This health curriculum guide, intended for use with grades seven through nine, places considerable emphasis on the understanding that current knowledge of disease prevention has an impact on the incidence of prevalence of communicable diseases. The contents of the guide are presented in outline form and cover historical development of man's knowledge of disease, ecological relationships, communicable disease, resurgence of venereal disease, and degenerative disease. For each content area and its sub-divisions fundamental concepts and understandings, teaching aids, and learning activities are suggested. The guide also supplies supplementary information which a teacher could incorporate into the lessons at a simplified level. Outcomes of this unit in physical health are given in terms of the student's (1) awareness of the effects of communicable diseases on human life; (2) appreciation of the progress of man's efforts to control communicable disease; (3) familiarity with conditions under which communicable diseases may be transmitted; (4) knowledge of various methods of protection from communicable diseases; (5) application of desirable personal health practices; (6) understanding of ecological factors related to disease prevalence; and (7) familiarity with the epidemiological method in the prevention and control of disease. Multimedia resources--including books, pamphlets, and films--are included. (SES)
STRAND I  PHYSICAL HEALTH

Disease Prevention and Control

Grades 7, 8, and 9

Special edition for evaluation and discussion.
Disease Prevention and Control for Grades 7, 8, and 9

Special edition for evaluation and discussion
HEALTH CURRICULUM MATERIALS
Grades 7, 8, 9

STRAND I - PHYSICAL HEALTH
DISEASE PREVENTION AND CONTROL

The University of the State of New York/The State Education Department
Bureau of Secondary Curriculum Development/Albany 12224
1970
THE UNIVERSITY OF THE STATE OF NEW YORK

Regents of the University (with years when terms expire)

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FOREWORD

This publication contains curriculum suggestions for teaching Strand I - Physical Health, Disease Prevention and Control, for grades 7, 8, and 9.

The publication format of four columns is intended to provide teachers with a basic content outline in the first column; a listing of the major understandings and fundamental concepts which children may achieve in the second column; and information specifically designed for classroom teaching which should provide them with resource materials, teaching aids, and supplementary information, in the third and fourth columns. The comprehensive nature of the health program makes it imperative that teachers gain familiarity with all of the strands presently in print. In this way, important teaching-learning experiences may be developed by cross referring from one strand to another.

It is recommended that the health coordinator in each school system review these materials carefully and consult with teachers, administrators, and leaders of interested parent groups in order to determine the most appropriate manner in which to utilize this strand as an integral part of a locally adapted, broad and comprehensive program in health education.

The curriculum materials presented here are in tentative form and are subject to modification in content and sequence. Critiques of the format, content, and sequence are welcomed.

Gordon E. Van Hooft
Chief, Bureau of Secondary
Curriculum Development

William E. Young
Director, Curriculum
Development Center
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DISEASE PREVENTION AND CONTROL

Grades 7, 8, 9

Overview

These curriculum materials on disease prevention and control for grades 7-9 should reinforce the concepts and positive behaviors developed in the elementary grades.

Information concerning the historical events and the personalities that have provided direction to current attempts to understand and control diseases is included.

Considerable emphasis should be placed on the understanding that current knowledge of disease prevention has an impact upon the incidence and prevalence of communicable diseases. It is also important that students be made aware of the extent to which changing communicable disease rates are related to the emergence of newer health problems such as chronic and degenerative diseases.

Pupil Objectives

Pupils in grades 7-9 should:

- be aware of the direct and indirect effects of communicable diseases on human life
- understand and appreciate the progress made in man's efforts to control communicable disease
- be familiar with the conditions under which communicable diseases may be transmitted
- have a knowledge of various methods used to protect us from communicable diseases
- work toward the prevention of communicable disease through the application of desirable personal health practices
- understand and appreciate the ecological factors related to disease prevalence
- become familiar with the epidemiological method in the prevention and control of disease
### OUTLINE OF CONTENT

I. Historical Development of Man's Knowledge of Disease

A. Discovery of microbes

B. Understanding the nature of disease

### MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Technological advances have influenced how man deals with the emerging health problems.

Discoveries of the nature of diseases and how to control or prevent them have provided man with a greater opportunity to lead a more efficient and effective life.

The microscope made possible the observation of bacteria and other microorganisms.

The potential for disease increases when man is unable to adapt to environmental conditions or is unable to change them.

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Have students investigate:

1. medical and other discoveries related to disease.
2. the incidence and nature of diseases in the nation.

Develop a table to show the incidences of various diseases in the past 100 years and relate changes to technical advances.

Film: "Man Against Microbes," Metropolitan Life Insurance Company.

Discuss the importance of the people who have contributed to our understanding of disease.

Have students make a list of communicable diseases which are not necessarily contagious.

1. How does this kind of knowledge affect disease control measures? (Discuss the ecology of disease.)
2. How do the health sciences use the ecological principles in
MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Technological advances have influenced how man deals with the emerging health problems.

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Film: "Man Against Microbes," Metropolitan Life Insurance Company.

Discuss the importance of the people who have contributed to our understanding of disease.

Have students make a list of "communicable" diseases which are not necessarily "contagious."

1. How does this kind of knowledge affect disease control measures? (Discuss the ecology of disease.)
2. How do the health sciences use the ecological principles in

SUPPLEMENTARY INFORMATION FOR TEACHERS

Communicable diseases are caused by a specific organism or its toxic products, and which can be transmitted from one person to another.

The term "contagious" is usually used to describe those diseases which are communicable by direct contact with the infected person; for example, measles. Malaria, on the other hand, would be communicable but not contagious.

The word microbe comes from the Greek micros, meaning small, and bios, meaning life; they are living forms of microscopic or submicroscopic size.

The first important attempt to classify bacteria was made in 1836 by Ehrenberg, and his classifications are used today.

Originally it was believed that bacteria generated spontaneously from the material on which they were found. This was the theory of spontaneous generation. It was disproved by Pasteur and others. This gave new impetus to the development of other approaches to the control of disease with whole new sciences evolving;

The SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES on the above page have been tested and found effective in the classroom.
There are measures available which help man to control or prevent disease. Some diseases are caused by microorganisms such as:

- bacteria
- viruses
- rickettsia
- fungi
- protozoa

disease prevention? Disease control?

Students should investigate the important discoveries which have contributed to improving our health status.

Have students identify causes of both communicable and non-communicable diseases.

References and Aids:

Microbe Hunters, Paul DeKruif, Harcourt Brace and World, 1956.

The Wonderful World of Medicine, Hitchie Calder, Garden City Books, 1958.

The Story Behind Great Medical Discoveries, Elizabeth R. Montgomery, Dodd, Mead & Company, 1945.

Health Heroes, Metropolitan Life Insurance Company. (Series of Booklets.)


Men of Medicine, Katherine B. Skipper, Viking Press, New York.

See Strand I "Disease Prevention and Control" for Grades 4, 5, 6.

For Reference: Natural History of Infectious Diseases by F. Burnet MacFarlane.

Great Adventures in Medicine by Samuel Rapport and Helen Wright.

A major reason for the rapid decline in disease mortality rates has been the control of communicable diseases which were the major cause of death in 1900.

The prevalence of some communicable diseases, as well as mortality rates from these diseases, have decreased markedly since 1900.

The reduction in deaths due to childhood diseases has been significant in increasing life expectancy.

The development of wonder drugs and improved medical care are also important factors.
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<tr>
<td>II. Ecological Relationships</td>
<td>Ecology is the study of the interaction of organisms and their environment.</td>
<td>Study the prevalence of certain diseases in various social and physical settings, e.g., slum or ghetto areas.</td>
<td></td>
</tr>
<tr>
<td>A. The interrelationships among life forms and the environment</td>
<td>There is a significant relationship among the physical nature of the environment, disease in man, and man's well-being.</td>
<td>Compare the prevalence of communicable disease with noncommunicable diseases today. This comparison may be made in relation to time periods, as well as geographic settings.</td>
<td></td>
</tr>
<tr>
<td>1. Spread of disease</td>
<td>The spread of disease is influenced by both the social conditions and the physical nature of the environment.</td>
<td>There are diseases (of this guise) which the structure of the body does not automatically combat but which are related to physical conditions, e.g., overcrowding. Considered in this connection are measures.</td>
<td>The extent to which disease is related to the diseases of the causative environment. Irresponsible individuals, for example, observe precautions which can be relied on to prevent the spread of disease.</td>
</tr>
</tbody>
</table>
Understanding and Fundamental Concepts

Biology is the study of the actions of organisms and their environment.

There is a significant relationship among the physical state of the environment, man, and man's being.

Suggested Teaching Aids and Learning Activities


Film: "Unmasking the Germ Assassins," International Film Bureau.

Supplementary Information for Teachers

Study the prevalence of certain diseases in various social and physical settings, e.g., slum or ghetto areas.

Compare the prevalence of communicable disease with noncommunicable diseases today. This comparison may be made in relation to time periods, as well as geographic settings.

There are disease-producing organisms (See Section I - B of this guide) which affect the structure and function of the body. The spread of many of these diseases is related to the social and physical conditions, such as overcrowding, which must be considered in any prevention measures.

The extent and severity of a disease are dependent upon group and individual resistance to the disease, the virulence of the causative agent, and the environmental conditions present.

Irresponsible social behavior (for example, neglecting to observe precautions by quarantining infected individuals) can be related to the spread and prevalence of disease.
## OUTLINE OF CONTENT

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<th>2. Causation</th>
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<tr>
<td></td>
<td>Certain environmental factors are the causative agents of disease and disabilities.</td>
<td>Have students make a list of the factors which may cause disease or which may contribute to causation.</td>
</tr>
<tr>
<td></td>
<td>Excessive exposure to the disease-producing factors in the environment should be avoided.</td>
<td>1. How may a person protect himself and others from disease?</td>
</tr>
<tr>
<td></td>
<td>The spread of a communicable disease can be modified by breaking the &quot;chain of infection.&quot;</td>
<td>2. What are the personal, social, and economic consequences of disease?</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. How is the &quot;chain of infection&quot; broken? Controlled?</td>
</tr>
</tbody>
</table>

### SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- Have students make a list of the factors which may cause disease or which may contribute to causation.
- Film: "Improving America's Health," Coronet Films.
- Filmstrip: "The International War Against Diphtheria."
- Discuss the relationship of each of the following to the ecology of disease.
  1. Nutrition
  2. Ghetto living
  3. Pollution of air, water, and food
- Have students relate the discoveries mentioned earlier to the actual control and prevention of disease. For example, ask some of the following questions:
  1. How is the science of bacteriology, or...
SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Have students make a list of the factors which may cause disease or which may contribute to causation.
1. How may a person protect himself and others from disease?
2. What are the personal, social, and economic consequences of disease?
3. How is the "chain of infection" broken? Controlled?

Film: "Improving America's Health," Coronet Films.

Filmstrip: "The International War Against Diphtheria."

Discuss the relationship of each of the following to the ecology of disease.
1. Nutrition
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Have students relate the discoveries mentioned earlier to the actual control and prevention of disease. For example, ask some of the following questions:
1. How is the science of bacteriology, or

SUPPLEMENTARY INFORMATION FOR TEACHERS

Since 1900 the development of methods of immunization and better treatment methods have substantially reduced the threat of communicable diseases.


Not all microorganisms cause disease. Many are innocuous, and many more are beneficial to man (either directly or indirectly).

See Strand IV for additional information regarding the
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<tr>
<td>B. Equilibrium</td>
<td>A disturbance in the equilibrium between man and specific microorganisms is directly related to the incidence of some diseases.</td>
<td>virology, used to limit specific diseases, such as V.D.?</td>
</tr>
</tbody>
</table>

2. In what ways has bacteriology changed in recent years in order to have greater applicability to the study of the epidemiology of disease?

3. What have the major contributions of immunology to the prevention of disease been in the past 50 years?

Invite a member of the Health Department, an epidemiologist, for instance, to discuss these questions.

Have students name and describe the various methods by which disease can be prevented, controlled, and treated.

What are some examples of the effects of disease on the individual, family, communities, and nations?
OR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

1. A disturbance in the equilibrium between man and specific microorganisms directly related to the incidence of some diseases.

   Have students name and describe the various methods by which disease can be prevented, controlled, and treated.

   What are some examples of the effects of disease on the individual, family, communities, and nations?

SUPPLEMENTARY INFORMATION FOR TEACHERS

social and other environmental factors related to disease, and for the public health measures taken to prevent, control, and further the understanding of diseases.

Although bacteriology is concerned with the nature of all microorganisms, scientists have intensified research in areas directed at learning more about specific microorganisms and their control. Immunology is based upon the understanding of the nature of microorganisms. There is, and must be, a close relationship among all of the health sciences.

See Strand IV, "Public Health" and "World Health" Grades 7, 8, 9 and Grades 10, 11 & 12.

It is important to understand that the communicable diseases are encountered mainly through social interactions.
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<tr>
<td>C. Epidemiology</td>
<td>What is the effect of disease on individual productiveness and, in the long run, on the economy of the nation?</td>
</tr>
<tr>
<td>1. Definition</td>
<td>Have students investigate each of the following and their relation to the epidemiological nature of disease.</td>
</tr>
<tr>
<td></td>
<td>1. Artificial immunity</td>
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<td></td>
<td>2. Sanitary engineering</td>
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<td></td>
<td>3. Discovery of bacteria—relation to disease</td>
</tr>
<tr>
<td></td>
<td>4. Development of certain chemicals related to disease treatment (Penicillin, for example)</td>
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<td></td>
<td>5. The development of:</td>
</tr>
<tr>
<td></td>
<td>a. Epidemiology</td>
</tr>
<tr>
<td></td>
<td>b. Ecology</td>
</tr>
<tr>
<td></td>
<td>c. Immunology</td>
</tr>
<tr>
<td></td>
<td>d. Bacteriology</td>
</tr>
<tr>
<td></td>
<td>If the class has had experience in small group discussions or group dynamics, each of the above topics may be used for this kind of learning experience.</td>
</tr>
</tbody>
</table>

Epidemiology is the science which deals with all factors related to disease and health. It may include such things as the incidence, cause, and effect of disease, trends and behavior of disease, and its prevention and control.
Understanding and Mental Concepts

Suggested Teaching Aids and Learning Activities

What is the effect of disease on individual productiveness and, in the long run, on the economy of the nation?

See Strand IV, "World Health."

Have students investigate each of the following and their relation to the epidemiological nature of disease.

1. Artificial immunity
2. Sanitary engineering
3. Discovery of bacteria--relation to disease
4. Development of certain chemicals related to disease treatment (Penicillin, for example)
5. The development of:
   a. Epidemiology
   b. Ecology
   c. Immunology
   d. Bacteriology

Supplementary Information for Teachers

Past discoveries in health and health-related sciences have paved the way for advances in bacteriology, virology, immunology, and branches of the biological sciences. These advances, in turn, have made possible an understanding of ecology and the development of epidemiological methods for combating disease.

The teacher should have available a wide variety of reading materials so that pupils may do individualized research into the nature of epidemiology. Examples of classic studies should be included.
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</tr>
</thead>
</table>
Disease is any condition of the body which interferes with the proper functioning of the individual. It may be either of a communicable or non-communicable nature.

Communicable diseases are transmitted by contact with infectious discharges from another person.

External objects used by infected persons act only incidentally as bearers of pathogenic organisms, as when freshly contaminated with germ-laden excretions.

Some diseases are spread through direct and indirect contact between a well person and an infected human or animal.

Food, water, and soil may serve as vehicles for disease transmission if they are contaminated through the excretion of human wastes.

More disease-producing microorganisms enter and leave the body by way of the nose and throat than by any other channel.

Have students make a list of ways disease germs may be transmitted.

Film: "Microorganisms That Cause Disease."

Film: "Trial of Infection," A-V Film Library, Department M-497, Eli Lily & Company, Indianapolis, Indiana 46206.

Suggested Teaching Aids and Learning Activities

Have students make a list of ways disease germs may be transmitted.

Film: "Microorganisms That Cause Disease."

Film: "Trial of Infection," A-V Film Library, Department M-497, Eli Lily & Company, Indianapolis, Indiana 46206.

Most people are able to test themselves for infectious disease by measuring temperature.

Suggested Teaching Aids and Learning Activities

Have students make a list of ways disease germs may be transmitted.

Film: "Microorganisms That Cause Disease."

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Film: "Microorganisms That Cause Disease."

Film: "Trial of Infection," A-V Film Library, Department M-497, Eli Lily & Company, Indianapolis, Indiana 46206.
UNDERSTANDINGS AND CONCEPTUAL CONCEPTS

Any condition which interferes with the proper functioning of the individual may be either communicable or non-communicable nature.

Communicable diseases are spread by contact with infectious discharges from another person.

Objects used by persons act only as bearers of microorganisms, as they are contaminated by excretions.

Diseases are spread direct and indirect between a well person and an infected animal.

Water, and soil may act as vehicles for transmission if contaminated by the excretion of disease-producing organisms.

Diseases enter the body by way of the digestive or respiratory channel.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

- Film: "Microorganisms That Cause Disease."
- Have students make a list of ways disease germs may be transmitted.
- Film: "Trial of Infection," A-V Film Library, Department M-497, Eli Lilly & Company, Indianapolis, Indiana 46206.

SUPPLEMENTARY INFORMATION FOR TEACHERS

Most disease organisms are so well adapted to life in the bodies of living men or animals, or plants that they can exist for only brief periods on any external object.

Saliva and discharges from the nose and throat can carry germs that cause such diseases as measles, mumps, polio, and tuberculosis.

Many varieties of bacteria are able to live and multiply in milk and other foods. TB, undulant fever, typhoid, amebic dysentery and other diseases may be spread via contaminated foods.


Contact diseases include the venereal diseases, trachoma, dysentery, infectious mononucleosis, and others.
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</thead>
<tbody>
<tr>
<td><strong>2. Indirect contact</strong></td>
<td>The practice of desirable health behavior by the individual is vital to the prevention of communicable disease.</td>
<td>Have students present a report to the class on the housefly as a carrier of disease, identifying at least three diseases it can carry.</td>
</tr>
<tr>
<td><strong>3. Congenital infections</strong></td>
<td>Congenital infections are transmitted from the mother to the baby before birth, so that the baby is born with the disease.</td>
<td>Have class discuss the ways congenital diseases can be prevented.</td>
</tr>
<tr>
<td><strong>B. Body defenses</strong></td>
<td>Our bodies have &quot;lines of defense&quot; which help protect us against disease.</td>
<td>Film: &quot;Infectious Diseases and Natural Body Defenses,&quot; Coronet Films.</td>
</tr>
</tbody>
</table>
UNDERTANDING AND FUNDAMENTAL CONCEPTS

Practice of desirable behavior by the individual is vital to prevention of transmissible disease.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Have students present a report to the class on the housefly as a carrier of disease, identifying at least three diseases it can carry.

SUPPLEMENTARY INFORMATION FOR TEACHERS

Malaria is carried only by the female Anopheles mosquito.

Yellow fever is transmitted by the Aedes mosquito. Sleeping sickness is spread by tsetse flies.

The insects are not usually harmed by the germs they carry, despite the fact that in many instances these organisms multiply and undergo complicated changes as part of their life cycle of development within the bodies of their insect hosts.

Congenital infections are not inherited. An inherited condition is one that is transmitted from parent to child by genetic material. Syphilis is a congenital infection when the organism spreads from an infected mother through the placenta, and infects the unborn child.

Body openings are lined with a special membrane whose mucous secretion traps organisms and other foreign particles that may enter the opening.

Film: "Infectious Diseases and Natural Body Defenses," Coronet Films.
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<th>SUPPLEMENTARY INFORMATION FOR TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Skin</td>
<td>Our first line of defense against disease germs consists of the skin and mucous membranes.</td>
<td>Pamphlet: &quot;Control of Communicable Diseases In Man,&quot; American Public Health Association.</td>
<td>The mucous membranes lining the nasal passages and trachea are covered with cilia which trap foreign particles and sweep them toward the throat. These particles irritate the membranes and cause coughing; thus the particles are expelled from the body. The resistance of the skin and the mucous membranes is successful only so long as they keep infectious agents outside of the body tissue. They are important defenses, and resistance to infectious disease in general is increased by cleanliness and good nutrition, which help keep these body surfaces in the best state of health. Secretions such as perspiration, tears, nasal secretions, saliva, and gastric juices are slightly antiseptic.</td>
</tr>
<tr>
<td>2. Blood cells</td>
<td>A second line of defense is provided by the leukocytes, or white blood cells. Describe a typical infection reaction, from its cause, the action of the leukocytes, pus formation (and its purpose), to tissue regeneration.</td>
<td>White blood cells have the power of independent motion, and are able to pass out of the capillaries to a point in the tissues where they are attracted by such foreign material as a group of microbes.</td>
<td></td>
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OUTLINE OF CONTENT

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

The presence of microorganisms in the body stimulates the production of white blood cells which engulf and destroy the microorganisms.

Unlike red blood cells which must remain within a closed circulatory system, the white cells are able to pass through the capillary walls and move about through the tissues.

Disease symptoms develop only when there are too many organisms for the body to destroy quickly; when the organisms are so vigorous that they overcome the body's usual defenses; or when these defenses become weakened.

3. Formation of antibodies or antitoxins

As a third line of defense, the body manufactures specific antibodies or antitoxins for different diseases.

4. Factors influencing resistance to disease

Resistance to diseases in general is influenced by physiological well-being, inherited factors, and emotional states.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Once in contact, the leukocyte engulfs them into the phagosome just as an ameba engulfs food. The engulfed bacteria may be destroyed when the leukocyte or the phagosome is carried away by the blood stream.

A normal white blood cell count is 5,000 - 9,000. This is based on the presence of cells in each cubic millimeter of whole blood. The normal range is 100,000 - 500,000.
UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Presence of microorganisms in the body stimulates the production of white blood cells which fight and destroy the organisms.

Red blood cells which remain within a closed circulatory system, the cells are able to move about through tissues.

Symptoms develop when there are too many microorganisms for the body to handle quickly; when the microorganisms are so vigorous that they overcome the usual defenses; or when these defenses become weakened.

Third line of defense, the body manufactures specific antibodies or proteins for different microorganisms.

Resistance to diseases in an individual is influenced by hereditary factors, mental and physical states.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

Supplementary Information for Teachers

Once in contact with the germs, the leukocytes take many of them into their own substance, just as an amoeba surrounds and engulfs a particle of food. The engulfed bacteria may be destroyed within the leukocyte or they may be carried away in the destruction of the cell itself.

A normal white blood count is 5,000 - 9,000/cu.mm. (ml.) of blood. This means approximately 100,000-500,000 white blood cells in each drop of blood.
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<tr>
<td>C. Immunity</td>
<td>Immunization is an important protective measure against certain diseases.</td>
<td>Have the class investigate the nature of immunity.</td>
</tr>
<tr>
<td>1. Definition</td>
<td>Immunity is the ability of an individual to resist a specific disease.</td>
<td>What is the antigen-antibody reaction as it relates to immunity?</td>
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<td></td>
<td>Immunization prevents and controls some diseases.</td>
<td></td>
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<tr>
<td>2. Kinds</td>
<td>Immunity may be acquired naturally by having had a disease, or artificially as a result of medically-introduced substances (e.g., vaccines, toxoids.)</td>
<td>Name several diseases in which an attack usually confers lasting immunity.</td>
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<td></td>
<td>Passive immunity is produced in an individual by injecting antibodies produced by another individual or animal.</td>
<td>List some of the more important diseases which can be controlled by immunization.</td>
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<tr>
<td></td>
<td>Active immunity is the condition wherein the body produces its own antibodies as a reaction to an antigen.</td>
<td>Compare the diseases which can be controlled by artificial immunity today with those of 50 or 100 years ago.</td>
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Absolutism: A term meaning having a specific set of beliefs or principles that are considered to be absolutely right or true. Unconditional: A term meaning lacking condition or qualification; without restriction or constraint. Natural: A term meaning occurring in or affecting living organisms that are not artificially altered. Racial: A term meaning pertaining to or characteristic of a particular race or racial group. Acquisitions: A term meaning something that is acquired or gained by purchase or effort. Disease condition: A term meaning a state of health characterized by the presence of one or more abnormalities that can cause illness or disability.
SUPPLEMENTARY INFORMATION FOR TEACHERS

Absolute immunity is unknown against any infection to which the species is naturally susceptible. Immunity as we use the term means that an individual has a relatively increased resistance toward some particular pathogenic organism.

Natural immunity depends to some extent on factors that are inborn and related to one's racial and ethnic heritage.

Acquired immunity is that which results from having had a disease or from the body developing its own antibodies after taking preventive measures.

Immunity that is acquired naturally generally provides longer-lasting protection than does passive immunity that results from the injection of antibodies from the blood of other people or animals.

Infants receive from their mothers a passive (temporary) immunity against some common infectious diseases their mothers have had.

It is possible for one to become immune to a disease after having had a subclinical case (mild, without noticeable symptoms) of the specific disease.
OUTLINE OF CONTENT

Resurgence of Venereal Diseases

MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Medical science is capable of treating and eradicating venereal diseases, yet these diseases now represent the most serious of the communicable disease problems in the United States.

One of the most serious factors relating to the resurgence of venereal diseases is ignorance.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

What should you do if you suspect you have a venereal disease? What resources are available in your school and in the community?

How would your decision affect you? Others in the community?

Show and discuss the film: "Quarter Million Teenagers."


Pamphlet: "Venereal Disease Is Still a World Problem."
AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

"What You Should Know About Syphilis."
"What You Should Know About Gonorrhea."

Reference: Teacher's Handbook of Venereal Disease Education, ($2.00) and

SUPPLEMENT

There has been in recent years a distinct increase in the number of venereal disease cases. The World Health Organization estimates that a rise in cases of venereal diseases among teenagers is about 130 year around.

Salacious movies encourage an attitude of laxity towards this problem.
UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS

Science is capable of controlling and eradicating diseases, yet diseases now represent a serious public health problem in the United States.

The most serious disease relating to the prevalence of venereal diseases is ignorance.

SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES

What should you do if you suspect you have a venereal disease? What resources are available in your school and in the community?

How would your decision affect you? Others in the community?

Show and discuss the film: "Quarter Million Teenagers."

Teacher Reference:


Reference: Teacher's Handbook of Venereal Disease Education, ($2.00) and

SUPPLEMENTARY INFORMATION FOR TEACHERS

There has been a steady rise in recent years in venereal diseases. Since 1959, each year has shown a 50 percent increase in incidence over the previous year, and between 1959 and 1960, the rise in infectious syphilis among teenagers has been more than 130 percent.

The World Health Organization estimates that 60,000,000 new cases of gonorrhea occur each year around the world.

Salacious literature, ads, and movies encourage a distorted attitude toward sex.
## OUTLINE OF CONTENT

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<tr>
<th>MAJOR UNDERSTANDINGS AND FUNDAMENTAL CONCEPTS</th>
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<tr>
<td>V. Degenerative Disease Some diseases are the result of body dysfunction.</td>
</tr>
<tr>
<td>A. General nature These diseases cannot be transmitted to others, are called degenerative or constitutional, and are becoming our most serious health problem.</td>
</tr>
<tr>
<td>B. Control The control of degenerative diseases requires the action of individuals, families, and community effort.</td>
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<th>SUGGESTED TEACHING AIDS AND LEARNING ACTIVITIES</th>
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<tr>
<td>Have students determine the extent of some of the degenerative diseases in New York State.</td>
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<tr>
<td>1. Which ones are most fatal?</td>
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<td>2. Are there degenerative diseases of adolescence or do they occur just in old age?</td>
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<tr>
<td>3. What kinds of control measures are used?</td>
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<td>Invite a representative of the Heart Association, Cancer Society, or TB-RD Association, or other agency seeking to control a degenerative disease, to discuss the research and progress in his area of concern.</td>
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<tr>
<td>Secure materials from the above associations for student reading.</td>
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<tr>
<td>Have the class discuss the role of the individual or public health agencies in the control of chronic disease.</td>
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<td>See Strand IV, World health</td>
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</table>
The degenerative diseases are the result of body dysfunction. These diseases cannot be transmitted to others, are called degenerative or constitutional, and are becoming our most serious health problem.

The degenerative disease processes may be due to hereditary factors, nutritional factors, the aging process, and injury, all of which can contribute to the dysfunctioning of an organ or system.

The physiological effects of these diseases on an individual may or may not be progressive. Such diseases are sometimes called chronic and may have slight to disabling effects.

The major degenerative diseases would include heart and circulatory diseases, cancer (of all kinds), diabetes, rheumatic heart disease, and arthritis.

Many agencies have been established to do research into the nature of these diseases.

The control of degenerative diseases requires the action of individuals, families, and community effort.

Invite a representative of the Heart Association, Cancer Society, or TB-RD Association, or other agency seeking to control a degenerative disease, to discuss the research and progress in his area of concern.

Secure materials from the above associations for student reading.

Have the class discuss the role of the individual or public health agencies in the control of chronic disease.

See Strand IV, Environmental and Public Health.
These supplementary materials have not been evaluated. They are included for teacher convenience and to critically evaluate and forward the curriculum development ideas to the Curriculum Development Advisory Committee.

Books


These supplementary aids have not been evaluated. The list is appended for teacher convenience only and teachers in the field are requested to critically evaluate the materials and to forward their comments to the Curriculum Development Center.

DISEASE PREVENTION AND CONTROL
Grades 7, 8, 9
Multimedia Resources

TEACHER REFERENCES

S. Report of the committee on the control of communicable diseases. American

Education. Control of communicable diseases in man. 10th ed. The American Public

Education. V.D. control program. A joint statement by American Public Health
Association, American VD Association, and the Association of State


Pamphlets


Some questions and answers about v.d. Teenagers and venereal disease. pa. by Celia Deschin.


Resurgence of venereal disease II. February 1, 1965.
Vene real disease is still a world health problem. 535 North Dearborn St.,

Control of communicable diseases in man. 1790 Broadway, New York,

1790 Broadway, New York, New York 10010.
Paul Kinsie.
d. a. by Celia Deschin.

Morbidity and mortality. Annual Supplement. Atlanta, Georgia.

Pamphlets on respiratory ailments. 1790 Broadway, New York, New York 10019.

At 103 St., New York, New York.

March 2, 1964.
February 1, 1965.
New York State Health Department. 84 Holland Avenue, Albany, New York 12206.

*Basic vital statistics*
Various pamphlets on specific communicable diseases.


*Health through the ages.*
*Your personal record.*

**SUGGESTED AUDIOVISUAL AIDS**

**Filmstrips**

*International war against diphtheria.* International Film Bureau.

*Unmasking the germ assassins.* International Film Bureau.

**Films**

*Antibiotics.* Encyclopedia Britannica Film. 1150 Wilmette Avenue, Wilmette, Illinois. 12 min.

*Body defenses against disease.* Encyclopedia Britannica Film. 11 min.

*The eternal fight.* New York State Health Department Film Library.

*Fight against microbes.* International Film Bureau.


*Hemo the magnificent.* Bell Telephone Company.

*Improving America's health.* Coronet Films.

*Infectious diseases and man-made defenses.* Coronet Films. 11 min.

*Man against microbes.* Metropolitan Life Insurance Company.

*Microorganisms that cause disease.* Coronet Films.

*The smallest foe.* Lederle Laboratories. Pearl River, New York.

*Smallpox, merciless traveler.* New York State Health Department Film Library.