation needs. Also, list alternative transportation to meet each need.

27. TRUE(T) or FALSE(F)

_F_ All messages should be written.

_F_ Never explain the contents of a written message to the messenger.

_T_ Give the messenger clear instructions and ask him to repeat them.

_F_ All telegrams cost about the same.

_T_ When answering the telephone, always give your name and the name of the health center.

28. What are the two advantages of written communication?

a. *Provides a permanent, official record*

b. *Same message can be sent to many persons*

29. You and the other health team members agree that a guard is needed at the health center. What steps would you take to hire one?

Step 1: *Consult with the health team.*

Step 2: *Make a list of job requirements.*

Step 3: *Post the job announcement in the health center and other public places.*

Step 4: *Obtain applications from the applicants.*

Step 5: *Review applications. Select three or more of the best candidates who meet the requirements.*

Step 6: *Interview the best candidates.*

Step 7: *Check references of final candidates.*

Step 8: *Notify the personnel officer of the final choices and receive approval.*

Step 9: *Review final choices with health center advisory committee or community leaders.*

Step 10: *Notify the first choice candidate. When he accepts, notify other candidates.*

30. List the five types of leave with pay for which ministry of health personnel are eligible.

    a. *Annual leave*
    b. *Sick leave*
    c. *Leave for death in the family*
    d. *Education or training leave*
    e. *Maternity leave*

31. What are the steps involved in a health team member taking leave for the death of his brother?

    Step 1: *Employee fills out Application for Leave form and submits two copies to the mid-level health worker.*

    Step 2: *Mid-level health worker reviews application, approves or discusses changes with employee, if request conflicts with program activities or overlaps with leaves of other employees. Mid-level health worker submits one signed copy to the personnel department and puts the other in the employee's personnel file.*

    Step 3: *Personnel officer checks request against employee's records, approves or disapproves request. If personnel officer disapproves, reasons must be clearly stated. Information is entered in employee's permanent record and the signed form returned to the mid-level health worker.*

    Step 4: *Mid-level health worker notes action taken, notifies the employee, and keeps the signed form in the employee's personnel file.*

32. Listed below are six approaches which a mid-level health worker might take in planning and scheduling leave for the health team. For each approach check whether you think it is a good approach or a poor one, and be prepared to discuss your views in class.

The mid-level health worker should:	In my view, this approach is GOOD	POOR
a. Avoid having two members of the team on leave at the same time	*x*	
b. Prepare the Annual Leave Roster alone, without interference, and then show it to the staff		*x*
c. Encourage employees to take at least one week of their leave at a time to get a meaningful rest away from work	*x*	
d. Generally agree to the times requested by the employees without regard to program activities		*x*
e. Encourage employees to put off their leave and hold it over to the next year so they can have longer vacations		*x*

	In my view, this approach is	
	GOOD	POOR
f Review employee records before discussing leave with the staff. Make sure of the number of days they are entitled to and note their past years' preference for leave times	*x*	

33. TRUE (T) or FALSE (F)

_F_ When an employee breaks a rule, you should ignore it and hope he will realize he made a mistake and correct it himself.

_T_ As supervisors we should see ourselves as advisors and helpers rather than as bosses who give out punishment to our staff.

34. Taking disciplinary action with an employee normally involves five steps or levels. Select the five from the following list and number them in order from 1 to 5.

___ Send a memo to personnel department

___ Give the employee a leave of absence without pay

_5_ Recommend a dismissal or transfer

___ Meet with the health center staff to discuss the employee's problem

_2_ Hold a warning interview

_4_ Suspend the employee for one or two days

_1_ Give the employee a friendly, verbal warning

___ Consult with the employee's co-workers, patients, family, and friends to try to find out what the problem is

_3_ Give the employee a formal, written warning

35. One of your staff members thinks she is being treated unfairly. She wants to file a grievance. What guidelines should you follow for handling such a situation?

a. Meet in private with the employee.

b. Hear the complaint.

c. Try to determine if there is a hidden cause.

d. Write down the employee's statement. Have her agree that it is correct.

e. Explain the employee's rights and procedures as they are listed in the civil service manual.

f. Set a time when the answer will be given. Do not make promises.

g. Gather facts. Check policies and regulations, past practices and decisions. Consult with the district supervisor. Make a decision.

h. Hold a second meeting with the employee. Explain the decision.

i. If the employee does not agree, inform her of the right to appeal.

j Give the employee a Personnel Grievance form to fill out.

k After the employee fills out the form, fill out Part II, and submit copies to employee and district supervisor.

36. What is your role as a mid-level health worker in making the annual estimates?

To submit information on problems and needs at the local level. To submit a list of specific needs, with an explanation of the needs, by the first of July of each year.

37. TRUE(T) or FALSE(F)

_T_ You should always give a receipt when receiving money.

_F_ More than one person can be responsible for the money on hand in the health center at any one time

_T_ You should keep money in a secure place and give it to your supervisor or officer responsible for finances on a regular basis.

_T_ The person in charge of the health center should maintain a daily record of receipts.

_F_ All patients are required to pay fees, no matter how rich or poor they are.

38. Explain the difference between pay procedures for medical personnel and locally hired personnel.

Medical personnel are paid monthly by check. Locally hired personnel are paid weekly in cash.

39. What should you do about a mistake that occurs in your paycheck?

Send a memo to the district supervisor pointing out the mistake.

40. You will use three types of health information records:

a. Patient-held cards
b. Health center cards
c. Report forms

Write beside each health record listed below the letter that corresponds to its type of health information.

_a_ Under-Five Card

_b_ Diary of Health Activities

_b_ Patient Register

_a_ Patient Card

_c_ Notification of Birth

_b_ Labor Chart

_c_ Monthly Patient Report

_a_ Maternity Card

_b_ Follow-up Book

_c_ Notification of Death

41. Explain the meaning of the following.

PC — *presenting complaint*
Dx — *diagnosis*
Ø — *nothing, nil*
Fx — *fracture*
$\bar{s}$ — *without*
abd — *abdomen*
IM — *intramuscular*
NAD — *normal*
Rx — *treatment*

42. Four uses of health information are discussed in the Text. List three of them.

a Identifying health problems and health needs in a community
b Planning health services to meet the health problems
c Evaluating health team performance
d Justifying requests for support

43. TRUE(T) or FALSE(F)

_T_ Patient-held cards are good for people who move from place to place.

_F_ Mid-level health workers use patient-held cards to compile monthly reports.

_F_ Patient-held cards encourage people to take an interest in their health.

_F_ Patient-held cards can be kept at the health center overnight if the patient is returning the next day for follow-up treatment.

44. How many copies of the Monthly Patient Report do you make? Where do you send the original and the copies?

We make the original and one copy. We send the original to the supervisor and keep the copy in the Workload Statistics file.

45. What are the basic purposes of the health center?

a Provision of primary health care to the surrounding communities
b First point of contact with the formal ministry of health service system

c *First point of entry into the system for referrals*

d *Local community center*

46. List, in order, the steps by which patients are processed through the health center:

a *Registration*

b *Medical history-taking*

c *Examination and consultation*

d *Treatment and possible referral*

e *Dispensing*

47. TRUE(T) or FALSE(F)

_T_ Records should generally be kept at or near the place where they are used.

_F_ It is not necessary to keep any health center records longer than twelve months.

_F_ The best way to file your papers and records in a health center is to place everything in the file by the date it is received.

_F_ To save time, pile up papers and records, and then place them in the file once each week.

_T_ All file folders, drawers, cabinets, and boxes in which papers and file folders are kept should be clearly labeled.

_T_ A classification system which groups records under broad categories and then provides a file for individual subjects is a simple and practical system for a health center.

_F_ Since health records are public documents, they can be disposed of by simply throwing them out with the other refuse from the health center.

_F_ All official reports are submitted to the mid-level health worker's supervisor.

_F_ All written inquiries from your employees and the public should be answered within ten working days.

_F_ When receiving a new section for the Health Center Operations manual, the mid-level health worker should always keep the old section, in case the rules change again, or if he should need it for reference.

48. Briefly describe the procedure you will follow to make the health center secure and to close it for the weekend.

Inspect the health center to make sure it is clean and orderly. Make sure that all

equipment and supplies, drugs and narcotics, records and foodstuffs are properly stored and locked up. Inspect the latrine and well. Check all doors, windows, and gates to make sure they are locked. Give the guard any special isntructions.

49. Why is it important to know whether all your management support systems are working well? Give examples.

How well the management support systems work will affect how the health team can function. All systems must work well. Frequently one is dependent upon another. A breakdown in any one of them will take up unnecessary time. It will adversely affect patient care and community services. Team morale will also be affected. Inaccurate health information, spoiled drugs, missing supplies, breakdowns in transportation and communication, broken equipment, and lost funds are examples of support system problems that seriously impair the work of the health team.

Training and Supporting Community Health Workers

1. List at least five ways the community can help you deliver primary health care services.

   a. *Plan and assess health activities in the community and the health center*

   b. *Provide supplies, labor, and leadership to carry out community health activities*

   c. *Take part in activities to promote good health*

   d. *Plan programs to improve health*

   e. *Help arrange referral of ill persons to the health center or the hospital*

   f. *Train, support, and guide community health workers*

   g. *Arrange training for other health care providers in the community*

2. How can community health workers help you provide primary health care services in the community?

   Community health workers know their communities. They are familiar with the health practices in the community. They can help you understand the primary health care needs of the community and the most appropriate ways to meet those needs. They provide services in the community to promote good health, prevent common health problems, and care for some common health problems. They can also:

   Identify resources of the community to meet health needs

   Share health information with community members

   Coordinate health activities in the community

   Refer persons with health problems to the health center

   Motivate people to take part in community health activities

   Become role models for members of the community

3. In each of the columns below, list at least three services that community health workers can provide:

PROMOTIVE SERVICES	PREVENTIVE SERVICES	CURATIVE SERVICES
Encourage clean collection, storage, and use of water	*Identify and refer women with problems during pregnancy*	*Care for children with diarrhea and vomiting*
Encourage adequate prenatal nutrition	*Demonstrate how to prepare and use a special mixture for preventing dehydration*	*Identify and care for people with babies*

PROMOTIVE SERVICES	PREVENTIVE SERVICES	CURATIVE SERVICES
Share information about prenatal care	*Share information and discuss how tuberculosis spreads*	*Care for people with fever*

4. List at least three promotive and at least three preventive services that community health workers can provide. Then write what health problems these services can prevent.

PROMOTIVE SERVICES	HEALTH PROBLEMS PREVENTED
Encourage clean collection, storage, and use of water	*Diarrhea* *Gastroenteritis*
Encourage adequate prenatal nutrition	*Low birth weight infants* *Undernourished mothers*
Share information about prenatal care	*Pregnancy problems*

PREVENTIVE SERVICES	HEALTH PROBLEMS PREVENTED
Identify and refer women with problems during pregnancy	*Complications during pregnancy and delivery*
Demonstrate how to prepare and use a special mixture for preventing dehydration	*Dehydration* *Death from dehydration*
Share information and discuss how tuberculosis spreads	*Tuberculosis spreading within the family and the community*

5. List at least four criteria a community may use to select people to become community health workers.

   a. *The people are known and respected in the community.*
   b. *They are interested in the health and problems of the community members in greatest need.*
   c. *They are open to new ideas.*
   d. *They are willing to share what they know with people in the community.*
   e. *They will stay in the community.*
   f. *They have some experience in health care in the community.*
   g. *They understand and respect the beliefs and practices of people in the community.*

6. Briefly describe the process of selecting a person to become a community health worker.

   The process has three steps. First, discuss the role of community health workers with the community leaders. Find out if the leaders are interested in taking part in selecting, training, and supporting a community health worker. Then help them choose the criteria they will use to select a community health worker.

Second, help to plan and hold a community meeting to discuss the role of community health workers and the support the community should provide.

Third, help select community health worker candidates. The community members suggest two or three names, based on their selection criteria. The final selection can be made by a voice vote or a consensus decision.

7. List the names of at least four workbooks for community health workers.

   a. *Introduction to Training*
   b. *Clean Water and Clean Community*
   c. *Prevention and Care of Diarrhea*
   d. *Healthy Pregnancy*
   e. *Feeding and Caring for Children*
   f. *Some Common Health Problems*
   g. *Tuberculosis and Leprosy*
   h. *First Aid*

8. List at least six learning methods and materials that may be appropriate for community health workers.

   a. *Stories*
   b. *Role-plays*
   c. *Practical experiences*
   d. *Posters*
   e. *Small group discussions*
   f. *Home visits*
   g. *Problem-solving exercises*
   h. *Problem-solving drawings*
   i. *Drawings for discussion*
   j. *Flashcards*
   k. *Demonstrations*

9. How does the workbook format help you to train community health workers?

   A workbook allows the trainer and the community health workers to share ideas. Each learns from the other. A workbook allows the learning to take place through an exchange of ideas among all the participants. Both the trainer and the community health workers contribute their experience and knowledge in the learning process.

10. How do drawings help you to train community health workers?

    The drawings in the workbooks help you share ideas with community health workers. The drawings help you start discussions. They also help community health workers learn and remember what they have discussed.

11. Describe how you can use the workbooks to train non-literate community health workers.

    You can use the workbooks to discuss health with non-literate community health workers as easily as with literate community health workers. You can use the drawings in the workbooks for discussions and to explain important concepts. You can use the drawings to help non-literate community health workers remember what they have learned. You can ask the questions in the workbooks and discuss the answers. You can record the answers of non-literate community health workers yourself. You can also use learning methods such as demonstrations, stories, and role-plays to train non-literate community health workers.

12. List the names of at least four community learning materials.

    a. *Health in the Community*
    b. *Health Problems in the Community*
    c. *Caring for Your Child*
    d. *Caring for Your Sick Child*
    e. *Water and Health*
    f. *Clean Home and Clean Community*
    g. *Cycle of Health Cards*
    h. *The Lady Who Built a Tower*
    i. *The Story of Grandmother Mamosa*

13. List three of the resources in the health center that can help in training community health workers.

    a. *Health team*
    b. *Training materials for community health workers*
    c. *People with health problems*

14. Who are some of the people you should involve in organizing the training of community health workers?

    a. *Community leaders*
    b. *Community members*
    c. *Health team members*
    d. *Community health workers*

15. Why should you involve community leaders in assessing community health workers?

    Community health workers' performance depends on the support they get from community leaders and members. The community will support community health workers if they do what the community expects them to do. When community leaders are involved in assessing community health workers, they help to set the

community health workers' goals to meet the needs of the community. Then you can train community health workers to do what the community expects them to do.

16. Describe the role of the community members in supporting community health workers.

Community members provide the community health worker's compensation. They take part in the activities that the community health worker starts to improve the health of the community. Community members may also provide supplies and labor to carry out some of the activities.

17. List three factors that can help you decide the continuing education needs of community health workers.

a. What community health workers have already learned

b. The needs of the community

c. The performance of community health workers

Log for Recording Posttest Scores

Use this log for recording students' posttest scores. A student is expected to pass the posttest with a score of 80% or higher. If he is not able to do this, he should be given additional time to review the respective module material and then take the test again.

Student: _____

Instructor: _____

MODULE	POSTTEST SCORE	DATE OF SUCCESSFUL COMPLETION	COMMENTS
01. Identifying the Preventive Health Needs of the Community			
02. Anatomy and Physiology			
03. Medical History			
04. Physical Examination			
05. Respiratory and Heart			
06. Gastrointestinal			
07. Genitourinary			
08. Infectious Diseases			
09. Other Common Problems			
10. Skin			
11. Dental, Eyes, Ears, Nose, and Throat			
12. Trauma and Emergency			
13. Problems of Women			
14. Prenatal Care			
15. Labor and Delivery			
16. Postnatal Care			
17. Diseases of Infants and Children			
18. Child Spacing			
19. Meeting the Preventive Health Needs of the Community			
20. Working with the Health Team			
21. Working with Support Systems			
22. Training and Supporting Community Health Workers			